

**Induced Abortion and Mental Health Systematic Review Consultation - 6 April to 29 June 2011****Comments and Responses**

The following table contains all comments received during the consultation period. All consultees were informed that their comments and responses would be published, prior to their submitting comments, although names of individual consultees have been removed.

Section	Page	Line	Consultee / comment number	Consultee Comment	NCCMH Response
				<b>General comments</b>	
All			American Association of ProLife Obstetricians and Gynecologists (AAPLOG), Michigan, USA	1/5 RCOP is to be applauded for undertaking a large-scale review of the relationship between abortion and mental health problems. Such a study is very important for the health of women throughout the world. Other reviews such as the APA review have not been satisfactory. We have been contacted by physicians from South Korea and the Peoples Republic of China, who believe their high rate of suicide in young women their countries is related to the high prevalence of abortion. They are interested in good literature on the subject and do not believe the psychiatric societies in the US or UK have produced an accurate analyses thus far.	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.
All			Department of Psychiatry, Bowling Green State University, Ohio, USA	4/6 The authors of this report give unmerited emphasis on a study by Danish researchers Munk-Olsen, Laursen, Pedersen, and colleagues recently published in the <i>New England Journal of Medicine</i> . Munk-Olsen and colleagues focus on the fact that there is not a statistically significant difference in first-time inpatient admissions and outpatient psychiatric visits before and after an abortion, concluding that it is unlikely that the abortion procedure causes mental health problems.  However there are some major problems with this conclusion.  1. First, the measure of pre-abortion mental health is likely high (more than 3 times greater than prior to birth, 14.6% vs. 3.9%), because many of the women were probably in the midst of abortion decision-making when they experienced their first psychiatric visit or they were involved in unstable or possibly violent relationships. There are numerous published studies	Thank you for your comments. We have now updated the search to include all recently published articles.  We have individually addressed each of your comments below.  1. The conclusions presented by the authors are consistent with the view that unwanted pregnancy may be associated with increased levels of stress. They have suggested that this may be an important factor in the elevated rates of mental health problems present in the abortion group during the 9 months prior to the abortion. The authors state in their conclusion that the data indicate that 'the rates of a first-time psychiatric contact before and after a first-

				<p>indicating high levels of stress among women facing an unplanned pregnancy and considering an abortion and many women who seek abortion are in abusive relationships.</p> <p>These researchers used a window of 0-9 months to measure pre-abortion mental health; however, the assessment should instead have been before the pregnancies were detected. The data do indicate that rates of mental health problems are significantly higher after abortion compared to after childbirth (15.2% vs. 6.7%) and compared to not having been pregnant (8.2%).</p> <p>This high rate of pre-abortion mental health problems is construed to indicate that women who choose abortion will often experience post-abortion mental health problems based on factors other than the procedure. In fact, the women in the sample are quite unlikely to fall into this “vulnerable” category since none of the women included in the study had any history of psychological diagnoses prior to 9 months before the abortion.</p> <p>2. Second, the authors note in the beginning of their article that previous studies lack controls for third variables, but the only third variables they consider are age and parity. There are no controls for pregnancy wantedness, coercion by others to abort, marital status, income, education, exposure to violence and other traumas, etc. Many studies have been deemed inadequate based on only one of these variables not being accounted for (see APA Task Force Report, 2008), yet the study design was considered adequate to merit publication in the NEJM.</p> <p>3. Third, all women who had psychiatric histories more than 9 months prior to the abortion were not included in the study and there are many studies showing that these women are at heightened risk for post-abortion mental health problems. In this study, the researchers have narrowed the participant pool to only the healthiest of women and there are high rates before and after abortion. Women who experience repeat abortions are likewise not considered at all and they are more likely to be at risk for mental health problems post-dating the procedure.</p> <p>4. Fourth, the results follow women for only one year post-abortion or childbirth and there is plenty of evidence suggesting that the negative effects of abortion may not surface for several years. There is also data indicating that women are most likely to</p>	<p>trimester induced abortion are similar.</p> <p>This finding does not support the hypothesis that there is an overall increased risk of mental disorders after first-trimester induced abortion’ (Munk-Olsen, 2011).</p> <p>2. We have noted the limitations of the study in Section 3.4.2. This was reflected in the quality assessment, which has been revised to take this fully into account. See Tables 8 and 9 in Section 3.4.</p> <p>3. We have reviewed the study in the section of that specifically focused on women without a history of previous mental health problems. Limitations with the method of controlling for previous mental health in this study are discussed in Section 2.9. We have discussed previous mental health problems as a risk factor for post-abortion mental health problems in Section 4.3.3.</p> <p>4. We agree that the limited time frame is a limitation of the study, and one that is common to many of the studies included in the review. We have now added this limitation of the evidence base to Section 3.4.3.</p> <p>To be included in the comparison review, all studies needed to compare outcomes for women who had an abortion compared to those who delivered a live birth. Comparisons between abortion groups and never pregnant groups did not meet criteria for inclusion in the review. We did not include the diagnostic specific rates as these relate to incidence. For instance, if a woman experienced a first contact for depression and went on to experience anxiety, only depression would have been noted as the woman was excluded after the first contact. This means that rates for each diagnosis reported in the paper may underestimate actual rates of the disorder</p>
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				<p>experience postpartum psychological problems soon after birth with the benefits of motherhood often manifesting later than the first year wherein many life-style adjustments are necessary. The Danish Civil Registration System (data source) contains over 40 years of data, but the researchers compressed the study period to 12 yrs.</p> <p>A more appropriate analytic strategy would have been to include all women experiencing an abortion, a birth, or no pregnancy and then compare pre and post-pregnancy mental health visits with statistical controls for all psychiatric visits pre-dating conception and all other relevant third variables described above. Even without appropriate improvements to the design, the data reported does indicate increased rates of particular diagnoses at specific points in the first year. Risk for psychiatric visits involving neurotic, stress-related, or somatoform disorders was 47% and 37% higher post-abortion compared to pre-abortion at 2 and 3 months respectively. In addition, psychiatric contact for personality or behavioral disorders was 56%, 45%, 31%, and 55% higher at 3, 4-6, 7-9, and 10-12 months respectively.</p>	<p>within the population included in the study. We have now made this explicit in Section 3.4.2 of the review.</p>
<b>All</b>		British Psychological Society	1/22	<p>This is a substantial piece of work and much of the analysis is in-depth and appropriate.</p> <p>However we have a number of broad concerns which are summarised below and outlined fully in later sections of this response:</p> <ol style="list-style-type: none"> <li>1. This is an area that requires multidisciplinary input and the Society considers the makeup of the Steering Group to be fundamentally unbalanced and not fit for purpose. There is a single obstetrician/gynaecologist and no representation from sexual health and contraceptive services, where much of this work is focused. Furthermore, mental health input to the review has been restricted to psychiatrists, who constitute five of the seven active steering group members: there is no psychologist in the group. In addition, public health and sexual and contraceptive service specialists are omitted. This imbalance is likely to have led to some of the issues identified below.</li> <li>2. As indicated by the title, the review seeks to address induced abortion and mental health. It should therefore encompass a broad spectrum including clinically diagnosed psychiatric conditions, motional distress below clinical threshold and issues</li> </ol>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <ol style="list-style-type: none"> <li>1. There were three psychiatrists in the Steering Group. A clinical psychologist in the NCCMH team and a number of BPS members advised and worked on this project. This has now been made more explicit in the final report. We focused specifically on the mental health outcomes, so the Steering Group did not feel that additional representation from sexual health and contraceptive services was necessary.</li> <li>2. We were not looking at transient distress or reactions to a stressful situation. Instead, a limit of 90 days was used to ensure that included</li> </ol>

				<p>relating to wellbeing. However, the focus of the review tends more towards diagnosed clinical mental illness, with the result that those individuals who have had abortion but not sought professional support or diagnosis for mental health illness may be excluded. For example, a client experiencing depression but not falling within DSM criteria for the time period would seem not to be included. In addition, there does not appear to have been any attempt to search on either emotional distress or wellbeing. The Society strongly disagrees with the decision to exclude all studies focusing on data acquired earlier than 90 days post-abortion as this phase has potential for major impact on women and services; contextual information about timings of responses can be useful in facilitating coping. We also note that there is no consideration of qualitative work, which can add an important alternative dimension.</p> <p>3. Even within the more limited framework adopted, the search is also potentially inadequate because of the decision not to include the phrase <b>‘termination of pregnancy’</b>.</p> <p>4. There are inconsistencies between the text and the exclusions tables so it is unclear why some studies are not included.</p> <p>5. The Society would welcome clearer articulation of the cultural context of studies and related legal frameworks.</p> <p><b>Recommendations</b></p> <p>In order that the benefits of the extensive work already completed may be of maximum clinical utility, the Society recommends that:</p> <ul style="list-style-type: none"> <li>i) the draft is used as a preliminary basis for a full report;</li> <li>ii) the steering group is reconstituted to reflect the knowledge and expertise that each of the relevant disciplines, including psychology, have brought to the area;</li> <li>iii) the aims are broadened to more closely reflect the ambit of the title, and the search strategy amended both to reflect these changes and to ensure the reliability of information included.</li> </ul>	<p>studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.3.</p> <p>3. The search updates the search strategy used in the APA review. To ensure the comprehensiveness of the terms used, we have conducted a supplementary search for ‘termination of pregnancy’ (plus variants) to identify any other potentially relevant studies for inclusion in the review. Please see Appendix 4 for the full list of terms used.</p> <p>4. In order to improve the transparency of the review, we have now included a flow diagram of the search process in Section 2.6 and have included further details in the included and excluded studies table in Appendix 7. Additionally we have included full data extraction tables for each of the studies included in Appendix 8.</p> <p>5. We have now included more detail about the legal context in Section 1.3.</p>
<b>All</b>		CARE UK	4/6	<p>We also find it surprising that the data extraction tables are not included in the Review. Including the tables would:</p> <ul style="list-style-type: none"> <li>• allow the reader the opportunity to compare all the selected data in order to verify the analysis and conclusions</li> </ul>	<p>The data extracted from each paper was presented in the study characteristics tables for the three reviews (see Sections 3.3.1, 3.4.1, 4.3.1, 5.3.1 and 5.4.1) However, in order to</p>

				<p>presented by the Review</p> <ul style="list-style-type: none"> <li>• assess the basis on which the quality of the articles were rated. Thus, the credibility of the Review is challenged due to this lack of transparency and causes its conclusions to be more open to question.</li> </ul>	<p>improve the transparency of the review, we have now included full data extraction tables in Appendix 7.</p>
<b>All</b>			Catholic Medical Association, UK	<p>1/50</p> <p>We are an Association of Catholic Doctors, Nurses and other health care professionals. As such we believe that abortion entails the deliberate ending of a human life and that this is wrong.</p> <p>However, for the purposes of this review we accept the possibility that Mental Health following abortion might be either improved or made worse and that the evidence base must be objectively and fairly studied. On balance, where it is shown that abortion worsens mental health it is often seen that this is a further argument against abortion. Conversely those who believe abortion to be right and good may see the opposite. Regardless of any preconceived view, a review such as this must look at the evidence objectively and seek the truth.</p> <p>We were worried in the recent consultation by the Royal College of Obstetricians and Gynaecologists that they appeared to discount concerns about the mental health effects of abortion. We will set out in this response where we feel that the draft report has fallen short of the standards of scientific rigour that we would hope for, especially where such shortfalls appear to have been used to license a conclusion that mental health is not affected by abortion.</p> <p>For our part, we have striven to be objective in our response, using and critiquing the evidence and recognising the times when evidence suggest a (generally short term) benefit to mental health of abortion. We are not submitting any arguments based upon faith. Rather we have sought to base this submission entirely upon careful and balanced analysis of the evidence base. We would ask therefore that our response is not dismissed merely as it has a label of Catholic attached to it.</p> <p>The CMA(UK) is a voluntary organisation that represents Catholic Health Care professionals in the UK. We have links with the Catholic Bishops of England and Wales via the Catholic Union.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p>

All		Christian Concern, UK	1/7	<p>Summary</p> <p>We have the following concerns:</p> <ul style="list-style-type: none"> <li>• A key Fergusson paper was not correctly analysed in the report. Conclusions reached by the reviewers appear to contradict his findings.</li> <li>• Summary evidence statements are exaggerated and go further than the evidence presented.</li> <li>• The statement that there is 'no evidence' of an elevated risk of mental health post-abortion compared to post-pregnancy is ill-founded and not supported by the evidence provided.</li> <li>• There is insufficient transparency in the selection, exclusion and rating of research papers.</li> </ul>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We approached Fergusson for additional data for this study due to the comparisons used. We have made this more explicit within Section 5.4.2.</p> <p>We have now amended the statement to say that there is insufficient evidence of an elevated risk of mental health problems post-abortion compared with post-pregnancy. This relates the problems with the evidence, including the wide confidence intervals present in the data, and lack of statistically significant results.</p> <p>In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies table (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8).</p>
All		Christian Concern, UK,	2/7	<p><b>Methodology and Research</b></p> <p>We have several concerns in relation to the evidence used and the manner in which it has been presented.</p> <p>Firstly, only research which demonstrated the effects of abortion on women more than 90 days after the termination of the pregnancy had been used. This restriction ignores the fact that women have been shown to suffer mental illness in the two months immediately following an abortion. The wealth of evidence illustrating this fact has been completely excluded.</p> <p>Secondly, the study designs used in this review only demonstrate association, they cannot prove causality. This is particularly important when there are powerful confounders (for example, socio-economic factors, supportive relationships, previous mental health illness, previous abortions etc), which could be mitigating factors. The findings are therefore based on weak and often</p>	<p>Thank you for your comment. We are not looking at transient distress or reactions to a stressful situation. Instead, a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.2.</p> <p>We agree that the study designs included in the review can only demonstrate an association and not causation. Throughout the review we have mentioned the limitations of the individual studies and the evidence base as a whole (see Sections 3.3.3, 3.4.3, 4.3.3, 5.3.3, 5.4.3, 6.2 and 6.3).</p> <p>Regarding your third point, we have now</p>



			<p>uncertain evidence, which should be more clearly reflected in the evidence statements.</p> <p>Thirdly, the report is quick to conclude that there is “no evidence” that abortion increases the risk of mental health problems whilst the evidence presented did not support this proposition, and was largely vague and unclear on the issue. The analysis should have emphasised that the evidence is uncertain rather than stating that there is “no evidence” at all. The report has also failed to include papers which have been published in languages other than English, and has also excluded hundreds of papers on the grounds that they were not “useable”. However, no indication was given as to what criteria were used to decide which papers were “useable”, which suggests that the report is impartial.</p> <p>As data extraction tables have not been included, readers cannot verify the evidence by comparing the data with the original reports.</p> <p>Evidence can come in many forms. The views and experiences of women, clinicians and other experts should be consulted, along with statutory organisations and relevant Royal Colleges. Qualitative studies should have a place in the review, especially given the limitations in the current data. Methods to seek the views and experiences of those involved in the care of women who have had an abortion should also be considered as a valid source of evidence.</p>	<p>amended this to read ‘insufficient evidence’, which is due to the wide confidence intervals, quality of the data included in the review and the lack of statistically significant effects. We were unable to include papers that were not available in English due to resource limitations. This is standard for most systematic reviews.</p> <p>In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6), a flow diagram of the quality assessments (see Section 2.7) and have included further details in the included and excluded studies table (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8).</p>
All		Elliot Institute, Springfield, Illinois, USA	<p>1/87 Thank you for the opportunity to comment.</p> <p>You are attempting to review a very complex issue, and we applaud the progress that you have made in this first draft. We hope you will accept our recommendations and corrections in the spirit they are intended, to help produce a report that is more comprehensive, balanced, and helpful to helping women both before and after an abortion.</p> <p>We apologize if any of our criticisms are too harsh and wish to express our understanding that a first draft is just that, a first draft subject to correction.</p> <p>Finally, we apologize in advance for the length of our comments, any grammatical errors, misspellings, incomplete references, redundancies, and half completed thoughts, and ramblings. Many, even most, of these are due to inadequate proof reading</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p>

				and editing of our own comments. We trust that despite these shortcomings, you will decipher what we have intended to convey. Again, thanks for the opportunity to comment. We look forward to reviewing future drafts and/or reading the final report.	
All		Family Planning Association	1/2	<p>We welcome the publication of the draft Systematic review of the mental health impact of induced abortion and have restricted our comments to our areas of expertise.</p> <p>As an organisation that provides impartial, non-judgemental and evidence-based advice to women who are faced with an unplanned pregnancy, FPA warmly welcomes the publication of an up-to-date review of the impact of abortion on mental health.</p> <p>We believe it will support our work in ensuring that women receive the most up-to-date and evidence-based information about abortion, enabling them to make an informed choice about their unplanned pregnancy.</p>	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.
All		Family Planning Association	2/2	<p>FPA supports the conclusions of the draft review. We believe that there has never been any conclusive research to support statements about the link between abortion and poor mental health.</p> <p>As there are many claims about the adverse impact of abortion on women's mental health it is extremely helpful, for professionals and women, to have a clear, evidence-based statement that mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth.</p>	Thank you for your comments.
All		Global Doctors for Choice (GDC)	1/5	<p>Global Doctors for Choice (GDC) commends the Academy of Medical Royal Colleges for its recent report on abortion and mental health. The report reviews and rigorously critiques the available scientific evidence as a basis for formulating sound policy decisions. GDC would like to bring the following studies to the attention of the Academy of Medical Royal College, two of which have been recently published. We intend these suggestions to be useful and commend the Academy of Medical Royal Colleges for its commitment to evidence based policy.</p> <p>GDC is an international network of physicians who advocate for reproductive health care grounded in science, evidence, and human rights. Reproductive health has been so mired in</p>	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.



				<p>controversy that data-based rational arguments and adherence to human rights principles often go unheeded. GDC believes that physicians have a critical and unique role to play in improving access to reproductive health care. They bring scientific authority, dedication to their patients' best interests, and firsthand familiarity with the devastating consequences of lack of care to public discourse. GDC provides a voice for physicians committed to returning medical and public health issues to the realms of scientifically based patient care.</p> <p>If you have any questions or comments, please don't hesitate to contact us.</p>	
<b>All</b>		Mount Joy College, Victoria, British Columbia, Canada,	102/103	<p><b>SUMMARY.</b></p> <p><b>1. Wrong mandates</b></p> <p>a) The authors of this draft report seem to believe or were instructed to assume that UK women are free to elect, or choose or have an legal option to request some physician to perform an abortion for any reason at any time. The 1967 law and modifications of it clearly indicate a physician may perform an abortion only if it is indicated. The legal indications are mainly if abortion will prevent a woman experiencing a worsening of her mental health. The proper mandate should have been, does abortion as practiced in the UK and elsewhere adequately treat or prevent mental illness. This question was completely ignored. Therefore this review is irrelevant and invalid.</p> <p>b) Although the title "A systematic review of the mental health impact of induced abortion" implies it will deal with any beneficial or adverse consequence of abortion to any person, it only deals with women. The Fellowship of Psychiatrist must assume the abortion is only a woman's issue. This flies in the face of substantial evidence that men, children, families, abortionists etc are greatly impacted. This huge bias must also invalidate the findings of this review.</p> <p><b>2. Bad methodology</b></p> <p>a) <b>Impossible to measure, "unintended", "unwanted"</b>. Although the major criteria for determining which research to include and/or grade as worthy of real consideration was whether or not the pregnancies were, unplanned or unintended or unwanted. No one provided a operational definition of these</p>	<p>Thank you for your comments.</p> <p>1a) We have included an additional section on the legal context (see Section 1.3).</p> <p>In the UK, a woman has the right and can elect to request an abortion. She can choose or elect or to have an abortion, subject to the law and approval by physicians.</p> <p>The grounds for approval by physicians are listed in full in Section 1.1 and do not specifically include "if abortion will prevent a woman experiencing a worsening of her mental health."</p> <p>1b) Our brief was to consider the mental health impact upon the woman. However, we agree that abortion affects others including partners and family, and this is an important area for research, but was outside our scope.</p> <p>2a) The definitions of 'unwanted' and 'unintended' included in Section 1.2 set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as</p>

				<p>terms. No researcher made a serious attempt to measure these at different times under different circumstances. Humans are almost always ambivalent, especially about a pregnancy. The more intense the ambivalence the better the struggle to incorporate the infant into her psyche and family. Thus ambivalence is necessary for bonding and breast feeding and parenting. It is very unlikely that any woman is single minded about a pregnancy before or after conception all the time. These factors are impossible to determine and therefore of no value in research and of no value in this review. Many “unplanned” pregnancies become wanted, preferably welcomed, children under the increasing impact of hormones, imprinting, social acceptance and psychological receptivity. Our research uncovered the increase in wantedness during the pregnancy. This critical evidence was ignored by these authors.</p> <p>b) <b>Post partum, post abortion comparisons.</b> All the studies cited assume a woman’s post abortion state is equivalent to her post partum life when making comparisons of her mental health. Common sense and experience indicates they are very different. Going back to work and social life “as if nothing happened” cannot be compared to the much greater stress and joy of raising a child, too often without partner support, fewer funds and a restricted social network. Since these 2 conditions cannot be compared, all the research that make these comparisons are of no scientific value thus of no value for this review that relies for it’s conclusions so heavily upon them.</p> <p>c) <b>Reality distorting measurements.</b> Although insisting on “validated measures” like the DSM IV to evaluate a woman’s mental health, the reviewers ignore the mounting criticism of the DSM and the fact that dichotomous measure are bound to distort reality almost all of which is spread on a continuum. None of the studies used Visual Analogue Scales which are easier for the subject and which can measure the full spectrum of possibilities between two extremes. Having badly distorted the reality of a person’s symptoms or experience, these studies are of no empirical use, nor is this report.</p> <p>d) <b>Not controlling for their own biases.</b> It is obvious that not only the researcher but these writers of the draft were greatly influenced by their own biases. The biases were blatant in: the choice of research, grading of each study, criticism of research</p>	<p>the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3, 5.4.3 and 6.2.</p> <p>2b) We believe the review has used the best available evidence to answer the three research questions. We have discussed the ideal and pragmatic criteria for inclusion in the review in Sections 2.2 and 2.3. We have also commented on the limitations of the available evidence in Section 2.3.</p> <p>2c) Despite the criticism of the DSM, we believe this was the best measure to use within the review. The DSM and ICD-10 classifications are most likely to be still used in practice. We have added the definition of mental health problems used throughout the review to the end of Section 2.3.</p> <p>2d) We have taken a systematic approach to reviewing the available evidence. We have critiqued and extensively discussed the limitations of individual studies as well as the</p>
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				<p>abortion women, (I have) they would have been more aware of less reported symptoms and major unresolved conflicts. They would also know that clinical states cannot with any accuracy be diagnosed by “standardized tests”. They would also know that many diagnoses are not exclusive and tests cannot be relied upon to detect how much of each a patient has.</p> <p>h) <b>Human ecology.</b> Although aborting women is the most frequent procedure in medicine and affects probably more than 100 million women each year, the authors ignore what effect this has on populations. From an ecological perspective, the wide-spread destroying of their own young is the most unnatural activity for any species, homo sapiens included. It is so unnatural that people in surprise or shock say of a young woman who has just had an abortion, “not her” “she must have been out of her mind” “now she has really lost it” etc. This is probably as accurate a description of abortion in some women as any. They experienced temporary insanity and now must fight their way back by dealing with harsh reality.</p>	<p>evidence in each case.</p> <p>2h) This is beyond the scope of the present review.</p>
All		Mount Joy College, Victoria, British Columbia, Canada	103/103	<p><b>CONCLUSIONS</b></p> <ol style="list-style-type: none"> <li>1. This “systematic review” is not systematic and is so deeply and extensively <b>flawed</b> that the authors conclusions must be discounted.</li> <li>2. The only reliable conclusion anyone can make on the basis of this review is that there is <b>no evidence</b> that the current practice of <b>abortions provide benefit</b> in treating or preventing mental illnesses.</li> <li>3. The government must clearly decide whether or not abortion providers or are performing a <b>technical service</b> for women who elect to have an abortion <b>or</b> providing an <b>essential health service</b>. The current law clearly indicates performing abortions is part of medicine.</li> <li>4. If the UK government continue to rule that aborting patients and terminating the earthly existence of the preborn infant is <b>legal only</b> when there are proper medical indications, they must insist all the other medical guides and constraints for providing good medicine be applied.</li> <li>5. Since there is no evidence of benefit to patients women, men and children, abortions must be treated as an <b>unproven</b></li> </ol>	<p>Thank you for your comment. We have taken on board comments made during the consultation period and have included further information in order to improve the transparency and demonstrate the systematic nature of the review.</p> <ol style="list-style-type: none"> <li>1. We believe we have carried out the review systematically and used the best available evidence to answer the three research questions.</li> <li>2. We did not look at the benefits of abortion in treating or preventing mental health. This was beyond the remit of the review.</li> <li>3, 4, 6 &amp; 8. These points are beyond the remit of our review, where we have explicitly stated we are not reviewing abortion law (see Section 1.3). Such comments would need to be discussed at a governmental level.</li> <li>5. We did not look at evidence of benefit - this is a different question from evidence of harm.</li> </ol>

				<p><b>remedy.</b></p> <p>6. This means it must be <b>withdrawn from the market</b> and not be charged to taxpayers <b>until</b> it is clearly established: a) what are the scientifically established indications, b) Is the current practice of doing abortions therapeutic, c) are there fewer hazards than the benefits, d) Are other treatments which are less invasive and more reversible tried first, e) Are 2<sup>nd</sup> opinions available and used, f) Is it done in good faith by the abortionists ( they are convinced they are providing good treatment based on their extensive knowledge of good and pertinent research and by a careful complete follow-up of their own patients. g) Are patients able to provide fully informed consent which includes seeing their infant on a good sonogram.</p> <p>7. It also means that there must be more and proper research with equal access to funding and journal publications.</p> <p>8. The government must make the above changes quickly because they are now imposing taxes as if aborting women was health care, on about ½ the population who do not wish to contribute to the killing of preborn infants and feel guilty for aiding and abetting this practice, especially as it does no one good.</p> <p>9. Since no one appears to have explanations for <b>such discrepant findings</b> used in this review and why if abortion has such a devastating effect on individuals, is this effect so hard to find .in large populations. I hypothesize that this is because research is not differentiating between <b>4 essentially different groups of women</b>:</p> <p>a) Women who are hardened or embittered or ideologically convinced that having an abortion is a woman's basic right. Some of these women deliberately conceive in order to abort and thus show themselves and the world how much power women have over matters of life and death. For these women having an abortion, no matter how painful, is asserting themselves. They will insist to themselves and the world that they are tough and can take it is stride. Post abortion they will deny suffering and symptoms to any researcher and so be counted as unaffected in the data.</p> <p>b) Sensitive women who are healthy and whole. Because of their acute perceptiveness, they feel devastated by their decision to abort and cause suffering to an innocent unsuspecting infant no</p>	<p>7. We agree with this point and have now added a recommendation for further good quality research to be conducted (see Section 6.3).</p> <p>9. We have based our conclusions on the best available research evidence and not on hypotheses.</p>
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				<p>matter how small, even if they were responding to considerable duress. They may have many symptoms which are graded as an illness but they are still essentially normal. Paradoxically the more human and whole they are the more they suffer post abortion.</p> <p>c) Vulnerable women who may of may not have had treatment prior to an abortion but who were damaged by childhood mistreatment. For them an abortion may be a re-enactment by proxy of their mother's abortion. This would help explain why we find that one of the closest associations to a choice to abort is the subject having a mother who aborted.</p> <p>d) Resilient, adaptive women who can take a great deal of traumatizing of almost any kind. These women appear in the short term to be unaffected by abortion but decades later present as clinically depressed. This may occur when aging and frailty weaken their ego defenses. When in treatment, they are able to connect their symptoms to an earlier abortion, they feel relieved.</p> <p><b>PARTING SHOT</b></p> <p>I apologize for offending some authors and researchers with these comments but when the stakes ( the health and welfare of millions of women, men and children) are so high, there is no room for polite medical and academic discussion Though the fur may fly let the truth be known. For medical history shows truth and gravity always win. Oh! The eventual embarrassment of those learned scholars and eminent physicians who at one time adamantly, persistently and roughly insisted there was no such thing as bacteria.</p> <p><b>REFERENCES</b></p> <ol style="list-style-type: none"> <li>1. Ney PG, Shiels C, Fung T. How Partner Support Affects Pregnancy Outcome. (Submitted)</li> <li>2. NEY PG. "The Relationship Between Abortion and Child Abuse", Can J Psychiatry 1979; 24:610-620.</li> <li>3. NEY PG, McPHEE J, MOORE C, TROUGHT P. "Child Abuse: A Study of the Child's Perspective", Child Abuse Negl 1986; 10:511-518</li> <li>4. NEY PG. "Triangles of Child Abuse: A Model of Maltreatment", Child Abuse Negl 1988;12:363-373</li> <li>5. NEY PG, WICKETT AR, FUNG T. "Causes of Child Abuse and Neglect", Can J Psychiatry 37:401-405, 1992.</li> <li>6. NEY PG, FUNG T, WICKETT AR. "Relationship Between Induced</li> </ol>	<p>You need not apologise. The consultation process is critical to us in ensuring a robust final report, so your feedback is appreciated and it's helpful to have our work challenged.</p>
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				<p>Abortion and Child Abuse and Neglect: Four Studies", Pre- and Perinatal Psychology J. 8:43-63, 1993.</p> <ol style="list-style-type: none"> <li>7. NEY PG, JOHNSON I, HERRON J. "Social and Legal Ramifications of a Child Crisis Line", Child Abuse Negl 9:47-55, 1985.</li> <li>8. NEY PG. FUNG T. WICKETT AR. BEAMAN-DODD C. "The Effects of Pregnancy Loss on Women's Health", Soc Sci Med, 38(9): 1193-1200, 1994.</li> <li>9. NEY PG, BARRY JE. "Children Who Survive", NZ Med J 96:127-129, 1983.</li> <li>10. NEY PG. "A Consideration of Abortion Survivors", Child Psychiatry Hum Dev 13:168-179, 1983.</li> <li>11. NEY PG, GAJOWY M, SHEILS CK. (2006) Post Abortion Survivor Syndrome: Signs and Symptoms. Southern Medical Journal. Dec 99 (12).</li> <li>12. Ney PG. Post Abortion Survivor Syndrome: Signs and Symptoms, In Press.</li> <li>13. NEY PG. "Quantitative Measurement in Psychiatry", Indonesian J Psychiatr 2:66-78, 1971.</li> <li>14. NEY PG. "Does Verbal Abuse Leave Deeper Scars: A Study of Children &amp; Parents", Can J Psychiatry 32:371-378, 1987.</li> <li>15. NEY PG. FUNG T. WICKETT AR. "Child Neglect: The Precursor to Child Abuse", Pre- and Perinatal Psychology J. 8(2): 95-112, 1993.</li> <li>16. Brewer C. Huntington PJ, Mortality from Abortion, The NHS record. BMJ, 1978; 2: 6136. 562-</li> <li>17. Vogel L. Do it Yourself Births Prompt Alarm. CMAJ 2011; 183: 648-650.</li> <li>18. . Ney PG Fung T, Sheils C. Factors the Determine Pregnancy Outcome. Submitted.</li> <li>19. Mattison PC, The interaction between legalisation of abortion and contraception in Denmark. WHO Stat Q. 1979; 32: 246-256.</li> <li>20. NEY PG, WICKETT AR. "Mental Health and Abortion: Review and Analysis", Psychiatr Univ Ott 14:506-516, 1989.</li> <li>21. Dorland's Medical Dictionary 25th Edition, 1945, WB Saunders, Philadelphia</li> <li>22. NEY PG. "Psychodynamics of Behaviour Therapies", Can Psychiatr Assoc J 13:555-559, 1968.</li> <li>23. NEY PG. "Transgenerational Child Abuse", Child Psychiatry Hum Dev 18:151-168, 1988.</li> <li>24. NEY PG. "The Treatment of Abused Children: The Natural Sequence of Events", Am J Psychother 46:391-401, 1987.</li> <li>25. NEY PG. "Child Mistreatment: Possible Reasons for its Transgenerational Transmission", Can J Psychiatry 34:594-601, 1989.</li> <li>26. Ney PG, Ball K, Sheils C Results of Group Psychotherapy for Abuse, Neglect and Pregnancy Loss. Current Women's Health Review 2010; 6(4): 9-18</li> </ol>	
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All		Royal College of Obstetricians and Gynaecologists (RCOG)	<p>27. Ney PG. Bias in the CMAJ. CMAJ 1997;157:1514-1514.</p> <p>9/9 For information, the RCOG guideline, shortly to be published, has included the following statement, based primarily on the findings of the Abortion and Mental Health systematic review:</p> <p><b>Psychological sequelae</b></p> <p><b>RECOMMENDATION 5.13</b></p> <p><b>B</b> Women with an unintended pregnancy should be informed that they are no more or less likely to suffer adverse psychological sequelae whether they have an abortion or continue with the pregnancy and have the baby.</p> <p><b>RECOMMENDATION 5.14</b></p> <p><b>B</b> Women with an unintended pregnancy and a past history of mental health problems should be advised that they may experience further problems whether they choose to have an abortion or to continue with the pregnancy.</p> <p><b>Evidence supporting recommendation 5.13 and 5.14</b></p> <p>For most women the decision to have an abortion is not easy and the experience is stressful and probably unpleasant. Most women will experience a range of emotions around the time of the decision and the abortion procedure.<sup>132</sup> However long-term feelings of sadness, guilt and regret appear to linger in a minority of women.</p> <p>The great majority of women who have abortions do not experience adverse psychological sequelae. Two recent systematic reviews addressed the relationship between unintended pregnancy, abortion or childbirth and mental health; both concluded that abortion of an unintended pregnancy was no more likely to be associated with poor mental health outcomes than if the pregnancy continued. The quality of the studies included in the reviews was mostly poor to fair, with large variation in the study design, measurement methods and outcomes reported: sample sizes were variable and sometimes small, and there was a lack of adequate control for confounding variables including pregnancy intention and previous pregnancy history.</p> <p>A good quality, population-based cohort study, published in 2010, linked information from a number of Danish Registries to</p>	Thank you for your comments and for this information.

				<p>explore rates of first-time psychiatric contact (inpatient admission or outpatient visit) for any type of mental disorder within the 12 months after the abortion or childbirth as compared with the 9-month period preceding the event. Data from 84 620 girls and women having an abortion and 280 930 having a baby between 1995 and 2008 were used. The relative risk of a psychiatric contact did not differ significantly after abortion as compared with before abortion (<math>P = 0.19</math>) but did increase after childbirth as compared with before childbirth (<math>P &lt; 0.001</math>). The authors concluded that there is no evidence of an increased risk of mental disorders after a first-trimester induced abortion.</p> <p>A systematic review on the mental health impact of induced abortion was undertaken in 2010 by the National Collaborating Centre for Mental Health in the UK.<sup>136</sup> This review aimed to build upon the American Psychological Association (APA) and Charles reviews to establish a better understanding of the complex relationship between abortion and mental health and included the recent (Danish) study. The review concluded that whether a woman with an unintended pregnancy opts for an abortion or continues the pregnancy, the mental health outcomes will be the same. For women who have a prior history of mental health problems there is higher likelihood of mental health problems following both abortion and birth.</p>	
All		Department of Psychiatry University of California, San Francisco, CA, USA	1/1	<p>I commend the authors on a thorough review of the literature on abortion and mental health. There are two important articles that have been published by my colleagues and I that should be included in this review. Below I have provided the citations.</p> <p>Steinberg, J. R., &amp; Finer, L. B. (2011). Examining the association of abortion history and current mental health: A reanalysis of the National Comorbidity Survey using a common-risk-factors model. <i>Social Science &amp; Medicine</i>, 72, 72-82.</p> <p>Steinberg, J. R., Becker, D., &amp; Henderson, J. T. (2011). Does the outcome of a first pregnancy predict depression, suicidal ideation, or lower self-esteem? Data from the National Comorbidity Survey. <i>American Journal of Orthopsychiatry</i>, 81 (2), 193-201.</p>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have now updated the literature search and included these studies.</p>
All		Department of Psychological Medicine, University	1/5	<p><b>Whole Report:</b></p> <p>An issue which pervades this report concerns the ways in which</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report,</p>

		of Otago, NZ	<p>research questions have been posed and the lack of alignment of the review with existing UK law regarding abortion. Specifically the introduction reports that this law requires that abortion can only be provided if <i>“The termination of pregnancy is necessary to prevent grave permanent injury to the... mental health of the woman”</i> (p.6). It is also reported that the majority (97%) of abortions in the UK are authorised on these grounds. These statistics suggest that, currently, it is the view of health practitioners in the UK that: a) unwanted pregnancy that comes to term is a risk factor for serious mental illness, and b) the provision of elective abortion reduces the mental health risk of unwanted pregnancy. These views require the testing of two research hypotheses. First, it is necessary to show the risk of mental health problems given unwanted pregnancy (say PR(M U) are greater than the risks of mental health given that unwanted pregnancy has not occurred (say PR(M NU). To test this hypothesis requires comparing the mental health of a group of women having unwanted pregnancy with that of an equivalent group of women not having an unwanted pregnancy. If it cannot be shown that unwanted pregnancy is a risk factor for mental health problems, the use of mental health as a legitimate ground for authorising abortion is undermined. The report makes no reference to this issue even though it is critical to the implementation of the current legislation in the UK.</p> <p>Assuming that the first hypothesis can be shown to be true (which is very doubtful) it is then necessary to compare the mental health outcomes of women having unwanted pregnancy that comes to term with an equivalent group of women having an unwanted pregnancy that is terminated on mental health grounds. Subject to the condition that the groups are equivalent this provides a test of the one-tailed research hypothesis: <math>PR(M UB) &gt; PR(M UA)</math>, where PR(M UB) is the probability of mental health problems amongst those having unwanted pregnancies that come to term and PR(M UA) is the rate of these problems amongst those women whose pregnancies are terminated on mental health grounds. These comparisons are in fact made in Table 16 in the report. This table provides strong evidence for the conclusion that: <i>there is no evidence to suggest that the provision of abortion in any way mitigates the mental health risks of unwanted pregnancy.</i> In fact, there is suggestive evidence for some outcomes (anxiety, suicidal behaviours and</p>	<p>so your feedback is helpful.</p> <p>Our starting point was women who had already had a legally authorised abortion, in the UK or other country where abortion of an unwanted pregnancy is legal. However, in response to comments received we have included more on the legal context in Section1. To review current legislation, a considerable number of other factors would need to be considered.</p> <p>It was the remit of the review to assess the impact of abortion on mental health outcomes for women with an unwanted pregnancy. As such, we were not specifically looking at the evidence for psychiatric indications as the grounds for abortion. Although you may have a valid point about lack of evidence for benefit, one alternative explanation could be that the abortion law is currently effective, for example, that the mental health impact would be far worse if a woman was denied an abortion for an unwanted pregnancy. As discussed in Section 2.3, it is not possible to conduct the perfect gold standard study, which would allow us to accurately represent the rates needed.</p>
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				<p>substance use) that the provision of abortion may exacerbate the risks of these conditions (see later). The report makes absolutely no reference to the compelling evidence that abortion does not appear to have therapeutic benefits in mitigating the risks of mental health problems caused by unwanted pregnancy. Rather, the analysis follows the lead of recent US reviews and examines the extent to which abortion may have iatrogenic effects which lead to an <i>increase</i> in mental health problems. This examination is entirely appropriate in a US context as a result of the landmark “Roe vs. Wade” decision which granted US women access to abortion as a right. Under these conditions it makes perfect sense to examine the iatrogenic effects of abortion. However within a UK context, where abortion is authorised on mental health grounds, it is necessary to move beyond an examination of the iatrogenic effects of abortion to an examination of the therapeutic benefits of abortion as a means of mitigating the (alleged) adverse effects of unwanted pregnancy on maternal mental health.</p> <p>The failure of the report to address this issue seriously undermines both the policy value and credibility of the report since any report that purports to address the issue of abortion and mental health in a UK context needs to use this review to examine the scientific justification for the current legislation.</p>	
All		Department of Psychological Medicine, University of Otago, NZ	5/5	<p><b>Recommendations:</b></p> <p>It is our considered view that the comments made above imply the need for a number of major revisions to the content, directions and conclusions of the report. These revisions include:</p> <ol style="list-style-type: none"> <li>1) Extension of the aims in 2.2 to explicitly consider: a) the mental health risks of unwanted pregnancy that comes to term, and b) whether abortion reduces these risks.</li> <li>2) Greater discussion of the issue of comparison groups and better explanation of the inferences that can be drawn from different comparisons.</li> <li>3) Remediation of the errors and limitations in the reporting and classification of the FERGUSSON 2006 and FERGUSSON 2008 findings.</li> <li>4) Meta-analysis of data in Table 16, based on the results of Table 2.</li> </ol>	<p>Thank you for your comments and suggestions.</p> <ol style="list-style-type: none"> <li>1) Unfortunately, although a very important issue which we have discussed in Section 2 and Section 6, it was beyond the remit of the review to systematically assess the risk of mental health problems following an unwanted pregnancy (regardless of pregnancy resolution.)</li> <li>2) We agree this is an important issue and have now made this more explicit within the methods chapter, particularly Section 2.3 to 2.6 where we discuss the problems with comparison groups and the lack of ideal gold standard studies.</li> <li>3) Thank you for these suggestions; these have now been amended.</li> <li>4) We have now included a meta-analysis of the data in Section 5.4.2 and have included the</li> </ol>

				5) Explicit discussion of the extent to which the evidence supports the view that the mental health threats posed by unwanted pregnancy pose a risk of “ <i>grave permanent injury to the... mental health of the pregnant woman</i> ” and the extent to which the evidence suggests that these threats are mitigated by the provision of abortion authorised on mental health grounds.	limitations of this approach (see Section 5.4.3). 5) Addressing the legal framework is outside of our brief. However, in response to comments received we have included more on the legal context in Section 1.3.
All		Individual 1	1/10	<p>Many thanks for inviting me to comment on this text. This appears to be an incredibly careful, detailed, well documented review of a specific type of published literature on the subject of abortion and mental health issues. I can only sympathise with the problems raised by poor quality and limited research in attempting to reach conclusions that are unambiguous and allow for straightforward recommendations.</p> <p>I do not have the scientific expertise to critique the review itself, which I’m sure others will offer. Instead, I would like to comment on two things:</p> <ol style="list-style-type: none"> <li>1. the language of the discussion and conclusions section in the document, in light of its likely readership, and</li> <li>2. what is not covered, in particular, qualitative information from the perspective of women who have had abortions.</li> </ol>	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.
All		Individual 1	2/10	<p>Lastly, the 1861 Offences against the Persons Act is still in force in Northern Ireland. Women there with unwanted pregnancies are forced to seek abortions in Britain or other parts of Europe. You cannot talk about the problems they face and the consequences for their mental health in the same breath as women in Great Britain. The illegality of abortion makes an enormous difference to women’s emotional and psychological experience of it. This deserves mention.</p> <p>I recognise that your review has to function on a different plane. But such perspectives are not irrelevant. They deserve at least a place.</p> <p>I hope you find these comments useful, and would be happy to provide further information if requested.</p>	<p>These issues are very important but our starting point was women who already had a legally authorised abortion. We were not looking into how that permission was granted and the consequences of restrictive or unrestrictive laws. We have added a new Section 1.3 addressing the legal context, but it does not go into this level of detail.</p> <p>Thank you, your comments have been helpful.</p>
All		Individual 1	9/10	<p><b>2. What is not covered</b></p> <p>I have published some 200 articles on abortion internationally, none of which is referenced in your review. Many of those</p>	Thank you for your comments. Unfortunately, it was beyond the scope of the review to consider



				<p>articles are qualitative studies and would therefore appear to be outside the remit of this review. However, many of them address issues of women’s emotional and mental state in relation to discovering they have an unwanted pregnancy, and what they go through to find and obtain an abortion, and how they feel afterwards. These studies acknowledge something your review does not – an unwanted pregnancy is a “life event” of great import to most women. It can signify a lack of communication in a sexual relationship or important differences in what the two partners hope for and want from their relationship, including whether or not to try for a pregnancy and have a baby together. It matters a great deal whether the “couple” (if they are indeed a couple) are in a long-term stable relationship or in a brief or new or problematic or unstable one. It’s very important whether there is gender-based violence involved. Age makes a huge difference, as well as whether the couple have completed their family or are too young to start one.</p> <p>Emotional and psychosocial responses to pregnancy and to abortion do not happen in a vacuum. The gulf between a wanted and an unwanted pregnancy can be enormous.</p> <p>I do not see any acknowledgement of these contextual issues, nor any recognition of the importance of the sheer relief that is so often involved after a woman has managed to end an unwanted pregnancy, and can get on with her life.</p> <p>It is not “just” that a woman experiences no mental health problems. It is that she has regained her body and life back, and the stress and anxiety that normally, naturally accompany an unintended, unwanted pregnancy can be put behind her. Stress and anxiety are not presented in this light in the document. They are quite different in fundamental ways from psychotic events, for example. Moreover, a woman may get very distressed if an unwanted pregnancy causes a relationship she wanted desperately to keep breaks up. Has abortion caused a mental health problem in such a case? I don’t think so. The break-up precipitated by the unwanted pregnancy (and/or the abortion) is what will be the real cause of her distress. Anti-abortionists blame the abortion. You must clarify the findings on this if indeed the studies you reviewed do so.</p>	<p>qualitative studies.</p> <p>We have discussed abortion as a life event in Section 1.1.</p> <p>We did not just include severe mental disorders and psychotic illnesses; instead, we have presented evidence for a range of conditions including anxiety and depression. However, as discussed in Sections 1.1, 1.4.3, and 2.2, the review focused on mental health disorders and not transient reactions to a stressful life event or situation. Consequently, the review focused on studies with a follow-up period of 90 days or more. We have explicitly discussed the outcomes and review criteria in Section 2.3.</p>
<b>All</b>			Individual 2	1/1 The principal conclusion drawn by this review is that it is the	Thank you for your comment. The consultation

				<p>same mental health risk either to abort or to bring an unwanted pregnancy to term. If accepted as true this implies that there are no mental health grounds at all to support abortion. The worst-case scenario in an otherwise healthy pregnancy is that it is unwanted. A woman in this situation according to the conclusion of this review is that on mental health grounds she has no reason to have an abortion since it confers the same mental health risk as that of bringing the pregnancy to term. It follows that the vast majority of abortions carried out in UK at present are done for incorrect reasons. This review shows that abortion confers absolutely no mental health benefit whatsoever as compared to the worst pregnancy case scenario and hence should be excluded as a reason for abortion in UK.</p>	<p>process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>It was not within our brief to look at whether there is evidence for psychiatric indications as grounds for granting an abortion, or to review the law.</p> <p>We did not look at whether there is evidence for psychiatric indications as grounds for granting an abortion. This would require a different approach.</p>
All		Individual 3	1/1	<p>My general comment is that this is an excellent and exhaustive piece of work. I have been involved in reviewing some of these research papers over the years. One issue is the degree to which this issue has become 'political' and 'religious' in the USA with quite vehement stances taken by pro-life proponents. Its has made rational examination of the data difficult when it seems that some research has been carried out in order to show a link between and abortion and poor mental health outcomes.</p>	<p>Thank you for your comment. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We agree that this is a very complex subject for very understandable reasons.</p>
All		Individual 5	1 /1	<p>I do not believe that the series of studies carried out by David Fergusson demonstrating a link between abortion and mental ill health has been credibly discredited.</p> <p>I also note the study by Mota and colleagues published in the Canadian Journal of Psychiatry (2010) indicating that abortion poses psychological risks to women independent of other stresses. I therefore wish to support the current nuanced position of The Royal College of Psychiatrists.</p>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We agree that there is still uncertainty in the literature.</p>
All		Individual 6	1/1	<p>The above report does not mention the following effect at all, but it is a factor of great importance, and if women came to read this after an abortion, the effect on their mental health could be devastating, but it is not considered. Little mention is made of philosophy/religion and only one paper by Russo &amp; Dabul is cited and no theologians/ philosophers are evident on the committee.</p> <p><u>Main points:</u></p> <p>The consequence of the following remarks to the problem of abortion is very serious, as explained below. About 1 person in a</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>As we have stated in Section 2.1, our brief was to ascertain what impact induced abortion may or may not have upon a woman's mental health and not to comment on the ethical issues, notwithstanding their importance.</p>

				<p>million say they have detailed memories of past lives, and as there are about 7 billion people on Earth this means many thousands of people report such memories, but they are diluted by millions of others with no such memories. Past lives (if true) are a direct proof of the probable existence of God, as what else could cause someone to be re-born in unrelated racial groups and on different continents centuries later?</p> <p>Then, the very likely consequence of doing an abortion implies that the perpetrator and surgeon will themselves be aborted in their next life, on the basis of: "as we sow, so shall we reap", a very exact precept stated by <u>all</u> major religions, "Karma"). Every religion has the same precept, but Eastern religions teach that this can apply from one life to the next, called the <u>Law of Karma</u>. Thus deeds done in one life will have their effects either in that life or in a future life. E.g. if someone kills someone else, he will be killed either later in the same life or in a future life. Modern Christianity and Judaism have lost this "carry-over to one's next life" interpretation, but Christianity definitely did have it originally (until the 6th Century).</p> <p>This is ignored in debates on abortion but should surely be brought to the attention of all. They are then still free to ignore it (at their own peril), but at least this information surely should "be run past them" once, and not hidden away. Because it is so serious, the consequence for the perpetrator of an abortion far outweighs the possibility that there is no God and thus no Karma: the <u>risk</u> that there is a God and Karma may be considered low by some people, but the <u>consequence</u> to the perpetrators if they are wrong is so dire that the true risk surely far outweighs their views. So it is more than wise to apply the "precautionary principle".</p> <p><u>Further points:</u></p> <p>A direct proof of existence beyond the body, and therefore of God, is near-death experiences (NDEs) of people with heart failure who are clinically dead but are then resuscitated, and some describe remarkable out-of-the-body experiences. Some sceptics say these visions may be created within the dying brain, but this explanation is rendered impossible by many accounts which accurately describe events occurring in the corridor etc <u>outside</u> the hospital ward, to where the "dead" persons say they were able to travel "out-of-their-body" which was lying clinically dead at the time, in the ward. They also report floating above</p>	<p>Past lives and the Law of Karma are beyond the scope of the present review.</p> <p>Near-death experiences are beyond the scope of the present review.</p>
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				<p>to be very remarkably like a child, and, quite apart from the discussion above, it is surely wrong to kill an unborn child that can potentially survive outside the womb, requiring only the passage of some time.</p> <p>There are many books written by people reporting memories of past lives and some investigations have been done on them and have found out facts that were not known to anyone before the investigation. This represents proof and cannot be dismissed. References are available.</p> <p>Much more can be written on philosophy, religion and abortion, but may be inappropriate here. Available on request.</p>	
All		Individual 7	1/4	<p>Overall, this is an extremely comprehensive, well written review. It is thorough in the approach taken and the meticulous grading of the evidence encourages the reader to have faith in the findings.</p> <p>I have just a few very minor comments [below]</p>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p>
All		Individual 7	4/4	<p><b>References not included:</b></p> <p>Broen, A. N., Moum, T., Bødtker, A. S., &amp; Ekeberg, Ö. (2005b). Reasons for induced abortion and their relation to women's emotional distress: A prospective, two-year follow-up study. <i>General Hospital Psychiatry</i>, 27(1), 36.</p> <p>Thank you for allowing me the opportunity to read this draft, it was much appreciated.</p>	<p>Thank you for your comments. We have assessed all the papers suggested during the consultation (see Appendix 4 for a list) and have included studies, which met our review criteria.</p>
All		Individual 8	1/3	<p>I am a full time GP with 18 years experience. Whilst I have not been involved in formal research in this area, I have, in common with most GPs, lots of experience of counselling and referral of women with unplanned and unwanted pregnancies.</p> <p>I have carefully read you draft report and summary and would make the following comments:</p> <ol style="list-style-type: none"> <li>1. Research in this area is difficult and although gives us some useful information, it highlights the need for ongoing research.</li> </ol>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have highlighted the need for further research in Section 6.3.</p>
All		Individual 8	2/3	<ol style="list-style-type: none"> <li>2. There are further possible confounding factors that do not seem to be addressed by the research papers summarised (although I confess to not have read them personally - only read</li> </ol>	<p>Thank you for your comments. We have now included perceived support (including professional support) and agreement between</p>

				<p>your summary). These are:</p> <ul style="list-style-type: none"> <li>• opinion of baby's father</li> <li>• support of parents</li> <li>• quality of counselling available prior to decision (including possible coercion).</li> </ul>	<p>partners within the review of factors associated with mental health problems (see Section 4.3.2).</p>
<b>All</b>		Individual 8	3/3	<p>My own experience, albeit anecdotal, is that there is more LATE (often many years afterwards) morbidity when an abortion takes place in unplanned pregnancies that are aborted compared with those where the pregnancy continues in BOTH males and females. Paternal morbidity seems to be often overlooked but surely just as valid a subject matter for research.</p> <p>It may be impossible to design a truly unbiased and non-confounded research trial in this area but the increasing numbers of abortion together in increasing proportion of marriage and long term relationship breakdown and teenage mental health morbidity are likely to indicate a wider societal problem that should be raising huge alarm bells for the medical profession and national leaders.</p>	<p>Thank you for your comments. Although we agree that paternal morbidity is important, it was beyond the scope and remit of the present review.</p> <p>We agree that it would be impossible to design the perfect gold standard study and have discussed this in Sections 2.3 and 6. We agree that wider societal problems are important but these are beyond the scope of the review.</p>
<b>All</b>		Individual 10	5/5	<p>Despite a serious approach, the NCCMH review has failed to grasp an opportunity to take advantage of the best available evidence and has misread important information that did not fit with the pre-conceived ideas of the American Psychological Association Report on abortion and mental health. Of note is that the APA report just happened to be released exactly two weeks before the Democratic National Convention in the United States in August 2008.</p>	<p>Thank you for your comments. We conducted our own literature review, in addition to identifying studies included in the APA review. Please see Section 2 for details.</p>
<b>All</b>		Individual 11	1/1	<p>The evidence presented suggests overall that abortion does have a risk of subsequent mental illness or disability or symptoms greater than that of continuing pregnancy, but not if prior mental illness is excluded. This suggests that evidence given to women should depend on whether they fit one category (having mental illness) or the other. Clearly there is not much evidence that abortion reduced the risk to the mother's future mental health, and yet this is the ground for the vast majority of abortions in Great Britain. Balancing the seriousness of the ending of the life of the foetus against no real proven benefit to the future mental health of the women involved must make the grounds for most abortions inadequate. The conclusions to provide ongoing support are excellent but that support is not</p>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>It was not our brief to address the legal issues and a review of the law would require consideration of many more factors than evidence of mental health impact.</p>



				always available and if it were that may reduce women's requests for abortion	
All		Individual 12	1/8	<p>I have enjoyed reading this document. An excellent very thorough review of an important subject, which I found to be very comprehensive and rigorous.</p> <p>Many sentences are long and complex – some points would be clearer with careful editing.</p> <p>The tables are very clear and helpful.</p>	<p>Thank you for your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have now addressed and amended the long sentences where appropriate.</p>
All		Individual 12	2/8	<p>The narrative style is very detailed but thereby repetitive – as in each section similar issues such as reasons for limitation of analysis are the same.</p>	<p>We agree that in places, the review discusses many of the same limitations, however we felt it was important to highlight both the limitations of the individual studies and the research as a whole for each of the three questions. This will allow individuals to focus on just one section of the review, yet still understand the limitations of the evidence base.</p>
All		Individual 13	1/4	<p>I am a biostatistician and a doctor, but have no previous knowledge of this literature. I have only been able to look at one or two things due to time constraints.</p> <p>The stated ideal comparison as that between an unwanted pregnancy leading to birth and a similar one leading to abortion is biased.</p> <p>First, it is unclear whether the term 'unwanted' pregnancy has any real meaning in this scientific context. To classify all pregnancies that end in abortion as 'unwanted' is to assume that behaviour defines desire. If this is the case, then there is no such thing as an unwanted pregnancy that ends in abortion and thus no unwanted pregnancies leading to birth to compare with the abortions. If the argument is made that there does exist a set of unwanted pregnancies in the birth set, it must mean that the 'unwanted' pregnancies leading to birth are different to the 'unwanted' pregnancies leading to abortion. This is because some other factor influenced the mother's behaviour in the birth set which did not feature in the abortion set (for example, ethics, pressure etc) such that she chose birth instead of abortion.</p> <p>Comparing these two sets will thus be unscientific but also tend to reduce the magnitude of the effect of abortion on mental</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>Definitions of the terms used throughout the review are included in Section 1.2. We agree that there are problems associated with these terms, and have discussed their limitations throughout the review. We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available comparison group.</p> <p>Furthermore, it was the remit of the review to assess the impact of abortion on mental health outcomes for women with an unwanted pregnancy. It was beyond this remit of the review to consider the impact of abortions of wanted pregnancies.</p> <p>For the comparison of abortion and birth we did not exclude studies based on whether the</p>

				<p>health. The apriori risk of poor mental health following an 'unwanted pregnancy' leading to birth (R1) would be expected to be considerably higher than that following a 'wanted pregnancy' leading to birth (R2). Similarly the risk of poor mental health following a 'wanted pregnancy' leading to abortion (R3) would be expected to be considerably higher than the risk of poor mental health following an 'unwanted pregnancy' leading to abortion (R4). This is because of the divergence between the preference of the mother and the outcome of the pregnancy – ie. the outcome isn't what she really 'wanted' – for whatever reason. If this is the case (<math>R1 &gt; R2</math> and <math>R3 &gt; R4</math>), then it would follow that the gold standard proposed by the reviewers would definitely underestimate the mean true relative risk of poor mental health outcomes following abortion, simply because the ratio <math>R4/R1</math> (relative risk of abortion, comparing within 'unwanted pregnancies') <math>&lt; R3/R2</math> (relative risk of abortion comparing within 'wanted pregnancies') (<math>R4/R1 &lt; R4/R2 &lt; R3/R2</math>). The magnitude of this bias is likely to be significant.</p> <p>The reason this point is so important is because the reviewers use this principle (that comparison among 'unwanted' is the most scientific) to filter out a huge amount of the literature. On this basis they slim down from 13 to just between 1 and 4 studies.</p>	<p>pregnancy was wanted or unwanted. Instead, we used these criteria to group the studies for the analysis. Throughout Section 5 we have justified the approach taken and the comparators used.</p>
All		Individual 13	2/4	<p>A second point is that the reviewers state repeatedly that there is significant heterogeneity between the studies and thus argue for a narrative analysis. However, the conclusions of the study are frequently strong and generalised. This is a contradiction. Either the results of the individual studies can or they cannot be grouped.</p> <p>The reviewers have failed to show any details for the statistical methods they have used to assess the heterogeneity or the results of those analyses but this is a key piece in their argument, for if there is no evidence of heterogeneity then many other studies might be included.</p>	<p>Thank you for your comment. For each evidence statement, we have listed whether clinical heterogeneity (such as the difference in outcome measures or disorders being investigated) or statistical heterogeneity was a problem. As explained in Section 2.11, forest plots were visually inspected for heterogeneity using the I-squared statistic. We did not use heterogeneity as a reason to exclude studies.</p>
All		Individual 13	4/4	<p>On the whole, I think the meta-analysis needs to be re-done as the 'answers' are too heavily influenced by the methodology.</p>	<p>Thank you for your comment. We have justified throughout the reasons for conducting a narrative review of the evidence. We have also now included a limited meta-analysis of studies comparing the mental health outcomes for women who have an abortion and those who</p>

						deliver an unwanted or unplanned pregnancy. In order to improve the transparency of the review we have made additions to Section 2, including further information about the inclusion exclusion process and quality assessment undertaken. We have also added data extraction forms for all included studies (see Appendix 8) in order to improve the transparency of the review.
All			Individual 16	33/33	Consenting a woman for abortion should include at least a mention of the potential effects on mental health, or the fact that uncertainty exists as to whether abortion is associated with future mental health issues.	We agree that accurate information and appropriate support should be available.
All	6-89		Department of Psychiatry, Bowling Green State University, Ohio, USA	2/6	<p>This review reflects an admirable amount of time and energy by many individuals in an effort to arrive at clear answers regarding the prevalence of mental health problems following abortion, factors predictive of adverse responses, and mental health outcomes following abortion compared to birth.</p> <p>Unfortunately the authors of the report do not clearly explain the criteria for exclusion of studies from a vast literature on the topic, nor have they adopted a defensible evaluation scheme for the studies retained. For example, the authors indicate having identified 5,886 references and then found less than 2% to be “potentially relevant” Among the reasons that are given for excluding studies on the front end is not containing “usable data” What does this mean? Similarly, what constitutes a “validated” measure? What forms of validity information and from how many sources satisfies this criterion?</p> <p>The authors should have provided clearly articulated exclusion criteria and then stated the percentage of studies eliminated for the various reasons outlined. Table 6 only contains a fraction of the excluded studies and then several of the studies listed are actually included in the review. This is very confusing.</p> <p>With regard to the grading scheme, many of the quality indicators lack sufficient specification, For example, under the category of “limitations to design quality” the methodological features with particular relevance to this area of study should have been detailed and prioritized. Relying on the methodology of Charles et al. is inappropriate given the problems with their evaluation</p>	<p>Thank you.</p> <p>In order to improve the transparency of the review, we have now included a flow diagram of the search process and have included further details in the included and excluded studies tables (See Section 2, 6 and Appendix 7). Additionally we have included full data extraction tables for each of the included studies (see Appendix 8).</p> <p>We have included full GRADE tables in Appendix 11 to show in more detail how the quality of studies was evaluated.</p> <p>Your numbered points are addressed below.</p>

				<p>scheme described later in this critique.</p> <p>Based on the above, I strongly recommend some basic changes in the process of deriving and presenting results. Without a defensible methodology, the findings are not reliable and are subject to bias in the selection and assessment of individual studies, thereby skewing the overall conclusions.</p> <ol style="list-style-type: none"> <li>1) All studies published in English in peer reviewed journals between 1990 and 2010 on the topic of abortion and mental health should be listed.</li> <li>2) Clearly articulated and detailed criteria used to exclude studies at the front end should be presented.</li> <li>3) A table should list every relevant study eliminated and the reason(s) for elimination.</li> <li>4) Evaluation criteria for the retained studies should be clearly described and then rated/weighted according to importance by methodology experts.</li> <li>5) A table should be produced with the following: a) all the retained studies listed, b) basic information related to the sample and design of each study, c) a list of all criteria met and not met by each study, and d) a score assigned to each study based on the number of criteria met and respective weights. A minimum of 3 experienced raters should be engaged in this process and inter-rater reliability coefficients should be assessed to insure consistency across raters.</li> <li>6) Studies should then be categorized in terms of the integrity of the findings based on the scores assigned.</li> <li>7) An evaluation should be presented relying primarily on the best evidence (high scoring studies).</li> <li>8) This process can be repeated for the 3 types of studies evaluated.</li> </ol> <p>In this report the number of studies that are actually factored into the conclusions regarding the 3 primary types of studies evaluated are 21 (prevalence), 18 (factors associated with poor mental health), and 13 (mental health outcomes). This is a grave misrepresentation of the wealth of information that has accrued on the psychology of abortion. Hundreds of studies were either thrown out based on one problematic feature or were never</p>	<ol style="list-style-type: none"> <li>1) We do not have the resources to translate and include non-English studies. This is common practice in formal reviews.</li> <li>2) This has been done in the review protocol and methodology chapter see Section 2.3.</li> <li>3) We have included further details in the included and excluded studies tables in Appendix 7.</li> <li>4) We have used abortion specific quality criteria to rate the studies.</li> <li>5) We have now included full data extraction tables, which include this information.</li> <li>6) Studies were graded based on abortion specific quality criteria.</li> <li>7) We agree with this approach and have done this throughout the review.</li> <li>8) We have done this for all three areas.</li> </ol> <p>Only studies that met the inclusion criteria were included in the review. The lack of good quality evidence is discussed as a major limitation with the evidence base.</p>
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					considered. Studies published in highly reputable peer-reviewed journals may have a few shortcomings, but this is not sufficient basis for ignoring the findings entirely. Each individual study should be evaluated based on the overall strength of the design, with weaknesses considered in the context of the overall design. Without a significantly revised methodology for selecting and evaluating the literature in a comprehensive and objective manner, definitive, reliable conclusions cannot be derived.	
					<b>Title</b>	
<b>title</b>	1		Catholic Medical Association, UK	11/50	<b>Title of the review</b> If the review does not extend to include mental disorders occurring in the first three months post abortion, then its title should be changed to “ <b>Induced abortion and persistent mental health disorders.</b> ”	Thank you. We considered this but concluded that the parameters are set out in the Introduction, which we feel is adequate.
<b>Title</b>	1		The Anscombe Bioethics Centre, Oxford, UK	1/10	<p>The commissioning of this Review is to be welcomed. The Church recognises that in many cases, abortion is the result of ‘a painful and even a shattering decision’ and may leave a wound in the heart that ‘may not yet have healed’ (John Paul II <i>The Gospel of Life</i>, para.99). Induced abortion is not only a political, legal, ethical and indeed a spiritual reality, but also a reality that has psychological roots and psychological consequences. It is good that this is being considered by a body that represents mental healthcare professionals. It would have been still better if the committee had also included patient representatives.</p> <p>The title given to the report is: ‘<b>Induced Abortion and Mental Health: A systematic review of the mental health impact of induced abortion</b>’. In fact, the subtitle is narrower than the title. Many of the studies in the draft Review point to a correlation between prior mental ill health and presentation for elective abortion. This falls squarely within the scope of the present Review, which sets itself the question, ‘<b>How prevalent are mental health problems in women who have an induced abortion?</b>’ (p.84 ln.8; see also e.g. p.16 ln.13) This is a broader and more interesting question than the causal ‘<b>impact of abortion</b>’.</p> <p>For example, the reviewers seem to endorse the suggestion that ‘women who have an abortion may constitute a population with</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful</p> <p>We considered this change to the title but concluded that the parameters are set out in the Introduction, which we feel is adequate.</p> <p>We agree and have referred to this in the conclusion.</p>

					<p>higher psychiatric morbidity and ...this propensity predates the actual abortion' (p.69 ln.40). If this is so it represents a significant phenomenon which is highly relevant to the mental health care needs of women presenting for abortion.</p> <p>Hence the title of the Review should reflect its method and ask not only about the <b>'impact of'</b> abortion but <b>'the relationship between induced abortion and mental health'</b> (p.8 ln.32).</p>	
					<b>Section 1 - Introduction</b>	
1.1	7		MIND	11/13	<p>Importantly, guidance provided by the Royal College of Obstetricians and Gynaecologists (RCOG) (2004), based upon a review of the literature, concluded that there were studies suggesting that rates of psychiatric illness or self-harm may be higher among women who have had an abortion, when compared with women who give birth or to non-pregnant women of a similar age. <b>However, the report noted that these findings did not imply a causal association.</b> So why mention it?</p>	<p>The RCOG findings have been well publicised and referred to by the government, but it is necessary to clarify if the association is causal or not, to understand the importance of the finding.</p> <p>The RCOG have subsequently updated their guidance.</p>
1.1	3	3-36	Mount Joy College, Victoria, British Columbia, Canada	2/103	<p><b>General Considerations</b></p> <p><b>Background.</b> This matter is considered with the understanding that in the UK abortion is permitted for women who require this treatment to "prevent grave permanent injury to their physical or mental health". Since it is acknowledged abortion is seldom required for medical or surgical reasons, this report must address the psychiatric, psychological indications for 95 % of abortion. It does not.</p> <p><b>Abortion by choice.</b> This report assumes there are only 2 possibilities to a pregnancy outcome and that a woman is within her rights "to choose" either to terminate the pregnancy or bring it to full term. Thus the report is written with the belief that abortion is a choice but very little about any constraints to that choice such as being fully informed. Nor does this report consider informed consent an important variable to include in the analysis of factors that may bear on the mental health of the woman who chooses to abort.</p> <p><b>Abortion by medical indication.</b> The law in the UK clearly rules that performing abortion is still a medical matter requiring: indication, benefit, few side effects, less invasive and more</p>	<p>Thank you for your comment.</p> <p>In the UK, a woman has the right and can elect to request an abortion. One could also say that she can choose or elect or has the option to have an abortion, subject to the law and approval by physicians. In fact it is very rare that a physician would recommend an abortion if it had not been requested by the woman in the first place.</p> <p>It was not within our brief to address the legal issues, however finding very little mental health impact of abortion is not the same as finding no mental health grounds at all to support abortion. The latter question would require a different approach.</p> <p>A review of the law would require consideration of many more factors than the evidence of mental health impact after the event.</p>



					reversible therapies tried first, done with clear conscience, informed consent etc. Nothing in this draft makes mention of these issues, which are bound to influence the rate on mental insult following an abortion. None of the authors has the temerity to ask whether or not abortion is evidenced based treatment or effective in preventing mental illness, mainly I suspect because there is no such evidence.	
1.1	6-7		Royal College of Obstetricians and Gynaecologists (RCOG)	1/9	<p>Two recent systematic reviews carried out in this area conclude respectively “The relative risk of developing mental health problems following a single, legal, first trimester abortion of an unplanned pregnancy for non-therapeutic reasons is no greater than the risk for women who go on to deliver an unplanned pregnancy” and “— the higher the quality of the study, the greater the likelihood that the study will find no association between abortion and mental ill health”.</p> <p>In this light it has to be conceded that the justification for a further systematic review and report was essentially the continuing discussion in the UK and the continued assertion that abortions damage mental health. Selective quotes from early studies seem inappropriate at this stage. The main starting point was a conclusion of the House of Commons Science and Technology Committee report. If the RCOG guideline (2004) is quoted (lines 36-42), then it would be better if the complete recommendation 16.9 was given: “Psychological sequelae: some studies suggest that rates of psychiatric illness or self-harm are higher among women who have had an abortion compared with women who give birth and to non pregnant women of similar age. It must be borne in mind that these findings do not imply a causal association and may reflect continuation of pre-existing conditions.”</p> <p>Furthermore, the importance to this review of recent work and in particular the Munk-Olsen study (referenced) should be emphasised.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have included further details about the remit of the review in Section 1 which we feel provides justification for the work conducted and clearly specifies what will be included within the review.</p>
1.1	6	42	Individual 17	2/3	You note that a significant minority of aborted women have had a previous abortion. I believe that my own study (Third time unlucky: a study of women who have three or more legal abortions J Biosoc Sci 1977. 9. 99-105) is still the only study in Britain (or elsewhere) to have examined a cohort of women who had at least two previous abortions. Though it focused on their	Thank you for your comments. We agree with your point and have made further reference to these differences within the conclusion and discussion (see Section 6).

				<p>pre-abortion characteristics and had no follow-up, it concluded that while about half the women, by the time of their third pregnancy, were trying hard to contracept and were indeed 'unlucky' (and who therefore acted as an unplanned control group) in the remainder, there was 'a significant relationship between erratic [contraceptive] use and a history of medical consultations for psychiatric reasons'. This underlines the point you make that women who seek abortion may be different in important ways from women who deliver wanted children.</p> <p>Much of my work as psychiatric advisor to BPAS was with women who were unusually ambivalent about abortion, often on moral or doctrinal grounds. Just talking and listening was usually enough to help them arrive at a decision but in discussing the pros and cons, I naturally pointed out that while they could usually have another child if they decided later that abortion had been the wrong decision, they could not get rid of a baby if they later found that it prevented them from (for example) having a career that was important to them. At that time, there was good evidence from 'adverse life event' studies that a powerful predictor of later depression was having several children at short intervals at an early age with a poor domestic relationship. I would be surprised if modern British research reversed that finding.</p>	
1.1 and 3.4.2	6 and 40		Pension And Population Research Institute (PAPRI), UK	2/3 <p>The criteria used for assessing eligibility and quality seem odd. The authors, after stating on page 6 that under the law "a pregnancy may only be terminated if two medical practitioners are of the opinion, formed in good faith that: (one of seven health criteria A-G are satisfied)", seem then to forget that all British abortions are supposed to bring about some kind of health gain. The heading Therapeutic Abortions is to be found on Scottish Abortion Statistics when Scotland has the same abortion law as the rest of Great Britain. Yet on page 40 one study is criticised because it "failed to distinguish between elective and therapeutic abortions." Here it seems that the authors are not trying to draw conclusions that are relevant to Great Britain.</p>	Thank you for your comments. The word therapeutic in this case was meant to refer to abortions carried out for medical reasons such as fetal abnormality. Thank you for highlighting this ambiguity, we have now amended this to make this clearer.
1.1	6	1-2	Mount Joy College, Victoria, British Columbia, Canada	1/103 <p><b>Introduction.</b></p> <p>I am glad to be able to comment on this draft report partly because there is such murkiness to this very contentious topic but also because it has been a major interest of mine for over 4</p>	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.

				<p>decades. Although my main area of expertise is child abuse and neglect, I have written 31 published papers, which directly or indirectly deal with this area, 5 books, and many expert opinions for courts and committees. I have taught in 5 medical schools in 3 countries and have been the chairman of psychiatric services and an academic department. I have discovered there are quite a few elephants in living rooms but none like abortion. Therefore I welcome any sane debate and honest research on abortion. Both of these are hard to find.</p> <p>I write these comments from a scientific, not a moral perspective.</p>	
1.1	6	4-44	Mount Joy College, Victoria, British Columbia, Canada	<p>13/103</p> <p>This draft makes no attempt to answer the issues raised by the <b>Abortion Act</b> and its amendments. Indeed the authors make assumptions not contained in the Act that women have an unfettered right to choose an abortion. The act is clear that abortion is a medical matter and can only be performed if and when it is necessary to improve or preserve a woman's health. The real question to be addressed is, what is the evidence of benefit., not what is the data for harm. This was studiously avoided by the authors of this draft. The Fellows of Psychiatry erred in not making their mandate clear and relevant.</p> <p>If a woman has a right to have an abortion when she so elects, then abortion is not a medical matter and should be performed by technicians If a woman has a right to good medical treatment that may include having an abortion on her physician's recommendation, then this review is valid only if it addresses these questions:</p> <p>a) <b>Indication</b> Is there a pathological process in pregnant women in general and this patient in particular that warrants having an abortion? (It must be recognized that pregnancy is not a disease.)</p> <p>b) <b>Benefit</b> What is the evidence that an abortion will benefit women with this condition (pregnancy) and this patient in particular?</p> <p>c) <b>Harms.</b> What are the adverse effects from an abortion and if there are some, do they outweigh the anticipated benefit?</p> <p>d) <b>Other options</b> Have all less invasive, more reversible treatments been offered, tried and failed before an abortion is recommended?</p>	<p>Thank you for your comments. It was not within our brief to address the legal framework or look at whether there is evidence for psychiatric indications as grounds for granting an abortion. Our brief was to examine the mental health outcomes of women who had already had a legally authorised abortion.</p> <p>Unlike the US, in the UK abortion can only be granted when deemed to be necessary '<i>to prevent grave permanent injury to the physical or mental health of the pregnant woman,</i>' although women do have the right to request an abortion if they choose. We have added reference to the different legal contexts within Section 1.3 of the introduction. We have also commented on these differences within the conclusion (see Section 6)</p> <p>These remaining areas you have referred to are beyond the scope and remit of the current review.</p>

				<p>e) <b>In good faith</b> Is the physician who is providing this procedure doing so in good faith? Has the abortionist carefully studied to relevant literature in order to practice evidence based medicine, honed his/her skills and performed a careful followed up on his/her ex-abortion patients to know personally that he/she will be providing good treatment?</p> <p>f) <b>Adoption etc.</b> Has the physician facilitated all options to abortion of a truly unwanted child, i.e., adoption, fostering etc.</p> <p>g) <b>Informed consent.</b> Has the physician made a clear recommendation to the patient with evidence to support that recommendation, options available, potential benefits and hazards, and shown the ambivalent woman the ultrasound of her fetus? Has he/she been given fully informed consent which requires the patient have full opportunity to ask questions, get a 2<sup>nd</sup> opinion and make a decision with enough time to do so and without pressure from mate, family, IPPF, physician etc.</p> <p>It must be remembered that until any treatment is well proven, it must be considered as <b>experimental</b> and constrained as such.</p> <p>Moreover the <b>burden of proof</b> rests with the performing physician, his/her supporters and those who fund this activity to show abortion is necessary, beneficial etc. not on those who question abortion is a valid treatment to show it is harmful.</p>	
1.1	6	7-8 and 17-19	Comment on Reproductive Ethics (CORE)	<p>1/8 Given that the majority of abortions in the UK are performed under the Abortion Act 1967 for the mental health of the woman (see below), the two medical practitioners involved in the authorisation of the procedures should surely be trained in psychiatry in preference to general medicine. It is well-known that in practice two doctors do not examine the patient, and frequently even the signatures are just a pro-forma exercise.</p> <p>If we are ever to fully understand the reasons why women have abortions and the effect abortion has on them, it is more than time to separate the physical from the mental health of women when reporting and recording grounds for abortion, and specific detail should be available as to the nature of the mental health problems.</p> <p>Maternal medical health as a ground for abortion should be comparatively easy to specify but nevertheless no specific details are available in the yearly abortion statistics. Such abortions,</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We did not examine the decision to grant an abortion. Our brief was to examine the mental health outcomes of women who had already had a legally authorised abortion.</p> <p>It was not within our brief to address the legal framework; however, in response to comments received we have included more background on this in Section 1.3.</p>

				<p>however, constitute only a very tiny minority of the abortions taking place yearly in this country.</p> <p>Mental health on the other hand is the major justification for the vast majority of abortions performed in England and Wales, a total last year alone of 185,000.</p> <p>These two maternal health issues are separated for the first time in the latest (2010) DH Abortion Statistics where, in reporting abortions under Clause C (most abortions performed under this clause), it is acknowledged that 99.96% of that year's abortions were performed for the mental health of the woman.</p> <p>There are, however, no further details whatsoever of what constituted the mental health problems (past, present or potential) of these 185,000 women, and there seems to be no way currently of establishing what they might be.</p>	
1.1	6	17	The Anscombe Bioethics Centre, Oxford, UK	<p>2/10 The report starts with the legal situation in England and Wales and Scotland according to which pregnancy may be terminated if it would involve risk, <b>'greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman'</b> (Abortion Act 1967 as amended Section 1(1)(a) quoted at p.6 ln.17).</p> <p>If the Review is to begin with the legal situation, then it seems incumbent on it to return to this legal context in the conclusion. The current draft Review states that, <b>'mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth'</b> (p.89 ln.18). Abstracting at this point from the question of whether this conclusion best represents the evidence (a point dealt with below) the legal implication of this conclusion would seem clear:</p> <p><b><i>Mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth. Hence it will not generally be the case that 'the continuance of a pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the... mental health of the pregnant woman' (Abortion Act 1967 as amended, Section 1(1)(a)).</i></b></p> <p>Given that 97% of abortions are carried out on grounds of risk to mental or physical health, it seems reasonable to ask whether there is evidence that abortion actually reduces risk to mental</p>	<p>We agree that looking at the legal aspects of abortion is beyond the scope of the present review; however, in response to comments received we have included more background on this in Section 1.3.</p> <p>It was not our brief to address the legal issues, however finding very little mental health impact of abortion is not the same as finding no mental health grounds at all to support abortion.</p> <p>To review current legislation, a considerable number of other factors would need to be considered.</p>

					<p>health. The conclusions of the Review thus have relevance to the application of the law on abortion and it would be reasonable to state whether most abortions would fall within this aspect of the law. Nevertheless, whereas the reviewers may be able to say whether some or most abortions fulfil the current law, it is outside the well-defined scope of the Review to say whether the law itself is well-formulated – whether it is clear, beneficial, and above all, just.</p> <p>It should therefore also be borne in mind that the formulation of the abortion law is a matter of ethical and political considerations and only secondarily, in relation to these, a matter for empirical investigation. A comprehensive evaluation of the ethics and the law of abortion lies outside the scope of the Review. Nevertheless, the results of the Review will be of ethical and legal interest not least because abortion is presented as an aspect of 'health care'. In addition to questions of inherent justice and other ethical aspects of abortion, it is therefore important to assess the evidence of harmful effects of abortion on mental health and the lack of evidence of beneficial effects on mental health.</p>	
1.1	6	26	Individual 12	4/8	this review does not include <b>abortion</b> left out - see page 45 point 4 which just confirms the correct evidence has been analysed	Thank you. This has been corrected
1.1	6	38-45	Individual 9	1/25	<p><b>Scientific comments</b></p> <p>Update to 2010 abortion statistics published May 2011. Better to use rates than numbers. Abortion rate has been relatively static over the last few years.</p>	Thank you for your comments. This has been revised.
1.1	6	42	Secular Medical Forum	3/16	<p>The review introduction notes that a significant minority of aborted women have had a previous abortion. A study of relevance here is that by <b>Brewer (1977) Third time unlucky: a study of women who have three or more legal abortions J Biosoc Sci. 9. 99-105</b>. This study showed that in approximately half of the women in the study there was 'a significant relationship between erratic [contraceptive] use and a history of medical consultations for psychiatric reasons'.</p> <p>This study is, as far as we are aware, the only study in Britain (or elsewhere) to have examined a cohort of women who had at least two previous abortions. The findings are consistent with and lend further support to the point made that women who seek</p>	<p>Thank you for your comments. The study was conducted and published before the start date for the electronic searches, and hence for inclusion within the review (see Section 2.3 for further details).</p> <p>We do however believe you make an important point and have emphasised the differences in women who have an abortion and those who deliver, within Section 6.2.3 of the conclusion and discussion.</p>




					<p>abortion may be different in important ways from women who deliver wanted children.</p> <p>The SMF suggest the inclusion of this study.</p>	
1.1	7	1-2	Elliot Institute, Springfield, Illinois, USA	2/87	<p>We recommend changing change, “continuing with the pregnancy would result in increased physical or psychological risk” to more accurately reflect the statutory language, ie: “continuing the pregnancy would involve risk greater than if the pregnancy were terminated.”</p> <p>While the prior wording may reflect the actual practice of physicians, namely approving abortion whenever a pregnant woman faces elevated risks relative to non-pregnant women, the Abortion Act actually requires a comparative risk assessment which provides for abortion only when the risks of continuing the pregnancy are <u>greater</u> than the risks of abortion.</p> <p>It should be noted that If the risks for the individual woman, in light of her unique circumstances and risk factors, are the same or less than the risks if the pregnancy is not terminated, then abortion is not warranted under the Act.</p> <p>In other words, if there are equal risks, abortion not allowed under the Act. The threshold requirement is that the risks associated with not having an abortion are greater than the risks of having an abortion.</p> <p>Moreover, this determination should be made based on each woman’s individual physical and psychosocial profile. Therefore, even if there was evidence that abortion carried less risk for the majority of women than childbirth, that finding would not eliminate the need to assess each woman’s individual case to identify indicators and contraindicators for abortion. It is precisely for the purpose of protecting the subset of women who are at higher risk of negative reactions from abortion from those associated risks that two doctors are required to screen the individual patient and to form a risk benefit assessment.</p>	<p>Thank you for your comments. This has been changed to ensure that it reflects the statutory language.</p> <p><b>It was not our brief to address the legal issues, however finding very little mental health impact of abortion is not the same as finding no mental health grounds at all to support abortion. The latter question would require a different approach. To review current legislation, a considerable number of other factors would need to be considered.</b></p> <p>In response to comments received, we have included more background on this in Section 1.3.</p>
1.1	7	5	Individual 7	2/4	<p>Feelings such as loss, grief and doubt may all be present at the time of the abortion (Broen et al., 2006), and this led Rue and Speckhard (1992) to suggest that abortion can lead to a specific mental health problem which they termed “post-abortion syndrome”.</p>	<p>Thank you. This sentence has been corrected.</p>

					A paper published in 2006 could not have led Rue and Speckhard to these conclusions.	
1.1	7	8-9	Secular Medical Forum	2/16	On p. 7, the current review mentions the highly contentious notion 'post-abortion syndrome'. <b>The SMF recommends that mention of this notion should be qualified at a later point in the review's conclusions. (See suggested insertion at section 6.3).</b>	Thank you for your comment. We have noted this is contentious with the literature.
1.1	7	11	The Anscombe Bioethics Centre, Oxford, UK	3/10	<p>It is certainly reasonable to say that, <b>'abortion can be considered a life event that could potentially trigger an adverse psychological reaction, including mental ill health in vulnerable individuals'</b>. (p.7 ln.11) The key question is therefore not whether all women are equally liable to experience an adverse reaction, nor is it whether the average rate of mental ill health is higher in those who have undergone induced abortion. The key question is whether there are women who have been adversely affected by abortion and, if so, whether this could have been predicted, and how these women may be helped.</p> <p>At one point the current draft Review suggests that <b>'any mental health problem prior to pregnancy will increase the risk of post-abortion mental health problems'</b> (p.86, ln.39). If someone with prior mental health problems were adversely affected by abortion this would not necessarily show through an investigation of <b>'rates of psychiatric illness'</b> (p.7 ln.38 and elsewhere). Some consideration should be given to how to include such negative incidents.</p> <p>In general the draft Review quite appropriately focuses on quantitative methods and on clear and well-established outcome measures to assess the relationship of induced abortion and mental health. This seems quite reasonable as there is much that such methods may tell us. However, it is also proper to ask whether quantitative methods are best adapted to understanding the quality of the experience of human distress.</p> <p>In this, as in other areas, there is a need to complement such measurement by <i>listening</i> to the stories of those who say that they have suffered. Such listening can result in a deeper appreciation of the phenomena under consideration and may also result in finding different and more sensitive ways to measure the phenomena. Without prejudice to the evidence so</p>	<p>Thank you for your comments. We agree that this is an important point. The need to identify women who may require additional support is very important. This is covered in the review that assesses factors associated with poor mental health outcomes following an abortion. We have also made the need for monitoring and support of certain individuals more explicit in Section 6.</p> <p>The remit of the review was to consider mental health problems following abortion, which we defined as either a clinical diagnosis, treatment records, measurement on a valid scale or suicide (see Section 2.2 for details). It was beyond the scope of the review to consider other negative outcomes.</p> <p>We agree that qualitative research is important for this area. Unfortunately, it was beyond the scope of the review to consider qualitative research.</p>

					far considered by the reviewers, or to other evidence of a similar kind, it would seem remiss if the Review did not take evidence directly from those who claim to have been adversely affected psychologically by abortion. The profession should not only speak to and speak about those who suffer from mental ill-health. Such individuals should be given an opportunity to tell their own stories.	
1.1	7	11-19	Mount Joy College, Victoria, British Columbia, Canada	14/103	Although often touted, there is no evidence that an abortion is safer than a continued pregnancy. The life long benefits to having a child cannot be compared to the potential life long regret. Moreover the comparison is not valid because the duration of pregnancy is approximately on a 1 to 3 ratio. Any adverse event is more likely to happen when the time is longer.	Thank you for your comment. We have used the best available evidence throughout the review as discussed in Section 2. We have noted the short time frames for some of the studies as a limitation.
1.1	7	11-15	Individual 9	4/25	<b>Editorial comments</b> This is a 60-word sentence! Needs rewrite into Plain English.	Thank you. This has been revised.
1.1	7	11-19	Individual 12	5/8	I would reword starting leaving out on one hand. - it is clearer	Thank you. This has been revised.
1.1	7	11-41	Mount Joy College, Victoria, British Columbia, Canada	3/103	<b>Living conditions</b> There are very few comments in this report regarding conditions in a woman's life that bear on her mental health after an abortion compared to those after giving birth. The research generally assumes that life for the aborted woman and the woman with a baby to raise, sometimes with little spousal or community support, are equal. Yet they are so different that comparisons of mental health for women in these two groups are essentially meaningless. <b>Other pregnancy outcomes.</b> This review acknowledges that adoption is an option but cites no reliable evidence comparing the effect on mental health to those who give up their baby to another woman or place the infant in temporary foster care or at least 6 other options with those who abort. These options are becoming more readily available and are more frequently used.	Thank you for your comments. It was beyond the scope and remit of the review to consider either of these areas.
1.1	7	14	The Anscombe Bioethics Centre, Oxford, UK	4/10	<b>'[F]or some, abortion is a life event comparable to a minor life event such as undergoing an operation... An alternative view is that abortion is a more significant life event, perhaps similar to the loss of a child'(p.7 In.14)</b> The widespread legal and social acceptance of abortion in Western countries over the last forty years has undoubtedly affected social attitudes to the unborn child. There has also been	Thank you for your comments. Our remit was to systematically review the best available evidence for the impact of abortion on mental health outcomes. As discussed in Section 2, we did not consider the legal, moral or social implications of abortion or the current abortion legislation. We reviewed the evidence for religiosity or

				<p>a deliberate attempt by advocates for abortion law reform to 'normalise' abortion so that it is indeed seen as little more than <b>'undergoing an operation'</b>.</p> <p>This newer attitude is in contrast to the traditional Christian (and not only Christian) understanding of abortion as the taking of an innocent human life. It is for this reason that the Catholic Church described both abortion and infanticide as 'abominable crimes' (The Church in the Modern World, paragraph 51). For anyone who shares this understanding, abortion will always be a significant life event: it is not simply <b>'similar to'</b> the loss of a child but actually is the loss of a child.</p> <p>These differences of worldview will to some extent affect one's expectations in relation to the psychological impact of abortion, and how readily one seeks or accepts evidence, or apparent evidence. Nevertheless, there is an important distinction to be made between the ethical and the psychological. Actions that objectively have great ethical and human significance may not be experienced as such, for experience is shaped by desire, habit, and circumstances. The human or ethical significance of events may be overlooked, especially where a culture or subculture deliberately suppresses them. Thus even those who regard every abortion as the loss of a child can nevertheless acknowledge that, within the current social context, there are many women who <i>experience</i> abortion as a <b>'minor life event'</b>, whether at the time or even in retrospect.</p> <p>The draft Review suggests that women who <b>'show a negative emotional reaction to the abortion... are more likely than others to develop a mental health problem'</b> (p. 89 ln.33). There seems little reason to doubt this. However, it is important to note that, from an ethical and indeed a Christian point of view, there is no reliable relationship between such problems and the extent of actual moral responsibility. From a Christian perspective, the key step for someone who has procured an abortion is to come to terms with the truth about the abortion as a means to finding reconciliation, not through denial but through forgiveness. This will require sorrow over the act, and no doubt grief over the loss of the child, but grief is not always a sign or a cause of mental ill health. Sorrow could be a healthy development, in this as in other contexts; nor are those who experience less healthy forms of distress necessarily more</p>	<p>religious affiliation when considering the factors that are associated with negative outcomes following an abortion (see Sections 3.3.2 and 4.3.2.)</p> <p>We agree with your final point and have ensured throughout that a systematic and transparent review of the best available evidence has been conducted.</p>
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					<p>penitent or more culpable than those who do not.</p> <p>There is no universal or <i>a priori</i> relationship between ethical significance and psychological impact. It is therefore necessary to look empirically to survey the extent of the psychological impact of abortion, by making use of a full range of scientific, social-scientific and psychological methods. This task should be faced honestly whether one is in favour of or opposed to abortion.</p>	
1.1	7	21-26	Mount Joy College, Victoria, British Columbia, Canada	15/103	The findings of the Rawlinson Report cannot be disputed by these authors because they did not address the issue of indication and benefit.	Thank you for your comments; this was beyond the scope of the review. We did not look at whether there is evidence for psychiatric indications as grounds for granting an abortion.
1.1	7	27	Elliot Institute, Springfield, Illinois, USA	3/87	<p>A similar view was proposed in a review by Philip Ney, who stated that “, the onus of proof lies with those who perform or support any medical or surgical procedure to show beyond reasonable doubt that the procedure is both safe and therapeutic. There are no proven psychiatric indications for abortion. The best evidence shows abortion is contraindicated in major psychiatric illness. There is no good evidence that abortion is therapeutic for any medical conditions with possible rare exceptions. In fact, there are no proven medical, psychological, or social benefits. . . . If abortion was a drug or any other surgical procedure about which so many doubts have been raised regarding its safety and therapeutic effectiveness, it would have been taken off the market long ago. [Philip G. Ney, Some Real Issues Surrounding Abortion, or, the Current Practice of Abortion is Unscientific, 4 J. Clinical Ethics179, 180 (1993)</p>	<p>Thank you for your comments. <b>We did not look at whether there is evidence for psychiatric indications as grounds for granting an abortion.</b> This would require a different approach.</p> 
1.1	7	27	Elliot Institute, Springfield, Illinois, USA	4/87	<p>The Rawlinson Report and the RCOP response (<a href="http://extras.timesonline.co.uk/rowlinsonreport.pdf">http://extras.timesonline.co.uk/rowlinsonreport.pdf</a>) highlights important issues that should be much more carefully addressed in this new report.</p> <p>The Rawlinson report gave a summary of the RCOP's testimony and response to questions asked stating "there are no psychiatric indications for abortion." As per Ney's elaboration, this concern that there are "no [psychiatric] indications for abortion" refers to the lack of medical indications that the abortion will produce positive mental health effects.</p> <p>Properly understood, this statement was an attempt to</p>	<p>Thank you for your comments. As stated above we did not look at whether there is evidence for psychiatric indications as grounds for granting an abortion. This would require a different approach.</p> <p>This review focuses on the mental health impact of abortion and takes the starting point that the woman has already undergone a legally approved abortion. It is beyond the scope of the review to consider the abortion legislation.</p> <p>In addition, finding little mental health impact of abortion is not the same as finding no mental</p>

				<p>summarize the RCOP's failure to report to the committee any statistically validated psychiatric criteria which can be used to identifying when an individual woman is likely to either (a) derive psychiatric benefits from an abortion, or (b) be successfully protected from psychological harm that would otherwise occur if the pregnancy continued.</p> <p>There is still a lack of any such criteria.</p> <p>It should be carefully noted that the RCOP's letter of response did not refute the Rawlinson Reports finding that there are no indications for abortion. If they had any indications, they would have stated so in their response. For example, they might have noted that abortion is medically indicated for bi-polar women faced with an unwanted pregnancy, if there was any statistically validated evidence to support that claim, but there was none.</p> <p>RCOG letter of response shifted attention away the actual claim of fact regarding lack of known indications for abortion to a distinctly separate issue, namely that "the risks to psychological health from the termination of pregnancy in the first trimester are much less than the risks associated with proceeding with a pregnancy which is clearly harming the mother's mental health." (emphasis added.)</p> <p>Notably, this statement has a huge qualifying clause which is exceptionally vague. The letter fails to give any means of determining when and how often a pregnancy is "clearly harming a mother's mental health."</p> <p>It actually implies that In cases where the pregnancy is not clearly harming a mother's mental health, abortion may involve equal or greater risks. So the standard of identifying when a pregnancy is clearly harming mental health should be examined to identify the indicators for abortion which were requested by the Rawlinson committee.</p> <p>Moreover, there is no research that has examined the assertion made by this qualifier. <b>Specifically, there are no studies comparing psychiatric outcomes for women whose pregnancies were clearly harming their mental health who had abortions versus those who did not.</b></p> <p>In this light, it seems clear that the statement on page 61 of the report, contested by the RCOG's letter of response, merely</p>	<p>health grounds to support abortion. A review of the law would require consideration of many more factors than the evidence of mental health impact.</p>
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					<p>conflates the finding that there are no psychiatric <i>indications</i> for abortion into the statement that there is no psychiatric <i>justification</i> for abortion.</p> <p>While there is plenty of room to debate whether “justification” can rightly be substituted for “indications,” two key question remain unanswered: What evidence demonstrates when, if ever, abortion is likely to improve a woman’s mental health? And what does the best evidence show regarding when, if ever, abortion protects future mental health, i.e., by reducing psychological stresses without creating new psychological stresses?</p> <p>These are questions which should be clearly articulated in this report, even if the only answer that can be given is that the research done to date has failed to address these important questions.</p>	
1.1	7	27	Elliot Institute, Springfield, Illinois, USA	5/87	<p>It would help to clarify the issues of controversy by adding the following somewhere in section 1.1.</p> <p>It is therefore evident that there are two opposing views in the controversy among researchers in this field. On one hand, abortion sceptics argue that there is an absence of any evidence confirming under which circumstances abortion is the direct cause of measurable benefits to women, much less evidence of benefits to women regardless of circumstance (Ney, 1993). On the other hand, defenders of abortion believe that abortion sceptics have failed to provide sufficient evidence to prove that abortion is the direct, sole cause of severe mental illness in a significant percentage of women (APA, 2008).</p>	Thank you for your comment. We have added reference to the debate within the literature to the introduction (Section 1) and conclusion (Section 6).
1.1	8	2-6	Elliot Institute, Springfield, Illinois, USA	6/87	<p>It is not clear what the reviewers were commissioned to do. While the three research questions are detailed in the body of the report, it appears as if the reviewers themselves decided to narrow their investigation to these three issues. Is this the case?</p> <p>If the intent was to produce a systematic review of the entire issue of abortion and mental health, the current review falls far short of offering a complete view of the issues or evidence, or even of all of the primary issues and evidence.</p> <p>Several of these shortcomings are clearly seen by spelling out issues which flow directly from the Abortion Act, medical ethics, and the literature.</p>	<p>These questions were part of the original brief, although they were modified slightly for clarification. There was no intention to carry out a wider systematic review, and it would not have answered our questions any more effectively.</p> <p>We did not examine the decision to grant an abortion. Our focus was to examine the mental health outcomes of women who had already had a legally authorised abortion.</p> <p>It was also not within our brief to address the</p>

				<p>First, good medical care involves at least four components:</p> <ul style="list-style-type: none"> <li>(a) accurate diagnosis of the problem,</li> <li>(b) identification of treatments most likely to be efficacious,</li> <li>(c) evaluation of treatment risks, and</li> <li>(d) a risk / benefit analysis regarding treatment alternatives.</li> </ul> <p>Unfortunately, in the context of the abortion controversy, these distinct steps are often confused or conflated. An unspoken, but medically inappropriate paradigm appears to exist with regard to abortion, namely:</p> <ul style="list-style-type: none"> <li>(a) if the woman requests the abortion, and</li> <li>(b) there is no clear risk that she will die on the operating table, and</li> <li>(c) critics abortion have not proven, beyond all reasonable doubt, that abortion is and of itself the sole cause of all the risks statistically associated with abortion, then</li> <li>(d) physicians should feel free to recommend or perform abortions on request.</li> </ul> <p>This medical decision paradigm is simply not justified by the principles of evidence based medicine and medical ethics which apply to any other procedure.</p> <p><b>Therefore, to shed light on the core issues regarding abortion decision making, especially in the context of UK law, this literature review should identify and grade the medical evidence relative to two very specific questions:</b></p> <p>First: "What medical conditions and/or psychosocial indicators predict when the risks of continuing a pregnancy are greater than if the pregnancy were terminated?" These are the <b>indications</b> for induced abortion.</p> <p>Secondly, what are the statistically validated risk factors which can help to identify the subsets of women who appear to be at greater risk of negative effects associated with a history of one or more abortions? These risk factors are the medical <b>contraindications</b> for induced abortion.</p>	<p>legal framework, however we have included more on the legal context in Section 1.3</p> <p>These areas are beyond the scope of the present review.</p> <p>It was beyond the scope to comment on abortion decision making within the UK. <b>We have however reviewed the factors associated with poor mental health outcomes following an abortion and have mentioned the importance of monitoring and providing support to certain women, or women who have a negative reaction to an abortion, within the conclusion and discussion</b> (see Section 6).</p>
1.1	8	2-6	Elliot Institute, Springfield, Illinois,	7/87 Additional issues which would be appropriate to cover in a major literature review include:	Thank you for your comment. We have added a recommendation in Section 6, for future good

			USA		<p>1) Recommendations for future research</p> <p>2) Recommendations for initiatives to provide support and healing programs for those women (and men) who may be struggling with psychological issues which are related or complicated by a past abortion.</p>	quality research to be conducted in this area.
1.1	67	29	British Psychological Society	3/22	For those who are not experts in abortion, it is not clear how many of the categories A-E have to be signed off by the two medical practitioners. The Society recommends that this be clarified.	Thank you for your comment. This is beyond the scope of the present review.
1.2	8		Catholic Medical Association, UK	14/50	<p><b>Wantedness</b></p> <p>In the Western countries where these studies have been done abortion is freely available. If the definition of unwanted pregnancy is one which the woman does not wish to continue with, the review group may ensure that they are comparing women who abort, with women who are denied an abortion in terms of outcome. This is a serious concern. Abortion, as a medical procedure involves informed consent and if women know that there is a risk of mental health problems after abortion (as is clearly demonstrated by this review) then they may well wish to keep the baby. If they are supported and also enabled to see how women's attitudes change with time they may also wish not to abort.</p> <p>There is clearly a serious problem with comparator groups and by plumping for a single very limited comparator group the Review Group may have sought clear water but finds itself desperately restricted both in terms of studies as well as in terms of validity.</p> <p>It is clearly very hard to compare a woman who has had an abortion at 3 months with a woman who is mothering a three month old child and also experiencing the life changing effects of that. While there are many benefits of motherhood, the stress and strain of some challenging pregnancies as well as the early years makes for a favourable comparison with women who abort. So comparing 90 days post abortion with 90 days post childbirth may well provide a temporary skew in favour of mental health in those who abort.</p> <p>On the other hand the protective effects of motherhood are greater once more stability is seen. This effect appears to have</p>	<p>Thank you for your comments. We have commented on the legislation within the introduction (see Section 1.3), however it was beyond the scope of the review to consider this further.</p> <p>Our definitions of 'unwanted' and 'unintended' set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Section 2.3.</p> <p>The review criterion for inclusion was a follow up period of at least 90 days and not up to 90 days. As stated in Section 2.3, this was to enable us to assess the impact on mental health outcomes and not just comparing transient reactions to a stressful event.</p> <p>We agree that a group of women who keep unwanted and unplanned pregnancies is the best available comparator. However, we do not feel it is appropriate to compare women who choose to have an abortion to those who have a miscarriage.</p>

				<p>been shown in the Broen 2006 study. Here divergence is seen at 5y with women who abort retaining caseness for depression which women who miscarried did not retain. Several studies show the mental health of women who abort deteriorating relative to those who keep the baby over longer periods and there are also, several studies that show the concept of wantedness, as well as the concept of regret for an abortion changing over time with those who do not abort doing better. Therefore, wantedness is a complex and changing phenomenon that may render it a difficult controlling variable.</p> <p>We think that comparator group such as women who miscarry or woman who decide to keep unplanned pregnancies will also provide useful data and should not be seen as of less use.</p>	
1.2	8	11-29	Mount Joy College, Victoria, British Columbia, Canada	<p>4/103</p> <p><b>“Unwanted (Terminology)”</b> Almost all the consideration in this draft are based on “unwanted pregnancies” or “unwanted babies” or “unintended pregnancies” without defining what these terms mean or how these most important variables are measured. The terms are usually used interchangeably but they are not identical.</p> <p><b>Wantedness.</b> Since almost everyone is ambivalent almost all the time on almost every issue, it is likely that almost every woman will have mixed feelings of wanting a child or wanting to be pregnant. Her feelings will fluctuate daily depending on mood, quality of relationship, finances, employment, health, and at least 20 other variables not considered in the studies quoted in this draft.</p> <p><b>Unintended pregnancy.</b> There are very few couple who carefully calculate the exact time and conditions to “make a baby” with intent. Most are more intent on multiple orgasms. Even those who appear to be harmoniously intent have doubts and second thoughts, “do you think we did the right thing?” Humans after all are not red and green marbles.</p> <p><b>Change in “wanting”</b> The amount of wanting a child changes during the pregnancy. Our research shows that it is reasonably high before the pregnancy, dips in the first trimester than climbs to its highest point after birth. I suspect this is seldom explained to a woman contemplating an abortion. Duration of pregnancy, as a variable is not included in the calculations of the studies cited in the draft.</p> <p><b>Incidence and prevalence.</b> Prevalence is defined as the rate of</p>	<p>Thank you for your comments. Our definitions of ‘unwanted’ and ‘unintended’ set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3 and 6.2.</p> <p>We have outlined and discussed the criteria used for the review (see Section 2.3), including the lack of gold standard research design within this area. Throughout the review, we have used the best available evidence.</p> <p>We do not agree with your point regarding incidence and prevalence. We have used prevalence to refer to the rate of disorder within a population. In this case, the rate has been measured via clinical diagnosis, treatment records or caseness as identified on a validated scale. Incidence refers to the number of new cases. Where studies reported raw numbers or cumulative incidence rates (for a set period of time), these were used to estimate period prevalence rates. The exception to this is suicide, where all rates reported are necessarily</p>

					some disorder in the community whether or not it is detected by some diagnostic device. In this draft “prevalence” is used almost interchangeably with “incidence”.	incidence. We have discussed the type of data extracted in Section 2.10 of the methods.
1.2	8	11-24	Mount Joy College, Victoria, British Columbia, Canada	16/103	<p>There is no scientific way to measure the <b>intent</b> in a woman at the moment she conceives. Although she may be contracepting, she also knows that no method is fool proof. The data on the proper application of contracepting clearly indicates either the woman is very foolish or at some subconscious level there is a hope for a child. None of the studies approved by these authors indicate how they determined that the pregnancy was unintended or at what moment the woman felt she didn't wish to have a child. Women will tend to justify having an abortion with many phrases that reflect her momentary disposition at some points but whether or not they indicate her true feelings for any length of time is open to wide speculation.</p> <p>We have good evidence that wanted children are more, not less, likely to be abused and neglected. (14-15) This is partly because on them are heaped higher levels of expectation and therefore they are more likely to be considered a disappointment, which parents try to correct, sometimes harshly.</p> <p>Wantedness grows with the duration of the pregnancy after the 1<sup>st</sup> trimester but most women are not given the chance to experience these phenomena.</p> <p>Before contracepting became so well known and accepted, the majority of pregnancies were unplanned, sometime resented. However almost all were eventually welcomed into the family and grew into productive citizens with their own well loved family.</p>	<p>Thank you for your comments. We have discussed the problems with the measurement of pregnancy intention and wantedness in Section 2.3. However, we feel this comparison is the best available evidence for the review.</p> <p>It is beyond the scope of the review to consider abuse and neglect of wanted or unwanted children.</p> <p>We have discussed the problems associated with these concepts.</p>
1.2	8	13-16	British Psychological Society	4/22	Whilst termination is clearly defined, the meaning of mental health is not considered. We recommend that a definition be provided that includes both emotional distress and issues relating to wellbeing.	Thank you for your comment. The remit of the review was to assess mental health problems as defined as a clinical diagnosis of a mental health disorder, treatment records, suicide, substance use or mental health as measured on a validated scale. Issues related to wellbeing, although very important, were beyond the scope of the review.
1.2	8	17-24	Comment on Reproductive Ethics	2/8	Attempting to distinguish between ‘unplanned’ and ‘unwanted’ pregnancies as the consultation tries to do is fraught with difficulty. Recent figures revealed by the HFEA, for example, show that a certain number of obviously originally wanted IVF	Thank you for your comments. Our definitions of ‘unwanted’ and ‘unintended’ set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in

					<p>pregnancies every year in the UK are terminated, for reasons not related to maternal or fetal health.</p> <p>Successful planning of pregnancy is a very difficult feat given the nature of women's biology, making 'wanted' a difficult objective to fulfil, and 'unwanted' may be a combination of partner or family reluctance, rather than a fully informed decision on the part of the pregnant woman.</p>	<p>papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Section 2.3.</p> <p>As discussed in Section 2.3 an unwanted pregnancy going to term was seen as the best comparison group for the review. We have now separated unplanned and unwanted pregnancy within the results section of this review.</p>
1.2	8	21	Catholic Medical Association, UK	15/50	<p><b>Definition of an unwanted pregnancy</b></p> <p>The review group's definition of an unwanted pregnancy ("<i>a pregnancy which the woman does not wish to continue with, that is, she does not wish to give birth to the baby</i>") fails to recognise the ambivalence about pregnancy which many women experience. The review group have set out to use wantedness as their "gold standard". In the end, they analyse everything according to this concept. And yet wantedness is complex, strongly associated with ambivalence, and changeable.</p> <p>We suggest that the definition of unwanted pregnancy is changed to "A pregnancy that the woman did not seek to carry and which she is shocked to be carrying".</p>	<p>Thank you for your comment. Our definitions of 'unwanted' and 'unintended' set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Section 2.3.</p>
1.2	8	23	Individual 9	5/25	Change <i>which</i> to <i>wish</i>	Thank you, this has been corrected.
1.2	8	26	Individual 9	6/25	Does not include <i>abortions performed</i> for medical reasons	Thank you, this has been corrected.
1.3	8-16		Department of Psychiatry, Bowling Green State University, Ohio, USA	3/6	<p>The authors of this report ignored several literature reviews published in recent years with no justification for the omission (e.g., Bradshaw &amp; Slade, 2003; Coleman et al., 2005; Coleman, 2006; Thorp, Hartmann, &amp; Shadigian, 2003). The findings of these reviews are quite distinct from the APA and the Charles et al. reviews. For example, Thorp et al. (2003) employed strict inclusion criteria and concluded that induced abortion increased the risk for "mood disorders substantial enough to provoke attempts of self-harm." If reviews are used to inform a systematic evaluation of the literature, then all those available in the literature should be acknowledged and evaluated using standard criteria prior to settling on a few as a guide. The full citations of the missing reviews are listed below.</p>	<p>Thank you for your comments. We have included the two widely cited systematic reviews (APA 2008 and Charles 2009) which were updated in the present review; we have also subsequently included the Coleman 2011 review and meta-analysis.</p> <p>We have now collated and assessed all references suggested during the consultation period (see Appendices 4 and 7).</p> <p>In response to your numbered points:</p> <p>1. We have extensively discussed the limitations of all of the previous reviews in Section 1.4 of the</p>



				<p>Bradshaw, Z., &amp; Slade, P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. <i>Clinical Psychology Review</i>, 23, 929-958.</p> <p>Coleman, P. K., Reardon, D. C., Strahan, T., &amp; Cogle, J. (2005). The psychology of abortion: A review and suggestions for future research. <i>Psychology &amp; Health</i>, 20, 237-271.</p> <p>Coleman, P. K. (2006). Induced Abortion and increased risk of substance use: A review of the evidence. <i>Current Women's Health Reviews</i> 1, 21-34.</p> <p>Thorp, J. M., Hartmann, K. E., &amp; Shadigin, E. (2003). Long-term physical and psychological health consequences of induced abortion: Review of the evidence. <i>Obstetrical &amp; Gynecological Survey</i>, 58(1), 67-79.</p> <p>The two reviews highlighted and referred to throughout this report have been met with considerable criticism. The primary problems with the Charles et al. review are described below followed by an overview of the shortcomings associated with the APA Task Force report.</p> <ol style="list-style-type: none"> <li>1. The Charles et al. review neglects to cover numerous studies that have linked abortion to substance abuse problems, one of the major mental health concerns of women who have aborted and for women in general. No explanation is provided for this blatant omission.</li> <li>2. The ranking system employed by Charles et al. ignores two of the most central methodological considerations when conducting reviews of prospective research designs: <ol style="list-style-type: none"> <li>a) the percentage consenting to participate at baseline (information was not even provided by the authors of one study, Gilchrist et al. (1995), that this team ranked as "Very Good"); and</li> <li>b) retention of subjects over time. Obviously when women are more harmed by an abortion they are less inclined to want to continue to participate. Further, women who are suffering from an abortion are likely to have less stable lives and are therefore more likely to be unavailable to be assessed. If the sample suffers from high attrition rates (in excess of 20-30%), then the results cannot be applied to the general population.</li> </ol> </li> <li>3. Five quality indicators were employed by Charles et al. to derive the ratings of each study from "Excellent" to "Very Poor". These indicators were each deemed met or not met by the raters of the studies. However, no explanation is given for the extent to</li> </ol>	<p>introduction.</p> <p>2 &amp; 3. We have amended the Charles review criteria within our review to reflect these important omissions (see Sections 2.7 and 2.9).</p> <p>4. Thank you for the references, we have collated and assessed all references recommended during the consultation period (See Appendix 4).</p> <p>We have discussed the problems with the APA review in Section 1.4 of the introduction.</p>
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which evidence of the indicator had to be present in order to be marked as “met”. This leaves the evaluation method open to considerable bias.

4. The Charles et al. review “missed” numerous high quality studies that meet their inclusion criteria. The result is an extremely biased selection. A sampling of the ignored studies is provided below.

Bianchi-Demicheli, F et al (2002). Termination of pregnancy and women’s sexuality. *Gynecol Obstet Invest*, 53, 48-53.

Coleman, P. K. (2006). Resolution of Unwanted Pregnancy During Adolescence Through Abortion versus Childbirth: Individual and Family Predictors and Consequences. *Journal of Youth and Adolescence*, 35, 903-911.

Harlow, B. L., Cohen, L. S., Otto, M. W., Spiegelman, D., & Cramer, D. W. (2004). Early life menstrual characteristics and pregnancy experiences among women with and without major depression: the Harvard Study of Mood and Cycles. *Journal of Affective Disorders*, 79, 167-176.

Henshaw, R., Naji, S., Russell, I., & Templeton, A. (1994). Psychological responses following medical abortion (using mifepristone and gemeprost) and surgical vacuum aspiration: A patient-centered, partially randomized prospective study. *Acta Obstetrica et Gynecologica Scandinavica*, 73, 812-818.

Major, B., Cozzarelli, C., Cooper, M.L., Zubek, J., Richards C., Wilhite, M., & Gramzow, R.H. (2000). Psychological responses of women after first trimester abortion. *Archives of General Psychiatry*, 57, 777-84.

Major, B. Cozzarelli, C., Sciacchitano, A. M., Cooper, M. L., Testa, M., & Mueller, P. M. (1990). Perceived social support, self-efficacy, and adjustment to abortion. *Journal of Personality and Social Psychology*, 59, 186-197.

Major, B., & Gramzow, R. H. (1999). Abortion as stigma: Cognitive and emotional implications of concealment. *Journal of Personality and Social Psychology*, 77, 735-745.

Miller, W. B. (1992). An empirical study of the psychological antecedents and consequences of induced abortion. *Journal of Social Issues*, 48, 67-93.

				<p>Miller, W. B., Pasta, D. J., &amp; Dean, C. L. (1998). Testing a model of the psychological consequences of abortion. In L. J. Beckman and S. M. Harvey (eds.), <i>The new civil war: The psychology, culture, and politics of abortion</i>. Washington, DC: American Psychological Association.</p> <p>Mufel, N., Speckhard, A. &amp; Sivuha, S. Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. <i>Journal of Prenatal &amp; Perinatal Psych &amp; Health</i>, 17, 41-61 (2002).</p> <p>Reardon, D.C., &amp; Coleman, P. K. (2006). Relative Treatment Rates for Sleep Disorders Following Abortion and Childbirth: A Prospective Record-Based Study. <i>Sleep</i>, 29, 105-106.</p> <p>Soderberg, H., Janzon, L., &amp; Slosberg, N. (1998). Emotional distress following induced abortion: A study of its incidence and determinants among adoptees in Malmo, Sweden. <i>European Journal of Obstetrics, Gynecology, and Reproductive Biology</i>, 79, 173-178.</p> <p>Suliman et al. (2007) Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anaesthesia versus intravenous sedation. <i>BMC Psychiatry</i>, 7 (24), p.1-9.</p> <p>To arrive at their conclusion indicating the relative risk of mental health problems is no greater for a first-trimester abortion than it is for an unplanned pregnancy carried to term, the APA Task Force critically departed from accepted scientific protocol. Problems plaguing the report included the following: 1) selective reporting of previously published reviews of the literature; 2) avoidance of methodologically based criteria to select studies to review; 3) a deceptive strategy to justify ignoring large groups of studies indicating negative effects; 4) shifting standards of evaluation of individual studies based on the results being congruent with a political agenda; and 5) avoidance of quantification of effects which offers the most objective means of pooling results across several studies. Perhaps most egregious was the fact that the Task Force relied on one study from England published in 1995 to draw their definitive conclusion.</p> <p>One brief example of the many false statements from the APA Task Force report is where they claim "Rarely did research designs include a comparison group that was otherwise</p>	
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					<p>equivalent to women who had an elective abortion.” I have personally authored or co-authored three studies with unintended pregnancy delivered as a comparison group. (Coleman, 2006; Cogle, Reardon, Coleman, &amp; Rue, 2005; Reardon, Coleman, &amp; Cogle, 2004). All three studies indicated abortion was associated with more mental health problems than unintended pregnancy delivered.</p> <p>Within weeks of the release of the APA Task Force Report, seven researchers who together authored nearly 50 peer-reviewed articles demonstrating negative effects of abortion wrote a petition letter to Dr. Alan Kazdin, President of the APA. Key points raised included the following: 1) the wholesale dismissal of most of the evidence in the field; 2) the fact that in no other area of public health research has a highly contested issue been resolved on the basis of a single out of date research study as was done in the APA report; and 3) the APA report was not an impartial assessment of the mental health risks of abortion and its conclusions were unduly influenced by the views of its authors. In closing, we requested a retraction or revision indicating that the weight of the evidence in this area is not consistent with the conclusions drawn by the Task Force. The APA did not take any public action on our letter.</p>	
1.3	8		Catholic Medical Association, UK	18/50	We agree with the review group that there were limitations upon both the AP and the Charles reviews.	Thank you for your comment.
1.3	8	6-49	Mount Joy College, Victoria, British Columbia, Canada	5/103	<p><b>APR Review Charles RCP Reviews</b> Although the authors ostensibly ruled out researcher bias, they paid little heed to their own which at times was so blatant as to discredit their whole work. E.g. Although Major B. states that her study was done in “2 free standing clinics and 1 physician’s office” the authors of this draft felt it necessary to give the locus of abortions a better slant by stating they were done in “3 hospitals”</p> <p><b>The APR Review, Charles Review and this Review.</b> unwell after an abortion and those who are not. Clinically it is not difficult to recognize four groups of women:.</p> <p>a) Tough and committed. Those who insist that abortion is a woman’s right.</p> <p>b) Vulnerable. Those who are basically unstable who are pushed into a definable mental illness by the trauma of abortion.</p>	<p>Thank you for your comments. We have now amended the description of this study throughout the review as suggested.</p> <p>This is beyond the scope of the present review, which was to consider the best available evidence of the mental health impact of abortion.</p>

					<p>c) Sensitive. Those who are reasonably mentally healthy but because of their sensitivities, they are deeply hurt by having an abortion and develop psychiatric symptoms which a researcher defines as an illness.</p> <p>d) Resilient. Those who choose abortion as the least worst alternative and don't appear to be affected for years until poor health or stressful circumstance undermine their ego defences.</p> <p>There was only one reference to the effect of a woman's pre-existing attitude toward abortion in these reviews. We found their attitude to whether or not women should be able to have an abortion when she so chooses to be one of the factors most closely associated with her decision to abort her fetus. (1)</p>	<p>We have assessed studies that looked at pre-abortion and post-abortion attitude within Section 4 of the review.</p>
1.3	8	32	Elliot Institute, Springfield, Illinois, USA	9/87	<p>The following major literature reviews should be also be included along with the APA and Charles reviews.</p> <ul style="list-style-type: none"> <li>• The Psychology of Abortion: A Review and Suggestions for Future Research. Priscilla K. Coleman, David C. Reardon, Thomas Strahan, Jesse R. Cogle, Psychology and Health 2005; 20(2):237-271.</li> <li>• Induced Abortion and Increased Risk of Substance Abuse: A Review of the Evidence. Priscilla K. Coleman. Current Women's Health Reviews, 2005, 1, 21-34. <a href="http://www.benthamscience.com/cwhr/sample/cwhr1-1/D0003W.pdf">www.benthamscience.com/cwhr/sample/cwhr1-1/D0003W.pdf</a></li> <li>• Abortion and Mental Health: A Quantitative Synthesis and Analysis of Research Published from 1995-2009. Coleman, PK. British Journal of Psychiatry. <u>In Press</u></li> </ul> <p>These reviews are important to balance the APA and Charles reviews which tended to dismiss or downplay significant studies and findings that support a significant link between abortion and subsequent mental health problems.</p>	<p>Thank you for your comments. We have collated and assessed all references suggested in the consultation period. We have now included the Coleman 2011 meta-analysis.</p>
1.3	8	35	SPUC	3/5	<p>Please note the following review studies that should have been included alongside summary and analysis of the Charles (2008) and APA (2008) reviews:</p> <ul style="list-style-type: none"> <li>• Bradshaw Z and Slade P (2003), The effects of induced abortion on emotional experiences and relationships: a critical review of the literature, Clinical Psychology Review Vol. 23, pp. 929-958.</li> </ul>	<p>Thank you for your comments. We have included the two widely cited systematic reviews (APA 2008 and Charles 2009) which were updated in the present review; we have also subsequently included the Coleman 2011 review and meta-analysis.</p>

					<ul style="list-style-type: none"> <li>• Coleman PK, Reardon DC, Strahan T and Cogle J (2005), The psychology of abortion: a review and suggestions for future research, Psychology and Health Vol. 20, pp. 237-271.</li> <li>• Coleman PK (2006), Induced abortion and increased risk of substance use: a review of the evidence, Current Women's Health Reviews Vol. 1, pp. 21-34.</li> <li>• Thorp J, Hartmann KE and Shadigin E (2003), Long-term physical and psychological health consequences of induced abortion: review of the evidence, Obstetrical and Gynecological Survey Vol. 58, No. 1, pp. 67-79.</li> </ul>	
1.3 -1.4	8-16		RCOG	2/9	The detailed account of the limitations of the research hitherto is appropriate and freely discussed in both the APA and Charles reviews.	Thank you for your comments.
1.3	9	22	Individual 9	7/25	Women who had <i>had</i> an abortion	Thank you. This has been corrected
1.3	9	22-24	Elliot Institute, Springfield, Illinois, USA	8/87	There are serious flaws in the assumption that women who do not wish to carry to term have an unwanted pregnancy. In a large number of cases, there is great ambivalence about the pregnancy and it can even be a wanted pregnancy, on the part of the woman, but unwanted by her male partner or other significant others. In many cases, women have unwanted abortions because they feel pressured or forced to do so. Except in rare studies where women are actually asked about the wantedness of the pregnancy, it is inappropriate to assume that there is a close relationship between abortion and unwantedness of the pregnancy. [Rue VM, Coleman PK, Rue JJ, Reardon DC. Induced abortion and traumatic stress: A preliminary comparison of American and Russian women. Med Sci Monit, 2004 10(10): SR5-16.]	Thank you for your comments. Definitions of the terms used throughout the review are included in Section 1.2. <b>We agree that there are problems associated with these terms, and have discussed their limitations throughout the review. We have also discussed the lack of any gold standard study within this field of research</b> (see Section 2.3), and have instead used what we believe is the best available comparison group.
1.3	9	35-41	Individual 14	1/11	The conclusion appears quite strong given the initial statement that evidence is lacking "methodological rigor"	Thank you for your comments. In this section, we are merely re-stating the conclusions as published within the APA review.
1.3	9	39-49	Elliot Institute, Springfield, Illinois, USA	87/87	If the intent of this section is to report what is meaningful in the APA review, we strongly recommend striking lines 39-49 after the world "outcomes" since this material represents an ideological argument, not an evidence based opinion.  A fact which is unappreciated is that the APA is officially	Thank you for your comments. We are merely reporting the conclusions as published within the APA review. Throughout the section, we have discussed the limitations of the review.  If you wish to have any further discussion about

				<p>organized and run as an advocacy group and in 1967 it adopted an official policy to advocate for abortion as a “civil right.” Therefore, evidence that abortion may harm mental health is both an embarrassment (due to their past advocacy) and a threat (to their future advocacy). The APA task force which produced the 2008 report was hand picked to exclude any researchers holding the view that abortion may indeed cause or aggravate mental health problems and was packed with members who have been active in promoting abortion rights and aggressive in dismissing evidence of abortion related mental health problems. For example, one task force member, Nancy Russo, told a Toledo Blade newspaper reporter, “As far as I’m concerned, whether or not an abortion creates psychological difficulties is not relevant.” (Jenni Laidman, “After decades of research, evaluating abortion’s effect still difficult.” Toledo Blade, January 22, 2004.)</p> <p>This long held political position has hamstrung the APA’s ability and willingness to take an objective look at abortion and mental health issues.</p> <p>More specifically when the evidence cited to support this “suggestion” that mental health problems after an abortion are similar to the rates found in the general population is carefully examined, it is embarrassingly obvious that numbers and samples are being manipulated to support ideologically driven claims. This review should not make the mistake of repeating this nonsense.</p> <p>Specifically, lines 42-49 cite the NLSY study by Schmiede and Russo (2005) as supporting the idea that depression rates of women who have abortion are similar to those of the general population. However, in regard to abortion research, the NLSY most definitely does NOT represent women having abortions in the United States. This is a well known fact because only 40% of the expected number of abortions are reported by women interviewed in the NLSY. [Jones EF, Forrest JD: Under reporting of abortion in surveys of U. S. women: 1976 to 1988. Demography, 1992; 29: 113-26.] With a 60% concealment rate, it is clear that the NLSY cannot be relied upon to offer a representative sample of women in this regard.</p> <p>Furthermore, Schmiede2005 constructs population selection rules that are transparently designed to dilute results and muddy the findings reported by Reardon2002. This was done by (a) by</p>	<p>the APA review, you would need to contact the authors directly.</p> <p>We have appraised all studies included in our review and have extensively discussed the limitations of individual studies and of the research as a whole throughout.</p>
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				<p>including in the Schmiede2005 control group women who had abortion following an uninterrupted pregnancy, and (b) excluding women who had abortions who, years later, subsequently reported that the pregnancy had been wanted (which is a higher risk group for negative reactions, since women depressed over a past abortion are more likely to regret it and repudiate their decision). This effectively shifted post-abortion depression (relative to subsequent pregnancies) to the control group and reduced depression scores among those included in the abortion group by excluding women at greatest of depression.</p> <p>In short, there flaws in this study are so considerable that there is no basis for assuming it represents the average rate of depression among women with a history of abortion in the United States or the UK.</p> <p>Similar errors comparing depression scores in a study population with national averages are found in a study by Brenda Major, chair of the APA task force, in one of her key studies [Major B, Cozzarelli C, Cooper ML et al: Psychological responses of women after first trimester abortion. Arch Gen Psych, 2000; 57(8): 777-84.]</p> <p>In this study Major's team tracked depression scores using the Brief Symptom Inventory (BSI). Just prior to the abortion, they were asked to rate symptoms one month prior to the abortion, then one hour post-abortion they were asked to rate their symptoms now, then one month post-abortion they were asked to rate their symptoms in the month after their abortion, and at two years post-abortion they were asked to rate their symptoms in the most recent <i>two weeks</i>.</p> <p>At the two year follow-up, approximately 50% of the women either refused to participate in the follow-up evaluation or could not be contacted. Among those who did participate in the two year post-abortion assessment, depression scores were significantly higher than their one hour post-abortion scores, though higher one hour post-abortion scores were also significantly predictive of higher depression scores two years later. In addition to these important findings, the researchers found that 24.5% of the women remaining in their sample at the two-year follow up had scores above the cut off for clinical depression on the BSI depression scale. Unfortunately, the researchers did report whether women who had higher</p>	
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				<p>depression scores at earlier dates, or any of the risk factors for negative reactions, were more likely to be among the dropouts.<sup>5</sup></p> <p>Curiously, rather than expressing concern about the rising rates of depression, Major downplayed this finding by asserting that the <i>past two weeks</i> depression rate detected in their study was only slightly over that of American women in general, citing a study of national prevalence conducted by Blazer, Kessler, McGonagle, and Swartz which indicated a 20% <u>lifetime</u> prevalence rate of major depression among women 15-35 years of age. (Blazer DG, Kessler RC, McGonagle KA, Swartz MS. The prevalence and distribution of major depression in a national community sample: The National Comorbidity Survey. American Journal of Psychiatry. 1994; 151, 979-986.)</p> <p>The reason this was assertion was erroneous is that Major et al mistakenly compared their scores for depression in the most recent <i>two weeks</i> to Blazer's findings regarding <i>lifetime</i> prevalence rates.</p> <p>Fortunately, Blazer's group also reported the prevalence of current (30 day) major depression for females aged 15-24 and 25-34, as 8.2% and 4.3% respectively. <b>Thus, when the proper comparison is made for most recent month depression rates, these follow-up abortion studies actually found that depression rates two years after abortion were 3 to 5 times higher among aborting women compared to the general population of similarly aged women (comparing rates for 2 week depression scores for aborting women to 30 day depression scores for the general population).</b></p> <p>Moreover, Major's study found that at two years, of the 50% who were willing to be interviewed, 16.3% were dissatisfied and 19% would not make the same decision. Further comparisons with women's earlier assessments revealed that: "Over time, negative emotions increased and decision satisfaction decreased." If this trend continued over more than two years, combined with rising depression rates, the already significant number of women experiencing post-abortion disturbances might well exceed 20 or 30 percent.</p> <p>Clearly, Major and Russo, both members of the APA panel and outspoken advocates of "abortion rights" believe that higher rates of depression after abortion can and should be explained by</p>	
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					<p>factors other than abortion. But the data they use and the comparisons they make to national studies are inaccurate and inappropriate.</p> <p>Therefore it is especially important that this new review should not accept or repeat such claims at face value.</p> <p>The simplest expedient, as mentioned above, is to simply cut lines 39-49. But if you decide it is necessary to retain them, then the above facts should also be discussed to put that claim and the studies cited in support of it into appropriate context.</p>	
1.3	10	1	Elliot Institute, Springfield, Illinois, USA	11/87	<p>Add:</p> <p>The APA report concluded “some women do experience sadness, grief, and feelings of loss following termination of a pregnancy, and some experience clinically significant disorders, including depression and anxiety.”</p> <p>The APA also acknowledged that studies consistently find that a history of abortion is associated with higher rates of mental health. The authors concluded, however, that other pre-existing factors may provide a better explanation for higher rates of mental illness among women with a history of abortion. Moreover, they concluded that there is insufficient evidence to support the contention that abortion, in and of itself, is the sole cause of the higher observed rates of mental illness among women with a history of abortion.</p> <p>In other words, the APA report tried to concede as little as possible regarding any positive link between abortion and mental health problems, close attention to nuanced fact statements are consistent with the following points which are universally acknowledged, but often downplayed facts:</p> <ul style="list-style-type: none"> <li>• Some women do experience distress and mental illness attributable to abortion. (Example, Major (2000) found PTSD attributable to abortion for 1.5% of women who remained in her two-year follow-up.)</li> <li>• Studies consistently find an association between abortion and mental illness. (How to interpret this is in dispute, not the fact that that abortion is a marker for elevated mental health problems.)</li> <li>• The area of uncertainty is determining how often abortion contributes to mental illness as a direct cause of mental illness,</li> </ul>	<p>Thank you for your comments. We have reported the main conclusions as reported in the APA review.</p> <p>If you wish to have any further discussion about the APA review, you would need to contact the authors directly.</p>

					as a trigger of latent mental illness, or as an aggravating stressor of pre-existing mental illness.	
1.3	10	2-8	Department of Psychiatry, Bowling Green State University, Ohio, USA	5/6	Among the most important predictors of post-abortion psychological complications in the literature (and identified in the APA) is feeling forced into the decision to terminate. Pressure to abort from others and from life circumstances, whether subtle or overt needs to be systematically addressed in this report.	Thank you for your comment. We have assessed this as a factor within the appropriate review (see Section 4).
1.3	10	4	Individual 9	2/25	Stigma is mentioned here and elsewhere. Consider using a reference for stigma such as Norris et al Women's Health Issues 2011; 21-3S:S49-S54.	Thank you for your comment.
1.3	10	4-5	Elliot Institute, Springfield, Illinois, USA	10/87	<p>The complete list of risk factors identified by the APA task force should be included. They are as follows (pages 4, 11, and 92):</p> <ol style="list-style-type: none"> <li>1. terminating a pregnancy that is wanted or meaningful</li> <li>2. perceived pressure from others to terminate a pregnancy</li> <li>3. perceived opposition to the abortion from partners, family, and/or friends</li> <li>4. lack of perceived social support from others</li> <li>5. various personality traits (e.g., low self-esteem, a pessimistic outlook, low-perceived control over life)</li> <li>6. a history of mental health problems prior to the pregnancy</li> <li>7. feelings of stigma</li> <li>8. perceived need for secrecy</li> <li>9. exposure to antiabortion picketing</li> <li>10. use of avoidance and denial coping strategies</li> <li>11. Feelings of commitment to the pregnancy</li> <li>12. ambivalence about the abortion decision</li> <li>13. low perceived ability to cope with the abortion</li> <li>14. history of prior abortion</li> <li>15. late term abortion</li> </ol> <p>By parsing of the APA summary conclusion that "adult women who have an unplanned pregnancy the relative risk of mental health problems is no greater if they have a single elective first-trimester abortion than if they deliver that pregnancy," it also becomes clear that Task Force was also acknowledging that following as risk factors</p> <ul style="list-style-type: none"> <li>• being an adolescent (not an adult)</li> <li>• having a non-elective (therapeutic or coerced) abortion</li> <li>• prior history of abortion (having a second or third abortion, or</li> </ul>	Thank you for your comments. We have summarised the factors included in the APA review and have highlighted these as examples. Individuals can access the full review for further information.

					more)	
1.3	10	22	Mount Joy College, Victoria, British Columbia, Canada	17/103	The authors make no mention of the extensive carefully considered criticisms of the APA review whose principal author was the same person who writes much “pro-choice” rhetoric and who is the 2 <sup>nd</sup> most often cited author considered by the writers of this draft. The APA never mentions the women who because of the picketers changed their mind and now are able to contentedly hold a not aborted child.	Thank you for your comment. You would need to take this up with the APA.
1.3	10	23	Individual 9	8/25	Change <i>woman</i> to <i>women</i>	Thank you for your comment; this has been changed.
1.3	10	34	Mount Joy College, Victoria, British Columbia, Canada	18/103	Almost all “validated tools to measure mental health” use dichotomous questions that distort the reality of all parameters of health which are always distributed on a continuum. This distortion invalidates the diagnostic tool.	Thank you for your comment. This is a general problem with the research conducted in this area. We have used the best available measure of mental health as described in Section 2.3.
1.3.1	11	12	Christian Medical Fellowship	1/36	We welcome this timely and important review. We consider that this is more robust than other reviews and agree with the review group that the approaches of The APA Task Force on Mental Health and Abortion, 2008 and the Charles Review 2008 had many limitations. However we do note that there have been several other literature reviews that are not even mentioned, which are also recent. For example, Coleman et al 2005, Coleman et al 2006 and Thorp et al 2003. It would surely be appropriate to have cited and evaluated others, particularly since the APA and Charles review both have significant limitations. Generally however we concur that the scientific standards of studies in this area is, in general, poor.	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.  All references recommended in the consultation have been collated and assessed for inclusion. We have now included the Coleman 2011 meta-analysis within the introduction of the review.
1.3.1	11	12	Individual 16	1/33	This is an important review. There have been several other literature reviews that are not mentioned: Coleman (2005 and again 2006) Thorp (2003). These should be cited, especially given the acknowledgement of the limitation of those discussed in this section.	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.  All references recommended in the consultation have been collated and assessed for inclusion. We have now included the Coleman 2011 meta-analysis within the introduction of the review.
1.3.1	11	12-45	Elliot Institute, Springfield, Illinois, USA	12/87	The discussion does not adequately address the shortcomings of the Charles Review. The ranking system created for the Charles review ignores several key elements, such as any ranking for	Thank you for your comments. We have discussed the limitations of the Charles review within Section 1.4. We have now amended the

					high drop out rates or non participation which may bias results. It also used the ranking system in a highly subjective manner, giving studies using the same design, or even the same source data, extremely different ratings. It also missed or ignored a large number of relevant studies.	Charles quality criteria for use in the present review to overcome some of these problems, including issues concerned with the representativeness of the sample and the follow-up rate of each study.
1.3.1	11	18	Catholic Medical Association, UK	44/50	It is also noted that post abortion women may be adversely affected by witnessing a pro-life march. If mental health problems after abortion are so lightly dismissed, is it possible that that post abortion women have such fragile mental states? Or, if such a statement is true, is it possible that the specific difficulties women suffer after abortion are in-fact significant.	Thank you for your comments. We have merely reported the conclusions found in previous reviews.
1.3.2	12	24	Department of Psychological Medicine, University of Otago, NZ	2/5	<p>Comparison Groups:</p> <p>The section on comparison groups (page 12) fails to recognise that there are multiple comparison groups that can be used to answer a range of questions about abortion and mental health problems. Key comparisons are:</p> <ol style="list-style-type: none"> <li>1) Comparison of those having abortion on mental health grounds with other women provides a test of the extent to which unwanted pregnancy terminated by abortion is a risk factor for mental health problems. This information is important in putting the mental health needs (if any) of those having abortions on mental health grounds in a population context.</li> <li>2) Comparison of those having abortions on mental health grounds with other pregnant women provides a test of the extent to which unwanted pregnancy terminated by abortion is a risk factor for mental health problems when compared with the risks faced by other women who become pregnant. This evidence is important for drawing conclusions about the need for women having abortion on mental health grounds to be provided with aftercare services.</li> <li>3) Comparisons of those having abortion on mental health grounds with those having unwanted or unintended pregnancies provides a test of the extent to which having an abortion may mitigate or exacerbate risks of mental health problems when compared with the risks of unwanted pregnancy that comes to term. This evidence provides a critical test of the hypothesis that abortion mitigates the mental health risks of abortion.</li> </ol>	<p>Thank you for your comments. We agree that there are different comparison groups; however, most are not adequately covered in the research. We have outlined in Section 2.3 what we feel is the best available evidence and comparison given that there is no gold standard research design in this area.</p> <p>It is also beyond the scope of the review to consider the legal grounds for an abortion. Our starting point was women who had already had a legally authorised abortion, in the UK or other country where abortion of an unwanted pregnancy is legal (either through choice or under certain circumstances). However, in response to comments received we have included more on the legal context in Section 1.3 of the introduction.</p>

1.3.2	12	30-34	Mount Joy College, Victoria, British Columbia, Canada	19/103	<p>The “ideal comparison” is impossible. Most women may change their mind daily if not hourly depending on mood, hormones, a fight with their mate or mother in law etc. After all people are not red or green marbles. Almost everyone is ambivalent about almost everything almost all the time. Pregnancies intensify their ambivalence because it is part of the intense psychological shift in thinking which is necessary to incorporate the child into her psychological frame of reference and include the child into all considerations of her family.</p> <p>The glaring gap in this draft is the lack any consideration of the effect of abortion on men and children. It makes this report invalid, if for no other reason than because what effects spouse and children will have a pronounced effect on the woman’s mental health.</p>	<p>Thank you for your comments. We agree that there is no gold standard research design within this area and have discussed this in Section 2.3. We have also discussed the problems and limitations of the comparisons used (see Section 4.3.3) but believe this is the best available evidence to answer the research questions.</p> <p>Although the effect of abortion on family members is an important area, it is beyond the scope of the present review.</p>
1.3.2	13	1-2	Mount Joy College, Victoria, British Columbia, Canada	20/103	<p>Stating that there is an important distinction between unplanned and unwanted pregnancies doesn’t make it any easier to do research based on this supposed difference. I challenge these authors, who appear to have no experience in doing the research upon which they adjudicate, to make that distinction in practice. I interviewed or treated or have done research with possibly more women than others, and I would not know where to begin.</p> <p>If I asked any post pregnant woman, very quickly she would probably give me the answer she detected I wanted to hear. After I really got to know her she would honestly say, “I really didn’t intend any of my children. We were just making love but knew in our hearts it could happen. I had mixed feeling about wanting children but as they grew inside me, I learned to love them. By the time they were about to arrive, I was excited to see who was coming next. When she/he popped out, we fell in love. Now I want that brat like a hole in the head but I also know he is loyal to his old mum and will stick with me when I can’t see or hear. Intend him? yes and no. Want him? That depends on which day you ask me. During school days, mostly yes. On weekends when he is fighting with his sister, definitely not. So Ms assessor, how should I mark this question or all the others just like it”.</p> <p>When any researcher forces arbitrary distinctions on some complex research question, they are bound to end up with junk data and do the subject a great disservice. That they then have the gall to publish it as fact, destroys credibility in themselves and</p>	<p>Thank you for your comments. We agree that the distinction between unwanted and unplanned pregnancies is very problematic. We have discussed the limitations of these concepts in detail throughout the review. However we believe that an unwanted pregnancy going to term is the best available comparison for an unwanted pregnancy ending in abortion.</p> <p>We have also stated that the definitions used relate to our definitions of unwanted or unplanned pregnancy and that their use in the research may differ.</p>



					all their findings. Yet these authors base all their conclusions on so called unwanted pregnancies. They should not have wasted their time and the research money.	
1.3.2	13	1-13	Individual 15	1/2	<p>Since many post-aborted women use repression as a coping mechanism, there may be a long period of denial before a woman seeks psychiatric care. These repressed feelings may cause psychosomatic illnesses and psychiatric or behavioural disorders in other areas of her life.</p> <p>As a result, some counsellors report that unacknowledged post-abortion distress is the causative factor in many of their female patients, even though their patients have come to them seeking therapy for seemingly unrelated problems.</p> <p>Kent, et al., "Bereavement in Post-Abortive Women: A Clinical Report", World Journal of Psychosynthesis (Autumn-Winter 1981), volume 13, no's 3-4</p> <p>Note the area of Sexual Dysfunction – Thirty to fifty per cent of aborted women report experiencing sexual difficulties, of both short and long duration, beginning immediately after their abortions. These problems may include one or more of the following: loss of pleasure derived from sexual intercourse, increased pain, an aversion to sexual activity, and/or males in general, or the development of a promiscuous lifestyle.</p> <p>Speckhard, Psych-social Stress Following Abortion, Sheed &amp; Ward, Kansas City, MO 1987; and Belsey et al., "Predictive Factors in Emotional Response to Abortion: King's Termination Study – IV," Soc. Sci. &amp; Med., 11:71-82 (1977)</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have based our review on the best available scientific evidence for the impact of abortion on mental health outcomes. Although these are important points, they are beyond the scope of the present review.</p>
1.3.2	13	15,18, 19	British Psychological Society	5/22	While the Bankole <i>et al.</i> (1999) study provides some interesting information on abortion rates, it is now 12 years old and we recommend that more recent statistics be provided instead.	Thank you for your comment. We have updated the references and statistics used and have instead included information from the Department of Health 2011 report.
1.3.2	13	21	Catholic Medical Association, UK	13/50	<p>Difficulties with the scientific presentation of the evidence.</p> <p>We are concerned that, in places, the study lacks intellectual and scientific rigour. For example the review states that</p> <p>To reliably estimate the risks of mental ill health after abortion, often very complex confounding variables need to be identified and adjusted for or taken into account.</p>	Thank you for your comments. We have amended the text in this section to ensure clarity and to ensure the scientific rigour of the review.

					<p>This statement is, in fact, simply untrue. Estimating them is pretty easy and has been done showing a high incidence and prevalence. Attributing cause is far more complex, though deciding there is no cause ought to be seen as even more complex.</p> <p>The wording of this statement suggest a bias in the authorship of the report which easily dismisses clear and hard evidence of really quite high prevalences of mental disorders following abortion. And, as noted above, this excludes all the adjustment disorders etc which we know to be even more common. Cause is questionable but prevalence is not. A more accurate a statement would read</p> <p>“While the prevalence of mental ill health is high after abortion, there are often very complex confounding variables which need to be identified and adjusted for or taken into account when determining whether or not abortion increases mental ill health or whether it is neutral or protective.”.</p>	
1.3.2	13	28	Catholic Medical Association, UK	41/50	<p>Study design and sample</p> <p>It is very clear from this review that mental disorders are common after abortion in women who abort. But it is far from clear that the best comparator group is restricted to women who continue with an unwanted pregnancy. In that circumstance, the comparator group will already have selected out those who did not intend a pregnancy and who have come to terms with that. Secondly and perhaps more importantly, in jurisdictions where abortion is legal, the comparator group may then be a group who experience denial of abortion. It is known that women who are either pressured into abortion and those who feel that they have been prevented from having one are both groups where subsequent mental health problems may be more common.</p> <p>By attempting to compare termination with a group of women who are, more or less denied abortion, the review group have set out to skew results so far that they are in danger of losing meaning.</p>	<p>Thank you for your comments. We agree this is an important issue and have now made this more explicit within the methods chapter, particularly Sections 2.3, 5.4.3 and 6.2 where we discuss the problems with comparison groups. We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available comparison group. We have discussed in detail the approach taken in the review in Sections 2 and 5.</p> <p>For the comparison of abortion and birth we did not exclude studies based on whether the pregnancy was wanted or unwanted. Instead we used this criterion to group the studies for the analysis. Throughout Section 5 we have justified the approach taken and the comparators used.</p>
1.3.2	13	29-47	Comment on Reproductive Ethics	3/8	<p>The advice in this paragraph (proposing prospective, longitudinal studies etc.) is extremely sensible, not least given the degree of dissatisfaction or inadequacy highlighted in many of the studies cited previously.</p>	<p>Thank you for your comments. We agree that this is an important point and have suggested that further well-conducted research is carried out within the UK (see Section 6).</p>

					<p>The UK has been collecting fairly accurate statistics on abortion since 1968, and has a mechanism in place through the Abortion Act 1967 to continue to do so.</p> <p>To facilitate such longitudinal studies it would be essential wherever possible that NHS patient numbers are recorded for abortion procedures, in order to facilitate later cross-referencing.</p> <p>More rigorous and focused questions should be asked when women present for abortion, including anonymised records from those who choose not to go ahead with the procedure.</p>	
1.3.2	13	36	British Psychological Society	6/22	<p>We are surprised that people taking part in the study of those attending a termination clinic, albeit within a Contraceptive and Sexual Health Service (Bradshaw &amp; Slade, 2005) - i.e. the very people who may wish to consider the relative mental health implications of Induced Abortion &amp; Mental Health British Psychological Society response, June 2011 Page 4 of 7 continuing a pregnancy or undergoing termination - were deemed to be inappropriate for inclusion in the review.</p>	<p>Thank you for your comment. For the prevalence and comparison review, the sample was required to be representative of the population of women who have an abortion. Those women who attend a clinic may represent a subgroup of the population. We have now assessed studies which included a subsample of women within the review of factors associated with poor mental health, providing the study met the remaining criteria for inclusion.</p>
1.3.2	13	37-40	Elliot Institute, Springfield, Illinois, USA	14/87	<p>The sentence regarding mail-back surveys should be stricken since issues regarding self-report / self-selection bias really belongs in one of the following two subsections regarding under-reporting and attrition.</p> <p>Moreover, there is no reason to believe that the participation bias was any greater in the (Reardon &amp; Ney, 2000) study, which used an anonymous mail-back questionnaire, than any of the other interview or questionnaire based studies in the field. Therefore, it is unclear why this one study is highlighted here.</p> <p>For example, the NLSY is known to report only 40% of the abortions that would be found in a nationally representative sample, revealing a 60% concealment rate. Major2000 had a 50% refusal rate for follow-up.</p>	<p>Thank you for your comments. We have now made reference to the problems of under-reporting of abortion within the research (see Section 1.4.2). The study was highlighted as an example of this type of study design.</p> <p>In order to appraise the response rate and representativeness of all studies we have added this area to the quality criteria used to rate the studies (see Section 2.7).</p>
1.3.2	13	39-40	Mount Joy College, Victoria, British Columbia, Canada	21/103	<p>Mail back responses may introduce a bias just like every other way of collecting data. However there is no data to show it did. It may limit the amount one can generalize the findings but for that sample, they are more correct. If it can be shown that the demographics of this sample are typical of the wider population as I have in our studies, then it is reasonably safe to generalize</p>	<p>Thank you for your comments. We have now made reference to the problems of under-reporting of abortion within the research (see Section 2.7) and to the representativeness of the samples included in studies.</p>

					to the whole population being considered. Very few researchers bother to collect data on the same population in more than one way to see if there is any consistent difference introduced by their sampling or data collection.	In order to appraise the response rate and representativeness of all studies we have added this area to the quality criteria used to rate the studies (see Section 2.7).
1.3.2	13	46	Mount Joy College, Victoria, British Columbia, Canada	22/103	There is well documented evidence of <b>under-reporting of abortions</b> in the UK. (16). Gilchrist et al is an example of how this distorts the evidence they show. The BBC reports (20/4/11) that the UK Dept of Health challenged a decision the Information Tribunal handed down in Oct. 2009 saying freedom of information laws require all of the abortion statistics to be released. A group made the request 2 years ago because it was concerned that rules on abortions were not being followed in order to allow for abortions of babies with minor medical issues like a cleft palate or club foot, that can be corrected with surgery. Dr. Evan Harris (member of BMA medical ethics committee) stated that it was "hard to see why successive governments" had fought the Information Tribunal Decision. "Secrecy will only serve those doctors authorizing or performing abortions outside the terms of the law, which is already widespread practice" said a spokes-person for the group.	Thank you for your comments. We have now made reference to the problems of under-reporting of abortion within the research (see Section 2.7). It is beyond the scope of the review to comment on the use of the Freedom of Information Act, or whether the Abortion Act is being followed. The remit of the present review was women who had already had a legally authorised abortion.

1.3.2	14	1-23	Elliot Institute, Springfield, Illinois, USA	15/87	<p>We recommend that the section “Under-reporting of Abortion” relabelled “Participation, Misclassification, and Response Bias” with additional discussion covering the points below.</p> <p>Except for studies based on medical records, such as Gissler1996 and Reardon2002, all interview and questionnaire based studies require both (a) women to agree to participate in the study, and (b) women to fully and accurately disclose information about pregnancy and psychiatric history.</p> <p>Women who decline to participate in follow-up interviews are significantly more likely to match the characteristics of women who report more psychological distress [Söderberg H, Andersson C, Janzon L, Sjöberg NO. <a href="#">Selection bias in a study on how women experienced induced abortion</a>. Eur J Obstet Gynecol Reprod Biol. 1998 Mar;77(1):67-70.] Söderberg reported that "For many of the women, the reason for non-participation seemed to be a sense of guilt and remorse that they did not wish to discuss. An answer often given was: ' Do do not want to talk about it. I just want to forget.'" [Söderberg H. Urban Women applying for induced abortion. Studies of epidemiology, attitudes, and emotional reactions. Malmö, 1998. Doctoral Dissertation. Department of Obstetrics and Gynecology and Community Medicine, Lund University, University Hospital, Malmö, Sweden.]</p> <p>Similarly, Reardon &amp; Ney, 2000, found that women with any history of abortion were significantly more likely to report that that participation in the survey was more “emotionally difficult or disturbing.”</p> <p>These considerations suggest that interview and questionnaire based studies are likely to over represent women who have little or no adjustment issues with a past abortion.</p> <p>In some study designs, refusal to participate will simply reduce the prevalence rate of negative reactions [Söderberg 1998]. In other study designs, such as those employing the NLSY where there is a 60% concealment rate of past abortions [Jones EF, Forrest JD.Underreporting of abortion in surveys of U.S. women: 1976 to 1988.Demography1992;29: 113–126] the participation of women whose abortion experience is misclassified may produce magnified distortions. This will be especially true if women with the most severe psychological reactions are most likely to deny a past abortion. For example, when a woman experiencing severe</p>	<p>Thank you for your comments. We agree that response bias and under-reporting of abortion are important issues. We have now made reference to the problems of under-reporting of abortion within the research (see Section 7) and to the representativeness of the samples included in studies. However we do not agree that the title of this section of the introduction should be changed.</p> <p>We agree that the representativeness of the sample is an important issue. Therefore, in order to appraise the response rate and representativeness of all studies we have added this area to the quality criteria used to rate the studies (see Section 7).</p> <p>We have discussed the problems associated with the different types of research throughout and have recommended that in the absence of any gold standard design, longitudinal prospective records-based studies may be the best research design in this area.</p>
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				<p>depression following abortion denies that she had an abortion, this does not just reduce the average depression score for the aborting group; it also increases the average depression score for the control group of those classified as not having had an abortion.</p> <p>For this reason it is evident that prevalence rates reported from interview or questionnaire based studies may be substantially below the “true” prevalence rate. This problem would persist even in a large, longitudinal, prospective study as long as it required on any level of volunteered information.</p> <p>While record bases studies do not suffer these problems, they lack the additional detail, such as a measure of pregnancy intendedness or a measure of the severity of psychiatric disorders treated. These problems highlight the difficulty of undertaking research in this field and the importance of reviewing a broad number of studies with different strengths and weaknesses.</p>	
1.3.2	14	6-31	Mount Joy College, Victoria, British Columbia, Canada	23/103 <p>The authors do well in detailing the difficulties in doing post abortion research but seem to not let these bother them in deciding good from bad studies. The studies of Russo with a 35 % follow- up rate and Major with a follow-up rate at 2 years of 442/ 1043 or 42.4 % of those who were considered eligible, have so little reliable data that under normal circumstance their research would not be published. Her caveat of “lack of evidence of retention bias” says nothing about what this means or how it was determined. It is well known by abortionists that many or most of their patients tend to avoid them and their precincts. This distrust of aborting physicians, together with other factors, is so extensive that approximately 35 % of Canadian women refuse to have any physician or midwife participate in their delivery (17) Sadly these are times that favor the publication of abortion positive research like the very poor studies of Russo and Major. They are not only more likely to be published but they are highlighted in reviews like that of the APA and this one.</p> <p>To collect data 1hr before an abortion when most women are</p>	<p>Thank you for your comments. We agree that the representativeness of the sample is an important issue. Therefore, in order to appraise the response rate and representativeness of all studies we have added this area to the quality criteria used to rate the studies (see Section 7).</p> <p>We have also discussed the problems associated with the timing of the measurements used within studies (see Section 1.4.2). Please take up issues concerning the Major study with the authors.</p>

					<p>very anxious and ambivalent and 1 hour after when they are experiencing a plethora of confused feelings Major does the women an injustice and is the best example of how not to collect unreliable data that is possible. I am very surprised Major's study received ethical approval. In fact I see no evidence it did.</p>	
1.3.2	14	32	Catholic Medical Association, UK	42/50	<p>Timing of outcome</p> <p>The suggestion that the Charles review method of using 90 days post partum as the best outcome measure is surprising. Any mother will tell you that fatigue and huge life changes make that period difficult for those who give birth. Thus the Charles comparator criterion may in effect guarantee that a lot of post abortion mental ill health is denied academically, as it uses a time when mothers are tired and low after giving birth. Indeed Broen's evidence is that abortion still confers some psychological benefit at three months which is lost later after negative reappraisal.</p> <p>We also know from a qualitative study of 10 patients Goodwin and Ogden found that while some women showed a linear progression to recovering, others remained negative about it and some reassessed their thought and became mentally distressed about it at a later point. They found evidence that a good early psychological course may not, therefore mean a good long term course. So in fact late outcomes are important. This is compatible with data in Broen's studies as well as Major.</p> <p>Broen et al showed that women who have spontaneous abortion have worse mental health than those with induced abortion at 10 days and six months, but that those with therapeutic abortion had significantly higher Impact of Event Score than those with spontaneous abortion at 2 years and five years and also always had significantly higher HADS scores than the general population. So in fact good early outcomes may well lead to poor long term outcome.</p> <p>Reardon suggested that there is a ten year period in which women may repress their feelings. He also showed ongoing and worsening psychiatric admission rates 4 years after abortion.</p> <p>This review needs to look at a range of times for outcome measures. Outcomes vary with time and, in fact, 90 days may be one of the times which gives the most results most in favour of</p>	<p>Thank you for your comments. The review did not focus on transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 7.</p> <p>The review was not limited to 90 days; instead the follow up period had to be <i>at least</i> 90 days. Throughout the review we have included studies with follow up rates extending many years. The limitations of the follow up periods have been discussed, as appropriate throughout the review.</p>



					those who abort.	
1.3.2	14	32	Catholic Medical Association, UK	43/50	<p>Further it is noted that women with unwanted pregnancies require support and monitoring as the risk of later mental health problems are greater whatever the pregnancy outcome. It follows from this that women who abort will also need to be informed of the need for such support and monitoring. That would need to be in the consent procedure.</p> <p>28. This should be reflected in the conclusions as part of statement on informed consent.</p>	Thank you for your comment. We agree that this is an important point and have included this in the discussion and conclusion (see Section 6).
1.3.2	14	32-42	Elliot Institute, Springfield, Illinois, USA	13/87	<p>In addition to problems associated with “Timing of outcome measurement” a section should be added describing problems with the “Timing of pre-abortion psychological assessment.” Something along the lines of the following:</p> <p><b>Timing of pre-abortion psychological assessment</b></p> <p>Both the APA and Charles studies fail to distinguish between studies that have high quality information regarding the psychiatric history of the women prior to their abortions and those with problematic pre-abortion psychiatric data.</p> <p>In general, most studies lack any adequate measures of the psychological history and mental health of women prior to the pregnancy outcomes of interest. In those studies which do have any data, the quality of the data can vary tremendously.</p> <p>For example, in many cases, brief psychiatric measures are administered at the abortion clinic only minutes or hours before the abortion [example, Major (2000)]. Since women seeking an abortion may be facing psychiatric stress, particularly on the day of the abortion, these data points may not be representative of the psychiatric health of the women prior to becoming pregnant, which is the proper baseline for assessing the abortion experience.</p> <p>For example, women with no prior history of anxiety may report elevated rates of anxiety on the day of the abortion which reflects situational anxiety. If such women have elevated rates of generalized anxiety following the abortion, due to unresolved abortion stresses, a comparison to anxiety levels on the day of the abortion may result in the misleading conclusion that the abortion had no lasting impact on their anxiety levels.</p> <p>[Generalized Anxiety Following Unintended Pregnancies</p>	<p>Thank you for your comments. We agree that in some studies the control of pre-abortion mental health is poor, and also that the measurement of pre-abortion mental health is poor. This has been added as a limitation of the research (see Section 1.4</p> <p>To overcome the limitations of the previous reviews, within our review we separated studies which adequately controlled for pre-abortion mental health from those which did not control for this factor.</p>

					<p>Resolved Through Childbirth and Abortion: A Cohort Study of the 1995 National Survey of Family Growth, Jesse R. Cogle, David C. Reardon, Priscilla K. Coleman, Journal of Anxiety Disorders, 2005 19(1):137-142.]</p> <p>Controls for psychiatric history representing women's psychiatric state prior to becoming pregnant are strongly preferred, as exemplified in the in Fergusson (2009), Reardon (2003), and Munk-Olsen (2011).</p> <p>Studies using as a control psychiatric measures after the woman was pregnant and prior to the abortion may be misleading to the degree that stress related to the unplanned, unwanted, or crisis pregnancy may artificially raise the base line for comparison.</p> <p>The abortion experience, properly understood, includes not only the aftermath of abortion but also the stresses and pressures which lead to the abortion decision itself. Therefore, psychological assessments on the day of the abortion, even conducted some hours before the procedure, are actually measuring psychological state during the abortion experience.</p> <p>Similarly, the experience of carrying an unwanted pregnancy to term includes stresses during the pregnancy and stresses following delivery, whether the child is placed for adoption or is raised by a single mother, or by a couple.</p>	
1.3.2	15	3-8	Mount Joy College, Victoria, British Columbia, Canada	24/103	<p>To this clinician it is important to understand how abortion contributes to nicotine dependence partly because it is a good indication of how much more post abortion women smoke which contributes to a wide range of pulmonary and circulatory diseases which certainly have an impact on mental health. The statement by these authors negating the importance of Pedersen's research is another indication of their bias and their clinical naivety.</p>	<p>Thank you for your comments. We have removed this and have adapted this section to read, 'It is important that the outcome under investigation is clinically relevant to the research question posed (Major et al., 2009). Therefore, when investigating the effect of abortion on mental health, outcomes are required to be clinically relevant.' (Section 1.4)</p>
1.3.2	15	4-8	British Psychological Society	7/22	<p>The point this is making in terms of 'clinical utility' is not clear. Nicotine affects drug interactions (prescribed or non-prescribed) and smoking behaviour, and therefore nicotine intake may act as a coping mechanism and affect a person's wellbeing.</p>	<p>Thank you for your comments. We have removed this and have adapted this section to read, 'It is important that the outcome under investigation is clinically relevant to the research question posed (Major et al., 2009). Therefore, when investigating the effect of abortion on mental health, outcomes are required to be clinically relevant.' (Section 1.4)</p>

1.3.2	15 and 85 and 87	10-16 and 1-48 and 1-14	Mount Joy College, Victoria, British Columbia, Canada	10/103	<p><b>Probability of false negative.</b> Although there is comment by the authors of the probability of false positive findings, they fail to mention there is an equal probability of false negative results of research.</p> <p><b>Poor measures.</b> Currently there is considerable debate about the validity of DSM IV and V. It is increasingly apparent that almost every variable in nature is on a continuum. All dichotomous measures are arbitrary and distort the true assessment of almost everything, human diagnoses in particular. It is not at all surprising to find that each patient has some anxiety, a little depression, more psycho-physiological disturbances etc. that make any one diagnosis a distortion of the patient's problems. A combination of diagnoses, (currently popular) still leave out many complaints and don't help a physician in deciding which medication or other treatment to give. In our research, we have often illustrated that the most reliable and thorough measures are on visual analogue scales. The authors rely on outdated diagnostic indices and seem not to understand the change toward visual analogue scales. Almost all the studies using formal diagnoses should be discounted because they distort the true clinical picture of women post abortion.</p>	<p>Thank you for your comments. In this case, this limitation was discussed within the APA and Charles review. This section of the review summarised the findings and conclusions of previous reviews.</p> <p>The use of DSM and ICD diagnostic systems represents what is currently used in practice. We also feel it represents the best available measure at present.</p>
1.3.2	15	10-16	Mount Joy College, Victoria, British Columbia, Canada	25/103	<p>Though the chance of finding something falsely positive is always there, (that is partly why we use statistics) it is no greater than the chance of a false negative. This is a factor which the authors don't mention. Almost no one believes correlation means causation but when the correlation is statistically significant and keeps on appearing, one can normally assume there is an adverse reaction worth noting and avoiding if possible.</p>	<p>Thank you for your comments. In this case, this limitation was discussed within the APA and Charles review. This section of the review summarised the findings and conclusions of previous reviews. As you mention correlation does not imply causation.</p>
1.3.3	15		Individual 10	2/5	<p>The NCCMH review draws heavily from the conclusions of the APA and Charles reviews, neither of which applied objective guidelines for evaluating evidence but instead used their own subjective criteria.</p> <p>This methodological shortcoming resulted in the APA and Charles reports concluding that the GILCHRIST1995 study was one of the best studies to evaluate abortion and mental health. Yet, both reviews failed to cite limitations including the fact that GILCHRIST et al themselves reported that their results were mixed and could be explained by confounding influences.</p>	<p>Thank you for your comments. This section of the review summarised and condensed the findings of previous reviews including both the APA and Charles review. We have followed this summary with a critique of the previous reviews.</p> <p>Within our review we have outlined the methods we have used to appraise the quality of each study (see Section 2.7 for details).</p>

1.3.3	15-16		Mount Joy College, Victoria, British Columbia, Canada	29/103	The summary of key findings have all the problems of this document and more. Though “prochoice”, <b>Prof David Fergusson</b> , commenting on the Task Force Chair, Brenda Major’s conclusions, states, “The APA report, in fact draws a very strong and dogmatic conclusion that cannot be defended on the basis of the evidence. A better logic is that used by the critics of the (tobacco) industry: since there is suggestive evidence of harmful effects it behoves us to err on the side of caution ....before drawing strong conclusions”. History showed which side had the better arguments”	Thank you for your comments. This section of the review summarised and condensed the findings of previous reviews including both the APA and Charles review. We have followed this summary with a critique of the previous reviews. For further comments relating to the APA and Charles reviews, please contact the authors.
1.3.3	15-16	20	Comment on Reproductive Ethics	4/8	In general the analysis of the various studies highlights some inadequacy in most of them and reinforces the need for more robust research to be undertaken in the UK as per CORE’s previous comments.	Thank you for your comment.
1.3.3	15	20-46	Mount Joy College, Victoria, British Columbia, Canada	26/103	All of the difficulties surrounding doing research are important only if it is assumed the burden of proof lies with those who are sceptical about abortion to show its hazards. The real necessity of proof lies with those who assume abortion is beneficial or at least harmless. The authors neatly sidestep this issue.	Thank you for your comment. Our remit was to consider the scientific evidence for the mental health impact of abortion. Part of assessing the scientific evidence is to appraise the quality of the evidence, including its limitations. Further to this, the starting point of the review is a woman who has met the legal requirements for an abortion.
1.3.3	15	22	Elliot Institute, Springfield, Illinois, USA	19/87	<p>If the purpose of this section is simply to summarize the two previous sections it is redundant.</p> <p>If the purpose is to identify points on which there is general agreement, the very contested assertions 3, 4, and 5 should be eliminated, for the reasons discussed above.</p> <p>Our recommendation is that this section should be preceded by or or more additional summaries of the three Coleman reviews, including the meta-analysis which is in press, mentioned earlier.</p> <p>This would provide more balance by including a review of the literature by researchers who are proponents of the view that the elevated risks of mental health problems that are associated with abortion pose a significant issue to women and public health officials.</p> <p>We would then suggest that this section be reworked to identify points upon which there appears to be general agreement by all</p>	<p>Thank you for your comments. As you state, the purpose of this section is to summarise the conclusions of the previous reviews discussed in the introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews and have extensively discussed the limitations of both the evidence base and the reviews in the preceding section.</p> <p>We have now included the recent review and meta-analysis conducted by Coleman. We have reported the conclusions of this review and the main limitations as per the previous two reviews.</p> <p>We feel it is important to provide the reader with a summary of these reviews and therefore have retained this section within the draft.</p> <p>We thank you for your comments and</p>

				<p>reviewers. These are as follows:</p> <p><b>Summary of Key Points of Agreement Among Reviewers</b></p> <p>In a special issue of the <i>Journal of Social Issues</i> dedicated entirely to research and literature reviews relating to the psychological effects of elective abortion, editor Gregory Wilmoth concluded:</p> <p>“There is now virtually no disagreement among researchers that some women experience negative psychological reactions postabortion. Instead the disagreement concerns the following: (1) The prevalence of women who have these experiences—is it an epidemic as claimed by some pro-life U.S. congressman or “miniscule” as concluded by Surgeon General Koop? (2) The severity of these negative reactions—are they predominantly mild or severe? (3) The definition of what severity of negative reactions constitutes a public health or mental health problem—for example, are feelings of grief a public health problem? (5) The classification of severe reactions—do they fall within present psychiatric diagnostic categories, or should they be assigned to a newly proposed diagnostic category termed “postabortion syndrome” (5) The cause of post-abortion reactions—are they caused by abortion itself, by the interaction of risk factors possessed by the individual and the circumstance of abortion, or are they totally unrelated to abortion? (6) The need for new public policy on abortion—e.g., should women seeking abortion be required to receive information about the risks of abortion?” [Wilmoth, G., “Abortion, Public Health Policy, and Informed Consent Legislation,” <i>J Social Issues</i>, 48(3):1-17 (1992).]</p> <p>These observations are still very accurate and pertinent.</p> <p>To expand on the list of points on which there is widespread agreement among researchers and reviewers on both sides of this controversy, the following points appear to be admitted or agreed upon.</p> <ol style="list-style-type: none"> <li>1. There were quite large numbers of studies that examined the relationship between abortion and mental health, but many were of poor or only fair quality, and none are free of significant methodological deficiencies.</li> <li>2. There were no rigorous studies that reliably established the prevalence of mental health problems following abortion in a</li> </ol>	<p>suggestions but we feel we have extensively covered these reviews, including their limitations already in this section. We feel that many of your suggestions are covered in this section (see Section 1.4).</p> <p>Specifically with reference to your suggestion of including all of the listed factors in the APA review, as stated above, this section is a summary of the main findings and conclusions. We have made it clearer that these factors are an example of some of the factors identified within the review but have opted not to display the full list, as readers are able to freely look up the APA report should they wish to access the full list of factors and full conclusions of the report.</p>
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				<p>manner that eliminates all possible confounding factors.</p> <p>3. There were no rigorous studies that reliably establish any mental health benefits following abortion for either women in general or for specific subgroups of women.</p> <p>4. Abortion is often a stressful experience that tax a woman's coping resources (APA, 2008 p 10-11). Viewed in the entirety of the abortion experience, stresses may occur upon discovery of the pregnancy, during the process of making a decision to abort, while seeking the abortion, while having the abortion, and during subsequent internalization of the abortion experience.</p> <p>5. The majority of women having abortions do not experience clinically significant psychological illness in the time frames examined, but some minority do. For example, Major (2000) found PTSD directly attributable to the abortion for 1.5% of the women who remained in the study for the two-year follow-up interview.</p> <p>6. Studies consistently find a statistically significant association between abortion and mental illness. While the degree of causal connection, if any, remains unclear, abortion is at least a diagnostic marker for elevated risk of mental health problems.</p> <p>7. There is no statistically validated evidence upon which to base a reliable estimate about the proportion of any mental health reactions which are directly attributable to the abortion experience alone. Nor is there any evidence upon which to conclude how often abortion may trigger a latent mental illness, aggravate a pre-existing mental illness, contribute to the development of mental illness, or impede recovery from a pre-existing mental illness.</p> <p>8. There are a number of statistically validated risk factors that identify subgroups of women who have abortions who are at higher risk of mental illness. These risk factors include, but are not limited to, the following (from APA 2008):</p> <ol style="list-style-type: none"> <li>1. terminating a pregnancy that is wanted or meaningful</li> <li>2. perceived pressure from others to terminate a pregnancy</li> <li>3. perceived opposition to the abortion from partners, family, and/or friends</li> <li>4. lack of perceived social support from others</li> <li>5. various personality traits (e.g., low self-esteem, a pessimistic</li> </ol>	
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					<p>outlook, low-perceived control over life)</p> <ol style="list-style-type: none"> <li>6. a history of mental health problems prior to the pregnancy</li> <li>7. feelings of stigma</li> <li>8. perceived need for secrecy</li> <li>9. exposure to antiabortion picketing</li> <li>10. use of avoidance and denial coping strategies</li> <li>11. Feelings of commitment to the pregnancy</li> <li>12. ambivalence about the abortion decision</li> <li>13. low perceived ability to cope with the abortion</li> <li>14. history of prior abortion</li> <li>15. late term abortion</li> <li>16. being an adolescent</li> <li>17. having a non-elective (therapeutic) abortion</li> <li>18. prior history of abortion (having a second or third abortion, or more)</li> </ol> <p>This above listing clarifies both the points of agreement and the points of uncertainty which require the most attention in both this review and future research efforts.</p>	
1.3.3	15	31-34	Elliot Institute, Springfield, Illinois, USA	16/87	Paragraph 3 should be stricken. As shown above (see note regarding page 9) this assertion is not supported by the evidence and attempts to compare incomparable studies.	Thank you for your comments. The purpose of this section is to summarise the conclusions of the previous reviews discussed in the introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews.
1.3.3	15	36	Christian Medical Fellowship	2/36	The APA and Charles Reviews both have many limitations, as noted in the review. We add a further concern, regarding the factors associated with mental health problems. Clearly, the results will depend on what factors you choose to look for: if one starts with different factors and therefore questions, different outcomes may well be obtained.	Thank you for your comments. The purpose of this section is to summarise the conclusions of the previous reviews discussed in the introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews and have extensively discussed the limitations of both the evidence base and the reviews in the preceding section. With reference to our own review of the factors associated with poor mental health outcomes, we have included your suggestion regarding the factors assessed as a limitation (see Section 4.3.3.)
1.3.3	15	36	Individual 16	2/33	To some degree, the results in relation to factors associated with mental health problems depend on the factors chosen for investigation (and thus the questions actually being asked by the	Thank you for your comments. The purpose of this section is to summarise the conclusions of the previous reviews discussed in the



					original investigators). This means conclusions may well differ.	introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews and have extensively discussed the limitations of both the evidence base and the reviews in the preceding section. With reference to our own review of the factors associated with poor mental health outcomes, we have included your suggestion regarding the factors assessed as a limitation (see Section 4.3.3.)
1.3.3	15	36-42	Elliot Institute, Springfield, Illinois, USA	17/87	This paragraph should be expanded to include all if the risk factors identified by the APA. See listing in note regarding page 10.	Thank you for your comments. The aim of this section of the introduction is to summarise the main findings and conclusions of the previous reviews. We have made it clearer that the factors listed are an example of some of the factors identified within the review but have opted not to display the list, as readers are able to freely look up the APA report should they wish to access the full list of factors and full conclusions of the report.
1.3.3	15	41-42	Mount Joy College, Victoria, British Columbia, Canada	27/103	Our research shows (18) indicates that it is not the woman's level of education, or number of children or poverty that is most closely associated with the <b>decision to abort</b> but it is childhood mistreatment, the subject's mother's abortion and partner support. Since all of these relate to a woman's mental health and stability, the most important factor is not previous mental health, which is secondary, as concluded by these authors.	Thank you for your comment. It is beyond the remit of the review to look at the reasons for abortion. The aim of this section of the review is to summarise and report the conclusions as reported by the previous review.
1.3.3	15, and 16	44-46 and 1-6	Elliot Institute, Springfield, Illinois, USA	18/87	<p>Paragraphs 5 and 6 are highly disputed conclusions based on what many believe to be a very biased and selective choice of studies and grading of study quality.</p> <p>It is unclear what your intent is in repeat these conclusions/assertions in this section. If this section is intended to indicate that there is some consensus behind these two points, that is simply not the case and it poses a disservice to this current review to suggest that there is consensus support for these positions.</p> <p>This is why the other reviews, mentioned earlier, should be included in this background summary.</p>	<p>Thank you for your comments. The aim of this section of the review is to summarise the conclusions of the previous reviews discussed in the introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews and have extensively discussed the limitations of both the evidence base and the reviews in the preceding section.</p> <p>We have now included the recent review and meta-analysis conducted by Coleman. We have reported the conclusions of this review and the main limitations as per the previous two reviews.</p>

1.3.3	15	44-46	Mount Joy College, Victoria, British Columbia, Canada	28/103	The APA's conclusions were based on a very biased sample of the literature and did not consider our findings even though objective appraisers find it one of the best. The statement that the higher the quality of the study the less likely the findings are there is a greater relative risk of problems associated with abortion is a subjective, pejorative statement that has no business being in a scientific document but clearly indicates the bias of the APA review. It does not belong in this draft if it is to be taken seriously.	Thank you for your comments. The aim of this section of the review is to summarise the conclusions of the previous reviews discussed in the introduction. Throughout the summary we have reported the conclusions as they are reported in the reviews and have extensively discussed the limitations of both the evidence base and the reviews in the preceding section.  We have now included the recent review and meta-analysis conducted by Coleman. We have reported the conclusions of this review and the main limitations as per the previous two reviews.
1.3.3	16	4-6	Mount Joy College, Victoria, British Columbia, Canada	30/103	If based on the determinations of unplanned pregnancies, the APA's findings are as useful as this ephemeral unscientific quality; not much. Especially since no consideration is given to such groups as "planned and aborted" as if they do not exist.	Thank you for your comments. As stated above, the purpose of this section of the review was to summarise and report the conclusions, as reported in the previous reviews.
1.4	16	13	British Psychological Society	8/22	The Society recommends that a definition of mental health problems be provided.	Thank you for your comments. The definition of mental health problems focused on within the review has been provided in the executive summary, at the end of Section 2.2 of the introduction and in Table 1 in Section 2.3.
1.4	16	13	Mount Joy College, Victoria, British Columbia, Canada	31/103	If "prevalence" is used correctly then the only way to determine this is a proper epidemiological study of whole populations. One was done in Denmark.(19) It showed the prevalence of at least one abortion is 70 % of women by the end of their reproductive life. Since conditions regarding abortion are similar in the UK, the prevalence will be similar. No study of mental health has used the true prevalence rates. The pseudo prevalence definition used by these authors will likely find correspondingly low rates of mental health problems.	Thank you for your comments. Although we agree that a population-based study would be the best way to determine prevalence, we have estimated prevalence based on the best available data contained within the studies. As these rates are estimates, we have included confidence intervals for all of the prevalence rates reported within the review. We have also discussed the limitations of these studies.
1.4	16	13-21	Comment on Reproductive Ethics	5/8	The aim of the review is admirable but must be based in actual reality. Currently there are no guidelines whatsoever in the UK as to what constitutes informed consent in abortion provision, and most importantly how this information should be delivered. Given that most abortions are performed for mental health reasons, this would require considerable expertise at point of delivery. The current provision of abortion in the UK is basically on demand, with very little medical let alone psychiatric counselling at all.	It was not within our brief to address the legal framework. Our starting point was women who had already had a legally authorised abortion.

1.4	16		MIND	13/13	It makes sense to provide a document that helps women choose in terms of what mental health problems they might experience having an induced abortion.	Thank you for your comment. That is helpful.
1.4	16	16-19	Secular Medical Forum	1/16	<p><b>The Secular Medical Forum (SMF)</b> is a UK-wide group of healthcare professionals seeking an end to religious privileges in healthcare provision and decision-making. The SMF works to protect patients from the imposition of other people's personal religious views.</p> <p>Overall the SMF applauds the aim of the review which states (p.16) that "The focus of the review is to consider the question from a woman's point of view; that is, if a woman considering an abortion were to ask what the risks are to her mental health, what answer would be given?"</p> <p>The SMF, however, considers that some of the comparison groups chosen in the review undermine this aim, notably 1) the use of studies that do not control for whether the pregnancy was wanted and 2) studies that do not control for previous mental health of the woman having the abortion.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have used the best available evidence to answer the questions of the review. Although we agree that the best available evidence to answer the question would be to consider studies which have included a comparison group delivering an unwanted pregnancy, this comparison was sparse within the literature. Therefore we have chosen to separate the different types of evidence within the review, for example studies that did and did not control for the pregnancy intention and wantedness. We have also included the ideal and pragmatic review criteria applied (see Section 2.3) and have noted the limitations of the evidence base as a whole throughout the review.</p>
1.4	16	19-21	Mount Joy College, Victoria, British Columbia, Canada	32/103	Why would these authors use the very biased APA review to "build upon" unless they wished to build into their review the same biases. Their very brief comment on the Rawlinson Report although well conducted with succinctly stated findings, gives further evidence of their predilection for skewed evidence.	Thank you for your comments. We have built upon the search strategy included in the APA review, but have modified the search terms and conducted our own appraisal of the evidence as discussed in Section 2 of the review.
<b>Section 2 - Methods</b>						
2	18	14-16	CARE UK	2/6	In our view, an acute inconsistency has occurred in this section of the Review paper which results in ambiguity and uncertainty as to what precisely is being asked. On p.18 the text reads "Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy?". Contrast this with p. 65, line 9-11, "Are mental health problems more common in women who have an induced abortion, <i>when compared with women who delivered a live birth</i> ". Both questions are supposed to be the same but clearly are not, both in terms of wording and the answers they	<p>Thank you for your comments; we have now amended this to ensure that we are consistent throughout the review.</p> <p>We agree that the comparison used in studies is an important issue and have now made this more explicit within the methods chapter, particularly Sections 2.3, 2.8 and 2.9 where we discuss the problems with comparison groups. We have also discussed the lack of any gold</p>

					<p>seek to garner. For instance, the question posed on p. 65 would be answered yes based on the research analysed as part of the Review. Contrarily, the question on p.18 is founded upon a subjective decision – whether or not the baby is wanted. This is much more difficult to quantify and measure as the decision may well change during the course of the pregnancy.</p> <p>Moreover, by comparing the mental health outcomes for women after abortion and after an unwanted or unplanned birth, the review process eliminated all but four studies (see p. 75). Consequently the basis on which the Review's conclusions have been made must surely be limited by virtue of the sample size used.</p>	<p>standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available comparison group. We have discussed in detail the approach taken in the review in Section 2.</p> <p>For the comparison of abortion and birth we did not exclude studies based on whether the pregnancy was wanted or unwanted. Instead we used this criterion to group the studies for the analysis. Throughout Section 5 we have justified the approach taken and the comparators used.</p>
2	19	6-7	CARE UK	1/6	<p>We recognise that with any form of review clear criteria must be established in order to set parameters for the study. In the case of this study, research was included which only measured outcomes more than 90 days post-abortion. Whilst research does suggest that mental health can improve in the short term post-abortion, there is also a body of evidence which indicates that women suffer mental health disorders within two months post-abortion. Therefore, in our opinion, the Review excludes research which could have further enhanced its conclusion and analysis.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>The remit of the review was to consider mental health problems. We did not look at transient distress or reactions to a stressful situation. The limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.3.</p>
2.1			MIND	1/13	<p>There are 9 active members of the committee, of which 6 are men, including the Chair. As a woman I have a bit of a problem with this. Men don't carry and neither do they generally spend 18 years raising children and the society we live in is still sexist. If the committee is going to be skewed it could be skewed in the right direction. Perhaps an analogy would be looking at how vasectomy affects men's mental health using a 63% female committee.</p>	<p>Thank you for your comment. We agree with you and acknowledge your point about vasectomy. Unfortunately the list of members posted in the consultation version was incomplete.</p> <p>In the first year of the project, there were 12 members on the group; seven men and five women (three people were unintentionally omitted from the list).</p> <p>In the second year there were 12 members; five men and seven women (two female researchers replaced two male researchers who left their jobs).</p>

2.1			MIND	2/13	Despite the fact that there are 6 men, including the Chair, the mental health of the fathers are not even mentioned as a courtesy. In fact the word "mother" is used only 9 times. The word "father" is not used at all. I worry about the emotional connectivity of this research and its practical application to the client group. Some potential fathers are devastated at losing their child. Would this impact on their partner's mental health? Is there a middle ground between having no feeling for the unborn child to idolising it? Does this make sense?	We agree that abortion may affect men significantly and this is an important area for research. However we were asked to shed light on the current widely debated question of whether or not abortion is bad for women's mental health.  We refrained from using the term 'mother' as it usually understood to be someone who has given birth to a living baby. As an alternative we used the term 'woman' as it can apply to the woman at all stages of pregnancy, abortion or giving birth.
2.1-11	17-26		RCOG	3/9	The methodology is appropriate.	Thank you for your comment.
2.1	2	17	British Psychological Society	2/22	The composition of the steering group is unbalanced.  From the information provided on p.2 it is clear that,aside from the two observers, seven of the nine members are psychiatrists. However, the description of the steering group on p.17 gives a false impression of much more balanced group: there is, in fact, one member of the Royal College of Obstetricians and Gynaecologists (RCOG), one member of the Royal College of General Practitioners (RCGP), no nonpsychiatrist mental health expert (such as a psychologist) and no social scientist.  The absence of partnership working with members of the British Psychological Society in the steering group is particularly conspicuous given that the NCCMH was initially established in partnership with the Society (p.2, paragraph 2). There may be good reason for this omission: a brief explanation would be helpful.	There were twelve members in the steering group (three names were omitted in the consultation draft): one general psychiatrist , two perinatal psychiatrists, one obstetrician/gynaecologist, one GP, one Head of NCCMH (project manager), two systematic reviewers (one changed midway), four research assistants (one changed midway), and one NCCMH clinical psychologist who acted as an advisor. Some of the systematic reviewers and research assistants are psychology graduates, some studying clinical psychology and some doing PhDs, therefore members of BPS.  The constituency has now been made more explicit in the final report.
2.1	17 and 2		Catholic Medical Association, UK	40/50	Membership of the review group  We have some concerns about the membership of the review group. We note a strong representation from DoH and from those who were already on the RCOG group that reviewed abortion recently. That group really did appear to minimise the risks to mental health of abortion.  For example the RCOG group stated that " <i>Women should be informed that most women who have abortions do not experience adverse psychological sequelae.</i> " Which is	Thank you for your comment. There were twelve members in the steering group (three names were omitted in the consultation draft): one general psychiatrist , two perinatal psychiatrists, one obstetrician/gynaecologist, one GP, one Head of NCCMH (project manager), two systematic reviewers (one changed midway), four research assistants (one changed midway), and one NCCMH clinical psychologist who acted

				<p>remarkable as their own classification of post abortion complications (after Calman) described something that happens in just 1 - 10% of women as very common.</p> <p>Again the members of this review group who were on the RCOG group merely stated that “Services should inform women about the range of emotional responses that may be experienced during and following an abortion” and that “only a small minority of women experience clinically significant psychological sequelae after abortion”. This hardly gave an endorsement of the notion that there may be difficulties after abortion, and certainly conflicts with the evidence base presented here.</p> <p>Claudette Thompson is the abortion lead and Lisa Westall the sexual health policy manager for the Dept. of Health were all part of the group that produced the RCOG draft guidelines.</p> <p>In 2009 both Roch Cantwell and Ian Jones published a paper that stated “Informed consent for surgery does not include a warning of psychological hazard. We do not believe that the evidence is strong enough to support mandating such advice for abortion.”</p> <p><a href="http://bjp.rcpsych.org/cgi/content/full/194/6/571?ijkey=00d3cd223e39841830109bd9eaf442f04ab5996f&amp;keytype2=tf_ipsecsha">http://bjp.rcpsych.org/cgi/content/full/194/6/571?ijkey=00d3cd223e39841830109bd9eaf442f04ab5996f&amp;keytype2=tf_ipsecsha</a>. Given the published statement it does appear that the authors might have appropriately declared a conflict of interest. Given our own observation of the review groups tendency to use wording that may have minimised some of the issues more than is appropriate, and concerns such as the un-peer reviewed reanalysis of data that then makes positive findings negative, we just worry that this review may not have tested itself in the development phase in a way that sufficiently stringently tested the hypothesis that abortion causes damage to womens mental health.</p> <p><b>Calman KC, Royston G. Personal paper: Risk language and dialects. <i>BMJ</i> 1997;315:939–42.</b></p>	<p>as an advisor.</p> <p>The Department of Health members were observers and attended two meetings each, which has now been made more explicit. A psychologist also acted as expert advisor and this has now been made explicit.</p> <p>The constituency has now been made more explicit in the final report.</p> <p>The NCCMH has a world-class reputation for objectively synthesising evidence, and in that process there is no place or reason for pre-empting, misrepresenting or attempting to influence findings. The review process is fully transparent and we believe that we have done the most rigorous systematic review possible.</p> <p>You are correct that some details were missing from the declarations of interest list which we have now updated (see Appendix 1)</p> <p>In the light of consultee concerns about potential misrepresentation of the evidence, we have critically reviewed every step of the review process and are fully confident that we have completed the most objective and rigorous systematic review possible.</p>
2.1	17	21-24	British Psychological Society	<p>9/22</p> <p>The questions this review is attempting to address concern psychological issues, both in terms of outcome variables and potential risk factors. The Society would therefore welcome psychological input in any further work on this review.</p> <p>In addition, many termination of pregnancy services function</p>	<p>Thank you for highlighting this. A psychologist within our team acted as expert advisor and this has now been made explicit in the Steering Group list.</p> <p>Most of our review staff are psychology</p>



					<p>initially within contraceptive and sexual health services yet there is no representation at all from such services.</p> <p>As ensuring appropriate expertise is key to the delivery of a balanced report, the Society considers the constitution of this team to be inadequate and, given the focus of the work, of fundamental concern.</p>	<p>graduates, some undertaking clinical psychology training, some undergoing psychology PhDs, and some are members of BPS. This has now been made explicit in the Steering Group list.</p>
2.1	17	38-39	Christian Medical Fellowship	3/36	<p>Three members (Tahir Mahmood, Claudette Thompson and Lisa Westall) were also on the RCOG consultation on '<i>The Care of Women requesting Induced Abortion</i>'. This was very selective with the evidence it collated and the conclusions it drew, suggesting that there are very few adverse effects of abortion on women. We are concerned that no members have been required to declare <u>neutrality</u> on the topic and, in the light of the conclusions of the recent draft of the RGOG report, and given that they were members of it, these three may not be entirely neutral.</p> <p>Moreover, the review Chair, Dr Roch Cantwell, and Dr Ian Jones both stated in a commentary in 2008 that: "<i>Informed consent for surgery does not include a warning of psychological hazard. We do not believe that the evidence is strong enough to support mandating such advice for abortion.</i>" It could therefore be argued that both may hold predetermined positions on this issue. No reassurance is provided as to whether or not this remains their position as there is no statement of neutrality offered.</p> <p>Dr Ian Jones was also involved in the Munk-Olsen 2011 report, reading and commenting on an early draft. Given the reliance on this research paper in the review and its conclusion that there is no increased risk of mental disorders after a first-trimester abortion, we question the lack of publicly declared neutrality by all the authors of the review.</p>	<p>Thank you for your comment. The declarations of interest list (see Appendix 1) has been updated since consultation.</p> <p>All members were committed to set aside their views about abortion and to focus on the evidence of mental health impact of abortion. This is an important question regardless of one's views and values regarding abortion.</p> <p>The Department of Health members were observers and attended two meetings each, which has now been made more explicit in the Steering Group list.</p> <p>The NCCMH has a world-class reputation for objectively synthesising evidence, and in that process there is no place or reason for pre-empting, misrepresenting or attempting to influence findings. The review process is fully transparent and we believe that we have done the most rigorous systematic review possible.</p>
2.1	17	38-39	Individual 16	3/33	<p>Steering group members should be neutral about the question being dealt with. Can they assure us of that? Have they previously publicly expressed opinions in one direction or another that could be said to introduce bias into their readings of this difficult body of literature? Do a majority of them have on record opinions in the <i>same</i> direction of one another on these questions? I cannot see this information anywhere. I think potentially relevant publications and publicly expressed opinions</p>	<p>Thank you for your comment. There is a declarations of interest list (see Appendix 1) which has been updated since consultation.</p> <p>All members were committed to set aside their views about abortion and to focus on the evidence of mental health impact of abortion. This is an important question regardless of one's views and values regarding abortion.</p>



					should be declared as potential conflicts of interest.	
2.1	17	22	British Psychological Society	10/22	A small presentational point: we would suggest that acronyms are expanded when used for the first time (e.g. for RCOG, NCCMH, etc.).	Thank you for your comment, but this was already done - see Page 10 (RCOG) and Page 15 (NCCMH).
2.1	17	38	The Anscombe Bioethics Centre, Oxford, UK	5/10	<p><b>‘Personal non-pecuniary interests were also requested; for example, clear opinions held and public statements that have been made about abortion, or holding office in an organisation or group with a direct interest in or publicly held view on abortion.’</b> (p.17 ln.38)</p> <p>It is unusual for a committee to say so explicitly that <b>‘clear opinions... about abortion’</b> (p.17 ln.38) including, it would seem <b>‘personal ethical views... in favour of or against abortion, in some or all circumstances’</b> (p.18 ln.1) represent a potential conflict of interest. At least one leading researcher in this field (Ferguson 2008) has noted how studies on the mental health impact of abortion tend to mirror the ‘pro-life’ or ‘pro-choice’ commitments of the investigators (Fergusson writes himself as a ‘pro-choice’ advocate who nevertheless thinks that abortion can adversely affect mental health). There is no need to invoke bad faith to explain this pattern. Ethical perspectives and worldviews influence what is expected and what evidence is sought or resisted. These influences may be subtle and may have a subliminal effect on selection of evidence or evaluation of the adequacy of the work of others. It takes great self-discipline to treat with the same critical distance studies that confirm one’s own view and studies that confirm the views of others.</p> <p>Given the unusual clarity of this request it is noteworthy that no members of the committee made explicit their own personal ethical views on abortion. This is not altogether surprising given the possible cost of expressing personal views. Nevertheless, the involvement of the RCOG and the Department of Health in providing abortions clearly influences attitudes to abortion within these organisations. It could not be otherwise. Given the presence of representatives from these bodies on the working group, it would take a real, conscious effort to maintain the balance of the group and to ensure that voices critical of abortion were also heard. There is no evidence that this has been done. This is unfortunate as diversity of opinion (and likewise, lay involvement) is helpful not only for ethical and democratic</p>	<p>There is a declarations of interest list (see Appendix 1) which has been updated since consultation.</p> <p>All members were committed to setting aside their views about abortion and to focus on evidence of mental health impact of abortion. This is an important question regardless of one’s views and values regarding abortion.</p> <p>In the light of consultee concerns about potential misrepresentation of the evidence, we have critically reviewed every step of the review process and are fully confident that we have completed the most objective and rigorous systematic review possible.</p> <p>The NCCMH has a world-class reputation for objectively synthesising evidence, and in that process there is no place or reason for pre-empting, misrepresenting or attempting to influence findings. The review process is fully transparent and we believe that we have done the most rigorous systematic review possible.</p>

				<p>reasons, but also from a scientific viewpoint: it is good discipline to ensure that those sifting the evidence include individuals who will challenge received opinions and ensure that evidence is not overlooked.</p> <p>From the perspective of bias or internal-criticism, a key moment is the summarising of results and their translation into final conclusions. It is precisely at this point that the draft Review is at its weakest, presenting at least one conclusion that runs counter to the evidence presented in the body of the Review. The consultation phase presents an opportunity to address this weakness, not only by the consideration of further evidence but also by further reflection on whether the stated conclusions fairly represent the evidence already considered.</p>	
2.1	17	42	The Anscombe Bioethics Centre, Oxford, UK	<p>6/10</p> <p><b>'The Steering Group recognised the important moral and ethical debates surrounding induced abortion, but were clear that the purpose of this review was to ascertain what impact induced abortion may have upon a woman's mental health and not to comment on the ethical issues. It was also considered that the question of mental health impact is important to all clinicians, whether their personal ethical views are in favour of or against abortion, in some or all circumstances.'</b> (p. 17 ln.42).</p> <p>The draft Review quite reasonably abstracts from a more comprehensive ethical, political and legal analysis of abortion so as to focus on the empirical evidence for an impact of induced abortion on mental health. It has its own proper focus. Nevertheless, the assessment of mental health needs is itself an ethical undertaking, as it is aimed at the good of health. Scientific study, like other human activities, always occurs in an ethical context and always carries ethical significance.</p> <p>The results of this Review are certain to be used and abused within the political debate on abortion. This political and ethical context places on the committee a particular duty to weigh the evidence fairly and state conclusions carefully. For example, it should be made clear that failure to demonstrate a statistically significant relationship is not the same as demonstrating the absence of such a relationship.</p> <p>While the political context provides a further reason for care in how conclusions are presented, the ethical significance of the</p>	<p>Thank you for your comment. In the light of consultee concerns about potential misrepresentation of the evidence, we have critically reviewed every step of the review process and are fully confident that we have completed the most objective and rigorous systematic review possible.</p>

					committee's work is found primarily in the contribution it can make to the care of women who may have been affected by abortion. One important way to maintain this focus would be to take evidence from those who have had serious adverse reactions to abortion. They should be given an opportunity to tell their stories.	
2.1	17	42	Individual 7	3/4	I commend the group for putting ethical debates to one side during the review.	Thank you for your comment.
2.2	16 & throughout the document	16	Department of Psychiatry, Bowling Green State University, Ohio, USA	6/6	The wanted variable has not been precisely defined and measured in the available literature. Wantedness is open to multiple subjective interpretations and studies that measure this variable often do so in discrete, simplistic terms (wanted /unwanted) when true responses are instead likely to fall on a continuum (highly wanted/desired, moderately wanted, minimally wanted, unwanted.) Moreover, the level of wantedness is unlikely stable across pregnancy, with many unintended pregnancies unwanted early on and progressing to the point of being wanted by the end of pregnancy. Based on conceptual and measurement issues, this variable should not be given too much emphasis in a literature review of this nature.	Thank you for your comments. We agree with the limitations regarding the definition of wantedness of the pregnancy within the literature. The definitions of 'unwanted' and 'unintended' included in the introduction, set out our use of the terms, rather than their use in the literature (see Section 1.2). We acknowledge that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole (see Section 2.3).
2.2 and 3.6	18 and 45	4 and 7-32	Catholic Medical Association, UK	2/50	<p><b>The review poses three key questions.</b></p> <p><b>Question 1 how prevalent are mental health problems in women who have an induced abortion?</b></p> <p>In fact the answer to question 1 is simple.</p> <p>1. We agree with the key finding of the review group here which is that there is a high prevalence of mental disorders in the first 3 months after termination as well as in the years that follow. We agree with the Review Group's conclusion that rates of mental health post abortion are high.</p> <p>2. However we contest the wording and findings of the Review groups evidence statement 3.6.1 which states that "<b>studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion...</b>" The wording of this statement opens the way to dismissal of the evidence, when in fact it is clear that although controlling for previous mental health reduces the apparent risk, the increased incidence of mental health problems after abortion</p>	<p>Thank you for your comments.</p> <p>1 &amp; 2. One of the key findings within the review was that the rates of mental health problems following an abortion were higher in studies that did not control for mental health problems, compared with those studies that did control for pre-abortion mental health problems. We have now changed the wording of the evidence statements (see Section 3.6) so they clearly reflect the evidence reviewed.</p> <p>3. The studies included in the review show correlation between an event and an outcome. Furthermore the lack of adequate control for confounding variables does not make it possible to make statements about causation.</p>

				<p>remains significant.</p> <p>For example, the Reardon (2003) study (which controlled for previous mental health) showed “that psychiatric admission rates subsequent to the target pregnancy event were significantly higher for women who had had an abortion compared with women who had delivered during every time period examined. The greatest difference in admission rates occurred in the first 90 days”.</p> <p>Therefore the review groups statement in its current form is misleading and ought to conclude that</p> <p><b>“Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.”</b></p> <p>3. Further when the symptoms of PTSD relate specifically to abortion it does become clear that abortion is the specific cause of at least this category of mental health problems. Data on negative reappraisal as well as some of the Fergusson data which the group elected to reanalyse abortion (see below) also suggest abortion as a cause.</p>	
<b>2.2 and 5.3.2</b>	18 and 68	4 and 2	Catholic Medical Association, UK	<p>4/50</p> <p><b>Question 3 What factors are associated with poor mental health outcomes after abortion?</b></p> <p>The answer to question 3 is also simple.</p> <p>Multiple studies have suggested that the risks of mental ill health are greater after abortion and some studies have suggested a causal link. But complexity around causation, the absence of suitable control groups and the impossibility of performing a controlled study means that certainty about causation is elusive and will be elusive. However some studies (see below;- negative reappraisal and high rates of depression at 5 years as well as persistent PTSD) related to abortion do suggest that abortion can specifically cause serious mental disorders. In addition, evidence of increased rates of self harm, substance abuse etc gives significant cause for concern.</p> <p>However there are some difficulties with the whole construct of this question.</p> <p>Firstly wantedness is a complex concept and not a single</p>	<p>Thank you for your comments. We agree that this is a complex area and we discuss the problems with comparison groups extensively within the methods section (see Section 2.3). We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available evidence and comparison group. We have discussed in detail the approach taken in the review in Section 5.</p> <p>For the comparison of mental health problems following abortion and birth we did not exclude studies based on whether the pregnancy was wanted or unwanted. Instead we used this criterion to group the studies for the analysis. Throughout Section 5 we have justified the approach taken and the comparators used.</p> <p>In addition to looking at the significance of the</p>

				<p>variable. Wantedness is a complex concept that varies in time, is affected by aborting and not aborting and is very difficult to control for in a retrospective study.</p> <p>Using wantedness as a requirement for comparison with women who carry their babies to term skews the data and eliminates far too many relevant studies. The consequence of this is that, in the end, very few studies are analysed. The attempt by the review group to reduce the whole question of this review to that single concept is challenging and therefore corrupts analysis.</p> <p>Probably the greatest effect of the decision to focus upon wantedness has been to reduce the evidence base to a tiny number of studies. The review group has thus accepted for analysis only four studies two of which are funded by pro choice lobbies. The review group has also shown a tendency, throughout the review, to see a <math>p &gt; 0.05</math> and confirming no effect rather than simply failing to show a significant trend. One of these, the Monch Ohlsen study, uses only contact with secondary mental health care as the outcome measure. We are therefore using very blunt studies that fail to differentiate the variety of mental illness that may follow abortion with the result that the power of such studies will be greatly reduced. Further concerns about the methodology and relevance of this study are described later.</p> <p>Further, the review group have, as a result of this excluded almost all key studies, reanalysed Fergusson data to provide a conclusion that is not the peer reviewed conclusion published by Fergusson. They have not stated how they reanalysed the data and have then not reported the published conclusion. We think this is scientifically unacceptable.</p>	<p>results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there “was no statistically significant effect” rather than stating there was no effect.</p> <p>The remit of the review was to focus on mental health problems as defined in Section 2.2. A number of studies included in the review have used treatment records. We have discussed the limitations of this as an outcome measure throughout.</p> <p>The data provided by Fergusson was made available to ensure we could include the study in the analysis. The comparison used in the paper (no abortion) as originally published was not eligible for inclusion in the review as although controlling for pregnancy events, included women who had not carried to full term and given birth. We have also made it very explicit that data were re-analysed for the review (see Section 5.4.2)</p>
2.2	18	4	Catholic Medical Association, UK	<p>5/50</p> <p>An alternative question 3 might be  <b>Does abortion reduce the mental ill-health which may result from delivering a pregnancy?</b></p> <p>The answer to that would also be pretty simple. There is very little evidence indeed that abortion can improve the mental health of women who abort. The evidence that there is, is overwhelmingly negative. Abortion does not improve the mental health of women, while motherhood appears to confer significant benefits on many.</p>	<p>Thank you for your comment. The review did not focus on abortion as a treatment for mental health. It would not be possible to conduct a gold standard study to answer this question adequately.</p>

2.2	18	6-22	Mount Joy College, Victoria, British Columbia, Canada	33/103	<p>Not only did the Steering Group ask the wrong questions, they constructed their approach to find nothing of significance. The most useful and most salient questions, given the existing legislation in the UK on abortion, must be:</p> <p>a) “Does the present arrangement of elective abortion help prevent mental illness in any patient.</p> <p>b) Is there evidence that abortions provide the country any health benefits?” Surely they must realize that even if the harmful effects are a small percentage, there are so many abortions, there will be a significantly larger expenditure of health care funds. If there is evidence of preventing mental illness, then many women will be the better and the country will not have to curtail health services.</p> <p>Using the base criteria of “an unwanted pregnancy” which is impossible to honestly determine, ensured the research could not determine whether or not abortion contributed to poor mental health. Given this situation, the Group can conveniently assume and state as fact, their preconceived belief, that abortions are not hazardous or harmful.</p>	<p>Thank you for your comment. The review did not focus on abortion as a treatment for mental health, nor did we review current abortion legislation. The starting point of the review was a woman who had already had a legally approved abortion.</p>
2.2	18	10	Catholic Medical Association, UK	16/50	<p><b>The review questions</b></p> <p>We think that questions 1 and 2 are sensible and appropriate.</p> <p>Question 3 risks predicating the answer to the enquiry merely by its structure.</p> <p>Question 3 makes wantedness into the arbiter of outcome.; we know that wantedness is a very variable and changing phenomenon and also that it is hard to measure. Many pregnancies begin in an unwanted state and then become wanted.</p> <p>More importantly still, it is very clear that in any associative relationship between abortion and mental health, causality will be very hard to prove. The review group has therefore set out a question in terms that requires studies to show a significant excess of mental illness in those who continue pregnancies compared to those who have an abortion. As we shall see later, where <i>a statistically significant excess</i> has not been found, the review group have tended to conclude that there is no effect .for example on Page 58 line 44 re the Stienberg study the committee makes just such an invalid conclusion. Finding that</p>	<p>Thank you for your comments. We agree that there are limitations with the comparison groups used. We have further discussed these limitations, along with the lack of ideal gold standard studies in Section 2.3. However, we believe the review has used the best available evidence to answer the three research questions.</p> <p>In addition to looking at the significance of the results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there ‘was no statistically significant effect’ rather than stating there was no effect.</p> <p>The review did not focus on abortion as a treatment for mental health, nor did we review current abortion legislation. The starting point of the review was a woman who had already had a</p>




				<p>that “multiple abortions were associated with increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p&lt; 0.01) but not PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07) the committee conclude that there is no association. An odds ratio of 2.84 with a p value of 0.07 means that a significant association was not shown. It does not mean there is no association and a power calculation might be of help. But to state that there is no association as the committee have done is unscientific and untrue. The data does not prove a lack of association as the committee appear to claim.</p> <p>An alternative question 3 (or even a fourth question) might be</p> <p><b>What evidence is there that having an induced abortion reduces risk to the future mental health of women? Reading the evidence presented, we would have to conclude that there is very little evidence for this.</b></p>	legally approved abortion.
2.2	18	10	Society for the Protection of Unborn Children (SPUC)	<p>1/5</p> <p>SPUC welcomes academic debate on the effects of abortion. It is admirable to attempt a review of the entire body of research on the mental health effects of abortion in an effort to inform women’s decision-making and healthcare. However, this review did not succeed for at least three critical reasons.</p> <ol style="list-style-type: none"> <li>1. Many studies are inexplicably missing from the review.</li> <li>2. It is inappropriate to base the review on the concept of “wantedness”. This is an artificial category that has been shown to be highly subjective, socially constructed, prone to recall bias, and which can change during pregnancy and over a longer timescale.</li> <li>3. As an example of the review’s flawed approach to rating studies and the consequent misplaced emphasis on those deemed superior, we comment upon the study by Munk-Olsen, highlighting serious problems with its methodology and interpretation.</li> </ol>	<p>Thank you for your comments.</p> <p>In order to improve the transparency of the review, we have now included a flow diagram of the search process (Section 2.6) and have included further details in the included and excluded studies tables (Appendix 7). Additionally we have included full data extraction tables for each of the studies included (Appendix 8).</p> <p>We agree that the issue of comparison groups is a complex area. We have discussed this extensively within the methods section (see Sections 2.3, 2.8, 2.9). In particular we have discussed the problems with defining and measuring the wantedness of the pregnancy. We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available evidence and comparison group.</p>
2.2 and 5.1	18 65	14-16 9-11	Christian Concern, UK, UK	<p>4/7</p> <p><b>Specific Points: Question 3:</b></p> <p>The report demonstrates recklessness on part of the authors as</p>	<p>Thank you for your comments.</p> <p>We have corrected this to ensure consistency</p>



<p><b>and 5.4.2.8</b></p>	<p>80</p>	<p>Table 17</p>	<p>two different wordings are used for question 3:</p> <p>P18, line 14-16 <i>“Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy?”</i></p> <p>P65, line 9-11 <i>“Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth?”</i></p> <p>Whilst the two concepts are not mutually exclusive, delivering a “live birth” will not always be the same as delivering “an unwanted pregnancy”. Accordingly, both questions are likely to produce different results. Furthermore, the first question necessitates that a woman’s state of mind is identified in terms of whether or not the pregnancy was “wanted”, which makes the question trickier to answer. The second question is simpler and is generally preferred over the first.</p> <p>The reviewers justified reaching a different conclusion from Fergusson’s original report on the basis that “new” evidence had emerged, which required his findings to be re-evaluated in light of these new statistics. However, the report does not indicate what these new figures are, where they were taken from and the means by which they were obtained. The report even fails to outline the specific findings made by Ferguson. This prevents any comparison to be drawn between the two sets of figures. The reviewers should have presented findings from both reports and justified their conclusion.</p> <p>Table 17 on p80 is useful as it compares like with like groups.<sup>1</sup> However there is selectivity in the use of this data. It shows weak evidence of a higher risk of anxiety disorder and self-harm outcomes for women post-abortion. It also shows weak evidence of higher risk of psychotic illness for women post-birth than post-abortion (although see our comment below on p81, line 37-40 on this evidence). It therefore appears surprising that the authors conclude on the evidence statement on page 81, line 38, that <i>‘there is no evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared to those who deliver the pregnancy’</i>. This evidence statement is favouring (it cites) only the one outcome that demonstrates a positive effect (post-birth) whilst ignoring the two outcomes that show a negative effect</p>	<p>across the review.</p> <p>We agree that the two comparison groups are not the same. Consequently we split the review into two sections, one <b>which</b> considered studies which did not assess pregnancy intention or wantedness, and one review which included studies that did assess wantedness or pregnancy intention.</p> <p>The comparison included in the Fergusson paper was not eligible for inclusion in our review. We have made it very explicit that the new data were obtained from the authors (Section 5.4.2). Furthermore, in order to improve the transparency of the review, we have now included full data extraction tables in Appendix 8.</p> <p>In addition to looking at the significance of the results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there ‘was no statistically significant effect’ rather than stating there was no effect. Where a significant effect was present we have ensured this is clear.</p>
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					(post-abortion). This statement needs amending for consistency – either there is evidence of risks for both, or for neither.	
2.2	18	14-16	Christian Medical Fellowship	5/36	<p>The report has two wordings for Question 3, which are different. The question on p65, line 9-11 is different to p18, line 14-16. Considering it is one of the three key questions under consideration this inconsistency reflects sloppiness in report writing. P87 uses the same wording as p18.</p> <p>Section 5 of the review answers the question on p65, so we suggest that for consistency the p18 and p87 wording should be amended to match that on p65. Or answer both.</p> <p>More importantly, the two <b>answers produced could be different:</b></p> <p>The answer to the p65 question would be yes, based on the evidence presented in this review.</p> <p>The p18 question is harder to answer and depends on ‘wantedness’ which is not only very difficult to measure difficult to measure but is subjective and may change at any point throughout pregnancy and therefore should only be used with caution. A pregnancy can begin as unwanted, or woman may be ambivalent to begin with, particularly if unplanned, but then become wanted. The influence of a partner and family members can also affect ‘wantedness’. Assumptions cannot be made, this issue needs a direct question to the woman about whether the pregnancy is wanted, ideally at different stages of it. It is the question on p65 that is the important question to answer, and more measurable.</p>	<p>Thank you for your comments. We have corrected this to ensure consistency across the review. We agree that the two comparison groups are not the same. Consequently we split the review into two sections, one which considered studies which did not assess pregnancy intention or wantedness, and one review which included studies which did assess wantedness or pregnancy intention.</p> <p>We agree that the issue of comparison groups is a complex area. We have discussed this extensively within the methods section (see Section 2). In particular we have discussed the problems with defining and measuring the wantedness of the pregnancy. We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available evidence and comparison group.</p>
2.2	18	14-16	Dept of Adult Psychiatry, University College Dublin	1/26	<p>The report has two wordings for Question 3, which are different. The question on p18, line 14-16 and on p 87, lines 17-19, section 6.2.3 differs from that on p65, line 9-11. Since this is one of the three key questions being examined by the reviewers, this disparity is a best careless.</p> <p>The answers to both of these are different. Based on the reviewers’ conclusions the answer to the former is “no” and to the latter is “yes”. However, we disagree with the answer given to the former in this review (see below 81, 37-40, 5.5)</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have corrected this to ensure consistency across the review. We agree that the two comparison groups are not the same. Consequently we split the review into two sections, one which considered studies which did not assess pregnancy intention or wantedness, and one review which included studies which did</p>

						assess wantedness or pregnancy intention.
2.2	18	14-16	Elliot Institute, Springfield, Illinois, USA	20/87	<p>Question 3 should be reworded to properly reflect UK law, as follows:</p> <p>3. Are mental health problems less common in women who have an induced abortion, when compared with women who deliver an unplanned or unwanted pregnancy?</p>	<p>Thank you for your comments. We do not agree with your rewording of this question. Our remit was to consider mental health problems following an abortion. The starting point for the review was a woman who had had a legal abortion.</p>
2.2	18	14-16	Individual 16	4/33	<p>Question 3 is phrased differently on p18 cf pg 65 – and the difference in the terms is significant. In fact, the answers to the two may well be completely different! This seems poorly thought out.</p>	<p>We have corrected this in the final publication to ensure consistency across the review.</p>
2.2	18	17	Elliot Institute, Springfield, Illinois, USA	21/87	<p>The following questions should also be recognized and addressed.</p> <ol style="list-style-type: none"> <li>1. How prevalent are mental health problems in women who do not terminate an unplanned or unwanted pregnancy compared to the general population and to women who deliver a wanted pregnancy?</li> <li>2. What factors are associated with improved mental health following abortion compared to similar women who carry an unplanned or unwanted pregnancy to term?</li> <li>3. What factors are associated with a lower decline in mental health following abortion when compared to women who do not terminate an unplanned or unwanted pregnancy?</li> <li>4. Among women who do experience negative reactions which they attribute to their abortions, what reactions are reported and what treatments are effective?</li> <li>5. Is presenting for an abortion, or a history of abortion, a meaningful diagnostic marker for higher rates of mental illness and related problems?</li> <li>6. Does abortion ever cause or exacerbate mental health problems in women, even in rare cases?</li> </ol> <p>It may be possible to do so within the present organization of the review, or new sections might be added.</p> <p>If the scope and budget of the study does not allow for addressing these questions, they should be raised and highlighted as questions that have not been addressed but</p>	<p>Thank you for your comments, and for your suggestion. Unfortunately the questions you suggested are beyond the scope and remit of the present review, which was to focus on the three research questions posed. We have now suggested that further good quality longitudinal prospective research is conducted into abortion, unwanted pregnancy and mental health problems (see Section 6.3.)</p> <p>We have also made the remit and scope of the review explicit within the introduction (see Section 1).</p> 

					should be addressed at some future date. So much of the confusion and disagreement over abortion and mental health effects exists precisely because key questions are not squarely confronted and answered. Furthermore, it is imperative that public should not have the mistaken perception that this report addressed all the important questions regarding abortion and mental health if it in fact does not.	
2.2	18	17	Elliot Institute, Springfield, Illinois, USA	22/87	<p>While listed as #8, above, the question: “Is presenting for an abortion, or a history of abortion, a meaningful diagnostic marker for higher rates of mental illness and related problems?” should logically be the first question addressed because the implications and recommendations that flow from it are important to public health whether or not there is a causal relation between abortion and mental health problems.</p> <p>Answering this question correctly is also important to curtail exaggerated reassurances that the statistical association between abortion and higher mental health problems can and should be ignored.</p> <p>The answer to this question is clear. Abortion is statistically associated with higher rates of mental health problems, both before and after the abortion. Whether or not abortion causes, triggers, aggravates, or alleviates subsequent mental health problems remains an important but <u>separate issue</u>.</p> <p>The fact remains that numerous studies have shown that abortion it is a marker for both pre-existing and subsequent mental health problems. Therefore, this finding of fact should followed by the following recommendations:</p> <ol style="list-style-type: none"> <li>1. Women presenting for an abortion should be asked about their mental health history, any history of sexual, emotional, or physical abuse and given appropriate referrals. Moreover, clinicians should be aware that abortion may be a stepping stone for a series of experiences, decisions, and problematic behaviours that may require sensitive response and alert efforts to offer appropriate interventions. For example, clinical evidence, self-reports indicate that victims of childhood sexual abuse may be at greater risk of becoming pregnant, perhaps in an effort to break free and start their own homes, but may also be more vulnerable to giving into demands for an abortion. Combined with substance abuse before and after an abortion, such a woman</li> </ol>	<p>Thank you for your comments, but this is beyond the scope of the present review. We have now suggested that further good quality longitudinal prospective research is conducted into abortion, unwanted pregnancy and mental health problems (see Section 6.3). Although the recommendations you suggest are beyond the evidence we have reviewed and the remit of the review, we have added in a number of recommendations within the conclusion (see Section 6.3) and executive summary (see Page 7) which suggest supporting all women with an unwanted pregnancy, and supporting women who show a negative reaction to an abortion.</p>

				<p>may be on a fast moving train toward self-destruction. Reasonable efforts should be made to offer women presenting for an abortion intervention counselling. Moreover, women should be advised that any unresolved issues that pre-exist the abortion may require counselling in the future and should be encourage to seek it.</p> <p>2. Clinician's should routinely enquire about pregnancy history, including all pregnancy losses, including abortion, miscarriage and still birth. Any report of a pregnancy loss, whether voluntary or involuntary, will alert the clinician to a higher likelihood of mental health needs. In addition, a compassionate and non-judgmental interest in past pregnancy losses, including abortion, give women "permission" to discuss an issue which they might otherwise never volunteer any information. An alert clinician will recognize emotional responses which may invite an offer to discuss any unresolved issues, exploration of which may lead back to other pre-abortion issues such as a history of sexual abuse or other trauma.</p>	
2.2	18	17	Elliot Institute, Springfield, Illinois, USA	<p>23/87</p> <p>We recommend that our ninth proposed question "Does abortion ever cause or exacerbate mental health problems in women, even in rare cases?" should actually come either first or second, following the abortion is a diagnostic marker question.</p> <p>It would seem that this question can only be answered, yes. Yet there appears to be a surprising reticence to bluntly state this fact. At best, it is hinted at in ways that minimize this conclusion or shift it to being less than fully meaningful, as for example, in the APA 2008 review which states: "[I]t is clear that some women do experience sadness, grief, and feelings of loss following termination of a pregnancy, and some experience clinically significant disorders, including depression and anxiety." (p4) This statement first minimizes negative reactions as being not clinically significant, but worse, in the context of the entire review, suggests that those who do experience clinically significant disorders such as depression and anxiety, only do because they were already prone to experiencing depression and anxiety—and there is no convincing evidence that abortion caused or aggravated these episodes. As a result, the APA report was mischaracterized in the press as a complete refutation of the idea that even a small minority of women suffer mental health</p>	<p>Thank you for your comments. The aim of our review was to clarify the relationship between unwanted pregnancy, abortion, birth and mental health.</p> <p>With regard to your first point (in so far as we understand the point you are making) we want to make an important distinction between working with individuals where personal circumstances, individual factors and personal history are the most relevant perspectives on understanding a woman's reaction to abortion, birth or any other important life event; and the average response of women in a study. These perspectives should not be confused. With regard to an individual, any number of factors and contexts (etc) may be relevant or even determine their response to events; abortion, birth or another important event could trigger, aggravate, precipitate or indeed alleviate a mental health problem. However, we were trying to find out what was the average response. Our findings were that the average</p>

				<p>problems from abortion.</p> <p>It is our strong recommendation that this current review will only be credible if it carefully enumerates the following facts, which should be added to an outline of issues like that proposed by Wilmoth, mentioned earlier.</p> <ul style="list-style-type: none"> <li>• Some minority of women do experience clinically significant mental health problems that are caused by, triggered by, aggravated, or complicated by their abortion experience. How many is unclear.</li> <li>• A number of statistically validated risk factors are useful for identifying certain subgroups of women are at higher risk of having negative reactions.</li> <li>• Abortion is consistently associated with higher rates of mental health issues, both before and after the abortion. Since a propensity to be in a situation of seeking an abortion may include common risk factors for mental illness, substance use, and exposure to sexual and physical abuse, it is difficult to positively determine how much, if any, of the effects associated with abortion are caused by or aggravated by abortion itself. Nonetheless, it is clear that a history abortion is a significant clinical marker that can be used by health care providers to identify women who may benefit from appropriate referrals for these interrelated issues.</li> </ul> <p>These issues are important to clarify for both clinicians, the public, and especially for women who are considering abortion and their families.</p> <p>Informed consent necessarily includes a disclosure of risks, and the reality is that there is irrefutable evidence that there are some mental health risks associated with abortion, at least for some groups of women having one or more risk factors for negative reactions.</p> <p>While it may be argued that this association is usually incidental, there is no reliable evidence demonstrating that it is always incidental. Therefore, there is a true risk that the association is real and meaningful. It is therefore something that should be conveyed to women. Indeed, a survey of women of reproductive age regarding their expectations for disclosure of risks makes clear that the majority of women would want to be informed of</p>	<p>response to abortion is no different from the average response to birth for women with an unwanted/unplanned pregnancy.</p> <p>With regard to your other two points we agree that there are factors, such as prior history of a mental health problem, which are associated with mental health problems following abortion (and, indeed, birth or other life events); but we did not find that there were higher rates of mental health problems following abortion for an unwanted pregnancy than after birth following an unwanted pregnancy.</p> <p>However, please also see these responses in the light of our comments about individual responses and average responses above (they also apply to your further comments below) .</p>
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					<p>these findings so they could judge the merit of these risks for themselves. (Coleman PK., et al. Women's preferences for information and complication seriousness ratings related to elective medical procedures J Med Ethics 2006;32 435-438.)</p> <p>In short, we see no credible arguments or evidence against the three points above. Instead, we see common agreement, but widespread reticence, to succinctly state these points in a fashion that is readily understood by the public.</p> <p>We strongly recommend that this review should be bolder in underscoring these points.</p> <p>Only after the three points above are addressed is it reasonable to move on to the secondary, and more complex issues, of teasing through the data to sort out questions related to prevalence, causality, and compliance with legal requirements.</p>	
2.3	18	24	Christian Medical Fellowship	4/36	There is an attempt at transparency, consistency and rigour in analysis. Nevertheless, we have many concerns with both the data and conclusions.	Thank you for your comments.
2.3	18	26-28	Mount Joy College, Victoria, British Columbia, Canada	34/103	Using these mesh headings, the authors avoided having to consider all those studies of the effects of abortion on health in general. This is a major mistake because many authors who realizing their results implicating abortion are unlikely to be published, consciously used "pregnancy losses" and "health" instead of "abortion" and "mental health". Our study (8) was a large cross sectional study using a random sample, with well validated measures of <b>physical health and emotional health</b> , for all the possible pregnancy outcomes for the woman's entire reproductive life at the time of data collection, using reality based visual analogue measures, including many other relevant factors, especially partner support, statistically analyzed by a professor of statistics in a good university but considered as "inappropriate" with no explanation. One can only assume the authors were too lazy to read it or found it inappropriate for their preconceptions.	<p>Thank you for your comments The search updates the search strategy used in the APA review.</p> <p>To ensure the comprehensiveness of the terms used, we have conducted a supplementary search for 'pregnancy losses' (plus variants) to identify any other potentially relevant studies for inclusion in the review. Please see Appendix 4 for the full list of terms used. It was beyond the scope of the review to conduct searches covering the full spectrum of mental health and psychological well-being. Neither was it possible to conduct a search for 'health' in general terms.</p>
2.3	18	26	Elliot Institute, Springfield, Illinois, USA	24/87	<p>A truly systematic review should not systematically ignore some of the most informative data available.</p> <p>The eligibility criteria should be expanded, at least in regard to the question relating to risk factors, to include studies of women who self-report negative psychiatric reactions to abortion and studies evaluating the effectiveness of post-abortion treatment</p>	<p>Thank you for your comments.</p> <p>We agree that this is an important source of evidence in determining what factors are associated with poorer outcomes following an abortion. Consequently, following the consultation period, we have now included</p>



				<p>programs.</p> <p>While these studies can not be used for estimating the prevalence of negative reactions, they are important for understanding what reactions are reported by women, what treatments may be most effective.</p> <p>Abortion research has often been confusing because researchers start with a reaction they want to test, such as depression, without first interviewing women who have had abortions to find out what reactions are most common or problematic or the subset of women who do report problems.</p> <p>It is simply good science to look at those who complain of problems first, and then, after cataloguing those complaints, doing the appropriate research to discover if the problems identified occur with any statistically significant frequency.</p> <p>Another important reason to treat these studies as relevant data is that they shed tremendous light on the scope of reactions, patterns of reactions, and causation relative to reactions.</p> <p>These studies are also invaluable to determine the time frame during which women report experiencing negative reactions. For example, one survey of 260 women involved in post-abortion counselling programs found that 60% reported that their “the majority (or worst)” of their negative reactions occurred over a year after their abortions and that it took, on average, 7.5 years before they began to reconcile themselves with their abortion experience. (T. Burke, <i>Forbidden Grief</i>, Acorn Books, 2002) In addition, 63% reported that there was an extended period of time during which they would have “denied the existence of any doubts or negative feelings” about their abortions, with the average period of time being 5.3 years (ibid). Such information is critical to interpreting the results of studies that look at only a short time frame following an abortion.</p> <p>Studies of women reporting post-abortion problems are also very important to the question of causation. While we would rightly distrust a woman’s self-assessment that her abortion caused a subsequent miscarriage (a physical experience) we should rightly give credence, or at least guarded credence, to the self reflection, “I drank more and more because I couldn’t get the abortion out of my mind.” Put another way, Hill’s nine criteria of causation were developed to identify causation relative to</p>	<p>women who report negative reactions or report for treatment, within the review of factors associated with poor mental health, providing the study met the other inclusion criteria (see Section 2.3).</p>
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physical disease not mental illness (Hill AB. The environment and disease: association or causation? Proc R Soc Med 1965;58:295–300.). In regard to mental illness, a tenth criteria should be given credence, namely: When self-aware patients reasonably attribute emotions and behaviours to thoughts or feelings related to a stressful experience, and this attribution of causation is confirmed by trained therapists treating their patients, it is likely that the stressful experience is a direct or contributing cause.

This tenth criteria is even more strongly supported when there is evidence that mental health treatments predicated on a causal relationship are shown to be beneficial (SD Layer, C Roberts, K Wild, J Walters. Postabortion Grief: Evaluating the Possible Efficacy of a Spiritual Group Intervention. Research on Social Work Practice, Vol. 14, No. 5, 344-350 (2004)), thereby suggesting that if the treatment works the diagnosis is likely to be correct.

For example, in a survey of women participating in post-abortion recovery programs, 56% reported suicidal feelings, 28% reported attempting suicide, with over half of those reporting more than one suicide attempt. (T. Burke, *Forbidden Grief*, Acorn Books, 2002). While such percentages are surely much higher than the general population of women who have had abortions, they shed important light on the subset of women who do experience emotional struggles that they attribute to their abortions. In combination with suicide notes attributing abortion to a suicide (example, Emma Beck's suicide note: <http://www.telegraph.co.uk/news/uknews/1579455/Artist-hanged-herself-after-aborting-her-twins.html>)

Psychology hinges on the viewpoint that human beings are self-aware. While we are capable of self-delusion, guarded credence should be given to the large body of literature related to the subset of women reporting negative emotional reactions to abortion, otherwise this report will disrespect those women by implicitly asserting that any data that does not come from a statistically validated, large random sample of women, can and should be discounted.

To the contrary, we would insist that it is precisely the self-aware, self-reports of women which must guide us to conclude that, until proven otherwise, we must err on the side of presuming that the

				<p>higher rates of suicide associated with abortion (Gissler, 1996; Reardon, 2002; Mota 2010;) represent that abortion is either a direct cause, a contributing cause, or a triggering cause for suicidal behaviours.</p> <p>In short, while the criteria used in the draft report are appropriate for identifying studies that address the prevalence rate question, they are too restrictive in regard to addressing other key questions (listed above) which are of equal or greater importance to a systematic review of the evidence regarding the impact of abortion (both good or bad) on women's mental health.</p>	
2.3	18	26	Elliot Institute, Springfield, Illinois, USA	<p>25/87</p> <p>An especially relevant set of studies that has been omitted from your review are those conducted by Söderberg. While individually, the studies do not meet your criteria, collectively they do. Moreover, if your group were to contact Söderberg it might be possible to get additional unpublished data to make a more direct comparison of the mental health of the delivering and aborting women.</p> <p>Söderberg, H., Janzon, L., &amp; Sjöberg, N-O. (1998). <a href="#">Emotional distress following induced abortion: A study of its incidence and determinants among abortees in Malmo, Sweden.</a> European Journal of Obstetrics &amp; Gynecology and Reproductive Biology, 79:173-178.</p> <p>Söderberg H, Andersson C, Janzon L, Sjöberg NO. <a href="#">Selection bias in a study on how women experienced induced abortion.</a> Eur J Obstet Gynecol Reprod Biol. 1998 Mar;77(1):67-70.</p> <p>Söderberg H, Andersson C, Janzon L, Sjöberg NO. <a href="#">Continued pregnancy among abortion applications. A study of women having a change of mind.</a> Acta Obstet Gynecol Scand. 1997 Nov;76(10):942-7.</p> <p>Specifically, Söderberg conducted extensive structured interviews with 1,446 abortion applicants one year after they sought an abortion. 1,285 of the women had abortions and 161 changed their mind and did not abort.</p> <p>Among those who had abortions, 50-60% of women undergoing induced abortion experienced some measure of emotional distress, classified as severe in 30% of cases. The following risk factors were identified: living alone, poor emotional support from family and friends, adverse postabortion change in relations with</p>	<p>Thank you for your comments and for the suggested references. We have assessed all the papers suggested during the consultation (see the list in Appendix 4) and have included studies which met our review criteria.</p> <p>As stated above we have now amended the inclusion criteria for the review of factors associated with poorer mental health outcomes to include studies which used a subsample of women who were seeking treatment or reported distress following an abortion.</p>

				<p>partner, underlying ambivalence or adverse attitude to abortion, and being actively religious. Söderberg also reported that about one-third declined to participate in the follow-up interview and that analysis of socio-demographic characteristics indicated that those who declined most closely matched the profile of women who reported more negative reactions.</p> <p>Most notably, no emotional distress was reported in Söderberg's analysis of the 161 women who changed their mind. This indicates that it may be easier to adjust to the birth of an unplanned and unwanted child than to adjust to an abortion.</p> <p>While Söderberg's report on women who changed their mind does not discuss their emotional adjustments, it is clear that if she had detected high rates of emotional problems associated with a decision not to go through with an abortion, this would have been reported.</p> <p>In short, while these studies do not provide a statistical comparison of, for example, depression scores between those who aborted and those who changed their minds, the researchers did do careful interviews with women from both groups and the absence of such an analysis, especially in light of the high rates of distress among the women who aborted, speaks volumes.</p> <p>Because these are the only known studies comparing women who abort to women who sought an abortion but subsequently changed their minds, these studies are very unique and valuable. Due to their unique nature, these are important studies which should be at least briefly discussed in this review. It would also be worth seeking the raw data and encouraging similar research in the future.</p> <ul style="list-style-type: none"> <li>• Söderberg, H., Janzon, L., &amp; Sjöberg, N-O. (1998). Emotional distress following induced abortion: A study of its incidence and determinants among abortees in Malmo, Sweden. <i>European Journal of Obstetrics &amp; Gynecology and Reproductive Biology</i>, 79:173-178.</li> <li>• Söderberg H, Andersson C, Janzon L, Sjöberg NO. Selection bias in a study on how women experienced induced abortion. <i>Eur J Obstet Gynecol Reprod Biol</i>. 1998 Mar;77(1):67-70.</li> <li>• Söderberg H, Andersson C, Janzon L, Sjöberg NO.</li> </ul>	
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				Continued pregnancy among abortion applications. A study of women having a change of mind. Acta Obstet Gynecol Scand. 1997 Nov;76(10):942-7.		
				<ul style="list-style-type: none"> <li>• Söderberg H. Urban Women applying for induced abortion. Studies of epidemiology, attitudes, and emotional reactions. Malmö, 1998.</li> </ul>		
2.3	18	30	Catholic Medical Association (UK)	45/50	<p><b>Eligibility criteria for the review</b></p> <p>We applaud the Review Groups decision to study the range of mental disorders individually, rather than to replicate previous attempts to summarise all mental disorders that follow no form abortion.</p> <p>However we note that the absence of adjustment disorder from the review results does mean that much morbidity has been left out of the review. This is not reasonable.</p> <p><b>Women who suffer post abortion rarely seek medical advice (eligibility criterion 4)</b></p> <p>Further we are aware of strong evidence from self help groups that shows that women who suffer post abortion often do not return to the profession who helped them to abort. Therefore some studies discussed in this review may have, of their very nature and as a result of that inclusion criterion underestimated prevalence of mental disorder after abortion. The criterion of accessing mental health treatment is therefore only a partial way of collecting the data on harm from abortion and may obscure some morbidity.</p> <p>The reliance upon ICD and DSM is understandable but given the strong currency given to the term “Post Abortion Syndrome” by some user and voluntary groups, we wonder if this term too should have been included.</p> <p>As we have said earlier the attempt to compare abortion with continuing with an unwanted pregnancy suggests a desire but the report authors for a skew in the results they wished to present.</p>	<p>Thank you for your comments. Adjustment reactions are reactions to stressful events and tend to be short lived. When they are longer lasting, they tend to lead to another diagnosis such as depression. Our review was interested in more persistent mental health problems, those present at 3 months onwards; so we were more interested in the period after which most adjustment reactions would have resolved or changed to another diagnosis. In addition, ICD-9 is very descriptive and not operational (as is DSM IV and ICD-10) which limits its usefulness in this context; and this is the classification used by the only studies included in the review. In addition, the only two studies which looked at adjustment reactions (Coleman and Reardon) used incidence as determined from treatment claims; and those who had an adjustment reaction would have been removed from the study if they claimed within 90 days; if they then went on to develop a more substantial mental health problem or disorder, such as depression, they would not be recorded in the study. This is problematic in our view. However, given the comments received during consultation, we have looked again at the studies to see if the inclusion of adjustment disorder would make a difference to our conclusions. We found that the inclusion of adjustment disorder would not have altered the conclusions or recommendations. For all these reasons we have decided not to include adjustment reactions.</p> <p>Although we didn't include adjustment disorders, we did identify negative emotional reactions and</p>

						emotional distress immediately following abortion as important predictors of later developing mental health problems and have recommended that women who experience these negative emotional reactions are monitored and supported where necessary.
2.3	18	Table 1	Mount Joy College, Victoria, British Columbia, Canada	35/103	As stated in their introduction, the authors are clear that abortions in the UK are <b>“legal” if certain conditions are met.</b> Since most frequently abortionists do not indicate for what legitimate reason he/she is performing the abortion, there is no way for the authors to know whether or not the abortions considered by various authors would be legal in the UK. Therefore even if the studies were well done, the authors cannot use their findings in the UK.	<p>Thank you for your comments. We now discuss the different legal frameworks for abortion within the introduction (Section 1.3); we have also mentioned the problem of generalising the different study populations as one limitation when forming conclusions (Section 2).</p> <p>It is beyond the scope of the review to discuss abortion legislation. Our starting point was women who had already had a legally authorised abortion, in the UK or other country where abortion of an unwanted pregnancy is legal.</p>
2.3	18 19	Table 1	British Psychological Society	11/22	<p>We consider the outcomes to be inadequately defined. For example, are the outcomes mentioned in Point 2. categorical data, in terms of caseness, or are continua being considered here?</p> <p>In another example, there are ambiguities between the term 'mental health' and the aims of the review as, although the title of the review suggests a focus on broad outcomes, in practical terms outcome has clearly been restricted to four categories. One of these categories is "accessing mental health treatment" but, without going to the original papers, it is not clear whether this specifically refers to psychiatric consultation or to any of a range of help-seeking events that could include, for example, seeing a counsellor.</p> <p>Overall, the Society would welcome greater clarity regarding the focus of the review, particularly whether this is on generic psychological outcomes or serious mental illness:</p> <p>a) if the analysis is to focus on serious mental illness, it would be more accurate to entitle the review "Induced Abortion and Psychiatric Disorders";</p> <p>b) if it is to focus on a broader range of psychosocial consequences (including, for example, 'self esteem' in some of</p>	<p>Thank you for your comments. We have defined our inclusion and exclusion criteria in Section 2.3; this relates to the type of data extracted from each paper. We have now added further justification for the approach taken within the review (see Section 3). We were unable to be any more specific about the outcomes due to the variation within the literature, for instance, the definition of case varied within the papers. Details of what constituted a case in each study are included in the narrative review, and full details presented in the data extraction tables (see Appendix 8). Similarly with regards to accessing mental health treatment, this was often not defined within the papers with no further details about the type of treatment provided. We agree that this is a limitation of the evidence base and have therefore discussed this, alongside other limitations with the study outcomes, throughout the review.</p> <p>To improve the clarity of the remit and scope of the review, we have now amended the title.</p>

					the studies), then we suggest the inclusion of a criticism of the overall failure in studies to examine a range of help-seeking behaviours which may reflect reduced levels of wellbeing (including, for example, greater use of prescribed medicines, more visits to doctors, absenteeism, etc.).	Unfortunately it is beyond the scope to consider a wider range of psychosocial outcomes.
2.3	19		MIND	10/13	I think the literature misses something not including Russian and non-English research. Russian women apparently are more familiar with abortion and there may be things to learn.	Thank you for your comment. The point you have raised is interesting, but unfortunately we did not look at non-English studies and were not resourced to do so.
2.3	19	Table 1	British Psychological Society	12/22	The Society is unsure of the value of only considering data acquired at least 90 days post-abortion. It is our view that women need to know the emotional implications at an early stage as well as later, as this will aid their interpretation of personal significance. There is a strong argument for considering early and later implications separately, but awareness of the transience or otherwise of initial responses can be helpful in coping. In addition, clients with early mental health issues are likely to require additional short term mental health and wellbeing support.	<p>Thank you for your comments. As the aim of the review was to consider the relationship between abortion and mental health problems, we did not look at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.3.</p> <p>We did however include distress and negative reactions to an abortion within the factors associated with poorer mental health outcomes section of the review and agree that such reactions are important as highlighted by the inclusion of the following recommendation within the executive summary and conclusion:</p> <p>“If a women has a negative attitude towards abortion, shows a negative emotional reaction to the abortion or is experiencing stressful life events, health and social care professionals should consider offering support, and where necessary treatment, because they are more likely than other women who have an abortion to develop mental health problems.”</p>
2.3	19	Table 1	Mount Joy College, Victoria, British Columbia, Canada	36/103	Although the authors insist that mental health had to be assessed at least 90 days after the abortion, they make no comment on the more important constraint that the assessment	Thank you for your comment. Studies were not excluded if they measured outcomes at less than 90 days, providing they also provided data at a



				cannot be earlier than 7 days after the abortion because of the patient's very vulnerable state. It would be provocative intrusion. Using that criterion, Major's study would not qualify. The authors would not want that so they didn't bother with this vital condition.	follow up period of at least 90 days. We have discussed the limitations with the timing of measurement, including measures of pre-abortion as in the Major 2000 study in Section 1.4.2, 2.3 and 3.	
<b>2.3</b>	19		Christian Medical Fellowship	7/36	One problem with measurement is that many people with mental illness do not seek treatment. Women who have negative reactions to abortion are less likely to return to the clinic. The eligibility criteria therefore will be likely to have excluded many women who do not return to the health professionals who were involved in the abortion process. Poor follow up post-abortion compounds this problem. Clearly this would underestimate prevalence of mental health disorders. Compounding this, women delivering will be more likely to have regular contact with health professionals than those having a termination and so a higher reporting of their mental health problems will be likely, again introducing a bias in the groups.	Thank you for your comments. We agree that this is an important limitation with the use of medical and treatment records. We have discussed this limitation alongside the other problems regarding the outcome measures used within studies throughout the review. We have also adapted the quality assessment criteria to include representativeness of the sample. Studies are now rated on how representative the sample was and on their level of attrition.
<b>2.3 and 3.3.3 or 3.4.1</b>	19 and 37		Pension And Population Research Institute (PAPRI), UK	1/3	As a statistician who has worked on British Abortion Statistics I offer you the following short response  It is regrettable that so little British research has been done and no British research is planned or called for in this review of the subject. Whereas the authors note many limitations and deficiencies in the existing literature, they can only refer to one British study: "only one UK-based study was identified, so the criteria were relaxed..." page 19. On page 37 in Chapter 3 on Mental Health post Abortion it is noted "none of the studies used a UK sample so any generalisations of the results to the UK population should be made with caution."	Thank you for your taking the time to send us your comments. The consultation process is critical to us in ensuring a robust final report, so your feedback on the quality of the review is very much appreciated.  We agree that there is a lack of UK research and have added a research recommendation to the conclusion which specifically highlights the need for more research to be conducted within the UK context (see Section 6.3).
<b>2.3</b>	19		Individual 16	6/33	Women who have negative reactions to abortion are less likely to return to the clinic. Thus women who do not return to the health professional involved in their abortion are excluded. This could easily bias results. Furthermore, women delivering live births have frequent contact with health professional, potentially leading to a relative over-estimation of their problems, another source of bias.	Thank you for your comments. We agree that this is an important limitation with the use of medical and treatment records. We have discussed this limitation alongside the other problems regarding the outcome measures used within studies throughout the review. We have also adapted the quality assessment criteria to include representativeness of the sample. Studies are now rated on how representative the sample was and on their level of attrition.

2.3	19	1	Mount Joy College, Victoria, British Columbia, Canada	37/103	<p>Their oft stated criteria that only those studies of abortions for “unwanted pregnancies were included” works to invalidate all the studies they included because “unwanted” is such a momentary, indefinable quality. No reputable researcher would attempt to use it unless they measured it daily for a month at different times on the day.</p>	<p>Thank you for your comments. We believe the review has used the best available evidence to answer the three research questions. We have discussed the ideal and pragmatic criteria for inclusion in the review in Section 2.3 of the methodology. We have also commented on the limitations of the available evidence, particularly the comparison groups used within studies (see Section 2.3). We agree that there are limitations with the measure of pregnancy intention and wantedness; these have also been discussed in Section 2.3. However, we feel this comparison is the best available evidence for the review.</p>
2.3	19	3-13	Right to Life	1/8	<p>We find in our own work at RTL that many post-abortive women with mental illness do not seek treatment, and prefer to talk to a post-abortion counsellor. This document therefore, in its eligibility criteria, will be likely to have excluded many women who do not return to the health professionals who were involved in the abortion process, and this would underestimate the prevalence of mental health disorders.</p> <p>Our own experience as an organisation is telling here. Whilst <i>Right To Life</i> does not have a counselling service, we can state that over many years personnel in <i>Right To Life</i> have helped and supported some hundreds of women who have had abortions. The most common problem has been addictions (usually alcohol) and the women would tell us they had no such problems before having the abortion. It was also quite common to find that they had started to drift from job to job or from partner to partner – although previously they had been in stable employment (sometimes for many years) or in stable unions. It was usually very difficult indeed to persuade girls to go to their doctors or to go for psychological help or treatment. One woman actually tried to shoot her husband because he had pressured her into having the abortion. The woman who tried to shoot her husband was, of course, referred for treatment and help by the court, and it was made clear that her action resulted from being pressured to have the abortion. The fact that so many of the women simply refused to go to their own GPs or to a psychologist, but this fact should not invalidate such evidence. It is a reality often faced by those counselling women.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is critical to us in ensuring a robust final report, so your feedback on the quality of the review is very much appreciated.</p> <p>We agree that this is an important limitation with the use of medical and treatment records. We have discussed this limitation alongside the other problems regarding the outcomes measures used within studies throughout the review. We have also adapted the quality assessment criteria to include representativeness of the sample. Studies are now rated on how representative the sample was and on their level of attrition.</p> <p>Following consultation we have revised the inclusion criteria for the factors associated with mental health problems section of the review to include studies which sampled women seeking help from post-abortion counsellors and/or with self-reported distress, providing the study met the remaining inclusion criteria for the review. The aim of including these studies was to help determine which factors, if any, are likely to be associated with mental health problems following an abortion, and consequently, which women</p>

					Even if mental Health Disorders were associated with only a half of a percent of the total number of women who have abortions each year, this would be over 1,000 women, which makes this a serious public health concern.	may need increased support.
2.3	19	6	Catholic Medical Association (UK)	12/50	<p><b>Eligibility Criteria and remit of the study</b></p> <p><b>Exclusion of the first three months after abortion.</b> We contest the decision of the review group to exclude mental disorders in the first three months after abortion from study. We know that adjustment disorder is very common, that it is an ICD mental disorder and that it comes with substantial psycho social changes in its wake which are often permanent. While there is some evidence that mental health may improve in the short term after abortion, there are very many women who suffer post abortion adjustment disorders and there is a rich literature on this which the review group specifically excluded.</p> <p>The exclusion of this group of studies from this review leads to several key problems.</p> <p>Firstly a substantial body of mental disorders, including adjustment disorders, are dismissed and not mentioned,</p> <p>This is notwithstanding the fact that adjustment disorders commonly have serious effects and also permanent effects in terms of family breakdown etc.</p> <p>Further the title of the study is made inaccurate by this omission. The study has only considered persistent mental disorders after induced abortion.</p>	<p>Thank you for your comments. As with the response to your comment above, the remit of the review was to consider the relationship between abortion and mental health problems. Consequently, we were not looking at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.2.</p> <p>As stated above we did assess distress and negative reactions to an abortion as risk factors for poorer mental health outcomes and have included reference to this within the conclusion (see Section 6). Although we feel you raise an important point with reference to non-mental health outcomes, these were unfortunately beyond the scope of the review.</p> <p>We have amended the title of the report in light of the consultation comments received.</p>
2.3	19	6	Christian Medical Fellowship	6/36	<p>By limiting the criteria used for inclusion of research in this study to only those that measure outcomes occurring more than 90 days post-abortion <u>excludes a large body of evidence</u> and literature on mental health disorders (see for example our comment on p45 below). For example, for just one review question this accounted for 27 studies being excluded (p27). While there is some evidence that mental health may improve in the short term after abortion, there are also many women who suffer mental health disorders in the two months post-abortion, and this group is excluded. Outcomes will vary with time post-abortion. The limitations of these inclusion criteria and the evidence that the consultation cannot therefore consider should</p>	<p>Thank you for your comments. As the aim of the review was to consider the relationship between abortion and mental health problems, we did not look at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.2.</p> <p>We did however include distress and negative</p>

					be made clear.	<p>reactions to an abortion within the review of factors associated with poorer mental health outcomes and agree that such reactions are important as highlighted by the inclusion of the following recommendation within the executive summary and conclusion:</p> <p>“If a women has a negative attitude towards abortion, shows a negative emotional reaction to the abortion or is experiencing stressful life events, health and social care professionals should consider offering support, and where necessary treatment, because they are more likely than other women who have an abortion to develop mental health problems.</p>
2.3	19	6	Individual 9	9/25	Separate <i>outcomes</i> and <i>were</i>	Thank you; this has been corrected.
2.3	19	6	Individual 14	2/11	<p>It seems odd to only look at outcomes after 90 days when DSM-IV classification for adjustment reaction looks at the “development of emotional or behavioural symptoms .... occurring within three months of the onset of the stressor(s).” This may be relevant to the fact page 27, lines 29-31, indicate 27 studies were excluded because of this 90 day rule – over a third of the whole number of papers excluded.</p>	<p>Thank you for your comment. As you state, adjustment reactions are reactions to stressful events and tend to be short lived. When they are longer lasting, they tend to lead to another diagnosis such as depression. The remit of our review was to focus on more persistent mental health problems (those present at 3 months onwards), so we were more interested in the period after which most adjustment reactions would have resolved or changed to another diagnosis.</p> <p>However, given the comments received during consultation, we have looked again at the studies to see if the inclusion of adjustment disorder would make a difference to our conclusions. We found that the inclusion of adjustment disorder would not have altered the conclusions or recommendations. For all these reasons we have decided not to include adjustment reactions.</p> <p>Although we didn't include adjustment disorders, we did include distress and negative reactions to an abortion within the review of factors associated with poorer mental health outcomes</p>

						<p>and agree that such reactions are important as highlighted by the inclusion of the following recommendation within the executive summary and conclusion:</p> <p>“If a women has a negative attitude towards abortion, shows a negative emotional reaction to the abortion or is experiencing stressful life events, health and social care professionals should consider offering support, and where necessary treatment, because they are more likely than other women who have an abortion to develop mental health problems.”</p>
2.3	19	6	Individual 16	5/33	<p>Important evidence is excluded by the 90-day limit. The authors note 27 excluded for one of the questions! Whilst time post-abortion is an important consideration re: mental health related to the procedure, simply ignoring evidence relevant to the questions with an arbitrary time cut-off is unwarranted.</p>	<p>Thank you for your comments. As the aim of the review was to consider the relationship between abortion and mental health problems, we did not look at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.2.</p> <p>We did however included distress and negative reactions to an abortion within the review of factors associated with poorer mental health outcomes and agree that such reactions are important as highlighted by the inclusion of the following recommendation within the executive summary and conclusion:</p> <p>“If a women has a negative attitude towards abortion, shows a negative emotional reaction to the abortion or is experiencing stressful life events, health and social care professionals should consider offering support, and where necessary treatment, because they are more likely than other women who have an abortion to develop mental health problems.”</p>

2.3	19	8	British Psychological Society	13/22	The Society would welcome the addition of a definition of 'adequate' control.	Thank you for your comment. We have now added further definitions and explanations of the quality criteria used within the review, including a definition of adequate control (see Sections 2.3 and 2.7).
2.3	19	10	British Psychological Society	14/22	We would also welcome the addition of a definition of 'well-validated tool'.	Thank you for your comment. We have now added further definitions and explanations of the quality criteria used within the review, (see Sections 2.3 and 2.7). However we have not further defined well-validated tools as the validation used in the studies varied; instead each study had to provide some evidence that the tool had been validated.
2.3	19	11-12	Elliot Institute, Springfield, Illinois, USA	28/87	<p>The exclusion of studies regarding abortions of wanted pregnancies is inappropriate for several reasons.</p> <p>First, therapeutic abortions to protect the life of the mother or due to fetal anomaly should also be assessed as there is considerable evidence that psychological maladjustments are common after these abortions. While it is appropriate to discuss these abortions in a separate section, they are relevant to the overall question. Moreover, since many elective abortions include elements of the pregnancy being wanted and perceptions that the abortion is therapeutic in some respect, findings regarding emotional reactions to therapeutic abortion provide a useful framework for better understanding of issues relative to elective abortions.</p> <p>Second, while eugenic abortions may be legal under section 1(1)(d) of the Abortion Act, even if the abortion is likely to cause significant psychological distress, women, their families, and their health care providers should be more fully informed about these risks and provided with better aftercare.</p> <p>Third, many elective abortions occur for pregnancies that were initially planned or wanted, or may even still be wanted on the day of the abortion. In many cases the pregnancy while a woman may personally want the pregnancy, it is unwanted by her partner, family members, or others on whom she depends. In such cases, the abortion of a wanted child is accepted as her "only choice" given her social or financial situation.</p>	<p>Thank you for your comments. Although we agree that the mental health outcomes for abortions of wanted pregnancies are an important issue, this was beyond the scope of the review. The remit of the project was to focus on abortions for an unwanted pregnancy or unplanned pregnancy, and not to assess the mental health impact of abortions for reasons of fetal abnormality.</p> <p>Studies were excluded if the paper clearly stated that the abortion was for fetal abnormality. For the comparison of abortion and birth we did not exclude studies based on whether the pregnancy was wanted or unwanted, apart from cases of fetal abnormality. Instead we used these criteria to group the studies for the analysis.</p> <p>We agree that there are problems associated with the terms 'wantedness' and pregnancy 'intention', and have discussed their limitations throughout the review. We have also discussed the lack of any gold standard study within this field of research (see Section 2.3), and have instead used what we believe is the best available comparison group.</p> <p>Furthermore, we have also included pressure from a partner to have an abortion within the</p>



					Women who abort an unwanted pregnancy under such circumstances are at higher risk of severe negative reactions. Excluding these women from analyses (as in Schmiede 2005) distorts research findings to reflect reactions of only an “ideal” study population by eliminating a subset of women in the real world population of women having abortions who are at higher risk of negative reactions.	review of factors associated with poorer mental health outcomes.
<b>2.3</b>	19	12	British Psychological Society	15/22	The Society suggests adding the criteria provided on p.6, lines 31-36. We would also recommend including a reference to the relevant section of the Abortion Act (H.M. Government, 1967) here.	Thank you for your comments. Our starting point for the review was women who had already had a legally authorised abortion, in the UK or other country where abortion of an unwanted pregnancy is legal. Although we have not amended this section of the review we feel we have covered this elsewhere in the introduction and methods. In particular, in response to comments received we have included more on the legal context in Section 1.3. and have further clarified the remit of the review
<b>2.3 and App 6</b>	19	15, 16, 19	British Psychological Society	16/22	The requirement for studies to have at least 100 participants is given as an additional criterion specific to review question 3. However, there are examples in Appendix 6 of studies excluded from review questions 1 and 2 on the sole basis of having fewer than 100 participants (e.g. Coleman & Nelson, 1998; Felton et al., 1998).	Thank you for your comments. This was an error within the table. This has been amended and the correct reason for exclusion inserted.
<b>2.3</b>	20	16-24	Elliot Institute, Springfield, Illinois, USA	29/87	<p>Comparative studies are clearly very important, but this review hastily excludes studies comparing women who abort to women who had not become pregnant.</p> <p>While this is appropriate in regard to the question of whether abortion has less mental health risk than not aborting an unintended pregnancy, this exclusion is inappropriate regarding proper disclosure of risks and expectations to patients considering an abortion.</p> <p>The relevance of comparing women who abort to those who do not is as follows.</p> <p>First, for many women, especially those facing a first pregnancy, abortion is sought with the expectation that it will “turn back the clock” so that her life will be the same as other “never pregnant women.” Comparisons of mental health to similar aged never</p>	<p>Thank you for your comment. The aim of the review was to assess the best available evidence from the perspective of the women. Women in the position of requesting an abortion do not have the option of ‘never pregnant’ therefore we wanted the comparisons to reflect the best available evidence from this perspective. The decision to exclude studies comparing women who have an abortion to those who have never been pregnant was based on this aim.</p> <p>We believe the review has used the best available evidence to answer the three research questions. We have discussed the ideal and pragmatic criteria for inclusion in the review in Section 2.3 of the methodology. We have also</p>

				<p>pregnant women is a reasonable way of determine if the goal of “turning back the clock” is achieved without psychiatric injury.</p> <p>Taking this approach a bit further, women with a history of multiple pregnancies may also want to “turn back the clock” on some but not all of their pregnancies. So a comparison of women who abort a pregnancy to all other women (those who have never been pregnant plus those have only been pregnant with pregnancies they wanted or were willing to “accept”) is also a legitimate test of whether abortion “turns back the clock” without psychiatric cost.</p> <p>Therefore, studies comparing women who abort to women who are not pregnant should not be excluded from the review but should instead be discussed in a separate subsection since it sheds light on the subject from a different angle.</p>	commented on the limitations of the available evidence, particularly the comparison groups used within studies (see Section 2.3)
2.3	19	25	SPUC	<p>4/5</p> <p>“Wantedness” is an inappropriate variable for this review. It cannot be assumed that all abortions are for uniformly ‘unwanted’ or ‘unintended’ pregnancies; that is far too simplistic. It cannot also be assumed that women who delivered ‘unwanted’ pregnancies were very similar to those obtaining an abortion, especially in retrospective studies. Many studies have investigated the concept of ‘wantedness’ and found it to be subjective, socially constructed, many-faceted, and subject to change throughout the pregnancy and beyond. For example:</p> <ul style="list-style-type: none"> <li>Williams and Abma (2000) found significant inconsistencies between women’s intentions for having or not having a baby, and their later reports about the wantedness of babies they actually had. A later paper about the same dataset (Williams, Piccinino, Abma &amp; Arguillas, 2001) said: “Of particular concern is the finding that women who reported their pregnancies as mistimed or unwanted were so much more likely to change their reports over time than were women who initially said that their pregnancies had been well timed.” Women’s views of their past pregnancies became more positive (15%) more often than negative (10%).</li> <li>Survey and interview data from the Philippines were compared and it was found that women gave conflicting reports about their attitudes to pregnancy in about one third of cases (Williams, Sobieszczyk &amp; Perez, 2001).</li> </ul>	<p>Thank you for your comments and suggested references. We believe the review has used the best available evidence to answer the three research questions. We have discussed the ideal and pragmatic criteria for inclusion in the review in Section 2.3 of the methodology. We have also commented on the limitations of the available evidence, particularly the comparison groups used within studies (see Section 2.3).</p> <p>We agree that there are limitations with the measure of pregnancy intention and wantedness; these have been extensively discussed in Section 2.3. However, we feel that in the absence of a gold-standard study design or comparison group, this comparison is the best available evidence for the review.</p>

				<ul style="list-style-type: none"> <li>• “Happiness” is an important measure of how a woman really feels about her pregnancy (Speizer, Santelli &amp; Afable-Munsuz et al, 2004).</li> <li>• Miller, Sable &amp; Csizmadia (2008) revealed how the concept of wantedness is socially constructed. Their research found that the measurement of “pregnancy wantedness” was most strongly predicted by “social reinforcement”, that is the importance of how the pregnant woman’s friends feel about the news. “Wantedness” of a pregnancy appears to have no association with child attachment security.</li> <li>• According to Rocca, Hubbard and Johnson-Hanks (2010), the concept of wantedness “is especially inappropriate for teenagers, who may be less likely to plan or time pregnancies consciously.” Some young women reported a pregnancy as ‘unwanted’ but were also happy about it. The intentions and attitudes of the men involved were extremely important in shaping the views of the women. These authors stress that “the predominant focus on intentional action ignores the degree to which human action is determined by culturally informed habits, customs, or systems of meaning of which individuals are not explicitly aware.”</li> <li>• The Guttmacher Institute published a paper discussing the complexities of intendedness (Santelli, Rochat, Hatfield-Timajchy et al, 2003). “Almost all studies of pregnancy intention focus on live births. Much less is known about intentions related to pregnancies ending in abortion. Measures usually consider all abortions to be the result of unintended pregnancies. However, a woman’s feelings about a specific pregnancy and her decision about abortion may be shaped by changes in the relationship with her partner, medical and psychiatric conditions, pressure from family members and results of prenatal diagnostic procedures.”</li> <li>• Similarly, Kroelinger and Oths (2000) found that ‘wantedness’ was influenced by many factors, including the support, concern, and dependability of the male partner. Fischer, Stanford, Jameson and DeWitt (1999) report the same finding.</li> <li>• Factors of poverty, social disadvantage, and sexuality are obscured when all abortions are assumed to be the ending of simply ‘unwanted pregnancies’, according to Santelli, Rochat,</li> </ul>	
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Hatfield-Timajchy et al (2003).

- Poole, Flowers, Goldenberg et al (2000) measured 'wantedness' in pregnancy at the second trimester and then third trimester. Many women changed their view of the pregnancy during this time. More often they changed their response in a positive direction (e.g. of the 186 women who reported at midpregnancy that it was 'unwanted', 30.7% switched to 'mistimed' and 6.4% switched to 'intended' at third trimester).

Fischer RC, Stanford JB, Jameson P and DeWitt MJ (1999), Exploring the concepts of intended, planned, and wanted pregnancy, *Journal of Family Practice* Vol. 48, No. 2, pp. 117-122.

Kroelinger CD and Oths KS (2000), Partner support and pregnancy wantedness, *Birth* Vol. 27, No. 2, June, pp. 112-119.

Miller WB, Sable MR and Csizmadia A (2008), Pregnancy wantedness and child attachment security: is there a relationship? *Maternal Child Health Journal* Vol. 12, pp. 478-487.

Poole VL, Flowers JS, Goldenberg RL, Cliver SP and McNeal S (2000), Changes in intendedness during pregnancy in a high-risk multiparous population, *Maternal and Child Health Journal* Vol. 4, No. 3, September, pp. 179-182.

Rocca CH, Hubbard AE, Johnson-Hanks J, Padian NS and Minnis AM (2010), Predictive Ability and Stability of Adolescents' Pregnancy Intentions in a Predominantly Latino Community, *Studies in Family Planning*, Vol. 41, No. 3, September, pp. 179-192.

Santelli J, Rochat R, Hatfield-Timajchy K, Gilbert BC, Curtis K, Cabral R, Hirsch JS, Schieve L et al (2003), The Measurement and Meaning of Unintended Pregnancy, *Perspectives on Sexual and Reproductive Health* Vol. 35, No. 2, March/April.

Speizer IS, Santelli JS, Afable-Munsuz I and Kendall C (2004), Measuring factors underlying intendedness of women's first and later pregnancies, *Perspectives on Sexual and Reproductive Health* Vol. 36, No. 5, pp. 198-205.

Williams L and Abma J (2000), Birth Wantedness Reports: A Look Forward and a Look Back, *Biodemography and Social Biology* Vol. 47, No. 3-4, Fall, pp. 147-163.

Williams L, Piccinino L, Abma J and Arguillas F (2001), Pregnancy Wantedness: Attitude Stability Over Time, *Biodemography and Social Biology*, Vol. 48, No. 3-4, Fall, pp. 212-233.

Williams L, Sobieszczyk T and Perez AE (2001), Consistency between survey and interview data concerning pregnancy wantedness in the

					Philippines, <i>Studies in Family Planning</i> Vol. 32, No. 3, pp. 244-253.	
2.3	19	25-28	Mount Joy College, Victoria, British Columbia, Canada	38/103	The authors compound the above problem by assuming “that all abortions were due to unwanted/unplanned pregnancies” This is an unwarranted assumption. In addition despite of their claim that unwanted was not the same as unplanned, they lump them together because they can’t know and nor could the researcher. So why use this criteria at all?	Thank you for your comment. We agree that there are limitations with the measure of pregnancy intention and wantedness; these have been discussed in Section 2.3. However, in the absence of a gold-standard study design or comparison group, we feel this comparison is the best available evidence for the review. Furthermore, the aim of the review was to assess the best available evidence from the perspective of the women. The options for a woman in the position of requesting an abortion are limited therefore we wanted the comparisons to reflect the best available evidence from this perspective.
2.3	20	27	Individual 9	10/25	Spelling of <i>January</i>	Thank you, this has been corrected.
2.3	19	30-31	Mount Joy College, Victoria, British Columbia, Canada	39/103	Almost every country places constraints or limits on performing abortions. They are legal, in the US and the UK under certain conditions. It is obvious that the authors ignore these conditions for their own purposes.	Thank you for your comment. Our starting point was women who had already had a legally authorised abortion, in the UK or other country where abortion of an unwanted pregnancy is legal. We have included an additional section on the legal context (see Section 1.3).
2.3	19	36-38	Mount Joy College, Victoria, British Columbia, Canada	40/103	The authors place no life span time limit on previous mental health problems, so it is safe to assume they include psychological problems when the subject was a child. Yet there is no evidence for this. It was not included in their inclusion criteria although it is probably more important than a previous adult psychiatric illness in the post abortion reaction. Most children would like to and do forget their previous problems. There is no standardized way previous mental health problems are determined. Is it a one time consultation with a psychiatrist? Is it a self assessment using a questionnaire found on some website? Is it receiving psychiatric medication, (used by many insurance agencies as the defining criteria) even when the distress is normal and self limiting such as grief. Since there is no standard criteria among psychiatrists, the authors are in no position to use this nebulous criteria to assess the quality of any research.	Thank you for your comments. The time span of previous mental health problems is not discussed within the papers. We have discussed the limitations with the measurement of previous mental health problems throughout the review (see Sections 2.2, 2.3 and 6). We have also discussed the measurement of previous mental health problems used within the individual studies, where such information was provided.

2.3	19	30	Christian Medical Fellowship	8/36	Note our comments at the end of this form and those on p33. The lack of UK based studies highlights the urgent need for linkage-based studies in the UK. Population-linked longitudinal data in England is not available. Every termination provider should routinely be required to record the patient NHS number. This data is needed urgently in order to test the UK evidence of sequelae from abortion and thus to enable future longitudinal studies of patient outcome.	Thank you for your comments. We agree that there is a need for further good quality longitudinal prospective research to be conducted within the UK context and have added this as a recommendation within the conclusion (see Section 6.3).
2.4 and App4	20	37-38	British Psychological Society	17/22	The search strategy is critical to ensure that all relevant data is accessed. In keeping with how services are now labelled (e.g. Termination of Pregnancy Clinic rather than Abortion Services), many recent studies have framed their work as studies of 'termination of pregnancy' rather than of abortion. Whilst some databases (e.g. PsycInfo) automatically expand 'abortion' to include termination of pregnancy Medline does not appear to do so. Indeed, a quick search on Medline using 'termination of pregnancy' calls up 5519 items of which 2755 are not identified by the term 'abortion'. Whilst this is inevitable -as termination of pregnancy is a broader construct -this calls into question the comprehensiveness of the search conducted for the purpose of this review. in the light of the limited information provided in Appendix 4, we suggest a check be made to ensure that relevant literature was adequately accessed. Some studies which one would have expected to have been considered, even if later excluded, do not feature. particularly those that have considered mode of termination (e.g. Howie <i>et al.</i> , 1997) which do provide, in total, substantive groups . A relevant UK review by Bradshaw and Slade (2003) is also not mentioned. In addition, the search strategy appears to concentrate more on diagnosed mental health disorders rather than considering the full mental health spectrum. It does not, for example, appear to include emotional health and wellbeing. Therefore, given the current title of the review, we consider its focus review to be inappropriately limited.	Thank you for your comment. The search updates the search strategy used in the APA review. To ensure the comprehensiveness of the terms used, we have conducted a supplementary search for 'termination of pregnancy' (plus variants) to identify any other potentially relevant studies for inclusion in the review. Please see Appendix 4 for the full list of terms used. Due to resource limitations, we were unable to conduct searches covering the full spectrum of mental health and psychological well-being. Adding in the additional search terms did not identify any new papers eligible for inclusion in the review.
2.3	20	40-44	Mount Joy College, Victoria, British Columbia, Canada	41/103	The authors indicate they used previous systematic reviews but made no mention of one by Ney et al. (20) Granted it was slightly beyond their time limit but it would have enlightened them to the state of research to that point.	Thank you for your comments. As you mentioned, the review was before the time limit of the present literature search.
2.5	21	2	Catholic Medical Association (UK)	19/50	<b>Selection of references</b> We note that of 6000 references originally found, there is	Thank you for your comments. In order to improve the transparency of the review, we have



					reduction to just a few for each question. Some studies that clearly attempted to control for pre abortion state (eg Fergusson) were excluded from analysis with regard to existing mental health. It is hard to be certain that bias is absent here.	now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies tables (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8).
2.5	21	2-8	Mount Joy College, Victoria, British Columbia, Canada	42/103	I don't expect anyone reading this report was convinced of the objectivity in selecting which articles to review when 2 reviewers resolved their disagreements by discussion. It is surprising that the authors did not use the standard technique to assess their determination of quality, ie obtain and write in this report what was the inter-rater reliability. Are they so embarrassed they don't wish to share such a finding when they have no hesitation of requiring this of others.	Thank you for your comments. This is standard good practice when conducting a systematic review. In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies table (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8). We have also added in the inter-rater reliability score for the quality assessment of studies reported in the review (see Section 2.9).
2.6	21	16-48	Mount Joy College, Victoria, British Columbia, Canada	6/103	<b>Selection of articles.</b> The author's bias is nowhere more apparent than in the selection of relevant articles; even in the selection of mesh headings. Eg. "abortion" etc but not "pregnancy outcome" which would have netted more articles with a wider range of outcomes. It should be noted that some researchers preferentially use "pregnancy outcome" and "pregnancy losses" because it is easier to get their research published using these terms rather than with "abortion". Why not use "health" and "mourning" and "weight gain" and "bonding" and "death" unless of course one does not wish to entertain the possibility these are relevant to matters of mental health.	Thank you for your comments. Incorporation of the suggested terms would have resulted in a large number of false positive records that would have to be screened and discarded manually. Although it was important to identify all the relevant literature, there needed to be a trade-off between undertaking a highly sensitive search (which would have required additional resources) versus a slightly more specific approach that may have missed some studies. Given the time limitations of the project, it was not possible to review the wider literature on the topic in question.
2.6	21	19-48	Christian Medical Fellowship	9/36	As our concerns on p23 below suggest, there is insufficient information and transparency provided on how the NICE guidelines were applied to specific research studies and what scores were given.	Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9) We have also included a table detailing the ratings of each study using the Charles quality criteria (see

						Appendix 9). Further details about the NICE quality rating of the study are provided in the data extraction forms (see Appendix 8).
2.6	21	19-48	Individual 16	7/33	It is not clear how the NICE guidelines were applied to specific research studies, and the final scores given to those studies?	Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9). We have also included a table detailing the ratings of each study using the Charles quality criteria (see Appendix 9). Further details about the NICE quality rating of the study are provided in the data extraction forms (see Appendix 8).
2.6	21	19-48 Table 2	Elliot Institute, Springfield, Illinois, USA	27/87	<p>The grading of the studies seems inconsistent. For example, see our comments later regarding the inconsistency of grading the NLSY studies.</p> <p>Regarding Table 2 in general, using these criteria we know of no studies that have a strong assessment of pre-pregnancy mental health problems. Therefore, none should be rated as “Very Good.” For example, Munk-Olsen2011 is rated as “very good” but includes only blunt measures of prior mental health (excluding women with any history of inpatient history, and examining only nine months prior to the pregnancy outcome – which includes pre- and post-pregnancy time for women having abortion and only post-pregnancy time for women who carry to term.) This data includes no measure of frequency of treatments or diagnosis or any other means of rating the severity of pre-existing issues or a comparison to severity of subsequent issues. If women with pre-existing issues continued to have problems, but after abortion those problems were (a) less severe, or (b) more severe would yield two vastly different conclusions. In addition, Munk-Olsen only looks at one year post-abortion, even though there is ample evidence that many women have more delayed reactions and that negative reactions increase over at least two years (Major2000). While the Munk-Olsen2011 study is better than most in that it includes at least some data regarding pre-abortion mental health, this data can only be characterized as a weak measure of pre-pregnancy mental health.</p> <p>Similarly, it is very hard to see how MunkOlsen2011 gets a</p>	<p>Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9).</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of <b>each of the categories within Section 2.3.</b></p> <p><b>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9). We have also noted the problems with control for previous mental health problems throughout the review.</b></p>

					<p>ranking of +(Thorough) for confounder control. There is a lack of control for marital status, and socio-economic factors, much less severity and frequency of pre-existing mental health problems and specific diagnoses. A regular + is appropriate, but we disagree that it can be rated as thorough.</p> <p>Why isn't there a "Good" rating? Jumping from "Fair" to "Very Good" implies a quality gap that isn't there.</p> <p>It is also very unclear how a study is rated if it has a mix of – and + ratings not shown in the table.</p>	
2.6	21	22-32	Dept of Adult Psychiatry, University College Dublin	2/26	<p>It is unclear how these NICE quality controls were applied to individual studies since the data is not presented in the review. It is all very well having checklists but the readers need to see the scores for the individual items awarded to each study. For example studies that have a high risk of detection bias because of their methodology e.g, Gilchrist and Munk-Olsen are given prominence in this review and in the conclusions.</p> <p>Does study quality, in each table, refer to NICE or Charles criteria? This should be clarified.</p>	<p>Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9). We have also included a table detailing the ratings of each study using the Charles quality criteria (see Appendix 9). Further details about the NICE quality rating of the study are provided in the data extraction forms (see Appendix 8).</p>
2.6	21	34-48	Elliot Institute, Springfield, Illinois, USA	26/87	<p>The tables and analysis should distinguish between studies that control for "post-pregnancy/pre-abortion mental health" (for example, Major (2000)) and those that control for "pre-pregnancy/pre-abortion mental health." [For example, Fergusson (2009), Reardon (2003).</p> <p>Post-pregnancy/pre-abortion mental health assessments are better than nothing, but they should be graded as weak because they employ a control variable that is may be misleading in overestimating the prevalence of mental health problems prior to the unplanned/unwanted pregnancy.</p> <p>For example, in many cases, brief psychiatric measures are administered at the abortion clinic only minutes or hours before the abortion [example, Major (2000)]. Since women seeking an abortion may be facing psychiatric stress, particularly on the day of the abortion, these data points may not be representative of the psychiatric health of the women prior to becoming pregnant.</p> <p>For example, women with no prior history of anxiety may report elevated rates of anxiety on the day of the abortion which reflects situational anxiety. If such women have elevated rates of</p>	<p>Thank you for your comments. We agree that this is a very important point. We have separated the studies which controlled for previous mental health problems from those which did not. The example you give of the Major study is included in the latter group for the reasons you mention.</p> <p><b>In many cases, it is unclear from the reports whether the control for previous mental health is during or before the pregnancy. We do not feel that we would be able to split the studies up further due to the lack of detail in the majority of them.</b></p> <p>We have however discussed the limitations with the timing and assessment of previous mental health outcomes throughout the review (see Section 2 for an example). Furthermore, within the narrative review for each study we have discussed the limitations with the particular method of previous mental health control used.</p>

					<p>generalized anxiety following the abortion, due to unresolved abortion stresses, a comparison to anxiety levels on the day of the abortion may result in the misleading conclusion that the abortion had no lasting impact on their anxiety levels.  [Generalized Anxiety Following Unintended Pregnancies Resolved Through Childbirth and Abortion: A Cohort Study of the 1995 National Survey of Family Growth, Jesse R. Cogle, David C. Reardon, Priscilla K. Coleman, Journal of Anxiety Disorders, 2005 19(1):137-142.]</p> <p>Controls for psychiatric history representing women's psychiatric state prior to becoming pregnant are strongly preferred and should be assessed separately from those which compare post-pregnancy/pre-abortion mental health, on the day of the abortion itself no less, with post-abortion assessments.</p>	
2.6	21-22	35-48	Christian Medical Fellowship	10/36	<p>Despite the shortcomings of the Charles review, this was used as the basis for rating the research. The shortcomings and subjectivity of using the Charles criteria need to be acknowledged and taken into account in the review. For example, the Charles criteria ignore several key elements, such as ranking for high drop out rates and non participation. This can clearly bias results.</p>	<p>Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9).</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9.</p> <p>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9). We have also noted the problems with control for previous mental health problems throughout the review.</p>
2.6	21-22	35-48	Individual 16	8/33	<p>The Charles criteria are subjective, and the difficulties in using them need to be more fully drawn out</p>	<p>Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater</p>

						<p>reliability (see Section 2.9).</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9.</p> <p>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9). We have also noted the problems with control for previous mental health problems throughout the review.</p>
<b>2.6</b>	21	42-45	Mount Joy College, Victoria, British Columbia, Canada	43/103	We found Visual Analogue Scales compared to rating scales more accurate and more often answered because it is so much easier to self rate. But these authors make no reference to their use in research.	Thank you for your comments. We believe we have used the best available evidence and most standardised method of assessing outcomes. This also reflects the tools most likely to be used within clinical practice.
<b>2.6</b>	21	47-48	Mount Joy College, Victoria, British Columbia, Canada	44/103	The authors stating many researchers did not investigate “prevalence rates per se” Apart from the Danish and the Fergusson studies, I know of no study that did a proper epidemiological investigation to determine the prevalence of abortion and related mental health problems	Thank you for your comments. This is a general limitation of the data set. Our job is to report and analyse the rates reported in the studies. We have discussed the limitations of the data including the interchangeable use of period prevalence, point prevalence and incidence (see Section 3.3.1). The Danish paper you refer to actually reports incidence and cumulative incidence rate ratios which, alongside the raw numbers have been used to estimate period prevalence rates (see Section 2.10 in the methods for further details of the data extracted).
<b>2.7.1</b>	22	16-24	Mount Joy College, Victoria, British Columbia, Canada	45/103	This reports reliance on the DSM IV and V in light of recent heavy criticism mainly by its principal originator, puts all the conclusions in question. A much better method is to recognized almost all observable phenomena are on a continuum and use a Visual Analogue Scale which can pose the full range of	Thank you for your comments. We believe we have used the best available evidence and most standardised method of assessing outcomes. This also reflects the tools most likely to be used within clinical practice.

					possibilities between 2 extremes.	
2.7.3	23	9-11	Mount Joy College, Victoria, British Columbia, Canada	46/103	Rating scales are not continuous outcome measures. Only Visual Analogue Scales are.	Thank you for your comments.
2.8	23	26	SPUC	2/5	This is an inadequate description of how studies were “seen as potentially relevant.” Many studies are missing from this review, either with no explanation, or based on small or large methodological flaws. The result is that this review in its draft form fails to represent the body of knowledge on abortion and psychology. It does appear, at this draft stage, that many papers concluding that abortion has a net harmful effect on women’s post-abortion mental health have been excluded.	Thank you for your comments. In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies tables (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8) and provided additional details about the study quality assessment process, including inter-rater reliability (see Appendix 9).
2.8	23	26-32	Christian Medical Fellowship	11/36	Although this is not an entirely unusual rate of exclusion of studies, <b>there is a concerning lack of transparency in the inclusion and exclusion process.</b> The authors exclude studies if they do not contain ‘useable data’ or did not use a ‘validated measure of mental health’ but they fail to explain what these actually constitute. <b>There is insufficient transparency regarding the reasons for excluding hundreds of peer-reviewed studies</b> , many of which may have failed in just one or two criteria but could still provide useful findings.	Thank you for your comments. In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies tables (see Appendix 7). Additionally we have included full data extraction tables for each of the studies included (see Appendix 8) and provided additional details about the study quality assessment process, including inter-rater reliability (see Appendix 9).
2.8	23	26-32	Individual 16	9/33	Simply stating that studies do or do not contain “useable data” or “validated measures” is insufficient. There needs to be better explanation of the inclusion / exclusion process used. There are many many other studies (peer-reviewed, in many in reputable journals) that seem to have been ignored here.	Thank you for your comments. In order to improve the transparency of the review, we have now included a flow diagram of the search process (see Section 2.6) and have included further details in the included and excluded studies tables (see Appendix 7) including defining what is meant by the terms no useable data. Additionally, the methods section of the review (Section 2) has been amended to clarify the type of useable and extractable data for each review.
2.8	23	26-36	Mount Joy College,	47/103	On the basis of the criteria stated in this report there was no	Thank you for your comment and for the



			Victoria, British Columbia, Canada		reason to exclude our study on the “Effects of Pregnancy Loss on Women’s Health (8).	suggested reference. We have collated and assessed all new papers recommended during the consultation period and included any study which meets the inclusion criteria. For a full list of references recommended, please see Appendix 4.
2.8	23	26-39	American Association of ProLife Obstetricians and Gynecologists	2/5	<p>RCOP is to be applauded for undertaking a large-scale review of the relationship between abortion and mental health problems. Such a study is very important for the health of women throughout the world. Other reviews such as the APA review have not been satisfactory. We have been contacted by physicians from South Korea and the Peoples Republic of China, who believe their high rate of suicide in young women their countries is related to the high prevalence of abortion. They are interested in good literature on the subject and do not believe the psychiatric societies in the US or UK have produced an accurate analyses thus far.</p> <ol style="list-style-type: none"> <li>1. Allanson, S., &amp; Astbury, J. (2001). Attachment style and broken attachments: Violence, pregnancy, and abortion. <i>Australian Journal of Psychology</i>, 53, 146-151.</li> <li>2. Bianchi-Demicheli, F et al (2002). Termination of pregnancy and women’s sexuality. <i>Gynecol Obstet Invest</i>, 53, 48-53.</li> <li>3. Boesen, H.C., Rorbye C., Norgaard, M., Nilas, L. (2004). Sexual behavior during the first eight weeks after legal termination of pregnancy. <i>Acta Obstetrica et Gynecologica Scandinavica</i>, 83, 1189-1192.</li> <li>4. Bradley, C.F. (1984) Abortion and subsequent pregnancy. <i>Canadian Journal of Psychiatry</i>, 29, 494.</li> <li>5. Bradshaw, Z., &amp; Slade, P. (2003). The effects of induced abortion on emotional experiences and relationships: A critical review of the literature. <i>Clinical Psychology Review</i>, 23, 929-958.</li> <li>6. Broen, A. N., Moum, T., Bodtker, A. S., &amp; Ekeberg, O. (2005b). Reasons for induced abortion and their relation to women’s emotional distress: A prospective, two-year follow-up study. <i>General Hospital Psychiatry</i>, 27(1), 36-43.</li> <li>7. Butlet, C. (1996). Late psychological sequelae of abortion: Questions from a primary care physician. <i>Journal of Family Practice</i>, 43, p. 396-401.</li> <li>8. Cohan, C. L., Dunkel-Schetter, C., &amp; Lydon, J. (1993). Pregnancy</li> </ol>	Thank you for your comments and for the suggested references. We have collated and assessed all new papers recommended during the consultation period and included any study which meets the inclusion criteria. For a full list of references recommended, please see Appendix 4.

					<p>decision making: Predictors of early stress and adjustment. <i>Psychology of Women Quarterly</i>, 17, 223-239.</p> <p>9. Coleman, P. K., Maxey, C. D., Rue, V. M., &amp; Coyle, C. T. (2005). Associations between voluntary and involuntary forms of perinatal loss and child maltreatment among low-income mothers. <i>Acta Paediatrica</i>, 94(10), 1476-1483.</p> <p>10. Coleman, P. K., Reardon, D. C., &amp; Cogle, J. (2002). The quality of the caregiving environment and child developmental outcomes associated with maternal history of abortion using the NLSY data. <i>Journal of Child Psychology and Psychiatry</i>, 43, 743-757.</p> <p>11. Coleman, P. K., Reardon, D. C., Strahan, T., &amp; Cogle, J. R. (2005). The psychology of abortion: A review and suggestions for future research. <i>Psychology and Health</i>, 20, 237-271.</p> <p>12. Cote-Arsenault, D., Dombeck, M. T. B. (2001). Maternal assignment of fetal personhood to a previous pregnancy loss: Relationship to anxiety in the current pregnancy. <i>Health Care for Women International</i> 22, 649-665.</p> <p>13. Fayote, F.O., Adeyemi, A.B., Oladimeji, B.Y. (2004). Emotional distress and its correlates. <i>Journal of Obstetrics and Gynecology</i>, 5, 504-509.</p> <p>14. Fielding, S. L., &amp; Schaff, E. A. (2004). Social Context and the Experience of a Sample of U.S. Women Taking RU-486 (Mifepristone) for Early Abortion. <i>Qualitative HealthResearch</i>, 14, 612-627.</p> <p>15. Harlow, B. L., Cohen, L. S., Otto, M. W., Spiegelman, D., &amp; Cramer, D. W. (2004). Early life menstrual characteristics and pregnancy experiences among women with and without major depression: the Harvard Study of Mood and Cycles. <i>Journal of Affective Disorders</i>, 79, 167-176.</p> <p>16. Hemmerling, F., Siedentoff, F., &amp; Kentenich, H. (2005). Emotional impact and acceptability of medical abortion with mifepristone: A German experience. <i>Journal of Psychosomatic Obstetrics &amp; Gynecology</i>, 26, 23-31.</p> <p>17. Husfeldt, C., Hansen, S. K., Lyngberg, A., Noddebo, M., &amp; Pettersson, B. (1995). Ambivalence among women applying for abortion. <i>Acta Obstetrica et Gynecologica Scandinavica</i>, 74, 813-17.</p> <p>18. Kero, A., Hoegberg, U., Jacobsson, L., &amp; Lalos, A. (2001). Legal abortion: A painful necessity. <i>Social Science and Medicine</i>, 53, 1481-1490.</p> <p>19. Kero, A., Hoegberg, U., &amp; Lalos, A. (2004). Wellbeing and mental growth – long-term effects of legal abortion. <i>Social Science and</i></p>
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					<p>physical and psychological health consequences of induced abortion: Review of the evidence. <i>Obstetrical &amp; Gynecological Survey</i>, 58(1), 67-79.</p> <p>45. Tornbom M. and Moller A. (1999). Repeat abortion: A qualitative study. <i>Journal of Psychosomatic Obstetrics and Gynecology</i>, 20, 21-30.</p> <p>46. Turell, S., Armsworth, M., &amp; Gaa, J. (1990). Emotional Response to Abortion: A Critical Review of the Literature. <i>Women &amp; Therapy</i> 9, 49-68.</p> <p>47. Wilmoth, G. H., deAlteriis, M., &amp; Bussell, D. (1992). Prevalence of psychological risks following legal abortion in the U.S.: Limits of the evidence. <i>Journal of Social Issues</i>, 48, 37-66.</p>	
2.8	23	31	Individual 16	10/33	<p>It seems perverse to exclude studies that sample women who report having a negative reaction to abortion! Much more information than this would be required to legitimately exclude such a study. Whilst I appreciate the need for brevity in describing the process of inclusion / exclusion, there is far too little information on these points overall.</p>	<p>Thank you for your comments. When assessing prevalence rates and making comparisons between women who have an abortion and those who continue with the pregnancy, there is a need for the sample to be as representative of the population as possible. Therefore we have excluded In this section, studies focusing on these women, as they reflect a sub-group of the population.</p> <p>However we agree that this is an important source of evidence in determining what factors are associated with poorer outcomes following an abortion. Consequently, following the consultation period, we have now included women who report negative reactions or report for treatment, within the review of factors associated with poor mental health outcomes, providing the study met the other inclusion criteria (see Section 2.3).</p>
2.8	23	35-39	Right to Life	3/8	<p>The document states that, for consideration in the study, papers were “excluded if they were not written in English”. While this might be reasonable (certainly for the sake of time or availability of resources), it is worth pointing out that this exclusion could well bias due to papers that are excluded (of which many, if not all, will presumably have been peer-reviewed). A more comprehensive study would be more appropriate for a subject as important and as consequential as this. Moreover, the exact reasons for such a linguistically particular approach are not given, which (as with the above problem regarding a ‘validated</p>	<p>Thank you for your comment. Unfortunately we do not have the resources to translate and include non-English studies. In order to improve the transparency of the review, we have provided additional details about the search process and reasons for inclusion and exclusion (see Section 2.6).</p>

					measure of mental health', or 'useable data') is a lack of transparency.	
2.8	23	32-33	Right to Life	2/8	The document states that certain studies were excluded on the grounds that they "did not use a validated measure of mental health or did not contain any useable data". No detail is given on what, for the authors, precisely constitutes a 'validated measure of mental health', or "useable data". This vagueness constitutes a lack of transparency with regards to the basis on which studies were excluded.	Thank you for your comments. In order to improve the transparency of the review, we have provided additional details about the study quality assessment process, including inter-rater reliability (see Section 2.9) We have also included a table detailing the ratings of each study using the Charles quality criteria (see Appendix 9). Further details about the NICE quality rating of the study are provided in the data extraction forms (see Appendix 8).
2.8	23	35-37	Christian Medical Fellowship	12/36	While it is reasonable in terms of resource availability to do a systematic review that only includes papers published in English, it is noteworthy that, consequently, papers not published in English are excluded which may well introduce bias.	Thank you for your comment. Unfortunately we do not have the resources to translate and include non-English studies.
2.8	23	35-37	Individual 16	11/33	English language selection is understandable, but also potentially introducing bias	Thank you for your comment. Unfortunately we do not have the resources to translate and include non-English studies.
2.9	23	41	Christian Medical Fellowship	13/36	It is not possible to compare all the selected data that is used in the text with the original papers because the data extraction tables have not been included. It would have been helpful if the authors had included the data extraction tool and the data extracted from the original studies. <b>These data tables should be provided.</b> Since the data selection used is not fully transparent we are unable to verify all the analysis, <b>leaving some of the analysis more open to question.</b>	Thank you for your comments. The data extracted from each study was provided in the study characteristics tables and results tables included in each section of the review. However, in order to improve transparency and make it easier for the reader, we have now included the full data extraction tables (Appendix 8), alongside the quality ratings (Appendix 9) and further information about inclusion and exclusion (Appendix 7).
2.9	23	41	Individual 16	12/33	Data extraction is critical to this review. Details of data extraction tools / tables of data extracted should be included, or the analysis is questionable	Thank you for your comments. The data extracted from each study was provided in the study characteristics tables and results tables included in each section of the review. However, in order to improve transparency and make it easier for the reader, we have now included the full data extraction tables (Appendix 8), alongside the quality ratings (Appendix 9) and



						further information about inclusion and exclusion (Appendix 7).
<b>2.9</b>	24	36-37	Mount Joy College, Victoria, British Columbia, Canada	48/103	It would be very informative to have a list of the experts the authors consulted. I might have been wiser to consult international experts who can represent a wider variety of opinions.	Thank you for your comments we have now included a list of those we contacted in Appendix 2.
<b>2.10</b>	24	41	Individual 10	1/5	<p>We recently completed a systematic review of the literature on abortion and subsequent mental health in fulfilment of a PhD at McGill University in Montreal (MCurley). In this review, we applied the Meta Analysis of Observational Studies in Epidemiology (MOOSE) criteria for evaluating studies and found different results than those of the Royal College of Psychiatrists.</p> <p>Consequently, we were surprised when the NCCMH report on “Induced Abortion and Mental Health” failed to follow standard epidemiological criteria such as the MOOSE or STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines in assessing these studies.</p> <p>Using these guidelines, combined with grading of levels of evidence based on Guyatte et al , the highest criterion we found was the study by FERGUSSON2008. By contrast, your report evaluated Fergusson as “very poor”.</p> <p>The FERGUSSON2008 study is widely accepted, while the study by GILCHRIST1995 which is clearly inferior was rated above it.</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criterion to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.3. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>In your comment you refer to the rating of the FERGUSSON2008 study as very poor, however, the rating of very poor related to the grading of the evidence / outcome and not specifically to the study. GRADE rates the quality of each outcome based on set quality criteria. We have included further detail about the GRADE process and included an example GRADE profile in</p>

						Section 2.12. If only one study has contributed data to a particular outcome, the evidence is likely to be very poor. This reflects the uncertainty of the evidence and paucity of the data as opposed to just the quality of that individual study. Full GRADE profiles for each outcome are provided in Appendix 11 for further information.
2.10	24-25	41	Christian Medical Fellowship	14/36	Similarly, it is <b>not clear on what basis the gradings were made for quality</b> . Which criteria were more important than others? How did the reviewers reach conclusions about the quality of studies? Which criteria were met or not met? For example, we are concerned that Fergusson 2009 is rated as 'fair' while Steinberg study 2 is rated as 'very good', which is different to previous reviews. Fergusson 2009 (and 2008) is a longitudinal study, a primary analysis and controls well for confounders. In contrast, Steinberg 2008 study 2 is a secondary analysis, it is cross-sectional and it uses data from a pre-existing database. It should not be graded as very good. More justification and transparency on the ratings is necessary here.	<p>Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>We have also provided further detail about the GRADE process; including an example GRADE profile (see Section 2.12). GRADE rates the quality of each outcome based on set quality criteria. Full GRADE profiles for each outcome are provided in Appendix 11 for further information.</p>
2.10	24-25	41	Individual 16	13/33	Some of the gradings don't appear sensible. A primary analysis like Fergusson 2009 gets "fair" whilst "very good is given to some studies of lower quality. A more detailed justification is needed	Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality

					<p>for the gradings. Please note that use of GRADE and GRADE profiler software is not a justification, it is a method, and that in itself needs to be justified. Where these things are not clear, findings and conclusion of the review become open to questions of bias, once again.</p>	<p>assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a “good” category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>We have also provided further detail about the GRADE process; including an example GRADE profile (see Section 2.12). GRADE rates the quality of each outcome based on set quality criteria. Full GRADE profiles for each outcome are provided in Appendix 11 for further information.</p>
<b>2.10</b>	24 25	43 25	Right to Life	4/8	<p>We would enquire as to how exactly gradings of studies were made for quality? How did each study meet or fail to meet the criteria? How were some criteria determined to be more pertinent or relevant than others? By what means did the reviewers of the studies attain to their conclusions with regards to the quality of each study? It is notably odd that Fergusson (2009) has been rated as ‘fair’ and Steinberg (2008) study two has been rated as ‘very good’ (pg. 67, Table 12: ‘Summary characteristics of studies that did not control for whether the pregnancy was wanted or planned’). Especially given that appears to contradict previous reviews, on what basis was such a determination reached? Again, there is great lack of methodological clarity (and thus transparency) here.</p>	<p>Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criteria to rate the representativeness of the sample included in</p>

						<p>the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>We have also provided further detail about the GRADE process; including an example GRADE profile (see Section 2.12). GRADE rates the quality of each outcome based on set quality criteria. Full GRADE profiles for each outcome are provided in Appendix 11 for further information.</p>
2.10	24 and 25	45-46 and 1-45	Mount Joy College, Victoria, British Columbia, Canada	11/103	<p><b>Grading.</b> Although the authors used the GRADE to help them select the best studies, they did not obtain a second opinion from experts not already committed to a particular point of view regarding abortion. They used as major criterion “unplanned” and “unwanted” which could not be less scientific, (see above). They also considered interviews as superior to self report but from long experience in data collection, I warrant that interviewers have subtle ways of imposing more not less bias compared to self administered questionnaires.(13)</p>	<p>Thank you for your comments. The GRADE process is not used to rate the individual studies or to select the best studies. Instead GRADE rates the quality of the evidence for each outcome. In order to increase the transparency of the review we have included further detail about the GRADE and other quality assessment processes (see Section 2.12). We have also provided further detail and justification for the approach taken in the review, including the use of unwanted and unplanned comparison groups (see Section 2.3).</p>
2.10	24	46	Mount Joy College, Victoria, British Columbia, Canada	49/103	<p>As the authors note, randomized trials cannot be done on humans to determine if abortion is good treatment but it can be done on animals. There is no comment on this obvious gap. Randomized studies on animals should have been required many years previously if abortion was considered, as it should have been, an “unproven treatment” If that had been done many of the questions the authors attempt to address would have been answered. A good example would be to determine whether randomized abortions done at various stages of a rat’s pregnancy has any effect on its parenting. This could be quickly determined using a T maze. I have written a protocol but have been unsuccessful in obtaining research funding for the study.</p>	<p>Thank you for your comments. Studies on animals are beyond the scope of the present review.</p>

2.10	25	9	Individual 9	11/25	Spelling of <i>bias</i>	Thank you, this has been corrected.
2.11	25-26		Christian Medical Fellowship	16/36	This is welcome. However there is no detail provided as to who will be, or has been, contacted and whether their responses will be made public. Nor is any information offered as to the weight that will be given to any comments provided. Clearly it is in the interests of transparency, objectivity and rigour to know who has been, (and who has not been), approached directly and specifically for comments. We emailed the RCPsych to request this information but it has not been supplied to us.	Thank you for your comment. This information was provided on the consultation form and your email was answered. Comments and responses will be made public. A full list of consultees is in Appendix 3.
2.11	25-26		Individual 16	15/33	Were any groups approached specifically / directly for consultation? If so this should be stated.	Comments and responses will be made public. A full list of consultees is in Appendix 3.
2.11	25-26	47-48	Christian Medical Fellowship	15/36	<p>Although this review uses well-recognised methodological analysis, 'evidence' can come in many forms. Considering the research evidence is still poor, and given the limitations in quantitative research, the views, and experiences of women, clinicians and other experts should be consulted along with the statutory organisations and relevant Royal Colleges.</p> <p>Their voice should therefore provide an important source of 'evidence' and should contribute to the review.</p> <p>Fully randomised trials on abortion are clearly unethical to carry out, therefore qualitative studies should have a place in the review. Of course qualitative research is not easy either and the researcher's prior position can be an important confounder if not dealt with properly. But given the limitations in the current data, other methods to seek the views and experiences of those involved in the care of women who have had an abortion should be considered as a valid source of evidence. Indeed, this would add "depth" and richness to the data which is frequently lacking in quantitative statistical methods. The voices of women's experiences are lost in the statistics. We note as illustration, Goodwin and Ogden's qualitative study of 10 women "<i>Women's reflections upon their past abortions: An exploration of how and why emotional reactions change over time,</i>" <i>Psychology &amp; Health</i> Vol 22, Issue 2, 2007, Pages 231 - 248.</p>	<p>Thank you for your comments. We agree that qualitative evidence is important in this area. Unfortunately it was beyond the scope and resources of the review to consider qualitative evidence.</p> <p>We also agree with your point that a randomised trial of abortion would not be morally or ethically possible and have discussed this lack of gold standard study and comparison within Section 2.3 of the review.</p>
2.11	25-26	47-48	Individual 16	14/33	Whilst experience is qualitative evidence, handled appropriately it is extremely valuable – it would be helpful to include studies looking specifically at the experience of women who have	Thank you for your comments. We agree that qualitative evidence is important in this area. Unfortunately it was beyond the scope and resources of the review to consider qualitative

					undergone abortions. This is notably absent.	evidence.
2.11	26	1-4	Christian Medical Fellowship	17/36	<p>While the research itself highlights the fact that the scientific standard of studies is poor and there are real limitations within the data, the evidence statements, which in effect provide the conclusions to the review, fail to reflect this <b>uncertainty of the data findings</b>. They are too definitive in claiming there are no differences between outcomes of pregnancy and abortion, when <b>the data itself is less clear and convincing</b>.</p> <p>Moreover, the report should state clearly, where appropriate, that failure to demonstrate a statistically significant relationship is not the same as demonstrating the absence of such a relationship.</p>	Thank you for your comments. In addition to looking at the statistical significance of the results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there 'was no statistically significant effect' rather than stating there was no effect. We have also discussed the limitations of the evidence and the problems with drawing firm conclusions throughout the evidence statements and conclusion of the review.
2.11	26	1-4	Individual 16	16/33	<p>There is considerable uncertainty in the data findings, which is not reflected in the evidence statements. The clear way they declare no differences in outcomes between pregnancy and abortion smacks of a preformed view when one examines the data – which is not so clear, nor so persuasive in this direction as the evidence statements suggest. Whilst medical literature as a whole remains obsessed with demonstrating statistically significant relationships (to the distress of many statisticians!), this report should note the fact that if a paper does not demonstrate a statistically significant relationship <b>that is not the same thing as there being no such a relationship</b>.</p>	Thank you for your comments. We have discussed the limitations of the evidence and the problems with drawing firm conclusions throughout the evidence statements and conclusion of the review. In addition to looking at the statistical significance of the results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there 'was no statistically significant effect' rather than stating there was no effect.
2.11	26	4	Mount Joy College, Victoria, British Columbia, Canada	50/103	<p>I am quite sure the authors understand that bias is always present and will effect observation. It is particularly prevalent in interview-collected data. If researcher will not be honest about their bias and try to control for its effect, their research should be discounted. This is especially true for authors like Major who play many roles in promoting the idea that abortion is not significantly harmful. The authors know this but have not used that information in evaluating the quality of her research.</p>	Thank you for your comments. We have discussed the limitations of each of the included studies as well as summarising the general limitations of the evidence base. We have also discussed the problem of bias in data collection such as interviewer bias and the way questions may be phrased etc. (see Section 8).
<b>Section 3 - Prevalence</b>						
3, 4, 5			Department of Psychological Medicine, University of Otago, NZ	3/5	<p>The Reporting of Our Research:</p> <p>We have some very severe concerns about the ways in which our research (The Christchurch Health and Development Study)</p>	Thank you for your comments which have been invaluable in improving the quality of the draft. We have addressed and amended where appropriate the reporting of the data:



is reported. These problems include:

1) **The reporting of ORs:** In the supplementary analysis we prepared, it turned out to be statistically convenient to use those having abortion as a reference group. The reason for this was that we could make multiple comparisons between those having abortion and other population groups on a consistent basis. A consequence of this decision was that ORs and RRs less than one implied an increase in mental health risks in those having abortion. The report faithfully reports the risk ratio estimates we provided but because of the analysis we conducted, these risk ratios are the inverse of the other ratios that are reported. There is a simple solution to this problem, since by taking inverses it is possible to set the CHDS risk ratio estimates and confidence intervals on the same basis as the other risk ratio estimates. This transformation will make the risk ratio estimates from the CHDS consistent with the other risk ratios.

2) **Assessment of study quality:** We would seriously question the accuracy and veracity of the rating of Table 15 of our 2008 study (FERGUSON 2008) as “Fair” when compared to the ratings given to STEINBERG 1B as “Very Good.” The table below compares the characteristics of these studies in terms of: design; the assessment of outcome; use of comparison group; the number of covariates controlled; the duration of follow up; and statistical power. It can be seen that with the exception of statistical power, the Steinberg study fares worse than FERGUSON 2008 on all other criteria. Specifically: a) FERGUSON 2008 used a prospective longitudinal design with repeated measures of pregnancy and mental health collected over a 15 year period; in contrast STEINBERG 1B reported a single cross-sectional comparison; b) FERGUSON 2008 used strict DSM criteria to assess disorder, whereas the assessments used by Steinberg were “reflective of DSM criteria”; c) FERGUSON 2008 used the theoretically appropriate measure of unwanted pregnancy, whereas STEINBERG 1B used the weaker criterion of unintended pregnancy; d) control of covariates was far more extensive in FERGUSON 2008; e) rates of mental health problems over follow up periods ranging from 3-5 years were considered by FERGUSON 2008, whereas length of follow up for STEINBERG 1B was more variable and up to 20 years after abortion. We fail to see, given this evidence, how the authors of the report could have arrived at a rating of

1) We have now amended this to present odds ratios which are consistent with the odds ratios reporting in other studies. We have also made it clear that the data were obtained from personal correspondence (see Section 5.4.2).

2) In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).



“Fair” for FERGUSON 2008 and “Very Good” for STEINBERG 1B. It is our view that given the criteria in the table below both studies should have been rated “Moderately Good”.

FERGUSON 2008 clearly has a stronger design, better measurement of outcome and exposure and greater control of confounding. On the other hand, the large sample size of STEINBERG 1B gives this study greater precision.

Table 1. Comparison of FERGUSON 2008 and STEINBERG 1B.

Study Features	FERGUSON 2008	STEINBERG 1B
Design	Longitudinal	Cross-sectional
Outcome	DSM IV	Consistent with DSMIV
Exposure	Unwanted Pregnancy	Unintended Pregnancy
Number of Covariates	17	8
Follow up	Repeated 3-5 year intervals	Variable up to 20 years
Statistical Power	Limited	Good

3) **Misreporting of study design:** There are several errors in the reporting of our study design. First it is claimed that “FERGUSON 2008 did not control for any multiple pregnancy outcomes” (p.80). This statement is incorrect in at least two ways: (a) As shown in the statistical model, multiple pregnancy outcomes including abortion, pregnancy loss, unwanted pregnancy and other pregnancies were included in the analysis. This makes it possible to contrast the risks associated with abortion with other outcomes. (b) The design used a repeated measures design in which data were assessed over a 5 year period. The use of multiple time periods permitted all women to have repeat instances of the same pregnancy outcome. The only limitation on the design is that within in any given interval, each pregnancy outcome was scored as a dichotomous (Yes/No) variable, rather than as a count of events. The reason for this scoring convention was that data was too sparse for a number of

3) We have amended these errors in the text to ensure that the FERGUSON2008 and FERGUSON2006 studies are listed as controlling for a range of confounding factors including multiple pregnancy outcomes. (see Sections 5.3.1, 5.3.3, 5.4.3 )

				<p>pregnancy outcomes including abortion, unwanted pregnancy and pregnancy loss to score these variables using a count measure.</p> <p>Second, it is claimed in the discussion of Table 13 that control for other potentially confounding factors such as experience of violence, age of pregnancy, and socio-economic status varied across studies, with few studies aside from Steinberg and Russo controlling for a large number of variables (p.74). This claim also proves to be incorrect. Inspection of FERGUSSON, 2006 (p.18) shows that this study used an extensive set of covariates, with 4 of these being reported as significant for the 5 year lagged model.</p> <p>Third, it is reported (p.77) that anxiety disorders were assessed in FERGUSSON 2008 using the Diagnostic Interview Scheduled for Children (DISC). In fact the DISC was only used at age 16. The majority of assessments were based on the Composite International Diagnostic Interview (CIDI). Fourth, there are two errors in the reporting of FERGUSSON 2006 in Table 12 (p.67). In the Measure and Mode of Administration column the DISC is incorrectly referred to as the “Dominance, Influence, Steadiness, Consciousness”. In addition, the sample sizes reported are incorrect. The 5 year lagged comparison that is reported involves a total of N=135 women with a pregnancy outcome prior to age 21 (84 women who came to term plus 51 who had a termination).</p> <p>4) <b>Inadequate reporting of our findings:</b> Table 16 reports a secondary analysis of the data in FERGUSSON 2008 which shows that the associations (risk ratios) comparing unwanted pregnancy with abortion are non-significant. This result is interpreted as showing that there was no evidence to suggest that the mental health risks of abortion are greater than those of unwanted pregnancy. However, this analysis provides an incomplete rendition of what we found. In the original article we showed that when compared with other women, those having unwanted pregnancy that came to term were not at elevated risk of mental health problems, whereas those having abortions showed a small but significant elevation for many outcomes. What these results suggest is that on the basis of one comparison, unwanted pregnancy terminated by abortion is a risk factor for mental health outcomes, whereas unwanted pregnancy that comes to term is not. However on a direct comparison of the</p>	<p>We have amended the incorrect reporting relating to the DISC and its use within the study (see Sections 5.3.1, Table 15, 5.4.1 Table 18, 5.4.3).</p> <p>4) We are very thankful for the data you provided, as without this data we would not have been able to include the study in this section of the review. In addition to looking at the significance of the results we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there ‘was no statistically significant effect’ rather than stating there was no effect. We have also made explicit reference to any large effects in the data and also to any findings which were approaching significance. In terms of the comparison used, we believe we have used the best available evidence and comparison to answer the question from the perspective of a woman with an unwanted pregnancy (as</p>
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			<p>two groups there is not a significant difference. The reasons for these differences relate directly to issues of sample size and statistical power, and the comparison between the unwanted pregnancy and abortion is clearly under-powered to detect the small increase in risk associated with abortion. We have already been contacted by several commentators about these anomalies in the ways in which our results have been reported. We believe that these problems can be addressed by using the following formula to report our results:</p> <p>In their original analysis, FERGUSSON 2008 showed that compared to other women in their cohort, those having unwanted pregnancy that came to term did not have elevated risks of condition X(RR 95% confidence interval), whereas those having abortions were at increased risks of condition X(RR .95% confidence interval). Despite these differences, the test in Table 16 shows that the rates of mental disorder amongst those having abortions and those having unwanted pregnancy are not significantly different (RR 95%CI). The reasons for this lack of significance appear to reflect the small relative risk involved and the relatively small number of women included in the analysis.</p> <p>This formula we believe provides a fair and balanced approach to reporting our results by: a) reporting the original results correctly; b) reporting the unwanted birth/abortion comparison; c) reconciling the conclusions drawn in the original analysis and the data in Table 16.</p>	<p>discussed in Section 2.3). We have clearly stated in Section 5.4.2 that the analysis included in the paper differed from the analysis included in the review, and that the analysis in the paper used a different comparison group. However we have not added in the original conclusions of the paper, as the comparison group does not meet the inclusion criteria for the review.</p>
3, 4, 5		Department of Psychological Medicine, University of Otago, NZ	<p>4/5</p> <p><b>Meta-Analysis.</b></p> <p>One of the more serious limitations of the review is a failure to conduct meta-analysis or integrative data analyses. This decision is justified on the following grounds: “<i>Clinical heterogeneity and the use of overlapping samples meant that the outcomes could not be combined in meta-analysis.</i>” As a result of this decision, the review is entirely reliant on the interpretation of significance levels and confidence intervals for studies which are often under-powered to detect small risk ratios in the region of 1.0-1.5. In fact, it proves perfectly possible to conduct a number of meta-analyses on subsets of the data presented in Tables 14 and 16. Five such analyses are reported below. These analyses involve: abortion and anxiety disorder; abortion and suicidal behaviours; abortion and alcohol problems; and abortion and overall rates of</p>	<p>Thank you for your comments. We have-now conducted our own meta analysis of the data within the comparisons review. However we have only used what we believe to be the best available evidence (as described in Section 2.3). Therefore our meta-analysis only included studies which controlled for previous mental health problems and compared mental health outcomes following abortion or the delivery of an unwanted pregnancy. Where studies have reported data from the same survey or sample, we used the study with the highest quality score and /or which controlled for the most confounding variables within the analysis. This resulted in four studies being included in the</p>

			<p>mental disorder. The findings of these analyses are shown in Table 2 below, which gives for each analysis: a) a description of the studies considered ; b) Q tests of study homogeneity c) an estimate of the pooled risk ratio and 95% confidence interval; c) the results of a one-tailed test of the hypothesis (<math>H_1</math>) that abortion is associated with significant <i>reductions</i> in the problem under study; d) the results of a one-tailed test of the hypothesis (<math>H_2</math>) that abortion is associated with <i>increased</i> risk of disorder. One-tailed tests are used since the research hypotheses <math>H_1</math>, <math>H_2</math> are directional. A commentary on the findings is given below:</p> <p><b>1) Anxiety Disorders.</b> Two meta-analyses are reported. The first includes the data from FERGUSSON 2008 and COUGLE. The second includes the data from STEINBERG 1B and FERGUSSON 2008. Q tests showed that for both analyses there was no evidence of significance between study heterogeneity, thence fixed effects models were used. Both analyses show that:</p> <ol style="list-style-type: none"> <li>Exposure to abortion is associated with a small increase in the odds of anxiety disorder (ORs=1.28-1.36).</li> <li>The hypothesis (<math>H_1</math>) that abortion reduced risk of anxiety disorders is strongly rejected on the basis of a one-tailed test of significance (<math>p&gt;.95</math>).</li> <li>The results of one-tailed tests of hypothesis (<math>H_2</math>) are consistent with the conclusion that exposure to abortion is associated with a small but detectable increase in the odds of anxiety disorders (<math>p&lt;.05</math>). The difference for the COUGLE/FERGUSSON analysis is significant using both one tailed and two tailed tests of significance.</li> </ol> <p>These findings are not consistent with the conclusion drawn in Table 17 which claims “evidence is consistent with increased or decreased risks.” This conclusion is profoundly wrong. The actual situation is that there is strong evidence that shows that abortion is unlikely to reduce risks of anxiety disorders and some evidence to suggest that it may have an iatrogenic effect and lead to a modest increase in the risk of anxiety disorders.</p> <p><b>2) Suicidal Behaviours.</b> This analysis combined the data from GILCHRIST 1995 and FERGUSSON 2008 on the relationships between abortion and suicidal behaviour. Q tests showed that there was no evidence of between-study heterogeneity, thus a fixed effects model was used. The analysis leads to the following</p>	<p>analysis, with data for outcomes. Where possible we have used an unwanted pregnancy, as opposed to an unplanned pregnancy. Full details and results of the meta-analysis are presented and discussed in Sections 5.4.2, 5.4.3 and 6 of the review.</p> <p>Although statistical heterogeneity was in general low within these four studies, there was a significant degree of clinical heterogeneity, with different studies using varied measurements of mental health outcomes, over varying periods of time. We have discussed this limitation, alongside the other limitations of the meta analysis within Section 5.4.3 and within the conclusion of the review.</p> <p>We have amended the evidence statements of this section as follows:</p> <ol style="list-style-type: none"> <li>The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</li> <li>There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy: <ul style="list-style-type: none"> <li>there are increased risks of psychiatric</li> </ul> </li> </ol>
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				<p>conclusions:</p> <p>a) Exposure to abortion was associated with a small increase in odds of suicidal behaviours, including suicidal ideation and attempts (OR=1.69; 95% CI 1.12-2.54).</p> <p>b) The hypothesis (H<sub>1</sub>) that abortion was associated with reduced rates of suicidal behaviour is strongly rejected on the basis of tests of the one-tailed hypothesis (p&gt;.99).</p> <p>c) The hypothesis (H<sub>2</sub>) that abortion was associated with increased risk of suicidal behaviours is supported by both one- and two-tailed tests of significance (p&lt;.01).</p> <p>Again there are clear discrepancies between these findings and the claims made in Table 17. This table variously claims that “the evidence is compatible with increased and decreased risk” and that data are sparse. The meta-analysis shows both conclusions to be incorrect: a) the hypothesis that abortion is associated with decreased risks can be strongly rejected on the basis of the available data; b) while the data may be sparse, there is still sufficient data and variability for a significant effect to be detected.</p> <p><b>3) Alcohol Problems.</b> One of the strongest findings to be reported is the association between abortion and increased risk of alcohol problems. FERGUSON 2008 in a comparison of those having abortion with those having an unwanted pregnancy reported an odds ratio of 7.8, whereas PEDERSEN, in a comparison of abortion with those having live births, reported an OR of 20. Given the large associations involved, a meta-analysis of the findings of FERGUSON et al and Pedersen et al was conducted. Q tests failed to show any significance between study heterogeneity, thus a fixed effects model was fitted. Additionally, the finding that results using different comparison groups were not heterogeneous provided a justification for combining data from both studies. The analysis leads to the following conclusions:</p> <p>a) There is evidence of a very strong association between exposure to abortion and increased risk of alcohol problems (OR=18.0; 95% CI 7.5-43.0).</p> <p>b) The hypothesis that the provision of abortion is associated with decreased risk of alcohol abuse is strongly rejected (p&gt;.99).</p>	<p>treatment, suicide and substance misuse for women who undergo abortions</p> <ul style="list-style-type: none"> <li>• There was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</li> <li>• there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</li> <li>• there was some evidence of lower rates of psychotic illness for women following abortion.</li> </ul> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <ul style="list-style-type: none"> <li>• those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</li> <li>• for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</li> <li>• for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</li> </ul> <p>This suggests that women who have an abortion are already at higher risk of mental health</p>
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c) The hypothesis that the provision of abortion is associated with increased risk of alcohol problems is supported by both one- and two-tailed tests ( $p < .001$ ).

**4) Overall rates of disorder:** The final analysis conducted used data from GILCHRIST 2005 and FERGUSSON 2008 to examine the linkages between abortion and overall rates of mental disorder. The analysis shows that:

a) Abortion was associated with a very small but detectable increase in rates of mental disorder (OR=1.05; 95% CI 1.0-1.10).

b) The hypothesis that abortion was associated with decreased risk of mental disorders is strongly rejected ( $p > .95$ ).

c) The hypothesis that abortion is associated with a small increase of overall rates of mental disorders is supported on the basis of a two tailed test ( $p < .05$ ).

Again, the findings of this analysis are inconsistent with the claims made in Table 17, which claims that the findings are “compatible with increased and decreased risk.” More thorough analysis shows this claim to be profoundly wrong. There is strong evidence that abortion is not associated with a decreased risk of mental disorder and suggestive evidence that it may be associated with small increased risk.

The discrepancies between the meta-analytic results in Table 2 below and the conclusions drawn in Tables 15 and 17 illustrate the type of problems that may arise when the conclusion of systematic reviews are based on a semi-qualitative assessment of evidence rather than upon the use of meta-analytical methods and the use of systematic hypothesis-testing regarding the likely direction of effects.

**Table 2: Meta-analyses of Selected Outcomes.**

Outcome	Q (1d f)	Pooled OR/RR (95% CI)	H <sub>1</sub> <sup>a</sup>	H <sub>2</sub> <sup>b</sup>
<b>Anxiety</b>				
Cogle/Fergusson	0.35	1.36 (1.08-1.71)	>.99	<.01

problems, which does not increase following abortion.

6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.

7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.

With regards to your comment regarding the mental health benefits of abortion, we did not look at the benefits of abortion in treating or preventing mental health problems. This was beyond the scope of the review and we feel would require a different evidence base. Furthermore, the inability to conduct a gold standard study would limit the ability to answer this question adequately.



Steinberg/ Fergusson	0.5 1	1.28 (0.97- 1.70)	>.9 5	<.0 5
<b>Suicidal Behaviour</b>				
Fergusson / Gilchrist	0.0 1	1.69 (1.12- 2.54)	>.9 9	<.0 1
<b>Alcohol Use<sup>c</sup></b>				
Pedersen/ Fergusson	0.5 2	18.0 (7.5- 43.0)	>.9 9	<.0 01
<b>Rate of Disorder</b>				
Gilchrist/ Fergusson	0.7 5	1.05 (1.00- 1.10)	>.9 5	<.0 5

<sup>a</sup>1 tailed significance level for test of hypothesis OR/RR <1.0.

<sup>b</sup>1 tailed significance level for test of hypothesis OR/RR >1.0.

<sup>c</sup>Data from Fergusson et al compares abortion with unwanted pregnancy whereas data from Pedersen et al compares abortion with all other pregnancies.

More generally, inspection of Tables 13 and 16 reveals the presence of a clear statistical “footprint”, which suggests that irrespective of the comparison being made, those having abortions are at increased risk of mental health outcomes. Table 13 reports a total of 32 non-independent ORs. Of these, 27 are greater than one (if the FERGUSSON 2006 findings are scored consistently with other studies). In Table 16 a total of 13 overlapping odds ratios are reported, with 11 of these being greater than 1 (if the FERGUSSON 2008 results are scored consistently with other studies).

This evidence suggests the presence of a consistent tendency for risks of mental health problems to be modestly increased in women having abortions when compared with: a) those having unwanted/unintended pregnancy; b) those giving birth; c) members of the same birth cohort. This evidence of small consistent negative effects of abortion appears to have been overlooked and discounted in the APA review, the Charles et al review and the present review. All reviews have used a common strategy to discount the possibility that abortion may have iatrogenic effects. The first approach has been to reject study findings on the grounds that an “appropriate” comparison was not

				<p>used. As we have pointed out earlier in this review, these arguments are not sound, since different comparisons lead to tests of different questions and these questions are all relevant to the general topic of abortion and mental health. The second strategy has been to claim that because of problems of between-study heterogeneity and overlap, meta-analysis cannot be performed. This has led to the use of methods of review based around qualitative assessments of the evidence such as those provided in the GRADE Tables 14, 17. However, Table 2 above shows that with a little care and thought it is possible to conduct a number of meta-analyses using data from pairs of studies. In all cases these meta-analyses and associated hypotheses lead to similar conclusions.</p> <ol style="list-style-type: none"> <li>1) There is no evidence which suggests that the provision of abortion reduces the risks of mental disorder that may be associated with unwanted pregnancy that comes to term.</li> <li>2) There is consistent evidence which suggests that abortion may have small iatrogenic effects in increasing risks of: anxiety disorders; self-harm and overall rates of disorder.</li> <li>3) There is suggestive but inconclusive evidence that abortion may be associated in substantial increases in alcohol misuse, with those having abortions having elevated rates of alcohol misuse when compared with those having pregnancies that come to term. It is likely that this result reflects the protective effects of pregnancy and parenthood in reducing risks of alcohol misuse in addition to any[] iatrogenic effects of abortion.</li> </ol>	
3, 4, 5			Individual 1	10/10 <p>Abortion is one of the most common medical/surgical procedures experienced by women of reproductive age, if not the most common. One in three women in this country has an abortion. The country's women have not been falling apart mentally in large numbers since 1967. The studies may be poor or only fair, but the evidence is all around us as well.</p> <p>Have you considered discussing why so many of the studies are poor or only fair? You list for the authors of the review what potential conflicts of interest you may have. What about the authors of the studies reviewed?</p>	Thank you for your comments. It was beyond the scope of the review to assess the reason for the poor quality of the evidence base. We have not included the reported declarations of interest from the authors of the individual studies as our remit was to extract analyse and critique the appropriate data from each study. For concerns regarding the declaration of interest for individual authors please refer to the study in question for more detail.
3	27 ff		The Maranatha Community	1/8 <p>The studies reviewed had limitations in several areas therefore the conclusions were not borne out by the findings. The</p>	Thank you for your taking the time to send us your comments. The consultation process is

					heterogeneity of the study designs, outcome measures and methodologies were such that the data cannot be subject to meta-analysis, hence the conclusions made in respect of prevalence of mental health problems in women who had abortion was not borne out by the studies reviewed. It is more likely to be true that mental health problems post- abortion would appear to be higher. Abortion on its own and independently constitutes a significant life event, with the associated experience of loss and grief, and where linked to co-founding psychopathology and socio-economic problems, would constitute a greater burden and increase vulnerability towards mental health problems and hence prevalence in this category of women.	important to us in ensuring a robust final report, so your feedback is helpful.  We agree that the studies reviewed are subject to multiple limitations and have discussed these limitations throughout the review. We have also discussed how the methodological flaws of the research base limit any conclusions drawn from the data.
3	27		The Maranatha Community	2/8	We are concerned about the sample sizes quoted in the report which appear to be too small and we also have serious reservations about the overall quality of the presentation of the report. Review periods appear to be far too restricted and conclusions do not appear to follow from the evidence presented. If this is to be a genuine consultation there must surely be a far wider and more thorough approach and an avoidance of statistics which have doubtful validity. Our experience leads us to conclude that women who have had abortions and not received help and effective counselling, suffer from an increased vulnerability to mental health problems. The evidence we have is that women who decide to have an abortion put themselves at greater risk of mental health problems than if they carry on and have the baby.	Thank you for your comments. The sample sizes used in the individual studies are beyond our control. Our job as reviewers is to extract, analyse and synthesis the best available evidence reported. We have provided details of the eligibility criteria for studies and the type of data extracted within Section 2 of the review.
3	34-36	9 >	CARE UK	5/6	Table 4 lists the various mental health disorders post-abortion compared to the general population and suggests that there is a high prevalence of mental disorders post-abortion. First, the Review makes clear that the findings do not control for prior mental health problems and as such could be dismissed as they do not explicitly correlate with the criteria set for the Review. Nevertheless, the rates are still useful in offering an indication that the prevalence of mental illness is still higher than the general population - or those who do not have an abortion. It is important to note that measuring the rate of mental illness is a difficult task, not least because it is very common for those suffering from mental illness to not actively seek treatment or support. There is the strong likelihood that the Review's criteria	Thank you for your comments. Within the prevalence section of the review we have split the studies into those that did and those that did not control for previous mental health problems. We have outlined the ideal and pragmatic inclusion criteria for the review in Section 2.3 of the methods. In order to be included in the review of prevalence and factors associated with poorer mental health outcomes, studies were not required to control for previous mental health problems. Instead the quality assessment of studies included in these two sections, took the control of previous mental health problems into

					on p.19 will have excluded many women who do not have any further contact with health professionals who were involved with the abortion. Without doubt this would underestimate prevalence of mental health disorders.	account within the overall study quality rating. Limiting the review to only those which controlled for previous mental health problems would result in the exclusion of the majority of papers. As you rightly suggest however, we feel that the inclusion of studies which did not control for previous mental health problems within this section of the review is still a finding of interest.  We agree that there are problems in the measurement of mental health outcomes, and have discussed these limitations in Section 2.
3	45	23-26	CARE UK	6/6	On a related matter to the previous comments above, in controlling for mental health problems it is all too easy to slip into thinking that rather like a clinical drug trial for example, where it can be clearly determined whether a person has or has not taken the drug, mental health disorders can be completely eradicated; they cannot. The BMA report that at least one in five adults will suffer from depression in their lifetime. Thus, where the Review paper states that “studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion.....” it would clarify the situation if the text read that the rate of mental health risk is reduced but clearly not eliminated.	Thank you for your comments. We want to make an important distinction between working with individuals, where personal circumstances, individual factors and personal history are the most relevant perspectives on understanding a woman’s reaction to abortion, birth or any other important life event and the average response of women in a study. These perspectives should not be confused. With regard to an individual, any number of factors and contexts may be relevant or even determine their response to events; abortion, birth or another important event could trigger, aggravate, precipitate or indeed alleviate a mental health problem. However, we are trying to find out what is the average response.  Furthermore, the evidence statements do not suggest that the risk of mental health problems is eliminated.
3.1	27		Catholic Medical Association (UK)	20/50	<b>Review question 1. How prevalent are mental health problems in women who have an induced abortion?</b>  Despite reservations elsewhere, we strongly concur with the key finding of this section. The prevalence of a range of mental disorders after abortion is high, and in many studies higher than in the general population. The rates are, in fact, remarkably high. Table 4 (pp34-6) sets out <ul style="list-style-type: none"> <li>• 20% depression, and Broen set out a substantial excess</li> </ul>	Thank you for your comments. We have summarised these findings within Table 6 (which compares the rates reported in studies which did and did not control for previous mental health problems). Within the results we have reported the figures in the included studies but have not compared them to rates within the general population.  The Fergusson data were excluded from the

				<p>in those who aborted compared to those who miscarried.</p> <ul style="list-style-type: none"> <li>• Coleman found 37% major depression,. Taft found 37% too.</li> <li>• Anxiety occurs in around 25%,</li> <li>• Alcohol misuse 15-30%</li> <li>• Drug misuse 10-32%</li> <li>• And we know of excess rates of deliberate self harm and suicide from many studies including Fergusson.</li> <li>• It is odd that the Fergusson data on this is excluded from this section. Self harm is a coded disorder and shown to be common after abortion.</li> </ul> <p>So the prevalence of mental disorder beyond 3 months is actually really very high. It is also very high within 90 days of an abortion though the Review Group decided to exclude that data.</p>	<p>study as the rates reported relate to lifetime prevalence and not to the prevalence of a disorder following an abortion.</p> <p>We cannot comment on the rates of mental health problems within the first 90 days as this was outside our timeframe for reasons explained in Section 2.3.</p>
3.1	27	Christian Concern, UK	3/7	<p><b>Specific Points: Question 1, p27.</b></p> <p>The findings presented in Table 4 (p34-36) are important and cannot be ruled out as they clearly illustrate that the rate of mental health disorders amongst post-abortive women are generally higher than those who have not undergone abortion treatment at all.</p> <p>The eligibility criteria on page 19 does not account for women who suffer mental health problems post abortion but who do not seek medical treatment. The information as to rate of mental health disorders amongst post-abortive women is therefore not an accurate reflection of the true position. In reality, the rate is likely to be higher.</p>	<p>Thank you for your comments. We have summarised these findings in Table 10 (which compares the rates reported in studies which did and did not control for previous mental health problems). Within the results we have reported the figures in the included studies but have not compared them to rates within the general population.</p> <p>We agree that there are problems in the measurement of mental health outcomes, and have discussed these limitations in Section 2.</p>
3.1 -5.5	27-81	Royal College of Obstetricians and Gynaecologists (RCOG)	4/9	<p>The studies considered, the prevalence and factors associated with mental health problems after abortion are well discussed. So is the comparison of mental health problems following abortion compared with following delivery.</p>	<p>Thank you for your comments.</p>
3.1	27-37	Individual 14	3/11	<p>This section seems to conclude that the answer, on the basis of available evidence as to whether abortion affects rates of mental illness, if pre-existing mental illness is not controlled for, is unclear. <b>Page 45, line 18</b> however indicates if control does not occur then high rates of mental illness appear to occur.</p>	<p>Thank you for your comments. We have amended the evidence statements to make this clearer. When looking at the prevalence of mental health problems following an abortion, rates are likely to be higher if the study did not control for previous mental health problems, compared with studies which did control for previous mental health problems.</p>

						We have summarised these findings in Table 10 (which compares the rates reported in studies which did and did not control for previous mental health problems). Within the results we have reported the figures in the included studies but have not compared them to rates within the general population.
<b>3.1 and 2.2</b>	27 and 18	7 and 10	Catholic Medical Association (UK)	17/50	As stated elsewhere we applaud the review group for having considered different diagnoses individually. That said it is important that the effect of abortion upon specific mental disorders is considered.  A useful additional question might therefore be <b>Are there specific Mental Health problems which show increased prevalence after abortion.?</b>	Thank you for your comments. We do need feel the need to include an additional question as we have covered the different disorders already within the report. Furthermore, we summarised the rates reported but have not assessed the rates in relation to rates of mental health problems within the general population.
<b>3.2</b>	27	21	Catholic Medical Association (UK)	46/50	We are concerned that of the many studies available only 21 in the end were used to answer this question. We are not clear why some studies were excluded from this part of the study. For example Fergusson took a cohort sample that included data on women before they underwent abortion and provided prevalence data on these seen. It is odd that this data is not presented here.	Thank you for your comments. In order to improve the transparency of the review we have now included further details about the search process (see Section 2.4) and have included further details about the inclusion and exclusion of studies (see section 2.3). With reference to the study you mention, this was excluded as the data provided lifetime prevalence rates and not the prevalence of the disorder/ mental health problems post-abortion.
<b>3.2</b>	27	21-35	Mount Joy College, Victoria, British Columbia, Canada	51/103	I note that the authors of this draft are seeking comments from researchers and reviewers. They should also obtain opinions from practitioners who see many post abortion women. I fill all these roles and considered an expert if reviewing article for publication and requests for expert opinion mean anything. Our 1989 review (20) is only a few months under the cut off but could be helpful in this report.	Thank you for your comments. We feel this is the purpose of consultation, which is vital to us in ensuring the best quality final product.
<b>3.1</b>	27	29-31	Mount Joy College, Victoria, British Columbia, Canada	52/103	If studies that made measures less than 90 days post abortion were excluded, why was Major's study included when she made measures of outcome, less than 90 minutes post abortion?	Thank you for your comments. Studies were excluded from the review if they only presented data within the 90-day period. If a study also included data from a follow up period of greater than 90 days, these data were extracted and included in the review.



3.3	28		Secular Medical Forum	4/16	<p><b>The inclusion of 14 studies which do not control for a woman’s mental health status prior to abortion distort the findings of the current review and undermine its utility for health care practitioners and women considering abortion.</b> It is not surprising that the current review finds (p.44) that “A higher rate of mental health problems was reported in studies that did not control for previous mental health outcomes compared with studies that did account for previous mental health”. The review also notes that “...studies [which controlled for previous mental health] in general were of better quality than the studies that did not control for previous mental health problems...”.</p> <p><b>The SMF proposes that any evidence statements such as “When prior mental health is not taken into account, rates of mental health problems post-abortion appear to be high” which are based on low quality research should be dropped from the review or heavily qualified. The SMF suggests that those studies contributing to the lower quality evidence base be included in an appendix for reference rather than in the main body of the review.</b></p>	<p>Thank you for your comments. We have now amended the evidence statement to read:</p> <p>“The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.”</p> <p>As controlling for previous mental health problems was not an inclusion criteria for this section of the review we feel the best approach is that already taken, i.e. to separate the studies and highlight the difference in rates. Removing these studies would not only reduce the number of eligible studies to a very small number, it would also remove an important comparison between studies which did and did not control for previous mental health problems from the review.</p>
3.3	28	8-40	American Psychiatric Association (APA)	1/2	<p>It is important to note that a particular group of authors consistently produced methodologically poor studies. Therefore this comment applies to that group of studies as they are referenced throughout the review document. Often, as in the case of the referenced Coleman study, the authors use large databases assembled for other purposes and therefore unsuitable for this use, and included only portions of data that supported their conclusions--clearly in an effort to make the conclusions appear better-founded than they are. They also draw conclusions not supported by their own data: for example, that abortions preceded the onset of diagnosable psychiatric illness. One of these authors, David Reardon, has published statements indicating an a priori conclusion that abortion causes psychological harm and that the assertion of such harm will</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have discussed the limitations of the individual studies throughout the review and have discussed the limitations of the evidence as a whole but do not feel it would be appropriate to comment further.</p>

					provide evangelization opportunities for the Church.	
3.3.1	28	12	Mount Joy College, Victoria, British Columbia, Canada	53/103	Gissler was not the only record linkage study.	Thank you for your comment. We have not suggested that it is the only record linkage study; we have instead stated that it is the only record linkage study in that section of the review.
3.3.1	28	16	Mount Joy College, Victoria, British Columbia, Canada	54/103	The authors are confused in their use of prevalence and incidence.	<p>Thank you for your comment. Throughout the literature, many authors have confused incidence and prevalence, with different studies using a combination of period and point prevalence, incidence rates, cumulative incidence rates and period incidence rates. Within the review prevalence is used to refer to the total number of <i>existing</i> cases (both new and old) of a disorder within a given population at a particular time point. In many cases, period prevalence was used within the studies, which refers to the total number of <i>existing</i> cases (both new and old) during a particular period. In contrast incidence refers to the number of <i>new</i> cases of a disorder within a population at a given time point or within a given period.</p> <p>Studies reporting on suicide rates will always report incidence rates. Furthermore, some of the studies using treatment records report incidence rates, where all cases of the disease are new cases.</p> <p>Where studies report incidence rates and have reported raw figures of the number of individuals with the disorder and/or cumulative incidence rates for a particular period, these were used to estimate period prevalence rates. We have discussed this in Section 2.9 of the method.</p>
3.3.1	28	Table 3	Mount Joy College, Victoria, British Columbia, Canada	55/103	There is no explanation for why Gissler (1996) is rated very poor especially when his study is often quoted by experts and has all the characteristics the authors were seeking.	Thank you for your comments. The quality rating of each individual study is now available in Appendix 9. Gissler was rated as very poor due to the lack of control for previous mental health problems.

3.3.1	29	Table 3	Christian Medical Fellowship	18/36	<p>The quality ratings for the three NLSY all rely on the same data set, yet Schmiede 2005 is rated as “fair,” Cogle 2003 “poor” and Reardon 2002 is rated as “very poor.” If Table 2 criteria are applied consistently, all three studies should be rated the same. All should be rated as poor.</p>	<p>Thank you for your comments. The quality rating of each individual study is now available in Appendix 9. We have since adapted the Charles quality criteria and re-rated the individual studies accordingly.</p>
3.3.1	29	Table 3	Elliot Institute, Springfield, Illinois, USA	30/87	<p>Cogle2003, is wrongly described as “Women from the Young in Norway Longitudinal Study.” The study is of women in the United States and NLSY stands for National Longitudinal Study of Youth.</p> <p>In addition, Reardon2002 had a range from 1-12 years, 1980 thru 1992.</p>	<p>Thank you for your comments. We have amended these errors.</p>
3.3.1	29	Table 3	Elliot Institute, Springfield, Illinois, USA	31/87	<p>The standards for grading of study quality appear to be far too subjective and open to bias.</p> <p>This is especially seen in the quality ratings for the three NLSY. They all rely on the same data set. Yet Schmiede2005 is rated as “fair,” Cogle2003 “poor” and Reardon2002 is rated as “very poor.” If Table 2 criteria are applied consistently, all three studies should be rated the same. Appropriate comparison group (+), validated mental health tools (+), previous mental health problems (-), confounder control (+/-, weak). Unfortunately, it is unclear from table 2 how such a rating would be summarized. (Are two pluses, in any column, a “poor” ?)</p> <p>The only apparent reason that Schmiede may have been rated higher than Reardon2002 and Cogle2003 is that Schmiede herself makes misleading claims that Reardon2002 is flawed and that her analysis is better. Arguably, as detailed below, is Schmiede’s analysis that is the most deeply flawed due to selection criteria that were biased to dilute the findings.</p> <p>But before looking at Schmiede in any detail, it is important to recognize that the NLSY was not well designed to investigate abortion. The fact that only 40% of the national abortion rate is reported in the NLSY ([citing Jones EF, Forrest JD.Underreporting of abortion in surveys of U.S. women: 1976 to 1988. Demography1992;29: 113–126] demonstrates that with such extremely high rates of concealment of past abortions in interviews, the NLSY data provides a very poor assessment of prevalence rates of depression rates following abortion.</p> <p>Shouldn’t the Quality criteria (Table 2, p22) include a rating</p>	<p>Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process. We undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendices 9 and 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criterion to rate the representativeness of the sample included in the studies. This includes assessing the amount of dropout included in the study, which we agree is an important indicator of quality.</p> <p>We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.7. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>We have discussed the limitations of each individual study, including those based on the NLSY throughout the review. If you wish to have any further discussion about these particular</p>

				<p>regarding drop-out / refusal to participate / and concealment? If there were such a criteria, all of the NLSY studies should be properly downgraded, along with many of the interview based studies which have 50% dropout rates or more.</p> <p>Such a revised grading is important, because concealment and non-participation is predictive of more negative reactions to abortion (Söderberg H, Andersson C, Janzon L, Sjöberg NO. Selection bias in a study on how women experienced induced abortion. Eur J Obstet Gynecol Reprod Biol. 1998 Mar;77(1):67-70.). This means that studies such as the NLSY may be helpful to determine if there is enough of a problem that it shows up despite a 60% concealment, but negative results can hardly offer any assurance that there are not widespread problems among the women who don't want to reveal a past abortion.</p> <p>The usefulness of the NLSY is further limited because depression scores and other psychiatric measures are only rarely measured in the NLSY. Indeed, it possesses only psychiatric variable that was available prior to 1992 when the CES-D was administered. That variable is the Rotter internal-external locus of control scale. While that scale does correlate to depression, it clearly falls far short of offering a clear history of prior mental health.</p> <p>For these reasons, and more, in regard to the question of determining prevalence rates, any study based on the NLSY can not be rated higher than "poor."</p> <p>This is what makes the rating of Schmiege's study as higher than either of the other two NLSY studies so puzzling.</p> <p>Even more seriously, Schmiege's sample selection is highly biased and misleading. She includes in the control group women who had one or more abortions following a first pregnancy that was delivered. In other words, she is comparing women who abort a first pregnancy to a mix of women who report no abortion and women who <i>do report</i> one or more abortions of subsequent pregnancies.</p> <p>Schmiege's decision to deliberately include women with a history of abortion in the control group clearly obfuscates the results. Indeed, there is substantial evidence that women who abort pregnancies <i>following a live birth have more post-abortion</i></p>	<p>studies, you would need to contact the authors directly.</p>
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*psychological distress*, which would even further muddy the results. (Lask, B. "Short-term Psychiatric Sequelae to Therapeutic Termination of Pregnancy," Br J Psychiatry, 126: 173-177 (1975). Peppers, L. G., "Grief and Elective Abortion: Implications for the Counselor," *Disenfranchised Grief: Recognizing Hidden Sorrow*, ed. Kenneth J. Doka (Lexington Books: Lexington MA, 1989), pp.135-146. Gail B. Williams, "Induced Elective Abortion and Pre-natal Grief" PhD Thesis, New York Univeristy (1991), Dissertation Abstracts Int'l, Vol 53, No 3, Sept 1992, Order No DA9213205.)

When this mix of women known to have abortions is combined with the 60% concealment rate problems already in the NLSY, the result is that a very high percentage of the "control" group who have a history of abortion. This case selection process does not improve the ability of the NLSY to reveal information on relative depression rates following abortion, it only more thoroughly muddies the issues.

In addition, Schmiede's selection criteria appear to be designed to deliberately reduce the average rate of depression among women aborting a first pregnancy because she chose to exclude those women who subsequently reported that they had wanted their first pregnancy. In other words, if a woman subsequently experienced regret and told interviewers she retrospectively had a desire for the aborted pregnancy (likely risk factors for depression) she was excluded from the sample. But the reality is, such women make up a portion of all women having abortions and may indeed represent the group of women for whom we should have the most concern. Moreover she failed to segregate results by marital status, which is where Reardon discovered significantly higher rates of depression among women married at the time of the assessment of depression.

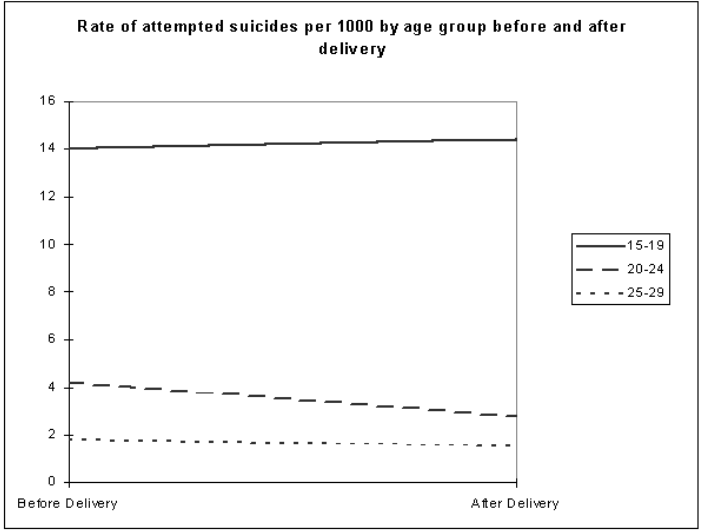
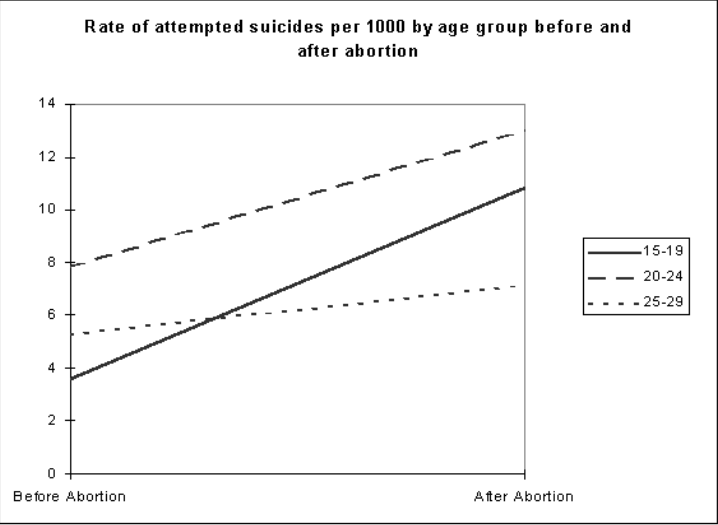
There are numerous other problems with Schmiede, as described in responses to the study published in BMJ.: [http://www.bmj.com/content/331/7528/1303.full/reply#bmj\\_el\\_12\\_0455](http://www.bmj.com/content/331/7528/1303.full/reply#bmj_el_12_0455) but the bottom line is that Schmiede2005 should be rated "very poor," not "fair." There is nothing she does with the NLSY data that can rescue the data set, with 60% concealment rate and a weak pre-abortion psychiatric measure, from being "poor." And her clearly results oriented manipulation of the selection criteria push the quality of the study even lower.

					<p>Notably, Schmiede’s co-author, Nancy Russo, a well known abortion proponent, made extraordinarily broad claims that there are clearly now psychological problems arising from abortion because self-esteem scores of women who had abortion in the NLSY were not significantly lower (omitting any mention of the 60% concealment rate.) [Russo, “Abortion, Childbearing, and Women’s Well-Being,” Professional Psychology: Research and Practice, 1992, 23(4):269-280.]</p> <p>In short, the Schmiede and Russo study is hardly an unbiased attempt to investigate the prevalence rates of depression following abortion, a goal that the NLSY dataset was never designed to address. Instead, Schmiede2005 study was solely focused on redefining the subject and control groups in such a way would allow them to mount an effort to discredit the Reardon and Cogle studies. Notably, despite their changed selection criteria, they still avoided replicating Reardon’s analysis of women married at the time of the depression assessment, wherein he found the most significant differences.</p>	
3.3.1	29	Table 3	Mount Joy College, Victoria, British Columbia, Canada	56/103	<p>The authors declare their bias often but none so great as when they repeatedly refer to Major’s study occurring at “3 hospitals, US” when Major states “2 free standing clinics and 1 physicians office.” Their attempts to make their more favored researchers look good while using pejorative descriptors to make others, with findings they don’t appreciate, look not so good, if nothing else should discredit their conclusions. There is no reason given as to why Reardon’s study of 186,000 (2002) should not be included and why his study (2002) of 293 be rated very poor. The death study is the largest of its kind and should be include for that reason alone.</p>	<p>Thank you for your comments. This has now been amended throughout the review to read, ‘woman attending three sits (two abortion clinics and one clinician’s office)’.</p> <p>To improve the transparency of the review we have now included full details of the quality assessment rating for each study in Appendix 9. We have also modified the Charles quality criteria in light of the comments received during consultation.</p>
3.3.2			Pension And Population Research Institute (PAPRI), UK	4/4	<p>The review has no mention of use of medically prescribed anti-depressant or psychotropic drugs. It is known that women who have abortions are heavier users of these both before and after they have abortions. The state of mental health of women who have abortions is not being adequately considered when these treatments are ignored. Over 1 billion of these pills are being dispensed by our NHS each year. It is noted as a conclusion on page 89 and elsewhere that “women with mental health problems prior to abortion or birth, are associated with increased mental health problems after the abortion or birth”. But there is no</p>	<p>Thank you for your comment. Although we agree that this is an important area, none of the studies included in the review reported this data.</p>



					attempt to investigate how the pattern of usage of anti-depressants develops after abortions and live births.	
3.3.2	34-36	Table 4	Christian Medical Fellowship	20/36	This table sets out a high prevalence of mental disorders after abortion, compared to the general population. Although these findings do not control for prior mental health problems, and may therefore be dismissed as not useful for this review, it is important to note that rates are <b>still higher than the general population</b> i.e. those not having an abortion. (see our comment on p45, section 3.6).	Thank you for your comments. We have not dismissed the studies that do not control for previous mental health problems because we still feel they are important to the review. Within the results we have reported the figures in the included studies but have not compared them to rates within the general population.
3.3.2	34-36	Table 4	Individual 16	18/33	The table shows high prevalence of mental disorders after abortion compared to the general population. This is an important finding even without controlling for pre-existing mental health issues.	Thank you for your comments. Within the review we have summarised the rates of mental health problems reported in the studies. However, we did not compare these rates to the general population.
3.3.2	34-36	Table 4	Right to Life	5/8	This table sets out a high prevalence of mental disorders after abortion, compared to the general population. These findings do not control for prior mental health problems, and but it is nevertheless fundamental to point out that these rates are still higher than the general population i.e. those not having an abortion.	Thank you for your comments. Within the review we have summarised the rates of mental health problems reported in the studies. However, we did not compare these rates to the general population.
3.3.3	36	28-33	British Psychological Society	18/22	If an aim is to be helpful to women in decision-making, then analysis by timing, i.e. immediate (up to 90 days post-abortion), short term (90 days to five years) and long term (longer than five years) might be useful.	Thank you for your comments. It would not be possible to present the results in this way as many of the studies used cross-sectional survey data and do not provide time frames for the assessments, (which could vary from months to years). We were also not assessing immediate reactions to an abortion as this was beyond the remit of the review.
3.4	37-44		Individual 14	4/11	This section seems to conclude that the answer, on the basis of available evidence as to whether abortion affects rates of mental illness, if pre-existing mental illness is controlled for, is unclear and difficult to generalise. <b>Page 64 concurs with this</b>	Thank you for your comment.
3.4.1	38-39	Table 5	Elliot Institute, Springfield, Illinois, USA	38/87	The California Medical and Deaths Records studies, (Coleman2002A, Reardon2003, and Reardon2002A) are not described accurately. They did not employ any retrospective data. They are prospective cohort studies with an almost identical study design as Munk-Olsen2011. The only difference is	Thank you for your comment. We have now described these studies as the California medical records - record linkage study.

					that they examined medical records of poor women in California whereas Munk-Olsen examines medical records of the entire population of women in Denmark.	
3.4.1	38-39	Table 5	Elliot Institute, Springfield, Illinois, USA	39/87	<p>The following studies should be included in Table 5. The Morgan study is especially interesting since it is one that could easily be replicated in the UK.</p> <p><b>DC Reardon and PK Coleman, Relative Treatment Rates for Sleep Disorders and Sleep Disturbances Following Abortion and Childbirth: A Prospective Record Based-Study, Sleep 29(1):105-106, 2006.</b></p> <p>Abstract: Sleep disorders are linked with mood disorders and other psychiatric illnesses. Many women attribute sleep difficulties to abortion, but this self-diagnosis has not been tested using record-based evidence. Examination of records for 56,824 women with no known history of sleep disorders or sleep disturbances revealed that women were more likely to be treated for sleep disorders or disturbances following an induced abortion compared to a birth. The difference was most pronounced in the first 180 days after pregnancy resolution and was not significant after the third year.</p> <p><b>Christopher Morgan et al., Suicides After Pregnancy: Mental Health May Deteriorate as a Direct Effect of Induced Abortion, 314 BRIT. MED. J. 902 (1997).</b></p> <p>To investigate whether Gissler's findings regarding elevated rates of could be explained by pre-disposing risk for higher suicide behavior, researchers at the South Glamorgan Health Authority in Great Britain (population 408,000) reviewed records on admissions for suicide attempts both before and after pregnancy events. Among the women who aborted, researchers identified a shift from a roughly "normal" suicide attempt rate before the abortion to a significantly higher suicide attempt rate after the abortion. In the post-pregnancy period, there were 8.1 suicide attempts per thousand among those who had abortions compared to only 1.9 suicide attempts per thousand among those who had given birth. The higher rate of suicide attempts subsequent to abortion was particularly evident among women under thirty years of age. The results of their analyses are even more striking when viewed graphically.</p>	Thank you for your comments. Sleep disorders were beyond the scope of the review. We would like to thank you for the references provided. All studies recommended in the consultation have been collated and assessed for inclusion.



**T Ostbye et "Health Services Utilization After Induced Abortion in Ontario: A Comparison Between Community Clinics and Hospitals," al, Am J Medical Quality 16(3):99-106,**

					<p><b>2001</b></p> <p>In Canada, a study of Ontario Health Insurance Plan claims in 1995 found that women who were three months postabortion from hospital day surgery had a rate of hospitalization for psychiatric problems of 5.2 per 1000 vs. 1.1 per 1000 for age matched controls without induced abortions. Three month postabortion women who had abortions at a community clinic had a rate of hospitalization for psychiatric problems of 1.9 per 1000 vs. 0.60 per 1000 for age-matched controls who did not have induced abortions. The incidence of postabortion psychiatric hospitalization was significantly higher if there had been preabortion hospitalization for psychiatric problems, preabortion emergency room consultation, or preabortion hospital admissions.</p>	
3.3.2	30	16-41	Global Doctors for Choice	4/5	<p>A recent publication by Steinberg &amp; Finer (Steinberg, J.R., &amp; Finer, L. B. (2011). Examining the association of abortion history and current mental health: A reanalysis of the National Comorbidity Survey using a common-risk-factors model. <i>Social Science &amp; Medicine</i>, 72, 72-82.) reveals that Coleman and colleagues' paper cited here is not replicable using the same data. Consequently, the paper by Coleman et al. cannot be rated or judged because the data are simply incorrect. It should be noted that this is not a difference in opinion in how the study should be conducted or what the numbers signify. Instead, Steinberg and Finer demonstrate that simple bivariate statistics for the percent of women with each of the 15 different mental health outcomes (examined in Coleman et al.'s study) by history of abortion (none versus at least one) were not replicable. Moreover, the numbers of Coleman et al. were substantially inflated in both the abortion and no abortion groups for all 15 mental health outcomes. For example, while Coleman et al. claim that 40.7% of women who had an abortion had depression without hierarchy at the time of the interview, Steinberg and Finer found that only 8.3% of women with abortion had this disorder at the time of the interview. Their results are compatible with several other published studies which have used this publically available data set. While Coleman et al. have claimed that Steinberg and Finer used a more restricted time frame of the mental health outcomes than they had used, Steinberg and Finer have tables demonstrating that even if the largest time frame in</p>	<p>Thank you for your comments. Since the consultation period we have updated the search (until July 2011) and included any studies meeting the inclusion criteria.</p> <p>We have discussed the differences in the two papers and provided the figures reported in each paper in Table 6. Additionally, we have discussed the limitations of both studies within Section 3 of the review. We have also provided a quality rating for each of these studies based on the information reported in the paper.</p> <p>We have also discussed the importance of controlling for confounding variables such as exposure to violence and abuse throughout the review (for an example see Section 3.3.3). Adequate control of confounding variables is an important area included in the quality appraisal of each study (see Section 3.3.1 for details).</p>

					the National Comorbidity Survey data is used, Coleman et al.'s numbers are substantially inflated (tables available from Steinberg upon request). Steinberg and Finer not only reanalyzed the Coleman et al. study, but also examined how having a history of no, one, or multiple abortions related to mental health at the time of the interview. In their analyses, they examined models with and without considering common risk factors for abortion and mental health problems. Their analyses show that when no common risk factors are included, there appears to be a relationship between a history of abortion, particularly multiple ones, and having anxiety or substance use disorders, but no relationship between abortion history and mood disorders. When risk factors (such as prior mental health or experience of violence) that occurred <i>before</i> the first abortion or first pregnancy (if in the no abortion group) were considered, then an association between abortion history and anxiety disorder was no longer found, whereas the relationship between multiple abortions and substance use disorders was reduced, but remained significant. As Steinberg and Finer discuss, this may be because data on pregnancy intention and other confounding factors had not been available and thus not considered in analyses. Prior mental health disorders and experience of violence were predictors of current mental health disorders, for the three types of disorders: mood, anxiety, and substance use disorders.	
3.3.2	30	32	Mount Joy College, Victoria, British Columbia, Canada	57/103	We controlled for previous hospitalization because that is a far more definable criteria. Mental illness, at least in Canada, can have a wide variety of meanings.	Thank you for your comments.
3.3.2	31	6-12	Elliot Institute, Springfield, Illinois, USA	35/87	Schmiege used a different abortion sample, excluding women who aborted a first pregnancy who at any point in the follow-up survey questions reported that their first pregnancy was wanted. The difference in depression scores is due to the addition of this criteria for excluding women whose first pregnancy was aborted.	Thank you for your comment. We have noted and discussed the differences in the samples and variables used in each of these studies within Section 3.3 of the narrative review.
3.3.2	31	18	Individual 9	12/25	Spelling of <i>previous</i>	Thank you this has been amended.
3.3.2	31	18	Individual 12	6/8	<b>previous</b> spelt incorrectly	Thank you this has been amended.
3.3.2 and 4.3.2.2	32 and 52	31 and 10-18	Global Doctors for Choice	3/5	An article that was not included in the Academy's review and should prove useful:	Thank you for your comments. Since the consultation period we have updated the search (until July 2011) and included any studies

					Warren, J. T., Harvey, S. M., & Henderson, J. T. (2010). Do depression and low self-esteem follow abortion among adolescents? Evidence from a National Study. <i>Perspectives on Sexual and Reproductive Health</i> , 42 (4), 230-235.  This paper uses the National Longitudinal Study of Adolescent Health (Addhealth) to examine whether abortion in adolescence was associated with subsequent depression and low self-esteem. Abortion was not associated with subsequent depression or low self-esteem.	meeting the inclusion criteria.
3.3.2	32	38	Individual 9	13/25	Should <i>no</i> be <i>number of</i> ?	Thank you this has been amended.
3.3.2	33		Pension And Population Research Institute (PAPRI), UK	3/4	Data on Finnish registers is of high quality. The whole population of Finland is covered without incurring the sampling and response errors to which most medical studies are subject. Yet the 1996 study by Gissler on suicide was assessed as Very poor quality. The authors comment on the study "Very little information was provided about the sample ..."p 33. These authors fail to understand that a study not subject to sampling errors is of higher quality.	Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process.  In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criterion to rate the representativeness of the sample included in the studies. This includes assessing the amount of dropout included in the study, which we agree is an important indicator of quality.  We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).  Gissler was rated as very poor due to the lack of control for previous mental health problems.
3.3.2	33	19	Individual 9	14/25	Separate <i>four</i> and <i>studies</i>	Thank you this has been amended
3.3.2	33	34	Mount Joy College, Victoria, British Columbia, Canada	58/103	The authors over estimate Major's follow-up rate.	Thank you for your comment; we have amended this.
3.3.2 and	33 and	41 and	Global Doctors for Choice	5/5	Steinberg and colleagues used the National Comorbidity Survey to examine how abortion versus delivery on a first pregnancy	Thank you for your comments Since the consultation period we have updated the search



5.3.1	66	14			related to subsequent depression, suicidal ideation, or self-esteem (Steinberg, J. R., Becker, D., & Henderson, J. T. (2011). Does the outcome of a first pregnancy predict depression, suicidal ideation, or lower self-esteem? Data from the National Comorbidity Survey. <i>American Journal of Orthopsychiatry</i> , 81(2), 193-201.) Without considering common risk factors, Steinberg et al. found that women who had abortions had a higher prevalence of subsequent clinical level depression and suicidal ideation than did women who gave birth in their first pregnancy. However, when background and economic factors, pre-pregnancy violence, and pre-pregnancy mental health problems were considered in analyses, this no longer held true. Women who had abortions were not at an increased risk of having post-pregnancy depression or suicidal ideation compared to women who delivered their first pregnancy, rather pre-pregnancy violence and mental health problems were predictors of subsequent depression and suicidal ideation.	(until July 2011) and included any studies meeting the inclusion criteria.
3.3.2	33	41	Individual 10	4/5	When reporting evidence, no report is harder than the fact of death. National mortality figures found in the Finnish studies GISSLER1996 point very strongly to an increased death rate by suicide in that country.	Thank you for your comments. We do not dispute the findings of the Gissler study. Gissler was rated as very poor due to the lack of control for previous mental health problems. For full details of the quality rating of each study, please see Appendix 9.
3.3.2	33	41-50	Christian Medical Fellowship	19/36	We strongly question the review rating of the Gissler studies as poor, and that 'very little information was provided'. <b>Did the reviewers attempt to contact the author to find out more information?</b> The Finnish registry linkage studies are useful in linking abortion with hard endpoints such as suicide or death from other causes. <b>We are unable to do this in the UK because abortion notifications do not yet include the NHS number on the forms, despite this being at odds with current DOH policy.</b> We suggest this should be rated as moderate, rather than poor. (see our comment at the end of this form)	Thank you for your comments. We do not dispute the findings of the Gissler study. Gissler was rated as very poor due to the lack of control for previous mental health problems. For full details of the quality rating of each study, please see Appendix 9. We have removed the section stating that 'very little information was provided' as we have since used the excluded studies to attain more information about the methods used.
3.3.2	33	41-50	Elliot Institute, Springfield, Illinois, USA	36/87	The ranking of Gissler1996 as "very poor" is beyond understanding. Indeed, variations in ranking of the studies make it unclear how this ranking system is uniformly applied (as in the range of ranking the NLSY studies from "fair" to "very poor" even though Schmiede's study is most clearly biased in sample selection rules.) If you are relying on Charles' actual ratings, it is	Thank you for your comments. We do not dispute the findings of the Gissler study. Gissler was rated as very poor due to the lack of control for previous mental health problems. In this case we of course would not expect the study to control for previous suicide, instead we would

				<p>notable that the Charles group and its funding had a clear bias toward dismissing an abortion mental health link.</p> <p>Regarding the Gissler discussion, first, the record linkage process is actually very well spelled out in the Gissler studies. It is very similar to the process used by MunkOlsen2011, which was not criticized in the section on that study. Additional information regarding linkage methods will be found in, for example, (Gissler M, Berg C, Bouvier-Colle MH, Buekens P. Pregnancy-associated mortality after birth, spontaneous abortion or induced abortion in Finland, 1987-2000. <i>Am J Ob Gyn</i> 2004; 190:422-427 and Gissler M, Kauppila R, Merilainen J et al: Pregnancy associated deaths in Finland 1987 1994 definition problems and benefits of record linkage. <i>Acta Obstetricia et Gynecologica Scandinavica</i>,1997; 76: 651-657.</p> <p>In short, literally all pregnancy outcome records were linked using patient identifiers to death certificates. The STAKES team doing this analysis has done scores of similar studies. Why anyone should lack confidence in the record linkage process is unclear.</p> <p>Secondly, in regard to the goal of identifying raw prevalence rates, one simply cannot do better than measure a clearly defined outcome, suicide in a national population. This study found a difference between delivering women and aborting women that exceeded six fold. While Gissler only adjusted for age (and no prior history of completed suicide!), it seems unlikely that adjusting for other factors would have eliminated the entire six fold difference, especially in light of Reardon2002A which did control for psychological history.</p> <p>In short, there is little reason to question the accuracy of either the raw prevalence rate and the age adjusted prevalence or the relative risk rates. These are true prevalence rates. They are not adequately adjusted for to support a claim that they are the true “causal prevalence rates” which can be attributed to abortion alone. But it is clearly misleading to the both the public and professionals to seemingly dismiss this study as “very poor.”</p> <p>If this current review is only concerned about determining what portion of elevated rates of psychological problems can verifiably be attributed to abortion alone, you are setting such a high standard that every study can and should be dismissed as very</p>	<p>hope that the study would control for previous mental health problems, which have been shown to increase the risk of suicide.</p> <p>As stated in a response to previous comments, in light of the consultation process we have adapted the Charles quality criteria (for details see Section 2.9), re-rated (and double rated) all the included studies, provided a measure of inter-rater reliability (see Section 2.9) and included a table of all the study quality ratings (see Appendix 9)</p> <p>We have removed the section stating that ‘very little information was provided’ as we have since used the excluded studies to attain more information about the methods used.</p> <p>The aim of the review was to assess the impact of abortion on mental health problems. The focus of the review is from the perspective of a woman faced with a decision regarding an unwanted pregnancy. We have noted the limitations of the evidence and agree that a lot of research is flawed and that this highlights the problematic nature of abortion research.</p> <p>We are not reviewing abortion as a treatment for mental health problems and therefore would not look at any contraindication for abortion. Instead we have taken the approach to assess which factors are linked to poorer outcomes and have suggested that support is offered for women experiencing these factors (see Section 1.5).</p>
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				<p>poor. Every study has weaknesses. Interview studies face huge participation and attrition biases. Record bases studies, such as Gissler, face very limited control variables. Double blind, random trials are impossible. Therefore, using a hypothetical gold standard as the measuring stick predetermines that you must conclude that no single study is adequate upon which to determine the true prevalence rates attributable to abortion. Which is true. But let's just admit that up front and get on with the process of looking at the entire body of available information does describe the <i>shape of the problem</i>, if not the exact "causal prevalence rate."</p> <p><b>Most importantly</b>, even if control variables could be found that would wipe out the six fold difference in suicide rates, investigation of those control variables would almost certainly reveal that these control variables are identifying risk factors for when abortion is contraindicated in regard to mental health outcomes.</p> <p>For example, if pregnancy wantedness had been available in the data set, and if every suicide had been due to a wanted pregnancy which was aborted only because the women were threatened with abandonment if they didn't "get rid of it," use of this control variable would appear to wipe out any significant results. But properly interpreted, this control variable is helping to highlight which women are at higher risk of negative reactions to abortion.</p> <p>This is why it is important to always give substantial interest to unadjusted prevalence rates. Any controls that may reduce the prevalence rate should be carefully examined to determine if they are helping to identify a risk factor for more negative reactions to abortion.</p> <p>Thirdly, it is absurd to rate Gissler's study as "very poor" when the findings are consistent with the suicide related findings Reardon2002 and Morgan1997 which did control for prior psychological state (Reardon) or prior rates of suicide attempts (Morgan). These findings are also consistent with the self-reports of women who have attempted suicide following abortion and with suicide notes (Emma Beck, being one relatively famous example.)</p> <p>In it's entirety, the body of literature supporting a connection</p>	
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					between abortion and elevated risk of suicidal behaviour is very strong. Therefore, and the classification of this largest record based study of this phenomena as “very poor” demonstrates the weakness of this rating system, not the weakness of this study. In our opinion, compared to the other studies in Table 4, it should be rated “Fair”	
3.3.2	33	41-50	Individual 16	17/33	The Finnish registry linkage study (Gissler 1996) is important simply because it can do things that cannot be done with UK data (abortion notifications can't be linked in the same way here) – notably the linking to significant endpoints like suicide. This study should not have been rated so negatively. Did the authors try and contact the writers of the paper who might have been able to address the perceived paucity of information?	Thank you for your comment. The Gissler study was rated as very poor due to the lack of control for previous mental health problems. For full details of the quality rating of each study, please see Appendix 9. We have removed the section stating that ‘very little information was provided’ as we have since used the excluded studies to attain more information about the methods used.
3.3.2	33	49-50	Mount Joy College, Victoria, British Columbia, Canada	59/103	I believe we are the only researchers that <b>measured the amount of wantedness</b> before the pregnancy, at different stages and after birth. It is a check mark shaped curve illustrating the mark drop in the rate in the early stages of a pregnancy at which point most abortions occur. Many of these women would have developed a desire for the child if the pregnancy had not been terminated.	Thank you for your comment. We agree with the limitations regarding the definition of wantedness of the pregnancy within the literature. The definitions of ‘unwanted’ and ‘unintended’ included in the introduction set out our use of the terms, rather than their use in the literature (see Section 1.2). We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole (see Section 2.3).
3.3.2	34	Table 4	Elliot Institute, Springfield, Illinois, USA	37/87	Schmiege reports for “12-27 years” and “1-27 years”, which is more precise than 12+ or 1-12+.  Schmiege2005 should be rated “very poor” due to (a) the 60% concealment rate in the NLSY and (b) including women who had abortions following a first pregnancy into the control group, and (c) excluding women who subsequently described their first pregnancy, at any time during the 27 year period, as wanted – a classification which may reflect post-abortion regret.	Thank you for your comments this has now been amended.  In light of the consultation comments we have adapted the Charles quality criteria and have re-rated and double rated each of the included studies. For further details of the quality rating of each study please see Appendix 9.
3.3.2	34	Table 4	Mount Joy College, Victoria, British Columbia, Canada	60/103	As far as I can detect, the authors are using “prevalence” where they should state incidence. Dorland’s (20) defines prevalence as: “the total number of cases of a specific disease in existence in a given population at a certain time.” This is not what any of	Thank you for your comment. Incidence refers to the number of <i>new</i> cases within a given population, whereas prevalence is the total number of cases (new and existing) at any time

				<p>these researchers determined.</p> <p>There is no significant difference in the studies and that the designation of fair etc is arbitrary. Reardon (2002) did control for mental illness using record matching for psychiatric admission. That criteria is much more précis than any other such as, psychiatric contact, psychiatric diagnosis, emotional complaint etc.</p>	<p>point or period. In all cases, the rates presented in the studies are estimates based on a sub-sample of the population (we have shown this uncertainty by the inclusion of confidence intervals). We have reported and synthesised the data within the papers, which was a mixture of period and point prevalence. In some cases, such as suicide or first recorded contact, the figures reported are necessarily incidence. In these cases, where raw data and/or cumulative incidence rates over a given period were reported, these were used as estimates of period prevalence. Details of the methods used are reported in Section 2.</p> <p>With regards to the quality criteria, in order to improve transparency we have added full details of the scores for each individual paper within Appendix 9.</p>
3.3.3	30	10-12	Elliot Institute, Springfield, Illinois, USA	<p>32/87</p> <p>None of the studies listed use self-esteem scales as control variables. Coleman2009 used 22 control variables, none of which are self-esteem scores (table 1). So they should not be described as using self-esteem scales inappropriately. Furthermore, the scale that was used might properly be described as a weak or limited measure of pre-pregnancy psychiatric state, but it was not “inappropriate.”</p> <p>Specifically, The three NLSY studies use the Rotter internal-external locus of control scale, which unfortunately is the only psychological data point measured prior to administration of the CES-D in 1992. While this measure of a personality trait is not an ideal control variable, the Rotter scale have been found to correlate with higher depression scores (Costello EJ.Locus of control and depression in students and psychiatric outpatients.J Clin Psychol1982;38: 340–343; and Benassi, Sweeney &amp; Dufour, 1988.) and so it would appear to have some merit as a pre-pregnancy measure of tendency toward depression. The use of this control variable was not irrational.</p> <p>Still, because the Rotter scale is a very limited measure of one aspect of the subjects’ pre-pregnancy psychological profile, it would be very appropriate to state that some studies, including</p>	<p>Thank you for your comments. This has been amended within the text. The locus of control scale was not classified as a validated measure of mental health, therefore studies using this as their only control for pre-existing mental health problems were rated as weak according to this criterion.</p> <p>We do not doubt that this was a rational choice of measure given the available data; however within the context of this review it did not meet criteria for a measure of mental health.</p>

					<p>the NLSY studies as examples, employed only “weak measures” of pre-pregnancy mental health.</p> <p>In short, while it is reasonable to describe this control variable as “weak” it seems pejorative to describe it as “inappropriate.”</p>	
3.3.3	37	19	Individual 9	15/25	Delete first of	Thank you this has been amended
3.3.3	37	25	Elliot Institute, Springfield, Illinois, USA	33/87	<p>Add:</p> <p>“and a 60% underreporting of abortions in the NLSY studies (Cogle2003, Reardon2002, Schmiege2005) [citing Jones EF, Forrest JD. Underreporting of abortion in surveys of U.S. women: 1976 to 1988. Demography 1992;29: 113–126].</p>	Thank you for your comment. We have discussed the problem of underreporting as a limitation of this study and of the evidence base as a whole.
3.3.3	37	27	Catholic Medical Association (UK)	47/50	<p>Given that, in the end the Review Group dismisses all but four studies from their final conclusions we should ask to what extent is the concern that the UK population may be different from the range of other western nations (where studies have been done) really hold true. The concern about extrapolation as a limitation may be overstated.</p> <p>In reality the UK is a society in which abortion is legal, frequently done and carries little stigma. This is very similar to the jurisdictions in which these studies took place. The only useable purpose of the statement therefore seems to be to strengthen a null hypothesis, that causation of mental disorder by abortion is not proven. As we will discuss elsewhere, some of the PTSD evidence makes that a tenuous statement.</p>	<p>Thank you for your comments. We have not dismissed studies due to the country in which the research was conducted, unless conducted in a country where abortion is illegal. Studies were instead excluded from this section of the review (Section 1.3) if they did not control for previous mental health problems. We also separated studies which did and did not control for pregnancy intention in the comparison group.</p> <p>We have added further detail about abortion legislation into the introduction (see Section 1.3). However we do feel it is an important point to consider. Many of the studies were conducted in countries with different laws regarding an abortion; this is a consideration that needs to be taken into account when interpreting the evidence (see Section 6.1 of the conclusion).</p>
3.4.1	38	Table 5	Mount Joy College, Victoria, British Columbia, Canada	61/103	<p>The Steinberg study (rated as very good) not only did not do follow-up but used interviews to collect information on mental health. Having taught interview techniques to medical students and counselors for many years (22), I assure the authors this is the most unreliable way to collect research data unless the interviewer has months of training and unless they have no bias regarding matters of abortion. Both those conditions are unlikely. Once again it reveals that their designation of quality is arbitrary and biased.</p>	Thank you for your comments. In order to improve the transparency of the review we have added further details about the quality assessment process (see Sections 2.7 and 2.9) and full details of the quality ratings for each individual study in Appendix 9. We have also discussed the problems with the measurement of outcomes throughout the review.



3.4.1	39	0	Elliot Institute, Springfield, Illinois, USA	34/87	In addition to suicide, Reardon2002A also reports deaths classified as due to “Mental Disease,” with higher rates that were statistically significant after controlling for one year of psychiatric history prior to pregnancy outcome (RR=3.21, 95% OR, 1.11 to 9.27) Similarly, deaths from suicide, after controlling for one year of prior psychiatric history, was significantly higher (RR=3.12, 95% OR 1.25 to 7.78)	Thank you for your comments. In this section we have reported the prevalence (or incidence in this case) of suicide after controlling for previous mental health problems as reported in Table 9. Comparisons of outcomes are reported in Section 5 of the review.
3.4.2	40	5-14	Mount Joy College, Victoria, British Columbia, Canada	62/103	The authors note that Steinberg used post abortion assessments “from a few months to 20 years”. In that time period there are so many intervening variables that no conclusion can be made regarding any association.	Thank you for your comment. We have noted this as a limitation of this and other studies included in this section of the review (see Section 3.4.3).
3.4.2 and 3.4.3	40 and 44	8 1	Catholic Medical Association (UK)	38/50	<p>PTSD after abortion and the aetiology of PTSD.</p> <p>We believe that there is a special case to be made in terms of the study of PTSD. Well conducted studies of PTSD may well show that PTSD is specifically caused by abortion. We believe that this evidence is clearly there and should be considered. In part this derives from the common clinical experience of doctors who do not refer for abortion working in general practice and elsewhere. A number of GP’s have reported to us the frequency with which they see women traumatised by abortion and relating their difficulties specifically to that event with PTSD like symptoms consonant with the causation being the abortion they underwent.</p> <p>A key lesson from organisations that support women who believe they have been harmed by abortion is that PTSD may relate to the abortion itself. We are aware via our work as physicians as well as via data from post abortion support groups of many women who have suffered following abortion. Many of those who meet the criteria for PTSD will report specific on-going triggers for their distress. For example one woman reported enduring flashbacks about the abortion when travelling through rain in a car. It had rained on the way to the clinic that day. Severe disability persisted for years. The PTSD was clearly attributable to the abortion that she had felt powerless to prevent.</p> <p>It is also clear that one problem with measuring this type of problem is that many people with mental illness do not seek medical treatment and this is especially so of post abortion women.</p>	<p>Thank you for your comments. Although we agree that PTSD is an important area, throughout the review we have only relied on published quantitative data and do not have the scope to assess qualitative data or unpublished clinical reports.</p> <p>We agree that using treatment records as a measure of outcome is problematic for the reasons you state and have discussed this limitation in Sections 2 and 3.</p> <p>We agree that the lack of reporting for the reason for PTSD is a limitation within the data. We also agree that one of the limitations with the research is that most if not all studies are unable to assess causation, and at best can only show a correlation or association between any one factor and a particular outcome.</p> <p>Thank you for the summary of each study. We have checked to ensure we have included each of the mentioned studies, where appropriate, within the prevalence section of the review.</p> <p>Although not included in the prevalence review, we have now considered a number of studies which assessed the factors related to poorer mental health outcomes in a sub-sample of women presenting to a clinic for mental health treatment or reporting emotional distress. These</p>



				<p>It is true that not all studies allow clarity as to the cause of the PTSD. One study is cited that assessed PTSD after abortion and which controlled for pre abortion symptoms. Steinberg and Russo found a 10 fold increase in PTSD (CI 6.66- 13.86) after abortion and found that that was mainly seen in women who have had multiple abortions, and a variety of risk factors such as rape history, age at first pregnancy outcome (abortion vs. delivery), race, marital status, income, education, subsequent abortions, and subsequent deliveries. However the study does not report the causes of PTSD. Clearly, for some women who abort the PTSD may relate to violent relationships, rape and other risk factors that led to pregnancy in the first place. In this study therefore, it is not possible to tell if the PTSD relates to the abortion or to other events in the woman's life.</p> <p>But Broen 2004 measured the "subjective distress associated with a particular trauma" comparing abortion with spontaneous miscarriage. This is interesting as abortion is something that is consented to (i.e the abortion is normally wanted) and miscarriage normally unwanted. Not surprisingly, 47% of those who had a miscarriage were cases on the Impact of Events Scale at 10days compared to only 30% who had had an abortion. Thus in the immediate term, mental health is worse after something that was not chosen (miscarriage) than something that was consented to (abortion). But at 2years PTSD was seen in 2.6% and 18.1%, respectively (p .019). So there is a real trend towards higher PTSD, specifically related to the abortion itself in women who abort compared to those who miscarry. The key finding of the paper is that <i>"The short-term emotional reactions to miscarriage appear to be larger and more powerful than those to induced abortion. In the long term, however, women who had induced abortion reported significantly more avoidance of thoughts and feelings related to the event than women who had a miscarriage"</i> Broen's 2005 paper replicated these findings, with 20% showing impact Event Scale avoidance at 5 years and 45 caseness by the IES. As far as we can tell this is psychopathology that is specifically caused by the abortion.</p> <p>Coleman (2009) found that Abortion was related to an increased risk for a variety of mental health problems (panic attacks, panic disorder, agoraphobia, PTSD, bipolar disorder, major depression with and without hierarchy), and substance abuse disorders after statistical controls were instituted for a wide range of personal,</p>	<p>studies, if they met the other requirements, were included in the review of factors associated with poorer mental health outcomes (see Section 4). Furthermore, we have included recommendations suggesting that women who show distress following abortion or who have a negative emotional reaction to an abortion are supported (see Section 6).</p> <p>With reference to the Major study, we have included the high dropout rate as a limitation of the study (see Sections 3.3.2 and 3.3.3).</p> <p>We have amended the wording of the evidence statements throughout to ensure they accurately reflect the evidence.</p>
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				<p>situational, and demographic variables. Calculation of population attributable risks indicated that abortion was implicated in between 4.3% and 16.6% of the incidence of these disorders.</p> <p>Major found that about 70% were happy with the decision to abort after 2 years but that decision satisfaction decreased over time. She found that only 1% had PTSD (5 cases). This is an odd finding as she suggests that 10% of the general population suffer PTSD and so it is not clear how this sample derived such a low rate. Almost 50% of patients were lost to follow up, so there may be skew in the results. But this was a study that found that severe mental distress after abortion is rare. However, study participants were paid to participate and the rate of PTSD post abortion is very different from the other studies. But the study does make clear that 16.3% were dissatisfied and 19% would not make the same decision again. Over time, negative emotions increased and decision satisfaction decreased. Although sadness and regret are not psychological disorders, these feelings should not be dismissed.</p> <p>So the conclusion to all this is pretty simple. Many women suffer mental health difficulties after abortion. Studies that include PTSD show mental illnesses that are specifically related to the abortion itself. Other studies (Broen) show that abortion is related to persistent mental illness that is in excess of control groups. Studies that account for previous mental health show that mental health is often worse after abortion.</p> <p>Therefore the bald statement (page 44 Line 1) that a range of follow up times and different prevalence measures complicates comparisons made to the point that conclusions are limited as well as the objection that these were not UK based studies, really do seem to stretch the data on PTSD a long way.</p> <p>Further the statement in 6.3.2 (see below) needs careful rewording. PTSD will not be caused by abortion if abortion does not occur.</p>		
3.4.2	40	24-25	British Psychological Society	19/22	<p>Diagnoses are artificial, medically determined categories not necessarily of concern to the public. There is a good deal of emphasis on data on the individual diagnoses which, because of low frequencies, does not assist interpretation. An alternative and potentially more useful approach (given the co-morbidity between different forms of anxiety and depression) could be to include,</p>	<p>Thank you for your comments. It would not be possible to accurately work out and combine the data for different disorders due to the high level of comorbidity between diagnoses. Many studies did not present figures relating to the percentage of the sample with more than one diagnosis,</p>

					where possible, incidence of any mood-related diagnosis.	therefore simply adding the categories of the individual diagnoses within any one study would likely result in an over-estimation of prevalence rates. We have, however, tried to group different disorders in the presentation of the evidence tables.
3.4.2	40	41	Elliot Institute, Springfield, Illinois, USA	40/87	<p>These studies are not limited to the first pregnancy of the subjects, but rather the first known pregnancy identified in medical records between July 1989 thru June 1994. Women may have had other pregnancy outcomes prior to 1989.</p> <p>Women with prior psychiatric treatment in the 12 to 18 months prior to <u>first known pregnancy outcome</u> were excluded, not just women who had abortions.</p>	<p>Thank you for your comments. This limitation is common to all studies included in the review, especially those which rely on self-report. We have mentioned the limitations of self-report throughout.</p> <p>Within the prevalence section we are only interested in the abortion population.</p>
3.4.2	41	10-16	Mount Joy College, Victoria, British Columbia, Canada	63/103	<p>Although it is true that some women with a psychiatric illness may not make a claim from Medicaid, the probability is that these are women who are coping less well, have less education and are desperately poor. These are those who would be most vulnerable to the effects of abortion. Thus if there is any influence, it would be in finding less of an effect, not more.</p>	<p>Thank you for your comments. We have noted this as a limitation of this method of outcome measurement (see Section 3.4.3).</p>
3.4.2	41	14	British Psychological Society	20/22	<p>The Society sees no reason why, as long as rates of subsequent pregnancies/miscarriages, etc. do not differ between the groups, those with subsequent events should be excluded. Indeed, those with no further pregnancies could be exhibiting a reaction to the event and therefore the inclusion of only such women could result in a biased sample.</p>	<p>Thank you for your comments. We have not excluded papers in which individuals went on to have further pregnancy outcomes. However, multiple pregnancy outcomes may have an impact on the prevalence rates of mental health problems. Controlling for multiple pregnancy outcome helps to determine the association between a single abortion and a mental health outcomes. The impact of lack of control for multiple births and abortions has been discussed throughout the review.</p>
3.4.2	41	18-48	Christian Medical Fellowship	21/36	<p>Munk-Olsen's work is drawn on heavily in this review. However we question such a reliance on this research and consider it is not merited. There should be more clarity in the review regarding the discrepancies and weaknesses in the data collection of Munk-Olsen.</p> <p>For example, they exclude women with any in-patient history and examine only nine months prior to the pregnancy outcome. The nine months prior to birth, if it is unplanned, is not reflective of</p>	<p>Thank you for your comments and suggestions. We feel we have sufficiently appraised the Munk-Olsen papers and discussed the limitations of this paper within all three sections of the review.</p> <p>We have discussed the limitations of Munk-Olsen using treatment records and psychiatric contact as an outcome measure throughout the review. However, given the limitations of the</p>

				<p>'normal' stress levels. Instead, high levels of stress are common among women facing an unplanned pregnancy and considering whether or not to have an abortion. It would have been more accurate to have the assessment before the pregnancies were detected.</p> <p>Munk-Olsen report only on rates of first psychiatric contact, not all psychiatric contact. They do not measure frequency of use of mental health services nor severity of problems. There is some problem with misclassification especially in early years, during the study, of women who were described as new contacts but may have been current contacts. This could lead to the possibility of systematic bias in early data for outpatients.</p> <p>They also only look at one year post-abortion, even though there is ample evidence that many women have more delayed reactions and that negative reactions increase over at least two years (Major 2000).</p> <p>While the Munk-Olsen2011 study is better than most in that it includes at least some data regarding pre-abortion mental health, this data can only be characterized as a weak measure of pre-pregnancy mental health.</p> <p>Women who experience repeat abortions are likewise not considered. a substantial number of women seeking an abortion have a prior history of abortion</p> <p>Lastly, Munk-Olsen failed to include many important controls, such as marital status, income, education and wantedness. <b>We recommend that this research be rated as good, not as very good.</b></p>	<p>evidence base, we still feel that this study is of better quality than the majority of the research in this area. We have reflected this in the quality appraisal of the evidence. Not only were the authors able to obtain population level data, they were able to apply some control of previous mental health problems.</p> <p>The conclusion of the Munk-Olsen paper concurs with your comments regarding the stress of unwanted pregnancy.</p> <p>In light of the comments received during consultation we have amended the quality criteria and re-appraised all of the studies (see Section 2.7).</p>	
3.4.2	41	18-48	Individual 16	19/33	<p>It appears that much is made of the work by Munk-Olsen. Whilst the 2011 study includes some pre-abortion data, it is not strong data. They exclude women with history of in-patient attendance! Furthermore examining 9 months prior to birth is insufficient; primarily looking at only the very stressful time for someone whose pregnancy is unplanned. Neither is there assessment of severity of mental health problems, nor frequency of mental health professional contact. Also, since the work only looks at one year post-abortion it misses delayed reactions (for which there is some evidence). It is further unclear how repeat abortions are handled – important since numerous women seeking abortion have a history of abortion. Some relevant</p>	<p>Thank you for your comments. The control of mental health problems used in the study has been made more explicit in the text (see Section 2.9). We have also discussed the method of controlling for previous mental health problems and the limitations of using treatment records as an outcome measurement throughout the review.</p> <p>However, given the limitations of the evidence base, we feel that the Munk-Olsen study is of better quality than most of the research conducted in this area. This has been reflected in</p>

					control factors (e.g. marital status) are also notably absent. In view of these things. The prominence given to Munk-Olsen's work is at best questionable.	the quality appraisal.
3.4.2	41	23-26	Elliot Institute, Springfield, Illinois, USA	41/87	It is inaccurate to state that only women with "no history of mental health problems" were included in the sample. Only women with no prior inpatient treatments were excluded. Women with outpatient psychiatric treatments prior to nine-months pre-abortion were included in the analysis.	Thank you for your comment. This has been amended in the text and noted as a limitation of the study.
3.4.2	41	28-39	Dept of Adult Psychiatry, University College Dublin	3/26	<p>There may be a systematic bias in the Munk-Olsen paper. There is no problem with in -patients since it excluded those who had prior in-patient treatment and only counted those who had first contact in the period prior to abortion/childbirth or in the period after. Thus this was a true incidence group.</p> <p>The issue is more problematic for outpatient contact since for at least part of the study period (before 1995) there was no register of out-patients so they could not have been identified and excluded. Thus before that period the patients having contact with the psychiatrists were a combination of continuing contact out-patients, new out-patients and new inpatients. Thus some may have been a prevalence group while those post-abortion/childbirth were a true incidence group.</p> <p>A problem is that it did not control for wantedness nor could it have because of the nature of the data.</p> <p>A problem is the failure to measure frequency of contact since it is possible that this increased post-abortion. This would of course require another study but it is nevertheless a deficiency that reduces the information about psychiatric contact and is one that is worthy of study.</p>	<p>Thank you for your comments. The control of mental health problems used in the study has been made more explicit in the text (see Section 2.9). We have also discussed the method of controlling for previous mental health problems and the limitations of using treatment records as an outcome measurement throughout the review.</p> <p>However, given the limitations of the evidence base, we feel that the Munk-Olsen study is of better quality than most of the research conducted in this area. This has been reflected in the quality appraisal.</p> <p>We agree that the lack of control of pregnancy intention and wantedness limits the study for use in the comparison section of the review.</p>
3.4.2	41	42-45	Dept of Adult Psychiatry, University College Dublin	4/26	The writers of the review recognise that using psychiatric contact in the Munk-Olsen study as a proxy for mental health problems raises problems. These seem to be underplayed in the review. This reduces the generalisability of the findings significantly since most women with depression, anxiety, self harm etc. are unlikely to be referred to the secondary services. The Munk-Olsen findings cannot be extrapolated to the generality of women with post-abortion mental health problems since his findings only apply to severe psychiatric illness.	Thank you for your comments. As stated we have discussed the limitations of using treatment records and psychiatric contact as an outcome measure throughout the review. However, given the limitations of the evidence base, we still feel that this study is of better quality than the majority of the research in this area. We have reflected this in the quality appraisal of the evidence. Not only were the authors able to obtain population level data, they were able to

						apply some control of previous mental health problems.
3.4.2	41	48-49	Elliot Institute, Springfield, Illinois, USA	42/87	<p>Additional limitations on Munk-Olsen2011 include the following:</p> <ul style="list-style-type: none"> <li>• The pre-abortion mental health control variable, nine months, includes one to three months during which the woman was facing the stress of discovering she was pregnant, considering and obtaining an abortion. It is therefore not a “clean” measure of pre-pregnancy mental health. The choice of nine months is also odd since for the control group, women who delivered, it would have covered only the time women were pregnant. Since the investigators had the full life history of the subjects, it is also unclear why a more complete control variable was not constructed, for example, the life time number of psychiatric treatments up to three months before the abortion date (approximating the time of conception) and nine months prior to the delivery date (approximating time of conception.)</li> <li>• The study put a substantial number of women in both categories. Women who had both an abortion and delivery appeared in both the first abortion and first delivery groups. This may have confounding effects. For example, there is evidence that following a history of abortion, the experience of pregnancy and delivery of a wanted child may arouse unsettled feelings about a past abortion. To eliminate these confounding effects the authors should have limited the study to first pregnancy outcome, and included miscarriage and other natural losses as a third group.</li> <li>• The only confounding variables for which the authors use controls are age and number of pregnancies. Controls for marital status and socioeconomic status are missing, even though such data is generally available in record based studies.</li> <li>• Women who experience repeat abortions are likewise not considered. Approximately half of all abortions (at least in the United States) are for women with a prior history of abortion. Numerous studies indicate an elevated risk of mental health problems associated with multiple abortions. Because it excludes any results for women who have multiple abortions, the study is not representative of the real world in which a substantial number of women seeking an abortion have a prior history of abortion.</li> </ul>	<p>Thank you for your comments. We thank you for your suggestions but feel we have sufficiently appraised the Munk-Olsen papers and discussed the limitations of this paper within all three sections of the review. We have discussed, among other limitations, the lack of control for confounding variables (which has been reflected in the quality rating of the study), use of psychiatric records as a measurement of outcome and the control for previous mental health problems. However, given the limitations of the evidence base, we still feel that this study is of better quality than the majority of the research in this area. We have reflected this in the quality appraisal of the evidence. Not only were the authors able to obtain population level data, they were able to apply some control of previous mental health problems.</p> <p>The conclusion of the Munk-Olsen paper concurs with your comments regarding the stress of unwanted pregnancy.</p> <p>The Munk-Olsen study, although using a very similar method to Gissler, was rated as higher quality due to the control for previous mental health problems. Please see Appendix 9 for full details of the individual ratings of each study.</p>



				<ul style="list-style-type: none"> <li>• The study did not examine whether the individual women who had a history of outpatient psychiatric treatment prior to the abortion were at higher or lower risk of additional psychiatric treatment after the abortion. For example, did pre-abortion mental health screening/counseling help to reduce subsequent risk of mental health treatment? Or was it a predictor of higher rates of subsequent mental health treatment? This is an important issue not answered by the study.</li> <li>• The study excluded women who died (including death from suicide) prior to the end of the 12 month follow-up. In light of the studies linking abortion to suicide, it would have been better to include an an additional analysis including suicide cases as psychiatric incidents.</li> <li>• The study only examines psychiatric contact for one year after the pregnancy outcome. While it seems evident that most post-partum depression occurs within the first few months after a delivery, there is evidence that many women have delayed reactions following an abortion and that regrets and negative reactions increase over at least two years (Major2000) and differences between aborting and delivering women persist for at least four years (Reardon2003).</li> <li>• The study considered only a single psychiatric treatment. It did not measure or weight repeated treatments, which might be used as a measure of the severity and duration of mental health problems.</li> </ul> <p>While Munk-Olsen is clearly one of the better studies, because it is free of self-report bias, like the Gissler studies, it should be rated as “good.” But given the many limitations discussed above, we would not agree that it should be rated “very good.”</p>	
3.4.2 Table 6	42	Table 6	Catholic Medical Association (UK)	<p>21/50</p> <p>We again concur strongly with the key finding here which is that even when previous mental health is accounted for there are substantial increases in prevalence rates for mental disorder beyond three months in women who have abortions.</p> <p>We do have, however, some substantial concerns about the interpretation of the data by the review group. We are very worried that the wording in the report implies that controlling for the effects of previous mental health effectively eliminates the increased incidence of mental disorder. This is simply not born</p>	<p>Thank you for your comments. The control of mental health problems used in the study has been made more explicit in the text (see Section 2.9). We have also discussed the method of controlling for previous mental health problems and the limitations of using treatment records as an outcome measurement throughout the review.</p> <p>However, given the limitations of the evidence base, we feel that the Munk-Olsen study is of</p>

					out by the evidence presented. The dataset shows that even when studies control for previous mental health there are high rates of mental disorder after abortion.	better quality than most of the research conducted in this area. This has been reflected in the quality appraisal.
3.4.2	42	Table 6	Mount Joy College, Victoria, British Columbia, Canada	64/103	There is much variability in the recorded “prevalence” rates which adds credence to my assertion that the assessment devices and procedures had very little in common. It must be remembered that the conditions that psychiatrists practice in Denmark are very different that the USA.	Thank you for your comment. This has been amended in the text and noted as a limitation of the study.
3.4.3	43	8-9	Mount Joy College, Victoria, British Columbia, Canada	65/103	The authors use the term “elective” abortions in the USA and UK where there is no such thing because even though the law or court decision is not enforced, in both countries, there are prerequisite conditions. The term therapeutic abortion is also used very loosely for there is no evidence that women benefit from having their handicapped child terminated. Quite the contrary, there is evidence of strong reactions to a termination, post abortion that are hardly evidence of improvement.	Thank you for your comments. The control of mental health problems used in the study has been made more explicit in the text (see Section 2.9). We have also discussed the method of controlling for previous mental health problems and the limitations of using treatment records as an outcome measurement throughout the review.  However, given the limitations of the evidence base, we feel that the Munk-Olsen study is of better quality than most of the research conducted in this area. This has been reflected in the quality appraisal.  We agree that the lack of control of pregnancy intention and wantedness limits the study for use in the comparison section of the review.
3.5	44	19-21 30-32	Mount Joy College, Victoria, British Columbia, Canada	66/103	These statements accurately illustrates that <b>as treatment to improve or prevent mental health</b> , abortion is not effective. It also means that because they are more vulnerable to abortion, woman with psychiatric illness must be screened out. Therefore abortionists will need to learn psychiatric skills. It also means the medical profession should repeatedly inform the public that psychiatric illness is not an indication for an abortion but a contra-indication.	Thank you for your comments. We were not looking at abortion as a treatment for mental health, nor were we focusing on the indications for abortion. Instead, the starting point for the review was a woman who has already had a legally induced abortion.
3.5	44	30-32	Individual 14	5/11	Comparison of the issues from Sections 3.1 and 3.4 as indicated in Table 7 suggest that a history of mental health problems prior to an abortion will have an effect on the rates of mental health problems following an abortion.	Thank you for your comments. We agree with this comment as reflected in the following revised evidence statement (see Section 3.6):  ‘The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted

						pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.'
3.5	45	Table 7	Mount Joy College, Victoria, British Columbia, Canada	67/103	These so called prevalence rates are usually incident rates because they are only counted when they have been identified at some treatment facility.	Thank you for your comment. Please see our responses to previous comments concerning the definition of incidence and prevalence rates. We have noted the use of treatment records as a limitation of the evidence base.
3.6	45	7-32	Catholic Medical Association (UK)	7/50	<p><b>Recommendation</b></p> <p>We therefore suggest that, from the published data, evidence based conclusions should be amended as follows.</p> <p><b>Question 1</b></p> <p><b>How prevalent are mental health problems in women who have an induced abortion?</b></p> <ol style="list-style-type: none"> <li>1. When prior mental health is not taken into account, rates of mental health problems post-abortion appear high</li> <li>2. Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.</li> </ol>	<p>Thank you for your comments. We have amended the statement as follows:</p> <p>'The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.' (Section 3.6)</p> <p>In the review, we reported the range of prevalence rates found in the included studies. We did not however review the prevalence rates for the general population.</p>
3.6	45	10-16	Mount Joy College, Victoria, British Columbia, Canada	68/103	Small sample size is not a drawback if it is representative of the population being considered. It is much easier to obtain statistically significant data with a large sample and to find small differences and rare events. In that regard a small representative	Thank you for your comments. We agree that small samples may be representative of the population. However, in many of the included studies, details about representativeness were

					sample is more likely to discover phenomena with large effects. Our relatively small sample (1) found that the lack of partner support increased the association with abortion by a factor of 4 and with miscarriage by 2.2	not available. We feel this is an important issue and have consequently added it as a criterion in the amended quality rating.
3.6.2	45	18	Catholic Medical Association (UK)	24/50	<p><b>Section 3.6.2</b> The Reardon (2003) study showed “that psychiatric admission rates subsequent to the target pregnancy event were significantly higher for women who had had an abortion compared with women who had delivered during every time period examined. The greatest difference in admission rates occurred in the first 90 days”. But the review group seem to have used this study, to suggest that, “Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems”.</p> <p>We have suggested elsewhere that this be reworded to “Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.”</p>	<p>Thank you for your comments. We have amended the recommendation within this section to state that:</p> <p>‘The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.’ (Section 3.6)</p> <p>This evidence statement was based on the evidence as a whole and not on a single study; that is, when looking at the sample as a whole the rates of mental health problems were greatest in studies that did not control for previous mental health problems. Furthermore, this section of the review reports prevalence rates following an abortion and does not focus on a comparison between different groups.</p>
3.6	45	19	Church Of England: Mission and Public Affairs Council	1/11	‘Appear to be high’ ought to read ‘are high’	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have now amended the evidence statement within this section of the review (see Section 3.6).</p>
3.6	45	21	Catholic Medical Association (UK)	22/50	So we are therefore very concerned by the group’s evidence (concluding) statement in 3.6 which while stating that controlling	Thank you for your comments. We did not intend for the statement to suggest that the risks of

					<p>for more variables reduces effect size (a more or less universal experience in studies that use such methodologies), the review group have omitted to mention that the effects persist to the point where their evidence statement appears to suggest that the effect has been eliminated. The current wording of the Review Groups evidence statement is therefore misleading, and predisposes to the view that there is no effect.</p> <p>We believe that two clear statements are warranted from this review question.</p> <ol style="list-style-type: none"> <li>1. When prior mental health is not taken into account, rates of mental health problems post-abortion appear high</li> <li>2. Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for</li> </ol>	<p>mental health problems are eliminated. Instead, the statements reflect the evidence reviewed, that is, when previous mental health problems are controlled for, the rates appear lower. We have amended the evidence statements in this section (see Section 3.6) to ensure they accurately reflect the evidence. The aim of this section was to present the range of prevalence rates reported in the studies. This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
3.6	45	23-25	Individual 16	20/33	<p>Statement 2 is more certain than the data support.</p> <p>Statement 3 almost sounds as if apparent increases in mental health problem after abortion are no longer seem if previous mental health is controlled for. This is of course not the case. Statement 3 needs adjustment to reflect this more accurately.</p>	<p>Thank you for your comments. We did not intend for the statement to suggest that the risks of mental health problems are eliminated. Instead, the statements reflect the evidence reviewed, that is, when previous mental health problems are controlled for, the rates are lower. We have amended the evidence statements in this section (see Section 3.6) to ensure they accurately reflect the evidence.</p> <p>As stated above the aim of this section was to present the range of prevalence rates reported in the studies. This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in</p>

						the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.
3.6	45	23-25	Christian Medical Fellowship	22/36	<p><b>Statement 2 and 3 are too strong for the evidence available.</b> In the absence of meta-analysis (rightly, due to high levels of heterogeneity) this statement is based on a subjective assessment of the general trends in the numerical data. So, for depression, the prevalence rates in one study that accounted for previous mental health are 18.14% with a confidence interval of 14.59 to 21.69. However in studies that do not account for previous mental health, rates range from 11.1 to 40.6 and the confidence intervals range from 1.93% to 45%. These rates show that in fact lower prevalence was found in some of the studies that did not account for previous mental health.</p> <p>Whereas for suicide, rates are higher in those studies that do not account for previous mental health.</p> <p>And for 6 outcomes there is no comparison (see table 7).</p> <p>Anxiety/related disorder is the only outcome where the statement appears to hold true.</p> <p>So evidence statement 2 and 3 should more accurately read: 'Controlling for previous mental health problems has an impact on the prevalence rates for anxiety following an abortion. There was insufficient evidence to see a difference in depression, PTSD, outpatient treatment, psychiatric admissions, alcohol and drug related disorders. Rates of suicide were higher in the studies where previous mental health was taken into account.'</p> <p>Statement 3 as it stands also fails to make clear that mental health problems are <u>not</u> eliminated ... and there is still an <b>increased incidence of mental health problems after abortion than for the general population</b>, even though controlling for previous mental health does <b>reduce</b> the apparent risk.</p> <p>Of course, better would be to have a general population comparator for each disorder to compare with table 6 p42.</p> <p>We do note the important point acknowledged on p85 where the</p>	<p>Thank you for your comments. The evidence statements are based on the evidence as a whole and not on the results of a single study. The variation in prevalence rates is also affected by the assessment methods used and the type of prevalence assessed. For example, studies using a scale-based measure are more likely to report higher prevalence rates than those using clinical diagnosis.</p> <p>We have been clear throughout, that this evidence statement is based on a systematic narrative review of the data due to, as you state, the clinical and statistical heterogeneity in the results. We did not intend for the statement to suggest that the risks of mental health problems are eliminated. We have amended the statement in Section 3.6 as follows, which we believe more accurately reflects the evidence:</p> <p>'1. The studies included in the review have a number of significant limitations, such as retrospective study designs and secondary data analysis of population studies; varied measurement of mental health outcomes both prior to and following the abortion, small sample sizes, and lack of adequate control for confounding variables, including whether or not the pregnancy was planned and multiple pregnancy events both before and after abortion. The high degree of heterogeneity in prevalence rates reported and the differences in outcome measurement make it difficult to form confident conclusions or generalisations from these results.</p>



					<p>reviewers accept the data that even when there is no history of mental health problems, and prior mental health is controlled for, there are higher rates of mental health problems post-abortion than the general population. This should be brought into evidence statement 3, lines 21-26. Also see our comments and suggestions for the statements on p89.</p>	<p>2. The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.'</p> <p>This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
3.6	45	26	Dept of Adult Psychiatry, University College Dublin	5/26	<p>The evidence statement correctly says that studies controlling for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems. It should also say that these rates are higher than those not having an abortion and it should provide the PAR as some of these studies have done e.g. Mota 2010, Coleman 2009 etc. See also table 7, page 45 for percentages and confidence intervals</p>	<p>Thank you for your comments. Due to the limitations of the studies and the large variability in prevalence for the abortion group (and the population or control group), we do not believe it would be appropriate to calculate the PAR (population attributable risk). Furthermore, many studies did not provide us with the correct data to use for an estimate in the general population, which in itself would be problematic as the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of key factors, such as exposure to violence, abuse and so on.</p>
3.6	45	28-32	ProLife Alliance	1/13	<p>The Steinburg 2008 study 1 (rated as very good) concluded that 95% of abortions in countries where abortion is legal are</p>	<p>Thank you for your taking the time to send us your comments. The consultation process is</p>

					performed for unplanned pregnancies. If having an unplanned pregnancy is the most common ground for induced legal abortions, then it may also be possible that those unplanned pregnancies were consequentially unwanted pregnancies. A clear definition of unplanned pregnancy is needed and a distinction, if there is one, with unwanted pregnancy should be clarified. If there is any correlation between unplanned and unwanted pregnancies, then there should be information on whether the pregnancy is unwanted by the mother or the father. The desire to continue the pregnancy (whether desired by the father or mother) will likely weigh heavily on the abortion consideration.	important to us in ensuring a robust final report, so your feedback is helpful.  This is an issue concerned with the definition of planned and wanted pregnancies. The definitions of 'unwanted' and 'unintended' included in Section 1.2 set out our use of the terms, rather than their use in the literature. We acknowledge that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3 and 6.2.
3.6	45	33-34	Elliot Institute, Springfield, Illinois, USA	43/87	The following evidence statements should be added: <ul style="list-style-type: none"> <li>• A history of abortion is a diagnostic marker for higher risk of mental health problems compared to women without a history of abortion.</li> <li>• None of the statistically validated research done to date has identified any mental health benefits for women in general or for any identifiable subset of women.</li> <li>• None of the statistically validated research done to date has identified any subset of women who, prior to becoming pregnant with an unintended or unwanted pregnancy have a pre-existing higher risk of mental health problems, would face a lower risk of triggering or exacerbating mental health problems if pregnancy is aborted rather than allowed to go to term.</li> </ul>	Thank you for your comments. Some of the evidence statements you recommended are beyond the scope of the review. We have assessed which factors, including previous mental health problems, are linked to poorer mental health outcomes in Section 4 of the review. We have also amended the evidence statements (see Section 3.6) which we believe are an accurate reflection of the evidence reviewed.
3.5	44	19-21 30-32	Mount Joy College, Victoria, British Columbia, Canada	66/103	These statements accurately illustrates that <b>as treatment to improve or prevent mental health</b> , abortion is not effective. It also means that because they are more vulnerable to abortion, woman with psychiatric illness must be screened out. Therefore abortionists will need to learn psychiatric skills. It also means the medical profession should repeatedly inform the public that psychiatric illness is not an indication for an abortion but a contra-indication.	Thank you for your comments. We were not looking at abortion as a treatment for mental health, nor were we focusing on the indications for abortion. Instead, the starting point for the review was a woman who has already had a legally induced abortion.
3.5	44	30-32	Individual 14	5/11	Comparison of the issues from Sections 3.1 and 3.4 as indicated in Table 7 suggest that a history of mental health problems prior to an abortion will have an effect on the rates of mental health problems following an abortion.	Thank you for your comments. We agree with this comment as reflected in the following revised evidence statement (see Section 3.6):  'The single largest confounding variable in these

						studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.'
3.5	45	Table 7	Mount Joy College, Victoria, British Columbia, Canada	67/103	These so called prevalence rates are usually incident rates because they are only counted when they have been identified at some treatment facility.	Thank you for your comment. Please see our responses to previous comments concerning the definition of incidence and prevalence rates. We have noted the use of treatment records as a limitation of the evidence base.
3.6	45	7-32	Catholic Medical Association (UK)	7/50	<p><b>Recommendation</b></p> <p>We therefore suggest that, from the published data, evidence based conclusions should be amended as follows.</p> <p><b>Question 1</b></p> <p><b>How prevalent are mental health problems in women who have an induced abortion?</b></p> <p>3. When prior mental health is not taken into account, rates of mental health problems post-abortion appear high</p> <p>4. Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.</p>	<p>Thank you for your comments. We have amended the statement as follows:</p> <p>'The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.' (Section 3.6)</p> <p>In the review, we reported the range of prevalence rates found in the included studies. We did not however review the prevalence rates for the general population.</p>
3.6	45	10-16	Mount Joy College, Victoria, British	68/103	Small sample size is not a drawback if it is representative of the population being considered. It is much easier to obtain	Thank you for your comments. We agree that small samples may be representative of the

			Columbia, Canada		statistically significant data with a large sample and to find small difference and rare events. In that regard a small representative sample is more likely to discover phenomena with large effects. Our relatively small sample (1) found that the lack of partner support increased the association with abortion by a factor of 4 and with miscarriage by 2.2	population. However, in many of the included studies, details about representativeness were not available. We feel this is an important issue and have consequently added it as a criterion in the amended quality rating.
3.6.2	45	18	Catholic Medical Association (UK)	24/50	<p><b>Section 3.6.2</b> The Reardon (2003) study showed “that psychiatric admission rates subsequent to the target pregnancy event were significantly higher for women who had had an abortion compared with women who had delivered during every time period examined. The greatest difference in admission rates occurred in the first 90 days”. But the review group seem to have used this study, to suggest that, “Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems”.</p> <p>We have suggested elsewhere that this be reworded to “Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for.”</p>	<p>Thank you for your comments. We have amended the recommendation within this section to state that:</p> <p>‘The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.’ (Section 3.6)</p> <p>This evidence statement was based on the evidence as a whole and not on a single study; that is, when looking at the sample as a whole the rates of mental health problems were greatest in studies that did not control for previous mental health problems. Furthermore, this section of the review reports prevalence rates following an abortion and does not focus on a comparison between different groups.</p>
3.6	45	19	Church Of England: Mission and Public Affairs Council	1/11	‘Appear to be high’ ought to read ‘are high’	<p>Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.</p> <p>We have now amended the evidence statement within this section of the review (see Section 3.6).</p>

3.6	45	21	Catholic Medical Association (UK)	22/50	<p>So we are therefore very concerned by the group's evidence (concluding) statement in 3.6 which while stating that controlling for more variables reduces effect size (a more or less universal experience in studies that use such methodologies), the review group have omitted to mention that the effects persist to the point where their evidence statement appears to suggest that the effect has been eliminated. The current wording of the Review Groups evidence statement is therefore misleading, and predisposes to the view that there is no effect.</p> <p>We believe that two clear statements are warranted from this review question.</p> <p>3. When prior mental health is not taken into account, rates of mental health problems post-abortion appear high</p> <p>4. Controlling for previous mental health problems has an impact upon the prevalence rates of mental health problems, but they continue to be elevated even after previous mental health problems are accounted for</p>	<p>Thank you for your comments. We did not intend for the statement to suggest that the risks of mental health problems are eliminated. Instead, the statements reflect the evidence reviewed, that is, when previous mental health problems are controlled for, the rates appear lower. We have amended the evidence statements in this section (see Section 3.6) to ensure they accurately reflect the evidence. The aim of this section was to present the range of prevalence rates reported in the studies. This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
3.6	45	23-25	Individual 16	20/33	<p>Statement 2 is more certain than the data support.</p> <p>Statement 3 almost sounds as if apparent increases in mental health problem after abortion are no longer seem if previous mental health is controlled for. This is of course not the case. Statement 3 needs adjustment to reflect this more accurately.</p>	<p>Thank you for your comments. We did not intend for the statement to suggest that the risks of mental health problems are eliminated. Instead, the statements reflect the evidence reviewed, that is, when previous mental health problems are controlled for, the rates are lower. We have amended the evidence statements in this section (see Section 3.6) to ensure they accurately reflect the evidence.</p> <p>As stated above the aim of this section was to present the range of prevalence rates reported in the studies. This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a</p>

						number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.
3.6	45	23-25	Christian Medical Fellowship	22/36	<p><b>Statement 2 and 3 are too strong for the evidence available.</b></p> <p>In the absence of meta-analysis (rightly, due to high levels of heterogeneity) this statement is based on a subjective assessment of the general trends in the numerical data. So, for depression, the prevalence rates in one study that accounted for previous mental health are 18.14% with a confidence interval of 14.59 to 21.69. However in studies that do not account for previous mental health, rates range from 11.1 to 40.6 and the confidence intervals range from 1.93% to 45%. These rates show that in fact lower prevalence was found in some of the studies that did not account for previous mental health.</p> <p>Whereas for suicide, rates are higher in those studies that do not account for previous mental health.</p> <p>And for 6 outcomes there is no comparison (see table 7).</p> <p>Anxiety/related disorder is the only outcome where the statement appears to hold true.</p> <p>So evidence statement 2 and 3 should more accurately read: 'Controlling for previous mental health problems has an impact on the prevalence rates for anxiety following an abortion. There was insufficient evidence to see a difference in depression, PTSD, outpatient treatment, psychiatric admissions, alcohol and drug related disorders. Rates of suicide were higher in the studies where previous mental health was taken into account.'</p> <p>Statement 3 as it stands also fails to make clear that mental health problems are <u>not</u> eliminated ... and there is still an <b>increased incidence of mental health problems after abortion than for the general population</b>, even though controlling for previous mental health does <b>reduce</b> the apparent risk.</p> <p>Of course, better would be to have a general population</p>	<p>Thank you for your comments. The evidence statements are based on the evidence as a whole and not on the results of a single study. The variation in prevalence rates is also affected by the assessment methods used and the type of prevalence assessed. For example, studies using a scale-based measure are more likely to report higher prevalence rates than those using clinical diagnosis.</p> <p>We have been clear throughout, that this evidence statement is based on a systematic narrative review of the data due to, as you state, the clinical and statistical heterogeneity in the results. We did not intend for the statement to suggest that the risks of mental health problems are eliminated. We have amended the statement in Section 3.6 as follows, which we believe more accurately reflects the evidence:</p> <p>'1. The studies included in the review have a number of significant limitations, such as retrospective study designs and secondary data analysis of population studies; varied measurement of mental health outcomes both prior to and following the abortion, small sample sizes, and lack of adequate control for confounding variables, including whether or not the pregnancy was planned and multiple pregnancy events both before and after abortion. The high degree of heterogeneity in prevalence rates reported and the differences in outcome measurement make it difficult to form confident conclusions or generalisations from these</p>



					<p>comparator for each disorder to compare with table 6 p42.</p> <p>We do note the important point acknowledged on p85 where the reviewers accept the data that even when there is no history of mental health problems, and prior mental health is controlled for, there are higher rates of mental health problems post-abortion than the general population. This should be brought into evidence statement 3, lines 21-26. Also see our comments and suggestions for the statements on p89.</p>	<p>results.</p> <p>2. The single largest confounding variable in these studies appeared to be the prevalence of mental health problems prior to the unwanted pregnancy; controlling for previous mental health problems has had an impact on the prevalence rates of mental health problems following an abortion. Specifically, studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems, which reported substantially higher rates.'</p> <p>This section of the review did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
3.6	45	26	Dept of Adult Psychiatry, University College Dublin	5/26	<p>The evidence statement correctly says that studies controlling for previous mental health problems reported lower rates of mental health problems following an abortion when compared with studies that did not adequately control for previous mental health problems. It should also say that these rates are higher than those not having an abortion and it should provide the PAR as some of these studies have done e.g. Mota 2010, Coleman 2009 etc. See also table 7, page 45 for percentages and confidence intervals</p>	<p>Thank you for your comments. Due to the limitations of the studies and the large variability in prevalence for the abortion group (and the population or control group), we do not believe it would be appropriate to calculate the PAR (population attributable risk). Furthermore, many studies did not provide us with the correct data to use for an estimate in the general population, which in itself would be problematic as the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of key factors, such as exposure to violence, abuse and so on.</p>

3.6	45	28-32	ProLife Alliance	1/13	The Steinburg 2008 study 1 (rated as very good) concluded that 95% of abortions in countries where abortion is legal are performed for unplanned pregnancies. If having an unplanned pregnancy is the most common ground for induced legal abortions, then it may also be possible that those unplanned pregnancies were consequentially unwanted pregnancies. A clear definition of unplanned pregnancy is needed and a distinction, if there is one, with unwanted pregnancy should be clarified. If there is any correlation between unplanned and unwanted pregnancies, then there should be information on whether the pregnancy is unwanted by the mother or the father. The desire to continue the pregnancy (whether desired by the father or mother) will likely weigh heavily on the abortion consideration.	Thank you for your taking the time to send us your comments. The consultation process is important to us in ensuring a robust final report, so your feedback is helpful.  This is an issue concerned with the definition of planned and wanted pregnancies. The definitions of 'unwanted' and 'unintended' included in Section 1.2 set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3 and 6.2.
3.6	45	33-34	Elliot Institute, Springfield, Illinois, USA	43/87	The following evidence statements should be added: <ul style="list-style-type: none"> <li>• A history of abortion is a diagnostic marker for higher risk of mental health problems compared to women without a history of abortion.</li> <li>• None of the statistically validated research done to date has identified any mental health benefits for women in general or for any identifiable subset of women.</li> <li>• None of the statistically validated research done to date has identified any subset of women who, prior to becoming pregnant with an unintended or unwanted pregnancy have a pre-existing higher risk of mental health problems, would face a lower risk of triggering or exacerbating mental health problems if pregnancy is aborted rather than allowed to go to term.</li> </ul>	Thank you for your comments. Some of the evidence statements you recommended are beyond the scope of the review. We have assessed which factors, including previous mental health problems, are linked to poorer mental health outcomes in Section 4 of the review. We have also amended the evidence statements (see Section 3.6) which we believe are an accurate reflection of the evidence reviewed.
<b>Section 4 - Factors associated with MH problems following an induced abortion</b>						
4			The Maranatha Community	3/8	Again the studies reviewed on this subject were plagued with a number of limitations which had been acknowledged in the submission, not the least the high level of heterogeneity in groups, study design, methodology, variation in follow-up and lack of control groups. A lack of a UK based studies also clearly reduces the generalisability of the data. Many of the studies were not specifically designed to assess the factors that are predictive of post-abortion mental health problems.	Thank you for your comments. We agree that many of the studies suffer from multiple limitations and have summarised these problems in Sections 4.3.2 and 4.3.3.

4		MIND	3/13	Would research into the relationships between the "fathers" and the "mothers" of induced abortion and their attitudes towards abortion be useful? A crumbling relationship might be a factor in both selecting abortion as a way forward and becoming depressed.	Thank you for your comment. We have included studies within this section that have assessed the partner's attitude towards abortion. We agree that this is an important area of research.
4		MIND	4/13	My experience of working with women with mental health problems who are pregnant is that there is a perception (I'm not sure whether it's true or not) that an abortion is more likely to be recommended to women who are known to have mental health problems. I have heard of women who have been pushed to have abortions and there was that terrible scandal about depo provera where women with mental health problems and handicaps were (and may still be) given depo provera for "feminine hygiene" reasons. There is certainly a stronger likelihood that women with mental health issues will be more exposed to suggestions that abortion is a positive option.	<p>Thank you for your comments. Some of the findings may be relevant to this group of women. For example we have identified that feeling pressured to have an abortion is one factor associated with poorer mental health outcomes. Furthermore, the most reliable predictor of post-abortion mental health problems was having a history of mental health problems prior to the abortion.</p> <p>The recommendations of the review suggest that if a woman has a negative attitude towards abortion or had been pressured into having the abortion, health and social care professionals should consider offering support and, where necessary, treatment because they are more likely than other women who have an abortion to develop mental health problems (see Section 6).</p>
4		MIND	6/13	Is abortion in non-mental-health environments as likely to be offered as such a valid option? And is this relevant? I was interested to see that abortion is 3 times more likely among women in lower income groups which probably correlates with mental illhealth.	<p>Thank you for your comment. This area was beyond the scope and remit of the present review. However there may be statistics on this on the Department of Health website <a href="http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_126769">http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_126769</a></p>
4		MIND	7/13	<p>My experience of women (clients as well as friends) who have had abortions is that there are huge differences in why women have abortions (or keep a child) and huge differences in the way women react. The following scenarios are ones I've come across that would not show up in this study but would affect the mental health of women during and subsequent to pregnancy and induced abortion or childbirth:</p> <p>A) pregnancy due to rape  B) pregnancy to a father who cannot support the mother and child (for whatever reason)</p>	<p>Thank you for your comments. It was beyond the scope of the review to look into the reasons for having an abortion. We looked at women who had an abortion of an <b>unwanted</b> pregnancy, which may have included the reasons you have listed.</p> <p>We are aware that societal values differ among various countries and cultural groups. These may affect women who having negative feelings about the abortion but we did not specifically look</p>

				<p>C) pressure from a father to a pregnant woman to either keep or abort the child</p> <p>D) cultural variations are enormous. In cultures where adultery is considered a crime, abortion is the only option and as such the lack of choice will effect the levels of guilt and other negative emotions. Age might also be a relevant factor.</p>	at this evidence. We have included a section on the legal context (see Section 1.3). We have also noted that the difference in legislation and societal values across countries limits the interpretation of the results (see Section 4).	
4			MIND	9/13	Many other factors need to be taken into consideration, such as the cultural identity of the father, the physical health of the mother, the sex of the unborn child and the cultural implications of that, etc. etc..	Thank you for your comments. We agree that these are important but unfortunately they were outside the scope of this review.
4	46		Secular Medical Forum	16/16	Another point of note which we present to the committee for consideration for inclusion is that the findings of Brewer (1977) together with <b>Hopker and Brockington (1991) Psychosis following hydatidiform mole in a patient with recurrent puerperal psychosis. Br J Psychiatry ;158:122-3</b> strongly suggest that severe pregnancy-related psychiatric illness is often primarily a neurophysiological response to the sudden hormonal and biochemical changes that follow the ending of any pregnancy, whether by abortion or parturition. These changes are much smaller after early abortion than after childbirth but are much less likely to be a factor in lesser disorders, where psycho-social and personality factors are probably much more prominent.	Thank you for your comment. The review did not focus on transient changes and reactions to a stressful situation and instead used a limit of 90 days to help ensure the studies included were assessing more enduring mental health problems. The neurophysiological changes you highlight may be one example of such a transient reaction, which is likely to occur in the period immediately after the end of the pregnancy (after either birth or abortion). Furthermore, although the idea that hormonal changes are likely to be important in a woman's mental state, and even in psychiatric illness, these are at present speculative with regard to abortion, and our analysis is an empirical one, without recourse to theories of possible causation.
4	46		The Maranatha Community	4/8	We are facing a very substantial, but largely hidden, social problem, which has largely been overlooked. During the past 15 years we have been particularly aware of young people who have had multiple abortions, using abortion as a contraceptive route, who within five years experience extremely serious emotional problems which have deeply affected and often seriously damaged relationships. The most frequent comments of young women have been "Why was I not warned of the consequences?", "Why was I told that abortion was a comparatively innocuous procedure with no long-term effects?" It is difficult to avoid the conclusion that many women have been grossly misled about the possible trauma following abortion and	Thank you for your comments. The review is based on the published scientific evidence available, with the aim of assisting women and clinicians faced with an unwanted pregnancy. It is beyond the scope of the review to address the reasons why a woman may request an abortion. Instead, the starting point for this review has been to focus on women who have had a legally induced abortion for an unwanted pregnancy.

					the specific problems which are specifically rooted in the abortion experience. It is a matter of considerable urgency that women are not misled and it must be recognised that problems experienced by those who have had abortions are frequently not recorded in their medical histories. Some women have kept their abortions secret for decades. Inhibition, guilt and fear have often made major contributions to emotional breakdowns and family collapse in later years.	
4.1	46	1	Elliot Institute, Springfield, Illinois, USA	44/87	<p>We would recommend that this section on predictive factors of negative outcomes be placed after the section comparing negative outcomes associated with abortion and a control group of delivering women.</p> <p>First, because the comparison between aborting and delivering groups naturally follows a review of reported prevalence rates since it is an investigation of prevalence rates which can be compared to a control group.</p> <p>Secondly, as discussed below, questions related to identifying subgroups of women at greater risk of negative reactions are more properly addressed by a larger body of evidence. In addition, these findings are applicable to individuals, even if they are not important from a public health perspective. By this we mean that even if it is shown that the prevalence of severe post-abortion reactions is too low to be a public health concern, the ability to identify a small subset of women who are at high risk is especially relevant to that subset of women who can be identified using appropriate screening criteria.</p>	<p>Thank you for your comments. We welcomed your suggestion but on balance decided to retain the original order of the review.</p> <p>In light of the consultation comments, we have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, provided studies met the other inclusion criteria.</p>
4.1	46	1	Elliot Institute, Springfield, Illinois, USA	45/87	<p>In our opinion, of the three questions addressed in the current review, this question is the most important. Unfortunately, it is not sufficiently addressed in a comprehensive and systematic fashion. Instead, as addressed below, the number of studies treated as relevant is inappropriately and unnecessarily narrowed by a decision to rely only on the same set of studies selected for the review of prevalence rates. Those criteria are simply inappropriate for this study question.</p> <p>The reason this section is most important is because it can yield answers that can be immediately used to improve the quality of medical care in the UK and elsewhere. Proper screening for risk factors is necessary (1) so physicians can make a better risk-benefit analysis and therefore give a better informed opinion to</p>	<p>Thank you for your comments. We have requested studies from a range of authors who suggested we missed important studies during the consultation. We have now collated and assessed all recommended studies to check eligibility for inclusion within the review.</p> <p>For this section of the review, we did not rely on just the studies identified for the prevalence review. Each of the potentially eligible studies was assessed for inclusion in each of the three reviews (please see Appendix 7 for a table of the</p>

				<p>women, and better comply with requirements of the Abortion Act, and (2) so women can be better informed of their own unique risk profile and prepared to identify and seek help in the event they are at higher risk and do experience negative reactions.</p> <p>These are very real, important, and practical issues which exist and should be addressed whether the incidence rate of negative reactions is one in one thousand or one in ten.</p> <p>Moreover, while the first and third questions relevant to prevalence and comparative risks will long be discussed and debated, this is the one area in which there is universal consensus and irrefutable evidence. Statistically validated risk factors exist that can and should be used to identify women who are most likely to have mental health issues which can and should be addressed following an abortion. Whether or not abortion is the cause of these mental health issues, or aggravates them, or is even is just something to which women mistakenly attribute mental health problems, these risk factors can and should be used by health professionals to identify women who may benefit from mental health treatment – both at the time women are considering an abortion, and years later.</p> <p>If this section is not greatly expanded as suggested below, we believe it would be <u>very important</u> for this report to identify its own shortcomings in this regard to that the public and health care providers should not be lulled into thinking this review purports to provide a comprehensive and systematic answer to this question.</p>	<p>included and excluded studies).</p> <p>As stated above, the original review excluded studies that focused on a subset of women presenting with distress or for treatment. However, in light of the comments received during consultation we have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, provided the studies met the other inclusion criteria.</p>
4.1 and 4.5	46 and 43	7 and 43	Catholic Medical Association (UK)	<p>23/50</p> <p><b>Review question 2</b></p> <p><b>What factors are associated with poor outcomes following abortion?</b></p> <p>We agree with the Review Group view that a particular risk factor for poor outcome is a history of previous mental ill health.</p> <p>We agree with the Review Group that there is not clarity in the literature as to particular risks factors for poor outcomes and that it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion. However a number of studies do set out that negative attitudes towards abortion increase the risks of poor mental health outcomes.</p> <p>However we would suggest that there is one particular group who are at severe risk of poor outcomes. The review group</p>	<p>Thank you for your comments and suggestions. In light of the comments received during consultation, we have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, providing the study met the other inclusion criteria. This has allowed us to assess a wider range of factors associated with poorer mental health outcomes.</p> <p>The review did not specifically focus on protective factors, as the aim was to assess the factors associated with poorer mental health outcomes, in order to help identify individuals</p>



				<p>should add a statement to the effect that</p> <p><b>Those who are forced or coerced to abortion, or who have abortions when they are less sure about their decision do appear to have worse outcomes and it should be stated that this group should be looked for so that poor outcomes may be avoided.</b></p> <p><b>Evidence statement 2</b></p> <p>Actually there is evidence from several sources (Broen, Coleman and Fergusson etc) that negative attitudes towards abortion are important risk factors. So in fact we contend that negative attitudes towards abortion should be included in statement 2, as well evidenced.</p> <p><b>We therefore suggest some rewording of the evidence statements to say that</b></p> <p><b>Statement 2</b></p> <p>“The only consistent factors associated with poor health problems after abortion are pre abortion mental health problems and negative attitudes towards abortion. It has not been possible to identify any features (such as positive attitudes towards abortion) that are protective in terms of longer term mental health”.</p> <p><b>Statement 3 unchanged</b></p> <p><b>Statement 4.</b> we recommend rewording to state</p> <p>“There is not clarity in the literature as to particular risks factors for poor outcomes and it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion.”</p> <p>While we cannot find evidence for mental structures or attitudes that protects against subsequent mental health difficulties, we are concerned about the issue of pressure and abortion.</p> <p>Coleman reports concerns about higher rates of mental problems among women pressurised into abortion, among groups who may have less autonomy (young women) and groups where outcomes appear worse (Coleman P. J Youth Adolescence DOI 10.1007/s10964-006-9094-x Resolution of Unwanted Pregnancy During Adolescence Through Abortion Versus Childbirth: Individual and Family Predictors and Psychological</p>	<p>who may be at greater risk and therefore require more support (see recommendations on page 126). Therefore, we do not agree with your recommendation for statement 4.</p> <p>We do not agree with statement 5 as we do feel that the lack of UK data is an issue in the generalisation of conclusions. Consequently, we have suggested that more good quality prospective longitudinal research is conducted from a UK perspective (see recommendations on page 126).</p>
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				<p>Consequences)</p> <p>Rue and Coleman found that that as many as 64% felt pressured into abortion. In the same study they found that 14% of women reported all the symptoms necessary for a clinical diagnosis of PTSD with 64% have some symptoms. We therefore suggest that the review group should add an</p> <p><b>Additional statement</b></p> <p>However there is particular concern that those who are pressurised into abortion or who are uncertain about their decision may suffer worse outcomes.</p> <p><b>Amend current statement 5</b></p> <p>The lack of UK based studies may have some implications for the generalizability of data, though few reasons were identified to suggest why this might be the case.</p>	
4.2	46	14-34	Elliot Institute, Springfield, Illinois, USA	<p>46/87</p> <p>It appears that studies excluded from the analysis of prevalence (section 3) have automatically been excluded in this section on risk factors. The rationale this broad exclusion is neither clear nor convincing since the questions addressed are so very different.</p> <p><b>For example, Rue2004, provides an analysis of differences in risk factors observed among American women versus Russian women. But it was excluded from the prevalence analysis because it is listed as having "no usable data." But while it is arguable that is difficult to access how the prevalence rates in Rue2004 can be adjusted to determine national prevalence rates, the data is perfectly fine in regard to an assessment of risk factors.</b></p> <p>It is extremely important to note that risk factor analysis does not require a nationally representative sample or standardized measures of clinical illness. As long as there are clear differences in reactions within the sample, risk factor analysis can appropriately be done to compare why there are differences among those who are part of the study.</p> <p>By analogy, it is not necessary that attendees at a picnic are representative of the nation before concluding that those who consumed 8-hour-unrefrigerated chicken salad are more likely to report symptoms of food poisoning. Nor would it be unreasonable to warn the general public, even if the public is much more</p>	<p>Thank you for your comments. It was not the case that studies excluded from the analysis of prevalence were automatically excluded from the review of risk factors. All identified studies were individually appraised for eligibility for each section of the review (see Appendix 7 for further details).</p> <p>We did not require studies to include a nationally representative sample, instead studies were required to perform some form of analysis, or provide data that would allow for an analysis of risk factors, for example, <b>a regression analysis or a comparison of two abortion groups, one with and one without the risk factor.</b> For further details of the types of data extracted within this section of the review please see Section 2.10.</p> <p>We have now collated and assessed all references recommended during consultation (including those you have mentioned) and have included any studies that met the inclusion criteria.</p> <p>It would be impractical to carry out a review without a cut-off date and this review was</p>

				<p>demographically diverse from the picnickers, that this study found that persons who eat 8-hour-unrefrigerated chicken salad are more likely to experience food poisoning, even though many do not.</p> <p>On this basis, all of the excluded studies should be re-examined to see if they report statistically significant data regarding risk factors.</p> <p>Moreover, while it may seem easiest to limit the investigation to studies relied upon for section related to prevalence, this question stands on its own and should incorporate a broader number of publications than those considered so far.</p> <p>Specifically, we suggest that the test for inclusion should be (1) a sample of women of 100 or more women with a history of abortion, (2) statistically significant (<math>p &gt; .05</math>) higher risk of a negative outcome among women having the risk factor compared to women who do not have the risk factor.</p> <p>Notably, <b>there should be no date limit on the research</b> that qualifies, other than that the date and sample should include women having a legal abortion.</p> <p>For example, no explanation is given for not including Elizabeth M. Belsey et al., Predictive Factors in Emotional Response to Abortion: King's Termination Study - IV, 11 SOC. SCI. &amp; MED 71-82 (1977). The study was designed to look at risk factors and there is no reason to believe the findings are no long valid.</p> <p>Belsey1997 found that using just five screening criteria—(1) a history of psychosocial instability; (2) a poor or unstable relationship with the male partner; (3) few friends; (4) a poor work pattern; and (5) failure to take contraceptive precautions —sixty-eight percent of the 326 abortion patients she studied were at higher risk for negative reactions and should have been referred for more extensive counselling. Of this high risk group, seventy-two percent actually did develop negative post-abortion reactions (guilt; regret; disturbance of marital, sexual, or interpersonal relationships; or difficulty in coping with day-to-day activities) during the three-month follow-up period.</p> <p>Certainly, this finding should be included in this review if it is truly the purpose of this review to identify evidence-based, statistically validated risk factors for negative reactions.</p>	<p>interested in current literature. The cut-off date of 1990 also provided the best match with studies included in the reviews we were updating and this corresponded with changes in UK abortion legislation in 1990. All studies published before this time limit were excluded from the review.</p> <p>In light of the consultation comments, we have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, providing the study met the other inclusion criteria. This has enabled us to assess additional factors within the review.</p>
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				<p>Similarly, studies looking exclusively at the subgroup of women who report negative reactions to abortion are also appropriate for this section. While such studies are not applicable to quantifying prevalence rates for the general population, their use of a “concentrated” population of women who do have negative reactions is perfectly acceptable for understanding both what types of reactions are reported in this subgroup but also what variations among those experiencing negative reactions can be explained by pre-existing factors.</p> <p>For example, Franz1992 is excluded on the grounds of using an “inappropriate sample” since it relied on a survey of women participating in post-abortion recovery programs. Yet the statistical analyses of the data regarding this “concentrated” sample of women reporting negative reactions reveals significant differences between the risk of reactions experienced by women who aborted as adolescents and those who aborted as adults. Clearly, those findings help to answer the question: What factors are associated with poor mental health outcomes following an induced abortion? Specifically, Franz1992 reveals that adolescents were more likely than adult patients to rate their negative reactions as more severe, as were women who felt rushed to make their decision. As related elsewhere in this comment form, these findings are substantiated by other studies, none of which have been included in this review.</p>	
4.2	46	14-34	Elliot Institute, Springfield, Illinois, USA	47/87 <p>This chapter of the review should seek to identify and list evidence based, statistically significant factors that predict higher risk of negative reactions to abortion. In doing so, it should seek to advance what has been known through a more systematic review of the literature than has been done to date.</p> <p>Toward that end, this chapter of the review should identify and summarize the risk factors identified in other reviews, including at least APA2008 and REARDON2003B.</p> <p>The complete list of risk factors identified by the APA task force should be included. They are as follows (pages 4, 11, and 92):</p> <ol style="list-style-type: none"> <li>1. terminating a pregnancy that is wanted or meaningful</li> <li>2. perceived pressure from others to terminate a pregnancy</li> <li>3. perceived opposition to the abortion from partners, family, and/or friends</li> <li>4. lack of perceived social support from others</li> </ol>	<p>Thank you for your comments and suggestions. We have summarised the factors included in the APA review in Section 1.4.1 of the introduction and have highlighted these as examples. Individuals can access the full review for further information.</p> <p>It would not be appropriate for us to repeat all of the suggestions in this section as the APA review used a different review eligibility criteria compared to the present review.</p> <p>We have now collated and assessed all references recommended during consultation, including those recommended in suggested review papers and included the studies where appropriate.</p>

				<p>5. various personality traits (e.g., low self-esteem, a pessimistic outlook, low-perceived control over life)</p> <p>6. a history of mental health problems prior to the pregnancy</p> <p>7. feelings of stigma</p> <p>8. perceived need for secrecy</p> <p>9. exposure to antiabortion picketing</p> <p>10. use of avoidance and denial coping strategies</p> <p>11. Feelings of commitment to the pregnancy</p> <p>12. ambivalence about the abortion decision</p> <p>13. low perceived ability to cope with the abortion</p> <p>14. history of prior abortion</p> <p>15. late term abortion.</p> <p>By parsing of the APA summary conclusion that "adult women who have an unplanned pregnancy the relative risk of mental health problems is no greater if they have a single elective first-trimester abortion than if they deliver that pregnancy," it also becomes clear that Task Force was also acknowledging that following as risk factors</p> <ul style="list-style-type: none"> <li>• being an adolescent (not an adult)</li> <li>• having a non-elective (therapeutic or coerced) abortion</li> <li>• prior history of abortion (having a second or third abortion, or more)</li> </ul> <p>Another major review of risk factors that should be reviewed and summarized is Reardon2003B (Reardon DC. Abortion decisions and the duty to screen: clinical, legal and ethical implications of predictive risk factors of post-abortion maladjustment. The Journal of Contemporary Health Law &amp; Policy J Contemp Health Law Policy. 2003 Winter;20(1):33-114.)</p> <p>Reardon reviewed 63 studies identifying risk factors for more negative psychological reactions to abortion. Of the studies identified, 34 were statistically validated studies, 14 were reviews, and 15 were case studies or expert opinions.</p> <p>Reardon synthesized the reported risk factors into outline of factors organized into two broad categories: factors relating to pre-existing psychological or developmental issues, and factors relating to a conflicted or compromised decision making process.</p> <p>The outline is included below. The references are omitted but will be found in the cited review.</p>	
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As will be seen, most of the risk factors have been validated by statistically significant findings in multiple studies.

Obviously, this outline should be updated to reflect research conducted since 2003.

It is strongly recommended that this current review should create a similar, more updated, and reorganized outline including, at the very least, those factors which have been statistically validated in studies with at least 100 subjects.

**Table 3: Outline of Risk Factors Predictive of Greater Post-abortion Psychological Sequelae with Citations to Authorities**

Key for all citations:

Normal type = Literature Review or Committee Reports;

Italicized type = Clinical Experience, Soft Data, Expert Opinion;

**Bold type - Statistically Validated Study.**

**I. CONFLICTED DECISION**

A. Difficulty making the decision, ambivalence, unresolved doubts 1, 2, 3, 10, 13, 14, 18, 23, 25, 29, 34, 37, 38, 40, 46 , 49, 52, 53, 55, 56, 57, 61

1. Moral beliefs against abortion 61

a. Religious or conservative values 1, 2, **5**, 23, **34, 39, 40, 48, 49**, 54, **56, 58, 59**

b. Negative attitudes toward abortion 1, **8**, 27, **57**

c. Feelings of shame or social stigma attached to abortion 2, 61

d. Strong concerns about secrecy 50

2. Conflicting maternal desires 1, 29, 30, 33, 34, 46, 51

a. Originally wanted or planned pregnancy 1, 13, 23, 27, 29, 53, 57, 59, 61

b. Abortion of wanted child due to fetal abnormalities 3, 7, 13, 18, 19, 20, 26, 27, 28, 41, 61

c. Therapeutic abortion of wanted pregnancy due to maternal health risk 3, 13, 15, 18, 20, 26, 27, 37, 42, 49, 54, 55, 61

d. Strong maternal orientation 34, 48

e. Being married 1, 10

f. Prior children 25, 48, 54, 58, 60

g. Failure to take contraceptive precautions, which may indicate an ambivalent desire to become pregnant 6

h. Delay in seeking an abortion 1, 2, 26



3. Second or third trimester abortion 1, 20, 26, 27, 39, 42, 49  
4. Low coping expectancy 1, 27, 29, 30  
**B. Feels pressured or coerced** 13, 16, 18, 27, **34**, 43, 45, 48, 49, 53, 51, **52**, 55, 61  
1. Feels decision is not her own, or is “her only choice” 14, 18  
2. Feels pressured to choose too quickly 17, 24  
**C. Decision is made with biased**, inaccurate, or inadequate information 17, 48, 49

**II. PSYCHOLOGICAL OR DEVELOPMENTAL LIMITATIONS**  
**A. Adolescence, emotional immaturity** 1, 4, 9, 11, 15, 16, 17, 27, 29, 32, 33, 42, 48, 50, 54  
**B. Prior emotional or psychiatric problems** 3, 5, 6, 13, 15, 18, 20, 22, 23, 25, 26, 34, 37, 40, 42, 47, 51, 54, 57, 61, 63  
1. Poor use of psychological coping mechanisms 2, **29**, **34**, 61  
2. Prior low self-image **33**, **34**, 43, 48, **52**, 61, **63**  
3. Poor work pattern or dissatisfied with job **6**, **52**  
4. Prior unresolved trauma or unresolved grief 48, 51  
5. A history of sexual abuse or sexual assault. 23, 31, 51, 61  
6. Blames pregnancy on her own character flaws, rather than on chance, others, or on correctable mistakes in behavior **29**, **30**, **36**  
7. Avoidance and denial prior to abortion **12**, 27  
8. Unsatisfactory or mediocre marital adjustment **6**  
9. Past negative relationship with mother **5**, **40**  
**C. Lack of social support** 1, 9, 27, 33, 46, 54, 55, 56, 58, 61, 62, 63  
1. Few friends, unsatisfactory interpersonal relations **6**, **52**  
2. Made decision alone, without assistance from partner **35**  
3. A poor or unstable relationship with male partner **6**, **25**, **34**, **40**, 43, 53  
4. Single and nulliparous **9**  
5. Separated, divorced, or widowed **14**, **62**  
6. Lack of support from parents and family- either to have baby or to have abortion 2, **8**, **9**, 18, 27, **29**, **33**, **35**, **52**, **56**  
7. Lack of support from male partner- either to have baby or to have abortion 2, **6**, **8**, **9**, 18, **25**, 27, **29**, **33**, **34**, **35**, 42, **46**, **52**, 53  
8. Accompanied to abortion by male partner 21, **30**  
9. Living alone **56**  
10. High alienation **63**  
**D. Prior abortion(s)** 13, 37, 43, 48, 52, 58

					<p><b>E. Prior miscarriage 58</b>  <b>F. Less education 58</b></p>	
4.2	46	15-34	American Association of ProLife Obstetricians and Gynecologists	3/5	<p>An omission in accounting for mental health complications after abortion is the issue of coerced abortion and partner violence. This is a huge topic and an important variable. Some recent studies include</p> <ol style="list-style-type: none"> <li>1. Fisher WA, Singh SS, Shuper PA, Carey M, Otchet F, MacLean-Brine D, Dal Bello D, Gunter J. <u>Characteristics of women undergoing repeat induced abortion</u>. CMAJ. 2005 Mar 1;172(5):637-41.</li> <li>2. Hathaway JE, Willis G, Zimmer B, Silverman JG. Impact of partner abuse on women's reproductive lives. J Am Med Womens Assoc. 2005 Winter;60(1):42-5.</li> <li>3. Silverman JG, Decker MR, McCauley HL, Gupta J, Miller E, Raj A, Goldberg AB. Male perpetration of intimate partner violence and involvement in abortions and abortion-related conflict. Am J Public Health. 2010 Aug;100(8):1415-7. Epub 2010 Jun 17.</li> <li>4. Thiel de Bocanegra H, Rostovtseva DP, Khera S, Godhwani N. Birth control sabotage and forced sex: experiences reported by women in domestic violence shelters. Violence Against Women. 2010 May;16(5):601-12.</li> </ol>	<p>Thank you for your comments. We have collated and assessed all of the references suggested during the consultation for eligibility within the review. Pressure from partners has been reviewed as a factor associated with poorer mental health outcomes in Section 4.</p>
4.3	46		Secular Medical Forum	6/16	<p><b>The SMF does not agree with the grading of Fergusson2009 as 'fair' in quality; we believe it should either be downgraded or excluded.</b></p> <p>Fergusson2009 uses retrospective reporting of negative feelings to abortion at age 30. Women were only asked about distress regarding abortion retrospectively at age 30. This means that they were offering historical reports on attitudes to something that may have happened in the region of 15 years previously. Furthermore, 32% of women provided inconsistent reports as to whether they had an abortion or not. That one third of women in the study failed to provide consistent reports of having abortion suggests that the second principal variable in the model, reports of distress up to 14 years after the abortion event, are also likely to be confounded.</p> <p>It should not be assumed that the association between negative reactions to abortion at age 30 and poorer mental health</p>	<p>Thank you for your comments.</p> <p>In light of the comments received during consultation, we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9.</p> <p>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p> <p>We have noted the limitations of the studies,</p>

					<p>outcomes can be attributed to the abortion. Poor mental health is likely to be associated with negative retrospective reports to many life events.</p> <p>The use of this study, which has a flawed methodological approach, to make statements in the current review may weaken the impact of the review.</p>	including retrospective reporting in Section 4.3.3.
4.3.1	47	37	Mount Joy College, Victoria, British Columbia, Canada	69/103	Russo's study had a follow-up rate of only 35% of the original sample and should not be considered research.	Thank you for your comments. We have now amended the quality criteria to include representativeness and follow up. The low follow up rate has been reflected in the quality rating.
4.3.1 Table 8	48	Table 8	Elliot Institute, Springfield, Illinois, USA	49/87	Again, we don't follow the rating scale. While concealment of abortions may be a limiting factor on Fergusson2009, in every other respect it is the best study design available since relies on longitudinal data of a cohort followed for a long period of time. We don't see how it could not rank higher than most other studies or why Stineberg2008 would rate higher. (Again, the gap between "fair" and "very good" is misleading. At least regrade to "fair" and 'good')	<p>Thank you for your comments. In light of the comments received during consultation, we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9.</p> <p>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p>
4.3.1.	49	Table 8	Dept of Adult Psychiatry, University College Dublin	6/26	It is difficult to understand why Steinberg study 2 was identified as very good in the quality ratings, since it was a secondary analysis, cross sectional with data being derived from a pre-existing national database. On the other hand Fergusson 2009 was only graded as fair although it is a longitudinal study, was a primary analysis and has the most extensive controlling for confounders of any study to date.	<p>Thank you for your comments.</p> <p>In light of the comments received during consultation, we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criterion to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9.</p> <p>Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).</p>

4.3.2	51	1	Catholic Medical Association (UK)	3/50	<p><b>Question2 What factors are associated with poor mental health outcomes after abortion?.</b></p> <p>We agree with the key findings of the review group on this question. Poor outcomes after abortion are associated with socio-economic and psychological risks factors for ill-health in women.</p> <p>But we disagree with statement 4.5.2. which states “When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems.”</p> <p>Negative attitudes to abortion are clearly shown to be key risks. Coercion to abort has also been clearly shown to lead to future difficulties. In addition many studies (especially studies of PTSD) have strongly suggested that mental disorder is caused by abortion. Other mental disorder may be caused by childbirth. This includes puerperal psychosis, but puerperal illnesses are usually short lived, recover well and are clearly separate from the mental disorders caused by abortions. Our clinicians working in both Primary Care and Psychiatry have considerable experience of women whose mental illness and mental disorders have been triggered by the abortions they underwent. Some patients have suffered for decades as a result.</p> <p>We have suggested amendments to the review group’s evidence statements below so that a more accurate description of the vulnerability to mental health problems is set out.</p>	<p>Thank you for your comments. We have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, providing the study met the other inclusion criteria. This has enabled us to assess a wider range of factors associated with poorer mental health outcomes.</p> <p>We have amended the evidence statements according to the evidence (see Section 6.3). However, when assessing the longitudinal prospective studies, we still find that previous mental health problems are the only consistently found factor to be associated with poorer post-abortion mental health outcomes.</p>						
4.3.2	51	3	Elliot Institute, Springfield, Illinois, USA	50/87	<p><b>The discussion of risk factors should include an effort to identify the proportion of women seeking abortion who appear to possess one or more risk factors.</b></p> <p>For example, Major, B., Mueller, P, Hildebrandt, K., "Attributions, Expectations and Coping with Abortion," Journal of Personality and Social Psychology, 48:585-599 (1985) identified the following percentages of women who had the identified risk factor:</p> <table border="1"> <thead> <tr> <th>Risk Factor</th> <th>At three weeks post-abortion, women possessing the risk factor were at higher risk of more...</th> <th>Percent age at Risk</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Risk Factor	At three weeks post-abortion, women possessing the risk factor were at higher risk of more...	Percent age at Risk				<p>Thank you for your comments. We agree that this is an important area; however, it is beyond the scope of the current review.</p>
Risk Factor	At three weeks post-abortion, women possessing the risk factor were at higher risk of more...	Percent age at Risk										

					<table border="1"> <tr> <td>Low Expectation of coping well</td> <td>depression, negative mood (regret, sadness, guilt...), anticipated more severe negative reactions in future, more physical complaints</td> <td>40%</td> </tr> <tr> <td>Self Character Blame</td> <td>depression, negative mood (regret, sadness, guilt...), anticipated more severe negative reactions in future, more physical complaints</td> <td>47%</td> </tr> <tr> <td>High Chance Blame</td> <td>more negative mood (regret, sadness, guilt...)</td> <td>52%</td> </tr> <tr> <td>High Other Person Blame</td> <td>anticipated more severe negative reactions in future</td> <td>35%</td> </tr> <tr> <td>High Situation Blame</td> <td>Depression</td> <td>50%</td> </tr> <tr> <td>Greater intention to have become pregnant</td> <td>Depression</td> <td>12%</td> </tr> <tr> <td>Higher evaluation of "this pregnancy as a meaningful experience."</td> <td>physical complaints, and higher anticipation of more severe negative reactions in future</td> <td>56%</td> </tr> <tr> <td>Accompanied by Partner</td> <td>depression, physical complaints</td> <td>33%</td> </tr> </table>	Low Expectation of coping well	depression, negative mood (regret, sadness, guilt...), anticipated more severe negative reactions in future, more physical complaints	40%	Self Character Blame	depression, negative mood (regret, sadness, guilt...), anticipated more severe negative reactions in future, more physical complaints	47%	High Chance Blame	more negative mood (regret, sadness, guilt...)	52%	High Other Person Blame	anticipated more severe negative reactions in future	35%	High Situation Blame	Depression	50%	Greater intention to have become pregnant	Depression	12%	Higher evaluation of "this pregnancy as a meaningful experience."	physical complaints, and higher anticipation of more severe negative reactions in future	56%	Accompanied by Partner	depression, physical complaints	33%	
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Accompanied by Partner	depression, physical complaints	33%																												
4.3.2.1	51	36	Mount Joy College, Victoria, British Columbia, Canada	70/103	After repeated formal requests Major has not made her data available to other researchers as is required by the APA.	Thank you for your comments. You would need to raise this with Major.																								
4.3.2.1	51	38	Mount Joy College, Victoria, British Columbia, Canada	71/103	The authors have still got it wrong. Major states 2 free standing clinics and 1 physicians office where the abortions were performed. The patient populations are likely to be very different	Thank you for your comments. We have now amended the text to state that three sites (two abortion clinics and one clinician's office) were																								

					because those attending a clinic probably could not afford the higher fees of the relatively benign conditions of the private physician.	used within the study.
4.3.2.1	52	Table 9	Catholic Medical Association (UK)	48/50	<p><b>Is there a typo here?</b></p> <p>Is 63.5 per 1000 women years for no psych history a typo. Is it 635 or 663.5?</p>	Thank you for your comments. We have checked the rates reported in the review and these are correct.
4.3.2.2	47	11-18	Elliot Institute, Springfield, Illinois, USA	48/87	<p>There are several problems with Russo1997, which was an reanalysis of Russo1992 (Russo, "Abortion, Childbearing, and Women's Well-Being," Professional Psychology: Research and Practice, 1992, 23(4):269-280.). First, it was well known even then that the NLSY had a lot of problems related to its inquiries regarding past abortions. Only 40% of the expected abortions were being reported, meaning there was a 60% concealment rate. This weakness was not discussed by Russo.</p> <p>In addition, it has been shown by Miller et al, that the Rosenberg Self-Esteem scale is not be a sensitive measure of post-abortion adjustment. Their study found that self-esteem scores remained virtually unchanged at three different time points while other emotional states varied significantly. (Miller WB: An empirical study of the psychological antecedents and consequences of induced abortion. J Soc Iss, 1992; 48: 67-93) Again, Russo does not mention this in her 1997 analysis. Similarly, Major2000 found that post-abortive women's self-esteem scores increased over time although negative reactions also increased, demonstrating that self-esteem scores are not positively correlated to other negative reactions.</p> <p>An additional confounding factor may be that self-esteem changes may offset each other. While some women may have a decline in self-esteem, others may respond to question in a way that will increase their self-esteem score. Remember, we are dealing with the subset of women willing to reveal a past abortion. For some, an increased tendency to answer the questions "I have much to be proud of; I am not at all a failure; I am a person of great worth;" with a high mark may be a way of compensating for inner doubts or indicate narcissistic personality disorder.</p> <p>Be that as it may, it is worth noting that Russo's discussion, especially in Russo1992, demonstrates a profound bias</p>	<p>Thank you for your comments.</p> <p>In light of the comments received during consultation, we have now adapted the Charles quality criteria, and as suggested added a 'good' category. We have also included criterion to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.9. The addition of representativeness to the quality criteria ensures that Russo will be appraised on this basis.</p> <p>Unfortunately, your comments relating to changes in self-esteem and reasons for these changes go beyond the evidence base for the review. The aim of the present review is to collate and analyse the findings reported in the papers. It is beyond the scope of the review to assess the reasons for changes in self-esteem in line with your comments.</p> <p>For any further comments relating to the Russo paper, you would need to discuss this with the authors.</p>



					regarding this issue. Based on her analysis of the NLSY, she declares that all concerns that abortion causes mental health issues can be laid to rest in light of her own inability to find a decline in self-esteem following abortion in the NLSY. One must truly read this protracted claim that this single study closes off all concerns to appreciate the hubris of her claims. Her political biases are clearly evident, which is why her participation in the APA2008 review feeds the concerns of those who believe the report was deliberately biased to understate the evidence for an link between abortion and mental health problems.	
4.3.2.3	53	26	Elliot Institute, Springfield, Illinois, USA	51/87	See Gissler1996 Table 4, which appears to show significant variations in suicide relative to different age groups.	Thank you for your comments. Although Table 4 in Gissler1996 provided no useable data for the review, we have extracted and included data from Gissler2005.
4.3.2.3	53	33	Mount Joy College, Victoria, British Columbia, Canada	72/103	These findings of Major are very suspect because they are taken from only 42% of the original sample. Women who return to the “clinic” for follow-up, even though paid to do so, are not representative of the average US American. They are much more likely to represent that segment of the USA population that personally favour a “prochoice” legal atmosphere and therefore more likely to report good effects &/or suppress reporting harmful effects of abortion.	Thank you for your comments. We have noted this as a limitation of the study (see Section 4.3). It has also been taken into account within the modified quality rating of the study, which now included representativeness as a criterion (see Section 2.9 for details).
4.3.2.3	54	24	Catholic Medical Association (UK)	49/50	We agree that the evidence does not show any especial age is at risk of negative mental health outcomes from abortion.  The evidence shows that negative outcomes are really quite high in all age groups. For example Reardon found that 9.2% of women ages 13-19 who had abortions were admitted within 4 years of the abortion. Rates for 25 to 29 and 35 to 49 were 11% and 11% respectively. All these rates are high. Similarly Coleman found 105 attending outpatients (age 13-19) and 22% of women aged 35 to 49 who have abortions attended for outpatient treatment within 4 years  So in fact rates of negative health outcomes are high across the age groups.	Thank you for your comments. We feel that we have covered the rates reported adequately in the prevalence of the review (see Section 3).
4.3.2.3	54	45-48	Elliot Institute, Springfield, Illinois, USA	52/87	The review state: “In general, the findings for ethnicity were mixed, with studies varying as to whether ethnicity was a significant factor or not. Even within studies, <i>ethnicity was associated with some outcomes but not others.</i> ” (emphasis	Thank you for your comments. We have now amended the text to make this clearer:  ‘Even within studies, ethnicity was associated

				<p>added)</p> <p>This statement appears to reflect a lack of nuance and understanding, which may be due to insufficient attention to a larger body of literature.</p> <p>There are many different kinds of post-abortion reactions and risk factors for one type of reaction are often different than the risk factors for other types of reactions.</p> <p>If you artificially start with the presumption that a risk factor is only a risk factor if it predicts any and all negative reactions, or even a limited universe of possible reactions, you have already predetermined the result to be that “the findings are inconsistent.”</p> <p>This problem is made even worse by the fact that so many studies report insignificant differences because of insufficient study size or incidence rate regarding the reaction being studied. The fact that a study of lesser power, or using different samples, or looking at different reactions, does not confirm the statistical significance of a risk factor <u>does not</u> negate the findings of other studies precisely because they are generally looking at a much different study design and population sample.</p> <p>More specifically, Rue2004 includes an analysis of differences in risk factors observed among American women versus Russian women. This study very clearly shows that cultural differences may significantly affect the incidence rate and patterns of negative reactions and, correspondingly, different risk factors.</p>	<p>with some outcomes but not others, such that belonging to a particular ethnic group was associated with an increased rate of one mental health diagnosis (for example, depression) but had no impact on a different diagnosis.’</p> <p>We did not start with any presumptions or assumptions about the data. Our aim was to summarise the evidence for ethnicity being a factor associated with poorer mental health outcomes.</p> <p>We have now collated and assessed all studies suggested during the consultation period for eligibility within each section of the review.</p>	
4.3.2.3	55	1-4	Mount Joy College, Victoria, British Columbia, Canada	73/103	<p>The authors do not report whether or not the African-Americans reporting for follow up made up the same % as were in the original sample and whether or not the original group were of the same % as in the local population. I strongly suspect they were not.</p>	<p>Thank you for your comments. The aim of this section of the review was to summarise and report the evidence for ethnicity as a factor associated with poorer mental health outcomes. As a consequence, we are only able to report what is reported in the papers.</p>
4.3.2.3	56	3-14	ProLife Alliance	2/13	<p>There seems to be no consensus on how marriage or relationship status affects post-abortive mental health. Three studies, Broen 2006, Major 2000, and Russo 1997 (cited in the left columns) concluded that marital status was not a significant predictor of any post-abortive outcomes. Two studies, Schmiege 2005 and Cogle 2005 (cited in the left columns) find that women who are married have lower incidents of post-abortive depression. Clarification for this discrepancy is needed, as it</p>	<p>Thank you for your comments. We are unable to provide clarity on this subject. The aim of this section of the review was to summarise and report the evidence for each. As a consequence, we are only able to report what is in the papers. However, we agree that further research into this area is required in order to determine which women may be at risk of poorer mental health</p>

					appears the presence of a partner plays a significant role in women's post-abortive mental health.	outcomes.
4.3.2.3	56	5-8	Mount Joy College, Victoria, British Columbia, Canada	74/103	Marital status" has little bearing on whether or not the partner was present at different stages of the pregnancy and delivery and whether or not the partner was supportive. We found very large differences	Thank you for your comment. We agree with this statement that marital status may not be the important factor. We have now collated and assessed all references recommended during consultation and included the studies where appropriate. This has enabled us to consider a wider range of factors including partner support.
4.3.2.3	56	36-48	Individual 14	6/11	It seems difficult to draw firm conclusions in relation to "religion" on the basis of 3 studies, much as it would be on "politics"; one religious outlook on this subject may differ greatly from another – and influence relative risk to an individual.	Thank you for your comments. We agree with this and have noted the lack of studies as a limitation of the evidence base for factors associated with poorer mental health outcomes in general.
4.3.2.3	57	1-4	Mount Joy College, Victoria, British Columbia, Canada	75/103	Religious affiliation is barely related to the real importance to any individual of their faith. It is not surprising the researchers found no difference.	Thank you for your comments. This is beyond the scope of the review and would need to be addressed with the individual authors of the included papers.
4.3.2.4	57	26-29	Mount Joy College, Victoria, British Columbia, Canada	76/103	Measuring any attitude "at the time of the procedure" when most women will usually be very anxious &/or confused is not only bad science it is unethical.	Thank you for your comments. We have noted the timing of measurement as a limitation of the dataset. For any further comments, please contact the individual authors of the included papers.
4.3.2.4	57	42	Dept of Adult Psychiatry, University College Dublin	7/26	In relation to Fergusson 2009 it should be stated that "distress" was the negative reaction identified as the best predictor of an adverse mental health outcome	Thank you for your comments. This has been noted in Section 4.3.2 of the review.
4.3.2.4	57	45	Catholic Medical Association (UK)	50/50	Specifically, when compared with women who did not report any negative reactions to their abortion, the incidence rate ratios (IRR) indicate a 23 and 51% increase in the rate of developing a mental health problem for women (IRR = 1.23; 95% CI, 1.00 – 1.51 and IRR = 1.51; 95% CI, 1.01 – 2.27).  The data here give rise to two issues. Firstly there is a large increase mental health problems in those who have negative emotional reactions to abortion.  But secondly, positive emotions do not confer any protective benefit. Both parts of this data are important and ought explicitly	Thank you for your comment. We feel we have adequately covered this in Section 4.3.2 of the review and specifically within the section on negative attitudes towards abortion. We have not focused on factors associated with better mental health outcomes within this review.

					to inform the conclusions of this section.	
4.3.2.5	58	7-17	Global Doctors for Choice	2/5	<p>An article that was not included in the Academy's review and should prove useful:</p> <p>Robinson, G. E., Stotland, N. L., Russo, N. F., Lang, J. A., &amp; Occhiogrosso, M. (2009). Is there an "Abortion Trauma Syndrome"? Critiquing the Evidence. <i>Harvard Review of Psychiatry</i>, 17, 268-290.</p> <p>This is a review of the evidence for the claim that abortion is a traumatic experience.</p>	Thank you for your comments. We have now collated and assessed all references recommended during consultation and included the studies where appropriate.
4.3.2.6	58 and 13	20-48 and 6-27	Mount Joy College, Victoria, British Columbia, Canada	9/103	<p><b>Variables not considered.</b> Although the authors often complain that other factors influencing a woman's mental health are usually not included, they avoid referring to those, which do.</p> <p>a) <b>Bonding and abuse.</b> Our studies ( 2-7) on the greater difficulty post abortion women have in bonding to children of pregnancies subsequent to an abortion were not mentioned although the ongoing impact on children (higher rates of neglect and abuse) and on mother's difficulty breast feeding and parenting which must affect a woman's mental health. In one large study (unpublished) we found that breast feeding rates declined from 87% to 18.5% after abortions became freely available in a certain country.</p> <p>b) <b>General health.</b> The studies by Reardon et al and Ney et al showing the impact of abortion on HIV rates, cerebro-vascular and cardio vascular illness (Reardon) and general health (Ney) were not used. The mind-body dichotomy is no longer valid in any consideration of health and should not be here. The study by Ney et al (8) was dismissed as "inappropriate" although it had high correlations on physical and emotional health by physician, independent rater and patient. It also had a large nationally representative, unselected sample, included all pregnancy outcomes, considered many other relevant factors, and used pertinent statistical analyses.</p> <p>c) <b>Partner support.</b> The authors never mentioned the impact of abortion on a woman's relationships or the influence of partner support. We found the amount of partner support (1) one of the most important determinants in a woman's "choice" to abort. We also found that men are less supportive of women whom they</p>	<p>Thank you for your comments. Although many of the suggested factors and outcomes are important, they are beyond the scope of the present review. Within the review, all factors within the eligible papers were extracted. We have collated and assessed each of the studies recommended during consultation and included them where appropriate.</p> <p>a) Bonding and abuse were not outcomes assessed in the review.</p> <p>b) As above, these outcomes were not assessed and eligible for inclusion in the review.</p> <p>c) We have now included a number of studies assessing the impact of partner support (see Section 4.3.2).</p> <p>d), e) and f) This was beyond the scope of the present review.</p>

				<p>suspect will have an abortion.</p> <p>d) <b>Children survivors.</b> We have reliable evidence ( 9-12) that those children born following an abortion have difficult to resolve existential conflicts. Their struggles and behaviours tend to result in confusion and consternation in their mothers whose consequently heightened anxiety or depression contribute to the child’s difficulties in a complex vicious cycle. The authors of this draft either do not know or have disregarded this component of the mother’s post abortion mental health partly because they are lumped together with those who wanted a pregnancy.</p> <p>e) <b>Men.</b> Although their mandate does not stipulate that the only consideration of mental health should be for women, these authors appear to assume only women are affected. There is considerable evidence that men also suffer post abortion ill effects.</p> <p>f) <b>Some other factors.</b> The following symptoms were not considered by these authors although clinicians encounter them frequently: poor sleep, nightmares, disinterest in sex, weight gain, prolonged grief, preoccupations, decline in work productivity, partner loss etc. In one unpublished survey we found that post- abortion, 78% of partner relations broke up</p>		
4.3.2.6	58	44	Catholic Medical Association (UK)	25/50	<p><b>Steinberg Page 58 line 44</b></p> <p>The review groups conclusion here is invalid.</p> <p>The review group has concluded that “Results indicated that multiple abortions were associated with increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p&lt; 0.01) but not PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07).</p> <p>An odds ratio of 2.84 with a p value of 0.07 means that a significant association was not shown. But to state that there is no association as the committee have done is unscientific and untrue. The data does not prove a lack of association as the committee appear to claim. A more accurate description would be</p> <p>Results indicated that multiple abortions were associated with significantly increased social anxiety (OR = 2.20; 95% CI, 1.24 – 3.88, p&lt; 0.01) but a trend towards increased rates of PTSD (OR = 2.84; 95% CI, 0.93 – 11.90, p = 0.07) was not significant using</p>	<p>Thank you for your comments. We have amended this statement within the review to state that the difference was not statistically significant, instead of stating there was no effect.</p> <p>In addition to looking at the significance of the results, we also took into account the confidence intervals surrounding an effect. We have now amended the language throughout (where appropriate) to state that there ‘was no statistically significant effect’ rather than stating there was no effect.</p> <p>We have continued to use no association, or lack of effect where the odds ratios or relative risks are around the line of no effect.</p>

					<p>the methodology and power of this study. .</p> <p>The point here is an important one. The review group appear to have gone through the study and seen anything that is not significant (as well as many things that were significant including a lot of the Fergusson data) as showing there is not an association. This appears to display a misunderstanding of the scientific method. Failure to show a significant association is not the same as demonstration of the lack of an effect.</p>	
4.3.2.6	59	37	Individual 9	16/25	Spelling of <i>Reardon</i>	Thank you for your comment; this has been amended
4.3.2.7	60	13-16	Mount Joy College, Victoria, British Columbia, Canada	77/103	When making their concluding statements, the authors need to put them into focus by indicating the follow-up rate was only 42% and these were probably not representative of the whole sample and that there were different scores at follow-up between those who responded in person and those who mailed in a response.	Thank you for your comments. We have now added this as a limitation of the study. Furthermore, we have adapted the quality criteria to take into account the representativeness of the sample (see Section 2.9 for details)
4.3.2.7 Table 11	60-61	Table 11	Individual 14 (Dr Derrett Watts, Cons. Psych)	7/11	This indicates around 80% of studies getting neutral results, 20% positive increased risk of mental health problems, and very small numbers of papers suggesting a decreased risk. Perhaps this could be stated more strongly in Section 4.5 as it would seem that the evidence would encourage practitioners to be looking closely to identify those at increased risk of mental illness post abortion.	Thank you for your comments. We feel we have adequately captured the evidence within the evidence statements. Within this section of the review, we have not specifically looked at factors that decrease the risk of poorer mental health outcomes, so cannot comment on this within the evidence statements.
4.4	62	41-43	Mount Joy College, Victoria, British Columbia, Canada	78/103	Major's statement "the lack of evidence or retention bias in the final sample.", could hardly be called "providing statistical analysis" as written by the draft's authors.	Thank you for your comments. We have adapted the quality criteria used to rate the studies to take account of representativeness.
4.4	63	35-36	Mount Joy College, Victoria, British Columbia, Canada	79/103	The authors statement that the list of potential risk factors here is not exhaustive" is an understatement. Their choice of factors reveals their bias. The lack of interest in the effect of abortion on the mother's ability to bond with a subsequent child is a glaring neglect.	Thank you for your comment. We would consider the ability to bond with the baby an outcome and not a factor as was reviewed in this study. Although it is an important area, it was beyond the scope of the review to consider bonding and child neglect as an outcome.
4.5	63-64	45-22	Catholic Medical Association (UK)	8/50	<p><b>Recommendation</b></p> <p>We therefore suggest that, from the published data, evidence based conclusions should be amended as follows.</p> <p><b>Question 2</b></p>	<p>Thank you for your comments and suggestions. We have amended the evidence statements to read:</p> <p>'1. The evidence base reviewed above is restricted by a number of limitations including</p>



				<p><b>What factors are associated with poor mental health outcomes following an abortion?</b></p> <ol style="list-style-type: none"> <li>1. The evidence base reviewed is restricted by a number of limitations including heterogeneity in the factors assessed and the outcomes reported, inconsistent reporting of non-significant factors and variations in follow up times.</li> <li>2. When considering prospective studies the only consistent factors associated with poor health problems after abortion are pre abortion mental health problems and negative attitudes towards abortion.</li> <li>3. The most reliable predictor of post abortion mental health problems was having a history of mental health problems prior to the abortion. A history of mental health problems was associated with a range of post abortion mental health problems regardless of outcome measure or method of reporting used.</li> <li>4. It has not been possible to identify any features (such as positive attitudes towards abortion) that are protective in terms of longer term mental health and it is not therefore possible to identify any groups which are not at risk of poor outcomes following abortion.</li> <li>5. However there is particular concern that those who are pressurised into abortion or who are uncertain about their decision may suffer worse outcomes.</li> <li>6. The lack of UK based studies may have some implications for the generalizability of data, though few reasons were identified to suggest why this might be the case.</li> <li>7. It is likely that a range of factors may be associated with variations in mental health outcomes following an abortion and that those reviewed here do not constitute an exhaustive list.</li> </ol>	<p>heterogeneity in the factors assessed and the outcomes reported, inconsistent reporting of non-significant factors and variations in follow-up times.</p> <ol style="list-style-type: none"> <li>2. When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health was pre-abortion mental health problems.</li> <li>3. The most reliable predictor of post-abortion mental health problems regardless of study type was having a history of mental health problems prior to the abortion. A history of mental health problems was associated with a range of post-abortion mental health conditions, irrespective of outcome measure or method of reporting used.</li> <li>4. A range of other factors have more inconsistent results, although there was some limited evidence that life events, negative attitudes towards abortion, pressure from a partner to have an abortion and negative reactions to the abortion including grief or doubt, may have a negative impact on mental health.</li> <li>5. The lack of UK-based studies further reduces the generalisability of the data.</li> <li>6. It is likely that a range of factors may be associated with variations in mental health outcomes following an abortion and that those reviewed here did not constitute an exhaustive list.</li> <li>7. There was an overlap in the risk factors associated with mental health problems following an abortion and those factors associated with mental health problems following a live birth.'</li> </ol> <p>Although we agree with many of your suggestions, recommendation 4 is beyond the scope of the review, as we were not specifically looking at factors associated with reduced risk of poor outcomes.</p>
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						We have made the limitations of the evidence base, including the lack of UK, studies clear. We have also made it clear that there may be additional factors not covered within the review.
4.5	64	1-4	Mount Joy College, Victoria, British Columbia, Canada	80/103	The authors make declarations of their very questionable findings with no hesitation or riders. Most scientists would write eg. "Of all the factors we considered, it appears the one with the closest association to poor mental health is..."	Thank you for your comments. We feel the evidence statements accurately reflect the best available evidence. We have been explicit about the limitations of the data throughout this section (see Section 4.3.3)
4.5	64	2-4	Christian Medical Fellowship	23/36	This may indeed be the most <u>reliable</u> predictor of adverse effects, according to the research, however there are a large number of other risk factors which have been identified and confirmed and have <u>also</u> been shown to have an effect (for example the APA task force 2008 details many). There is not real clarity in the literature as to the risk factors for poor outcomes thus this evidence statement is an overstatement as it stands. Ideally it should be expanded to clarify.  At the least, the word ' <u>only</u> ' should be changed to ' <u>main</u> '. 'Only' suggests a bias in favour of those who imply that abortion in and of itself does not carry any risk factors, whereas just a few lines down, line 14 suggests that 'women's personal experience of abortion may impact directly on mental health.'	Thank you for your comments. We have now made this explicit in the evidence statements.  The word 'only' in this context refers specifically to the results of the longitudinal prospective studies. We have noted that other factors have been identified, but many of these were not identified within the prospective studies alone.
4.5	64	2	Christian Medical Fellowship	24/36	There are two groups of women, those who have a predisposing mental illness but who do not have an abortion and therefore may not develop further relapses of their mental disorder and, secondly, those who do have predisposing mental illness/history, for whom abortion is a significant life event (whether they acknowledge it at the time or not) which triggers a relapse of mental illness.  We are concerned that the report, in diminishing the importance of abortion as a potential stress trigger by merely suggesting that a past history of mental illness predicts future mental illness and that having no past history predicts no future mental illness appears to imply that abortion can be ignored as potential stress trigger causing relapse/ increasing vulnerability. Moreover, there is always the likelihood that the more abortions a woman has, her vulnerability will increase.	Thank you for your comments. We have now suggested that further research should be conducted into the link between abortion, previous mental health problems and unwanted pregnancy (see Section 6.3).  We have included the evidence for multiple abortions within this section of the review, but found that the results were mixed between studies and between different outcomes.  We have discussed the position that abortion may be a stressor or major life event (see Section 1.1).

4.5	64	2-4	Elliot Institute, Springfield, Illinois, USA	53/87	<p>Evidence statement 2. Given this very limited review of the evidence and the limitations acknowledged on page 63, lines 35-41, it is an overstatement to say “the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems. As indicated in other reviews which draw on a larger body of evidence, a much larger number of risk factors have been identified and confirmed. To avoid public misunderstanding, this evidence statement should read as follows:</p> <p>When considering only the eighteen prospective studies selected for this review, the factor most consistently associated with poor post-abortion mental health is pre-abortion mental health problems.</p> <p>Notably, when you look at the outline of risk factors identified in Reardon2003B, you will see that most of the risk factors under the first major subsection, “Conflicted Decision Making” are not adequately addressed by the 18 data sets used for the prospective studies included in your review. This is why this section should be expanded to take a more comprehensive look at the available research in this area.</p>	<p>Thank you for your comments. We have amended the evidence statements to reflect that the list may not be exhaustive.</p> <p>The word ‘only’ in this context refers specifically to the results of the longitudinal prospective studies. We have noted that other factors have been identified, but many of these were not identified in the prospective studies alone.</p> <p>The original review excluded studies that focused on a subset of women presenting with distress or for treatment. However, in light of the comments received during consultation we have now included studies assessing the factors associated with poorer mental health outcomes in a subgroup of women presenting with distress or for treatment, providing the study met the other inclusion criteria. This has allowed us to assess a wider range of factors.</p>
4.5	64	2-4	Right to Life	6/8	<p>The document states that “When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems”, but even whilst granting that this may indeed most reliably predict adverse effects, according to the studies included, there are other factors that are also shown to have an effect. There is not real clarity in the literature as to the risk factors for poor outcomes. P64, lines 12-15 “some suggestion” is too weak a term to use as the evidence is stronger than this suggests. Therefore the evidence statement should be amended to be stronger. This is important because of the need to look out for women who could be adversely affected, in order to try to avoid or alleviate poor outcomes.</p>	<p>Thank you for your comments. We feel the evidence statements accurately reflect the best available evidence given the often mixed findings across studies and outcomes, and the limitations of the evidence. We have amended this statement to read ‘limited evidence’, which we feel is an accurate reflection of the limited studies eligible for each factor.</p> <p>Furthermore, we have suggested that women with these risk factors for example, negative reaction to abortion, pressure from partner or distress, are supported (see Section 6.3).</p>
4.5	64	12	Catholic Medical Association (UK)	26/50	<p>If despite the above the review group decide to keep their evidence</p> <p>Statement 4 unchanged, then we strongly suggest that the term “some suggestion” (as it is applied to negative attitudes towards abortion is incorrect and the evidence is far stronger that “some</p>	<p>Thank you for your comments. We feel the evidence statements accurately reflect the best available evidence given the often mixed findings across studies and outcomes, and the limitations of the evidence. We have amended this statement to read ‘limited evidence’, which we</p>

					suggestion” suggests. Therefore <b>Replace some suggestion by “there is evidence that“.</b> Perhaps then retain the term some suggestion with regard to life events as it is not at all clear if the life events that were studied were causally related to the abortion.	feel is an accurate reflection of the limited studies eligible for each factor. Furthermore, within the conclusion, we have suggested that women with these risk factors for example, negative reaction to abortion, pressure from partner or distress are supported (see Section 6.3)
4.5	64	12-15	Christian Concern, UK	5/7	<b>Evidence Statements for Question 2 (para 4.5)</b> Following the statement on page 64, lines 2-4, that: “ <i>When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems</i> ”, it should be pointed out that other factors have also been shown to contribute to mental health problems in post-abortive women, such as distress after abortion (Fergusson’s report). This should be made clear in the report.  The term “some suggestion” on page 64, lines 12-15 does not fully reflect the strength of the research findings, and undermines how strong the evidence actually is. Such misleading statements should be avoided so that women at risk can be indentified and poor outcomes avoided.	We have reviewed the evidence for negative emotional reactions and distress following an abortion in Section 4.3.2 of the review. We have amended this statement to read ‘limited evidence’ which we feel is an accurate reflection of the limited studies eligible for each factor.  Furthermore, within the conclusion, we have suggested that women with these risk factors for example, negative reaction to abortion, pressure from partner or distress are supported (see Section 6.3).  The word ‘only’ in this context refers specifically to the results of the longitudinal prospective studies. We have noted that other factors have been identified, but many of these were not identified in the prospective studies alone.
4.5	64	13	Christian Medical Fellowship	25/36	“ <i>some suggestion</i> ” is too weak a term to use as the evidence is stronger than this suggests. For example, as noted, distress after abortion IS a predictor (Fergusson 2009). Some studies (Broen 2006 and Fergusson 2008) have found that ‘negative attitudes’ to abortion can increase risk of poor outcomes. Moreover, only mentioning one or two factors gives them greater prominence when other factors not listed are also relevant. Fergusson 2008 actually found that mental disorder can be <i>caused</i> by abortion: “... <i>exposure to abortion has a small causal effect on the mental health of women...</i> ” Therefore the evidence statement should be amended to be stronger. <u>This is important because of the need to identify women who could be adversely affected, in order to try to avoid or alleviate poor outcomes.</u> (and indeed, post-abortion)	We have reviewed the evidence for negative emotional reactions and distress following an abortion in Section 4.3.2 of the review. We have amended this statement to read ‘limited evidence’ which we feel is an accurate reflection of the limited studies eligible for each factor.  Furthermore, within the conclusion, we have suggested that women with these risk factors for example, negative reaction to abortion, pressure from partner or distress are supported (see Section 6.3).
4.5	64	13	Individual 16	21/33	The evidence is stronger than the phrase “some suggestion” suggests (e.g. Fergusson 2008 and 2009)	We have reviewed the evidence for negative emotional reactions and distress following an

						<p>abortion in Section 4.3.2 of the review. We have amended this statement to read 'limited evidence, which we feel is an accurate reflection of the limited studies eligible for each factor.</p> <p>Furthermore, within the conclusion, we have suggested that women with these risk factors for example, negative reaction to abortion, pressure from partner or distress are supported (see Section 6.3).</p>
4.5	64	15	Dept of Adult Psychiatry, University College Dublin	8/26	It could be added that distress after the abortion is an indicator of possible mental health problems (Fergusson 2009)	Thank you for your comment. This has been added to the text.
					<b>Section 4 - Factors associated with MH problems following an induced abortion</b>	
5			MIND	5/13	There are very few resources available for mothers with mental health issues. When I worked for a hostel for women with new babies and mental health issues I was disappointed at the lack of emotional skills of the staff. Is this relevant?	Thank you for your comments. We recommend that women who have an unwanted pregnancy, especially those with previous mental health problems are given additional support (see Section 6.3). This is also an area in which further research would be beneficial.
5			MIND	8/13	I've also met adults who were the product of unwanted pregnancy and brought up in care or by grandmothers who pretended to be the real mother in order to save daughters and the effects on the children is quite significant, although I'm sure most would say they were overall glad they were born and not aborted .Is this relevant?	Thank you for your comments. We did not look at the long-term effects on children born from unwanted pregnancies, although this is an important area.
5			MIND	12/13	One thought that came to mind is that the women I know who have an unwanted pregnancy may be a little more chaotic and low in self-esteem than women who don't (i.e. get drunk and sleep with men without protection; get pressured into not using a condom; forget to take birth pills, etc.)	Thank you for your comments. Unfortunately this was beyond the scope of the review. However, there is some emerging evidence such as the Munk-Olsen study (see Section 5.3.2) which suggested that women who have an abortion may constitute a population with higher psychiatric morbidity prior to the abortion.
5	65		The Maranatha Community	5/8	Many of the studies failed to control for co-founding variables. As noted in studies reviewed on prevalence and factors associated with mental health problems, there were limitations in regard to heterogeneity of the studies, study designs, methodologies and	Thank you for your comments. This has been noted as a limitation of the evidence base (see Section 2.9) and is reflected in the grading of the outcomes. We have now conducted a limited

				<p>outcome measures hence it was not possible to subject them to meta- analysis. There was also lack of comparable data. The conclusion that women who have an abortion may be more vulnerable and have greater propensity towards mental health problems before abortion than those who deliver a live baby, is not borne out by the any credible evidence, but its an indication that abortion clearly does constitutes an additional burden to both the normal psychology that accompanies pregnancy and a pre-existing psychopathology.</p>	<p>meta- analysis of studies which controlled for pregnancy intention and/or wantedness (see Section 2.3). Within this section we have discussed the limitations of the analysis. The conclusions of the review are based on the best available evidence.</p>
5	65	The Maranatha Community	6/8	<p>Our experience over 30 years conflicts with a significant proportion of the 'evidence' presented. We have been approached for help and advice by approximately 700 women with very considerable mental and emotional pain, specifically rooted in them having had an abortion. In a considerable number of cases the abortion took place between 10 and 40 years previously and the stress they have suffered has frequently continued unabated. Time has not healed. The nature of the effects specifically rooted in the abortion varied widely, from acute feelings of guilt, regret, remorse and sense of despair to troublesome memories, dreams and nightmares. Most of them experienced a sense of unfinished business. Many of those who approached us were not from religious backgrounds. Almost without exception the women made it very clear to us that the abortion they had had was for them a major life event and they repeatedly reported that they had received little or no pre-abortion or post-abortion counselling. The overwhelming majority of them stated that they had grossly underestimated the deleterious affect the abortion would have upon their future lives and mental well being. It would be highly irresponsible for any professional body to suggest that abortion is a minor event. There is a very heavy responsibility on the shoulders of those involved in the provision of induced abortion to explain its likely consequences. In this respect it is important to question the proportion of those who have abortions who have any contact with psychiatrists. It is important to note that our experience is that most of the people who came to us for help did not have major pre-existing mental health problems. The suggestion that women who have had an abortion have had a greater propensity to mental health problems before abortion than those who deliver a live baby is unacceptable and borne out by reliable evidence.</p>	<p>Thank you for your comments. We have discussed abortion as a life event within the introduction (see Section 1.1). We have presented both arguments (for example, abortion as a major or minor life event) to ensure balance within the review.</p> <p>The remit of the review was to assess and analyse the best available scientific evidence. Therefore we have only been able to include published research.</p> <p>The conclusions of the review are based on the best available evidence. Within the review there is some emerging evidence such as the Munk-Olsen study (see Section 5.3.2) which suggests that women who have an abortion may constitute a population with higher psychiatric morbidity prior to the abortion.</p>



5.1	65	9	Catholic Medical Association (UK)	27/50	<p><b>Review question 3.</b></p> <p><b>“ Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth”</b> (Section 5.1, p 65)</p> <p>Or</p> <p><b>“Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy.”</b> (section 2.2, p18. )</p> <p>The report contains two versions of the third question which are different. The question set in section 5.1 (page 65) is not the same as that set in section 2.2 (page18)</p> <p>The answer to the question on page 65 is clearly positive.</p> <p>The question on page 18 gives conflicting evidence but that evidence not clearly negative as the report suggests.</p>	<p>Thank you for your comments. We have discussed abortion as a life event within the introduction (see Section 1.1). We have presented both arguments (for example, abortion as a major or minor life event) to ensure balance within the review.</p> <p>The remit of the review was to assess and analyse the best available scientific evidence. Therefore we have only been able to include published research.</p> <p>The conclusions of the review are based on the best available evidence. Within the review there is some emerging evidence such as the Munk-Olsen study (see Section 5.3.2) which suggests that women who have an abortion may constitute a population with higher psychiatric morbidity prior to the abortion.</p>
5.1	65	9-11	Christian Medical Fellowship	26/36	<p>See our comments on p18, lines 14-16. The report has two wordings for Question 3, which are different. The question on p65, is different to p18, line 14-16. Considering it is one of the three key questions under consideration this inconsistency reflects some sloppiness in report writing. More importantly, the two <b>answers produced could be different.</b></p>	<p>Thank you for your comments. The research questions have been amended throughout the review to ensure consistency, we apologise for this error. As discussed in Section 2.3 of the methods, the ideal review criteria was to compare women who have had an abortion to those who deliver an unwanted pregnancy. However due to the lack of available evidence we have also included studies which compared abortion to any delivery regardless of pregnancy wantedness or intention. These two types of studies have been analysed separately.</p>
5.1	65	9-11	Individual 14	8/11	<p>There appears to be different wording used on page 65 compared to same section from page 18;</p> <p>Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy? (Page 18, lines 14-16)</p> <p>Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth?</p>	<p>Thank you for your comments. The research questions have been amended throughout the review to ensure consistency, we apologise for this error. As discussed in Section 2.3 of the methods, the ideal review criteria were to compare women who have had an abortion with those who deliver an unwanted pregnancy. However due to the lack of available evidence we have also included studies which compared abortion to any delivery regardless of pregnancy wantedness or</p>

						intention. These two types of studies have been analysed separately.
5.1	65	9-11	Individual 16	22/33	The review question here differs from that on p18 as noted above. This is important!	Thank you for your comments. The research questions have been amended throughout the review to ensure consistency, we apologise for this error. As discussed in Section 2.3 of the methods, the ideal review criteria were to compare women who have had an abortion to those who deliver an unwanted pregnancy. However due to the lack of available evidence we have also included studies which compared abortion with any delivery regardless of pregnancy wantedness or intention. These two types of studies have been analysed separately.
5.1	65	13-18	Church Of England: Mission and Public Affairs Council	2/11	<p>'Unplanned' and 'unwanted' pregnancies are not the same things; it is possible to have an unplanned pregnancy that does not result in an unwanted pregnancy. In reviewing relevant studies these ought to be viewed as separate factors and not as a single factor as is the case in this review (line 17).</p> <p>The definition of an unwanted pregnancy in this review is unclear. Women's views may change or even fluctuate during the course of their pregnancies. Similarly, some women may change their minds with regard to wanting to bring their pregnancy to birth regardless of whether or not the pregnancy was planned or initially wanted. It is unclear at what point in the study reviewed that the 'unwanted' aspect of the pregnancy was a factor.</p>	Thank you for your comments. We agree that unwanted and unplanned pregnancies are not the same. The definitions of 'unwanted' and 'unintended' included in Section 1.2, set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3, 5.4.3 and 6.2.
5.1	65	13-18	Individual 9	3/25	Consider mentioning what ideal study design would be as per paras 127 and 128 of the House of Commons Science and Technology Committee Report 2007 Volume I.	Thank you for your comments. We have now included a section in the methods (Section 2.3), which sets out the ideal and pragmatic review criteria.
5.2	65	20	Catholic Medical Association (UK)	29/50	At the outset of discussion on this section we would reiterate that the exclusion of mental disorders in the first three months is not justified. We know that mental disorders in the first three months after abortion are very common and if these were included the result would be a definitive yes. We fail to see why the review group have excluded studies by Broen and a number by Fergusson.	Thank you for your comments. We were not looking at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section

						<p>2.3.</p> <p>In order to improve the transparency of the review we have now included further details about the search process (see Sections 2.4 and 2.5) and have included further details about the inclusion and exclusion of studies (see Section 2.3). Please refer to Appendix 7, which includes details of the individual studies, including the reason for their exclusion.</p>
5.2	65	22-33	Elliot Institute, Springfield, Illinois, USA	55/87	<p>The following studies should be included:</p> <p>DC Reardon and PK Coleman, Relative Treatment Rates for Sleep Disorders and Sleep Disturbances Following Abortion and Childbirth: A Prospective Record Based-Study, Sleep 29(1):105-106, 2006.</p> <p>T Ostbye et "Health Services Utilization After Induced Abortion in Ontario: A Comparison Between Community Clinics and Hospitals," al, Am J Medical Quality 16(3):99-106, 2001</p> <p>Christopher Morgan et al., Suicides After Pregnancy: Mental Health May Deteriorate as a Direct Effect of Induced Abortion, 314 BRIT. MED. J. 902 (1997).</p> <p>Given the limitations on the data published, I'd suggest contacting Morgan to see if his data is available for further analysis.</p> <p>Also, it is unclear why only one of Fergusson's studies is included.</p>	<p>Thank you for your comments and suggested references.</p> <p>We have now collated and assessed all references suggested during the consultation period (see Appendices 4 and 7).</p> <p>We have included two of Fergusson's studies (one in Section 4 of the review and one in Section 5). Please refer to Appendix 7, which includes details of the individual studies, including the reason for their exclusion.</p>
5.2	65	31-33	Elliot Institute, Springfield, Illinois, USA	54/87	<p>It is unclear why data regarding outcomes less than 90 days after an abortion are excluded. Surely short term reactions are relevant, and there is substantial evidence that some women are more likely to experience strong reactions sooner rather than later, though it is also clear that other women are more likely to cope well in the short term and only face strong reactions later in life, often after a triggering event, such as when facing a later birth or death experience.</p>	<p>Thank you for your comments. We are not looking at transient distress or reactions to a stressful situation. Instead a limit of 90 days was used to ensure that included studies were more likely to assess psychological disorders and mental health problems as opposed to transient reactions. We have now made this criterion for the review more explicit and discussed it in Section 2.3.</p>
5.3	66		Secular Medical Forum	5/16	<p><b>The SMF is concerned at the inclusion of studies which do not differentiate between a wanted pregnancy and an unwanted pregnancy.</b> The vast majority of women considering terminating a pregnancy are women with an unwanted</p>	<p>Thank you for your comments. As you state, ideally we would want to compare the risks of mental health problems following an abortion to the delivery of an unwanted pregnancy. However,</p>

				<p>pregnancy. A group of women who delivers a planned/wanted pregnancy is a wholly inappropriate comparison group for women who have an abortion. Justifying the inclusion of studies that do not control for whether the pregnancy was wanted, the review states that studies that compared abortion with ‘unwanted pregnancy delivery’ groups were reviewed separately from those which compared abortion with any delivery group and that the latter are identified as weaker than the former.</p> <p><b>The SMF recommends that these weaker studies are not a good comparison group and that they should be excluded from the review.</b> That there are few studies using unwanted pregnancy as a comparison group should not dissuade the committee from rejecting those studies using ‘wanted pregnancy’ delivery comparison groups as recommendations based on these comparisons will be potentially erroneous.</p> <p>We would be unsurprised that the mental health of women having abortion appears poor if compared to those with ‘wanted’ pregnancies. This is indeed the case. As the current review states on p. 87:</p> <p>“Studies that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth”.</p> <p>However:</p> <p>“Where studies control for whether or not the woman planned to get pregnant or whether the pregnancy was unwanted, there is no evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy”.</p> <p>There is clearly a major dichotomy of evidence here, which results in a very mixed message and <b>undermines the review’s utility to health professionals and women considering having an abortion.</b> In seeking to fulfil its aims, the review should exclude studies which do not control for whether the pregnancy was wanted or unwanted (or at least place them in an appendix rather than the main body of the review). The review should make clear that further research is needed in this area. At the very least, the review should point out that these studies are</p>	<p>there was a lack of studies which used this comparison group, with only four studies controlling for pregnancy intention and/or wantedness. We do however feel that given this lack of evidence it is important to present the other studies which did not control for pregnancy intention. Therefore, we have kept the two sections of this review.</p> <p>Within the methods we have now outlined our ideal and pragmatic criteria for the review (see Section 2.3). Furthermore, we have added a research recommendation to suggest that longitudinal prospective research should look at the link between mental health problems, unwanted pregnancy and abortion within the UK context (see Section 6.3).</p>
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					not germane to women considering an abortion, or to be used as evidence to be used by health professionals advising women about abortion.	
5.3	66		Secular Medical Forum	7/16	Other Fergusson papers using this methodology (e.g. Fergusson2006), are clearly vulnerable to similar methodological criticism (this study did not find an association between abortion and mental health problems).	Thank you for your comments. We have noted the limitations of all studies included in the review.
5.3.1	66		Secular Medical Forum	8/16	A study of relevance not currently referred to in the review is <b>Brewer (1977) Incidence of post-abortion psychosis: a prospective study BMJ 1. 476-7</b> . This study showed post-partum psychosis to be five times commoner than post-abortion psychosis. Although done some 35 years ago, it studied a large population of women of childbearing age in the West Midlands, of whom about 3500 had terminations during the study period.  The SMF recommend the inclusion of this study.	Thank you for your comments. We have now collated and assessed all references suggested during the consultation period (see Appendices 4 and 7). However, the review was not eligible for inclusion due to the date of publication, which is prior to the dates specified in our eligibility criteria.
5.3.1	66	5-22	American Association of ProLife Obstetricians and Gynecologists	4/5	To obgyn physicians the issue of a pregnancy being wanted (or even "planned") seems somewhat ephemeral. We see women change their mind about this factor all the time before and during pregnancy. Wantedness is not an all or nothing thing, and frequently women may be ambivalent and do not properly belong in either category. It is very susceptible researcher bias. Assigning excessive weight to this variable seems to be the rationale for excluding or downgrading dozens of studies, and this appears to create gross underestimate of mental health consequences of abortion.	Thank you for your comments. We agree that this is a limitation of the evidence base and have discussed this in Sections 2.3, 5.4.3 and 6.2. However, as discussed in Section 2.3 of the methodology where we outline the ideal and pragmatic criteria, we believe that given the lack of gold standard comparison group, this is the best available evidence to answer the review questions.
5.3.1	66	5-22	Elliot Institute, Springfield, Illinois, USA	56/87	This section should include the following study:  T Ostbye et "Health Services Utilization After Induced Abortion in Ontario: A Comparison Between Community Clinics and Hospitals," al, Am J Medical Quality 16(3):99-106, 2001  This study of Ontario Health Insurance Plan claims in 1995 found that women who were three months postabortion from hospital day surgery had a rate of hospitalization for psychiatric problems of 5.2 per 1000 vs. 1.1 per 1000 for age matched controls without induced abortions. Three month postabortion women who had abortions at a community clinic had a rate of hospitalization for psychiatric problems of 1.9 per 1000 vs. 0.60 per 1000 for age-matched controls who did not have induced abortions. The	Thank you for your comments and suggested references, We have now collated and assessed all references suggested during the consultation period (see Appendices 4 and 7).

					incidence of postabortion psychiatric hospitalization was significantly higher if there had been preabortion hospitalization for psychiatric problems, preabortion emergency room consultation, or preabortion hospital admissions.	
5.3.1	66	32	Mount Joy College, Victoria, British Columbia, Canada	81/103	As a academic child and family psychiatrist who has assessed thousands of post abortion women and families, I have found there is no assessment method or diagnostic test that approaches the reliability and sensitivity of Visual Analogue scales. We have also used them in combination with other measures with more definitive end points such as employment, charged with some crime etc. As previously noted, dichotomous measures, even five point scales, constrain and distort the continuum on which reality is distributed. Moreover when people are rating themselves they tend to feel annoyed that they must choose between mild and moderate when they feel they are somewhere in between. Because they are "ticked off" by the scale, they are less cooperative.	Thank you for your comments. We believe we have used the best available evidence and most standardised method of assessing outcomes. This also reflects the tools most likely to be used within clinical practice. We have discussed the limitations with outcome measurement throughout the review.
5.3.1	66	66-82	Comment on Reproductive Ethics	6/8	What seems conclusive from the main content of this systematic review is that few if any studies are beyond valid criticism, and the RCP is to be complimented for acknowledging inadequacies in so many of them. It is also stated that only one study involves a UK sample (line 26).  That some women suffer mental health problems after abortion is never denied, and we suggest that a robust UK-based study would be timely.	Thank you for your comments. We agree with your comments regarding the limitations of the evidence base and agree with your suggestion of further research. We have now recommended further research from a UK perspective within the conclusion (see Section 6.3).
5.3.1	67	Table 12	Dept of Adult Psychiatry, University College Dublin	9/26	The quality assigned to Steinberg study 1 and study 2 as very good is incorrect in our opinion since both were cross sectional study, were secondary analyses, using a pre-existing database and even by the authors' own admission study 1 did not measure anxiety disorders as identified in DSM but were described as anxiety experiences or anxiety symptoms (page 242, second column, Measures, paragraph 4)	Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.  In light of the comments received during consultation we have now adapted the Charles quality criteria, and added a 'good' category. We have also included criterion to rate the representativeness of the sample included in the



						studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.3. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).
5.3.1	67	Table 12	Elliot Institute, Springfield, Illinois, USA	57/87	Pedersen2007 examines substance use. This should be noted in the table and in the summary of findings.	Thank you for your comments. This has been added to the table.
5.3.1	68	Table 12	Mount Joy College, Victoria, British Columbia, Canada	82/103	Although Reardon is rated as only fair, he used the only definable end point with a high degree of inter-rater agreement, the death certificate. The authors make no mention of whether or not the researchers checked the instruments they used for diagnosis to determine how valid and reliable they were in their hands.	Thank you for your comments. Although you make a fair point, this would go beyond what is reasonable for a systematic review, where the aim is to collate, extract and analyse the data reported in the individual studies.
5.3.2.1	68	12-14	American Psychiatric Association	2/2	The authors of the studies based upon California Medicaid records fail to note, among other important confounds, the fact that large numbers of women from Mexico come to California to deliver and then return to Mexico. Thus the Medicaid records could not contain information about their post-partum mental health.	Thank you for your comments. We have noted the limitations of these studies throughout the review, and have also suggested that their generalisability to the UK context is limited (see Section 5.4).
5.3.2.1	69	13-16	ProLife Alliance	5/13	Reardon 2003 also finds that women who have abortions are more likely to seek psychiatric treatment, than women who give birth. It may also be interesting to provide information on how many of these women reporting for psychiatric treatment had any pre-existing mental health problems prior to their abortion.	Thank you for your comments. In the Reardon study, those who received psychiatric treatment 1 year prior to pregnancy were excluded, therefore it would not be possible to report this data. However, we agree that this is an important point and have suggested that further research is conducted into previous mental health problems, unwanted pregnancy and abortion (see Section 6.3).
5.3.2.1	68	14	Elliot Institute, Springfield, Illinois, USA	58/87	Coleman2002A and Reardon2003 are wrongly characterized as retrospective analyses. The only difference in approach between these two studies and Munk-Olsen2011 is the study population. Coleman and Reardon were prospective studies of low income women receiving government funded medical care in California. Munk-Olsen was a prospective study of all women in Denmark covered by Denmark's universal medical care program. All three	Thank you for your comments. We have now referred to these studies as the Californian Medical Record Studies.

					studies relied on medical records and all are free of any recall bias on the part of either the subjects or their attending physicians. Therefore care should be taken to avoid characterizing any of these as being subject to the problems inherently associated with retrospective studies.	
5.3.2.1	68	20	Christian Medical Fellowship	27/36	See our comment on p81, line 47.	Thank you for your comments.
5.3.2.1	68	20-22	ProLife Alliance	3/13	The Coleman 2002 study (cited in left column) reported that women who have an abortion were more likely than those giving birth to seek psychiatric treatment up to 4 years after pregnancy. This finding correlates to the other 2 studies (i.e. Reardon 2003 and Munk-Olsen 2011), which all agree that women who have abortion are significantly more likely to seek psychiatric treatment than those women who give birth. It is insufficient to qualify that the explanation for this finding is that women who have abortion may just be a group of women with pre-existing psychiatric morbidity. Further research in this area is needed.	Thank you for your comments. We have reviewed the best available evidence and based our conclusions on the whole of this evidence base.  We agree that further research is needed and have recommended that further good quality longitudinal prospective research is conducted to assess the relationships between mental health problems, unwanted pregnancy and abortion (see Section 6.3).
5.3.2.1	69	23	SPUC	5/5	Regarding the emphasis given to MUNK-OLSEN 2011: Inclusion and exclusion criteria used by the NCCMH review result in merit being afforded to some studies over others in a manner which in our view has the potential to seriously distort proper interpretation of this complex field of research. Perhaps the best example of this problem can be found in the repeated positive reference to the study by Munk-Olsen <i>et al</i> , 2011. Indeed, the impression is given that this study plays a pivotal role in deriving key bullet points of the conclusion, <i>viz</i> , that ‘mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth’.  Aside from the significant problems associated with definition and application of the term ‘unwanted’, which we have already discussed, the Munk-Olsen study has certain other limitations. Alternative interpretations of their data have not been given serious consideration even though such interpretations are entirely reasonable.  The Munk-Olsen study measures first-time psychiatric admissions before and after abortion and childbirth, concluding that since the incidence of first-time psychiatric admissions does not differ before and after abortion, abortion itself is not associated with any increase in mental health problems, and	Thank you for your comments We thank you for your suggestions but feel we have sufficiently appraised the Munk-Olsen papers and discussed the limitations of this paper within all three sections of the review.  However, given the limitations of the evidence base, we still feel that this study is of better quality than the majority of the research in this area. We have reflected this in the quality appraisal of the evidence. Not only were the authors able to obtain population level data, they were able to apply some control of previous mental health problems. Furthermore, the Munk-Olsen study was the only included study to assess the rates of psychiatric contact in the 9 months prior to abortion or birth, to allow for a comparison of pre- and post-abortion rates in a sample without a history of psychiatric treatment.  Specifically, we have discussed the limitations of Munk-Olsen using treatment records and

				<p>moreover, that “mental health disorders in girls or women who have induced abortions predates the abortion”.</p> <p>There are however, significant limitations with the study.</p> <p>The study only measures the population incidence of <i>first</i> psychiatric contact, not of psychiatric contact <i>per se</i>. Not only is population incidence a coarse grained measure that does not follow women longitudinally before and after abortion or childbirth, but first psychiatric contact is a rather weak indicator of mental health status. Women’s mental health would be more accurately assessed by the overall incidence of <i>all</i> psychiatric contact, as well as by reliable mental health tests, as has been done by numerous other studies, or by the number and frequency of visits to counsellors or psychologists. The authors make passing reference to this issue, but fail to acknowledge its potential magnitude. By only recording <i>first</i> psychiatric contact, the study has effectively separated women who had abortions into two groups; those who had their first contact before the abortion and an unknown number thereafter, and those who had their first psychiatric contact after their abortion and an unknown number thereafter.</p> <p>The study makes no attempt to measure what happens to any particular woman <i>after</i> she has her first psychiatric contact in the 9 months prior to the abortion. An important (and available) piece of information would have been the incidence of repeat psychiatric visits as this would have provided some indication of ongoing problems. If indeed there is a relationship between abortion and mental health problems, then a finding of multiple visits post-abortion might suggest that to be the case. Alternatively, if there were few if any visits, then such a relationship would be less likely.</p> <p>It is therefore an important weakness of this study that the women who comprise the incidence of 14.6 in the 9 months prior to abortion are a different group of women to those who comprise the incidence of 15.2 in the 12 months after abortion. It may be that the 15.2 group, having had no prior psychiatric contact, are indeed responding to the abortion with mental health problems, and that the 14.6 group, also having had no prior psychiatric contact, likewise respond negatively to the abortion by having repeat psychiatric visits. The study cannot determine whether that is the case, yet given the many other studies linking abortion</p>	<p>psychiatric contact as an outcome measure throughout the review. This criticism of lack of follow up after the first contact is true of all incidence studies using medical records and is not specific to Munk-Olsen.</p> <p>Our aim of the review is to extract and analyse the data reported, we cannot go beyond that data.</p> <p>This is true of all the studies included in this section of the review. All studies were required to either exclude or control for previous mental health problems as this has been identified as a factor associated with poorer outcomes. The aim</p>
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				<p>The second major weakness with this study is that it failed to go beyond 12 months after an abortion or childbirth. Many of the other studies looking at abortion and mental health recognise the likelihood that if problems were to exist it is likely that they could arise many years later. For example, mental health professionals have extensive experience dealing with problems like depression, anxiety and PTSD which surface decades after critical life events with which the problems are associated. This is common currency for mental health professionals, and so the 12 month limit of this study is a glaring deficiency. Taken together with the fact that it is often the case that people with mental health problems may only see a psychiatrist some significant time after having identified a problem, in the meantime having seen counsellors, psychologists and other medical health professionals perhaps over a considerable time period, this study potentially only scratches the surface of what may lie beneath. In the childbirth group, the data indicates that first psychiatric contact declines with time whereas in the abortion group it remains steady. The decline for the childbirth group indicates that as time goes by fewer women experience mental health problems as they adapt to motherhood, whereas steady numbers of women experience mental health problems in the abortion group. This is indicative of the protective effect of motherhood on mental health.</p> <p>The third weakness in this study is that whilst the authors state that other studies are limited because they do not properly control for confounders, in fact this study only controls for age and parity. No controls exist for marital status, partner violence or other coercion, education, income, etc. These factors may be significant yet the study failed to control for them. Notably, in terms of the structure of the NCCMH review, no attempt is made here to control for pregnancy intendedness or wantedness.</p> <p>It is interesting to note, even given the limitations discussed, that the incidence of certain types of psychiatric disorders is higher after abortion than before. For example, for personality or behavioural disorders and neurotic, stress-related or somatoform disorders. Munk-Olsen do not give this result the credence it deserves.</p> <p>We have chosen to analyse this particular study for two reasons. First, because it has been relied upon as an example of a top</p>	<p>and taken into account when rating the quality of the study. For full details of the individual quality ratings of all studies, please see Appendix 9. Furthermore, in light of the comments received during consultation we have amended the quality criteria and re-appraised all of the studies (see Section 2.7).</p> <p>Unfortunately it would not be possible for us to use and analyse this data due to the nature of the study. As incidence has been used, and individuals were removed from the study after first contact, it is not possible to accurately ascertain the rates of different conditions over a time period. For example someone presenting with depression would be excluded after their first contact, however if they also went on to have contact for anxiety, this would not be recorded. Therefore in both groups the rates presented for each diagnostic category may underestimate the actual rates experienced.</p> <p>We thank you for your appraisal of the study and agree that it highlights many of the complexities of abortion research. On balance however, given the limitations of the evidence base, we still feel that this study is of better quality than the majority of the research in this area. We have reflected this in the quality appraisal of the evidence.</p>
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					quality study; and second, because it has been used to inform key conclusions of the review. We strongly question the quality of the study and its conclusions, and importantly how the conclusions appear to have been used to inform key conclusions of this review. Moreover, the problems with this study highlight the controversy within the field which makes these strong conclusions unwarranted.	
5.3.2.1	69	23-31	ProLife Alliance	6/13	The Munk-Olsen 2011 study focused on a group of women with no previous history of mental health issues and still concluded that women who had abortions were significantly more likely to seek psychiatric treatment one year after their abortions than women who gave birth. If prior mental health concerns are the explanation for post-abortive women seeking psychiatric treatment, then how does one explain that women who have abortions and no history of mental health problems still seek psychiatric treatment at a higher rate than women who give birth?	Thank you for your comments. Munk-Olsen also reported rates of psychiatric contact 9 months prior to the abortion. The study demonstrated that within the 9 months prior to abortion or birth, those in the abortion group were more likely to seek psychiatric contact. The authors therefore concluded this may be due to the effects of an unwanted pregnancy and that the population with an unwanted pregnancy may also have a propensity towards psychiatric morbidity, given that the rate of psychiatric contact did not increase after abortion relative to before the abortion.
5.3.2.1	69	23-25	Christian Medical Fellowship	28/36	Munk-Olsen do not use a population-based cohort of Danish women with ‘...no previous history of mental health problems’ as the review states. The study included women with an out-patient history. This therefore needs changing to say with ‘...no history of in-patient treatment for mental health problems.’ It is quite possible that some women with ongoing out-patient care were included. See also our comments above on p41.	Thank you for your comments. We have now amended this to give the definition used within the Munk-Olsen paper.
5.3.2.1	69	23-25	Individual 16	23/33	The statement on the population assessed in the Munk-Olsen study is incorrect – they included women with an out-patient history of mental health problems. Please also see comment on their work under page 41 comment.	Thank you for your comments. We have now amended this to give the definition used within the Munk-Olsen paper.
5.3.2.1	69	23-25	Elliot Institute, Springfield, Illinois, USA	59/87	It is wrong to characterize Munk-Olsen2011 as using a population with “no previous history of mental health problems.” It is more accurate to say “no history of in-patient treatment for mental health problems.” The study included women with an out-patient history. Indeed, it is possible, even likely, that some women with extensive and frequent, ongoing out-patient care were included while others with only a single in-patient treatment were excluded. So one must be very cautious in assuming that the sampling method was accurate in removing women with the	Thank you for your comments. We have now amended this to give the definition used within the Munk-Olsen paper. We have noted the use of treatment records as a limitation of the study.



					“most” problems.	
<b>5.3.2.1 and 3.4.2</b>	69 and 41	25 and 25	Catholic Medical Association (UK)	35/50	<p><b>Munk Ohlsen study.</b></p> <p>The review group are incorrect in their statement that the Munk - Ohlsen study studied a population of women with no previous history of mental health problems. The Munk-Ohlsen make it clear that they only excluded from the study women with a previous psychiatric admission. This is an associate of the most severe mental illness and the study therefore contains many women who must have had a significant past psychiatric history. Further, the study then adopted a strange methodological quirk, in that once the study had started, they took outpatient psychiatric contact or admission as a significant event.</p> <p>We find herein a concern that this may have skewed results and meant that the rates of contact in the first few months of study are exaggerated. This is because referral into psychiatric out-patient clinics will have a lower threshold than referral for admission and so there is a risk of skew here. Were that to be true, this would exaggerate the pre-abortion figures and diminish the post abortion figures. They found that 1.0% of women had psychiatric contact in the 9 months prior to abortion and 1.5% in the 12 months after. While the odds ratios for before and after are therefore similar, there is a risk that this may be due to the adoption of a different outcome measure after abortion from the criteria used to control for previous mental health.</p>	<p>Thank you for your comments. We have now amended this to give the definition used within the Munk-Olsen paper. We have noted the use of treatment records as a limitation of the study.</p> <p>Although you are quite correct regarding the use of inpatient and outpatient treatment before and after the abortion, the outcomes used were the same for both the abortion and birth groups. Within this section of the review, we have primarily focused on the comparison between the abortion and birth groups.</p>
<b>5.3.2.1</b>	69	27-34	Elliot Institute, Springfield, Illinois, USA	60/87	Does this recalculation include any or all of the control variables used by Munk-Olsen?	Thank you for your comments. The paper states that data have been adjusted for a number of variables. We have used the reported data in the recalculation.
<b>5.3.2.1</b>	69	31	Catholic Medical Association (UK)	36/50	A further concern with the Munk Ohlsen Study is the use of nine months prior to live birth as a comparator group. Of course, the nine months prior to childbirth are often called pregnancy, and this is not a particularly useful comparator group for the study to have used. Pregnant women usually know that they are pregnant, receive additional support etc and in fact , if the study shows anything, the most powerful effect seems to be that pregnancy and childbirth are protective against the rate of serious mental illness, with the exception of an upwards blip in the three months after childbirth. We also note that this three	Thank you for your comments. We have reported the conclusions and data included in the paper with reference to the comparison of the 9 month period prior to birth and 1 year following birth. As the aim of the review is to extract and analyse the data reported in the studies we cannot go beyond what the authors report. Furthermore, for the majority of the review we have focused on the 9 month period prior to abortion and have not included the pre-birth data. For the comparison

				<p>month period after abortion/ childbirth was specifically thought by review group to not be of great interest.</p> <p>Finally, as the review group rightly point out on page 41 (line 44) the Munk Ohlsen study uses measures of secondary care mental health contacts as a measure of psychiatric morbidity. The problem with this type of measure is that many people with mental illness do not seek medical treatment and this may be especially so of post abortion women. We have found that women who suffer after abortion often do not wish to return to the doctors who referred them for that abortion. Therefore the study almost certainly substantially underestimates the prevalence of all mental disorders post abortion and childbirth.</p>	<p>included in this section of the review, only the data comparing 1 year psychiatric treatment rates post-pregnancy were used.</p> <p>We have noted the use of treatment records as a limitation of this study and of the evidence base as a whole.</p>
5.3.2.1	69	36	Mount Joy College, Victoria, British Columbia, Canada	<p>83/103</p> <p>Because the <b>“psychiatric contact” varies so greatly</b> from one country to another, it is not possible to equate these studies. In nations like Canada with universal medical coverage there is generally ready access except where there are long waiting times, 6 to 12 months for an initial consultation. In the USA, psychiatric referrals may be seen much more quickly if the patient can afford it and if private insurance or cash is limited, there may be very long waits. The time interval from the event (abortion) to the onset of the “illness” probably relates more to the availability of treatment than it does to the extent of the trauma.</p> <p>Those who deliver a child are under more financial and emotional stress, partly because deliveries cost considerably more than an abortion and because child care can be stressful, especially for those who have had a previous abortion and have consequently more difficulty bonding. It is not clear from this review, how many researchers controlled for the number of previous abortions a woman had before she delivered a child. Our data makes the difference clear.</p>	<p>Thank you for your comments. We agree that this is a limitation of the dataset as a whole and have disc used the problems with generalisability and interpreting the findings throughout the review and conclusion. Consequently we have recommended that further research is conducted from the UK context to overcome this limitation (see Section 6.3).</p> <p>We agree that this is an important confounding variable and have discussed the lack of confounder control within studies throughout the review.</p>
5.3.2.1	69	39-42	ProLife Alliance	<p>4/13</p> <p>If the authors suggest that the difference in psychiatric incident rates between abortion and birth is that women who have abortions may constitute a group of higher psychiatric morbidity that predates the abortion, then perhaps an additional study should be done to clarify how many of the 189,574 women in England and Wales who had abortions last year (Department of Health, Abortion Statistics, England and Wales: 2010, page 3) had pre-existing psychiatric morbidity. If women who seek</p>	<p>Thank you for your comments. We agree that this is an important area for further study and have recommended that good quality longitudinal prospective research is conducted into mental health problems, unwanted pregnancy and birth from a UK perspective (see Section 6.3).</p>

					abortions tend to have higher rates of psychiatric morbidity, then what is being done to help these women with their pre-existing mental health issues?	
<b>5.3.2.1</b>	69	39-43	Mount Joy College, Victoria, British Columbia, Canada	84/103	There are other plausible explanations such as the women with pre-abortion mental health problems are more likely to feel 'relief' following an abortion because they experience a sense of relief from the turmoil which accompanies attempting to make a very difficult decision ("I don't know if I made the right decision but at least I made a decision and that feels good"). She may also feel "better" because her partner after making threats over an extended period, finally left.	Thank you for your comments. It is beyond the scope of the present review to address these hypotheses.
<b>5.3.2.3</b>	70	7-17	Elliot Institute, Springfield, Illinois, USA	61/87	Data on depression from Reardon2003 or Coleman2002A should be discussed here.  Reardon2003 reports significantly higher rates of depression for both single episode and recurrent episode. Coleman2002A also reports higher rates, but they are only statistically significant for diagnoses of neurotic depression (see Table 3).  Given the higher rates of inpatient treatments reported for the same population by Reardon2003, this lack of a difference in outpatient treatment for most diagnoses of depression in Coleman2003 (looking at the same women) indicates that the differences related to depression are most pronounced in regard to severe depression.  Another possible explanation for the negative finding in Coleman2002A relative to mild and moderate depression may be due to the fact that population studies was limited to all low income women. Low income women may have a higher base line, and/or adapted tolerance, for mild to moderate depression.	Thank you for your comments. Since consultation we have gone back and extracted the information available for each of the individual diagnoses reported in these papers (see Section 2.7 for an explanation of this.).  We have noted the limitations with generalisability of the population included in these studies throughout the review (see Section 2.3).
<b>5.3.2.6</b>	71	12	Mount Joy College, Victoria, British Columbia, Canada	85/103	The authors do not credit Reardon with 3 way record matching studies but here describe exactly his method of record matching..	Thank you for your comments. We have described the studies as medical record studies which we feel is an adequate description.
<b>5.3.2.6</b>	71	15-17	Secular Medical Forum	9/16	Reardon2002A indicates that suicide rates for those having an abortion are higher than those who have delivered a pregnancy. However, the study admits that the control for previous psychiatric history was limited (women were included who did not make financial claims for psychiatric treatment, or claimed more than 1 year previously to the abortion). Making a statement about	Thank you for your comments. We have continued to include the study but have noted and discussed the limitations with the control of previous mental health problems within this study and other included studies throughout the review.

					the effect of abortion on such a serious mental health outcome as suicide (e.g. on page 71 of the current review) on the basis of a retrospective study with such flawed control of previous mental health is unsound. <b>Therefore the SMF recommends the removal of such unsubstantiated claims based on studies with flawed methodology.</b>	
<b>5.3.2.6 &amp; 5.3.2.7</b>	71	17-22	Mount Joy College, Victoria, British Columbia, Canada	86/103	<p>While there is some validity to the author's criticism of limited duration to pre-abortion mental illness indicators, the is logical time limit. From a child psychiatrist's point of view, the mental health of a woman as an indication of her vulnerability to the adverse impact of abortion should start in her infancy when her character resilience to adversity is established.. For that reason we were not surprised to find that one of the closest association to the decisions to abort was that the subject's mother had one or more abortions.</p> <p>Since recall, financial and social conditions exponentially vary the further removed from the event in question, a 1 year cut off is probably the best compromise.</p>	Thank you for your comments. This is beyond the scope of the present review.
<b>5.3.2.6</b>	71	23	Elliot Institute, Springfield, Illinois, USA	62/87	<p><b>Additional subsections should be added here regarding (a) adjustment reaction, (b) bipolar disorder, and (c) schizophrenic disorder, all of which were statistically significant in either or both Reardon2003 or Coleman2002A. Also, subsections should be added for neurotic, stress-related or somatoform disorders and for personality and behavioural disorders as significantly higher rates were reported within a short timeframe by Munk-Olsen.</b></p> <p><b>Additional subsections could be added for the diagnoses in these various studies that were not statistically significant, but we do not consider it necessary to elaborate on them in the discussion, though we do recommend including them in the revised Table 13, as recommended below.</b></p>	<p>Thank you for your comments. Since consultation we have gone back and extracted the information available for each of the individual diagnoses reported in these papers, where appropriate (see Section 2.7). We did not however include adjustment disorder as adjustment reactions are reactions to stressful events and tend to be short lived. When they are longer lasting, they tend to lead to another diagnosis such as depression. Our review was interested in more persistent mental health problems, those present at 3 months onwards; so we were more interested in the period after which most adjustment reactions would have resolved or changed to another diagnosis.</p> <p><b>Within the Munk-Olsen study it was not be possible for us to use and analyse the data by diagnostic category due to the nature of the study and raw data reported.</b> As incidence has been used, and individuals were removed from the study after first contact, it was not possible to</p>

						accurately ascertain the rates of different conditions over a time period. For example someone presenting with depression would be excluded after their first contact, however if they also went on to have contact for anxiety, this would not be recorded. Therefore in both groups the rates presented for each diagnostic category may underestimate the actual rates experienced.
5.3.2.7	71-72	Table 13	Elliot Institute, Springfield, Illinois, USA	63/87	<p>Table 13 inconsistently includes only selected outcome criteria. While numerous symptoms are reported for Pedersen2008 and Steinberg2008, only a single finding is reported for all of the other studies -- even though they have many more findings. This problem is especially apparent in the misleading evidence statement in 5.5 which states that among “[s]tudies that do not control for whether or not the pregnancy was planned or wanted . . . [f]indings for depression, anxiety disorders and PTSD did not indicate an increased risk.”</p> <p><b>This erroneous statement would have been avoided by listing all statistically significant findings from the studies in Table 13 rather than arbitrarily selected findings.</b></p> <p><b>For example Table 3 of Reardon2003 lists</b> odds ratios and 95% CI for eight diagnoses. Women who had abortions were significantly more likely to receive in-patient treatment for adjustment reactions, depressive psychosis (both single episode and recurrent episodes) and bipolar disorder. Why these findings are omitted from Table 13 and the evidence statements for 5.5 is hard to understand.</p> <p>Coleman2002A lists OR and CI for 12 specific ICD-9 codes. Most notably, they affirm higher rates of adjustment reactions, bipolar disorder, anxiety states, and schizophrenic disorders, and alcohol and drug abuse.</p> <p>Moreover, the findings of Reardon2003 and Coleman2002A rely on the same data set, one examining in patient treatment rates and the other examining outpatient treatment rates in an attempt to segregate the severity of psychiatric illnesses treated. This difference should be further explained in the discussions to be added regarding depression, adjustment reactions, and bipolar disorder.</p>	<p>Thank you for your comments. As above we have now extracted the individual diagnostic categories within the studies mentioned where this was appropriate and possible. We have amended the evidence statement relating to this section to read:</p> <p>‘There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.’</li> </ul>

5.3.2.7	71-72	Table 13	Elliot Institute, Springfield, Illinois, USA	64/87	<p>We suggest that a more objective method should be employed to report all the finding from studies comparing women who deliver to those who carry to term. (The same approach should be used in the section regarding abortion versus delivery of an unplanned pregnancy.)</p> <p>Specifically, we suggest that Table 13 should include all the analyses available or constructed from the studies, not just selected diagnoses.</p> <p>Further, rather than mix significant and insignificant findings, it is suggested that tables could be segregated into four sections: (1) Significant findings of harm compared to childbirth; (2) Indeterminate findings of harm; (3) Indeterminate finding of benefit compared to childbirth, and (4) significant findings of benefit.</p> <p>The section “Significant findings of harm compared to childbirth” would contain, for example, Reardon2002A regarding suicide.</p> <p>The section “Indeterminate findings of harm compared to childbirth” would contain, for example, Steinberg2008 regarding PTSD which shows a higher OR but the results are not statistically significant, perhaps due to inadequate sample size, and therefore are indeterminate.</p> <p>The section “Indeterminate findings of benefit compared to childbirth” would contain, for example, Steinberg2008 regarding social anxiety, which shows a lower OR relative to women who abort, but the results are not statistically significant, perhaps due to inadequate sample size, and therefore are indeterminate.</p> <p>The section “Significant findings of benefit compared to childbirth” would be reserved for any findings regarding any diagnosis for which women who abort are significantly less likely to be treated compared to women who deliver.</p>	<p>Thank you for your comments. Please see our responses to your comments above regarding the outcomes extracted from the included papers.</p> <p><b>We do not agree with your suggestion for presenting the evidence and feel that presenting the results by diagnostic category is the best format and consistent with the rest of the review.</b></p> <p>We have now amended the evidence statements and text to read, ‘insufficient evidence’ or ‘no statistically significant effect’, rather than no effect.</p>
5.3.2.7	71-72	Table 13	Elliot Institute, Springfield, Illinois, USA	65/87	<p>The odds ratio and CI for Fegusson2006 should be converted to the same standard as for all of the other studies in this table, such that a OR &gt; 1 indicates increased risk relative to abortion. It is very puzzling why this wasn’t done and it is likely to lead readers to either misinterpret the table, or be frustrated until they spot that asterisk.</p>	<p>Thank you for your comments. This has now been amended and the odds ratios reversed to be consistent with the rest of the review.</p>
5.3.2.7	73	Table 14	Christian Medical	29/36	<p>Despite the limitations of the evidence, which are detailed in the</p>	<p>Thank you for your comments. We have amended</p>



			Fellowship		<p>review on p73-74, Table 14 clearly shows that the risks of psychiatric treatment follow-up, psychiatric outpatient treatment, suicide, alcohol problems, cannabis use and illicit drug use are increased in women who have abortions, compared to those giving birth. (Why are the findings from this table of evidence not summarised?)</p> <p>Despite the limitations of the evidence, <b>this does not justify the claim in evidence statement 1 (p81 line 38) that there is ‘...no evidence of elevated risk of mental health problems...’</b></p> <p>This should be noted in the evidence statements for Q, p813. Indeed, this evidence would answer ‘yes’ to question 3 of the review on p65.</p>	<p>this evidence statement to read:</p> <p>‘There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.’</li> </ul> <p>We have amended the language throughout the review to read ‘insufficient evidence’ or ‘no statistically significant effect,’ rather than no effect.</p>
5.3.2.7	73	Table 14	Mount Joy College, Victoria, British Columbia, Canada	87/103	<p>The studies ( not identified) in this table were presumably given poor or very poor ratings because they did not indicate whether of not the pregnancies were wanted. As described earlier in this comment, intendedness and wantedness are such unreliable criteria to judge any event, that they are virtually useless. People are not marbles red and green. Ambivalence affects everyone’s mood and decision making almost every hour, every day. Throughout history, this ambivalence could not be greater than in this era, because for good or ill, there are more choices to make and more social and political pressures to balance in making those choices</p> <p>I estimate (unpublished study) there are 53 factors that the average woman must consider and resolve in order to make a rational decision. Since there is not sufficient time to conclude all the internal debate on these issues, it must be concluded that very few decisions to abort, deliver, adopt, foster etc are rational.</p> <p>From our studies (23-25) it appears evident that a person’s unresolved conflicts from mistreatment in childhood, <b>become reenacted in adult life</b>. Thus it is likely that a woman who was neglected in childhood, particularly by her father, will find a mate who is not very supportive. Under most circumstances he threatens to abandon the pregnant partner if she doesn’t abort. She too readily acquiesces, aborts her child only to find he abandons her anyway. She would normally grieve but is so angry</p>	<p>Thank you for your comments. Please see our responses to your previous comments regarding pregnancy intention and wantedness. As stated we have discussed this as a limitation of the term throughout the review. We have also made our ideal and pragmatic review criteria explicit within Section 2 of the review and justified the approach taken.</p> <p>In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.</p> <p>In light of the comments received during consultation we have now adapted the Charles quality criteria, and as suggested added a ‘good’ category. We have also included criterion to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within</p>

					at him, she cannot feel sorrow. In time that anger would fade and complicated grief would develop except for the fact her feminist sisters help stoke her anti-male antipathy and irritation. If she can keep feeling enraged she does not need to feel the pain of mourning.	Section 2.3. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).  Unresolved conflicts were beyond the scope of the present review.
<b>5.3.3 and 37</b>	73 and 81	6 and 5.5	Catholic Medical Association (UK)	30/50	<p>Come what may the evidence presented in table 14 and discussed in 5.3.3 shows considerable evidence that the risks of many mental disorders are very significantly increased in women who undergo an abortion compared to those who deliver a live birth. Illicit drug use, alcohol problems, suicide any mental health problems, psychiatric outpatient treatment, psychiatric admission, depression all show significant increases in the abortion group compared to those who deliver pregnancies.</p> <p>So while the review group set out limitations of the evidence, it really is very hard to take that dataset and reach any conclusion other than that abortion is strongly associated with an increased risk a range of mental disorders.</p> <p>Therefore the question asked at the start of section 5 is surely answered in the positive.</p> <p>The review question asked on page 65 asks “Are mental health problems more common in women who have an induced abortion when compared to women who delivered a live birth?”</p> <p>The answer is clearly positive and should be noted on in the evidence statements on p81.”</p>	<p>Thank you for your comments. We have amended the evidence statement relating to this section of the review as follows:</p> <p>‘There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.’</li> </ul> <p>We have amended the review question to be comparable to elsewhere in the review. As stated in the methods section the ideal comparison for the review was an unwanted or unplanned pregnancy going to term and not any live birth as included in these studies.</p>
<b>5.4.1</b>	75	4	Catholic Medical Association (UK)	31/50	<p><b>Abortion vs delivery of an unwanted or unplanned pregnancy.</b></p> <p>We have set out elsewhere why we think that focussing only upon the outcomes of an unwanted pregnancy restricts the evidence base so severely that meaning is lost, and note that as a result of the attempt to do this the review group have ended up excluding all but 4 studies. The evidence base here is therefore very shaky and uncertain.</p>	<p>Thank you for your comments. Please see our responses to your previous comments regarding pregnancy intention and wantedness. As stated we have discussed this as a limitation of the term throughout the review. We have also made our ideal and pragmatic review criteria explicit within section 2 of the review and justified the approach taken. We believe this is the best available evidence and comparator to answer the question from the perspective of a women faced with a decision regarding an unwanted pregnancy.</p>
<b>5.4.1</b>	75	5	Church Of England:	3/11	The point made under 5.1 is pertinent here also: the three	Thank you for your comments. We have

			Mission and Public Affairs Council		studies relating to unplanned pregnancies ought to be treated separately from the single study on unwanted pregnancy	discussed this as a limitation of the review and within the narrative review separated them when discussing each outcome.
5.4.1	75	5	Elliot Institute, Springfield, Illinois, USA	66/87	The following studies should be included: <ul style="list-style-type: none"> <li>• Coleman PK. Resolution of Unwanted Pregnancy during Adolescence through Abortion versus Childbirth: Individual and Family Predictors and Consequences. J Youth Adolesc 2006; 35: 903-911.</li> <li>• Reardon DC, Coleman PK, Cogle J. Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study. Am J Drug Alcohol Abuse 2004; 26: 369-383.</li> </ul>	Thank you for your comments. We have collated and assessed all the studies recommended during the consultation period. For a full list please see Appendix 4.
5.4.1	75	5-8	Christian Medical Fellowship	30/36	By narrowing down the studies to only four, thereby excluding some key studies, the basis of the conclusions will inevitably be affected and therefore the conclusions drawn, limited.  The reduction to just 4 studies is based on the desire to control for 'wantedness'. However as we note above (p18, lines 14-16), this is very difficult to measure and control for, but by using it, the review have thereby excluded a number of other important studies. <b>Four studies is a weak base for the evidence statements, particularly when one of these is then re-analysed with no explanation</b> (see comments on p78, lines 21-26).	Thank you for your comments. Please see our responses to your previous comments regarding pregnancy intention and wantedness. As stated we have discussed this as a limitation of the term throughout the review. We have also made our ideal and pragmatic review criteria explicit within Section 2 of the review and justified the approach taken as we believe this is the best available evidence and comparator to answer the question from the perspective of a women faced with a decision regarding an unwanted pregnancy.
5.4.1	75	5-8	Individual 16	24/33	"Wantedness" is extremely difficult to define or quantify. Using only 4 studies in this way is weak. See comment on Fergusson 2008 data in next box as well.	Thank you for your comment. We agree this is a limitation of the evidence and have discussed this in Section 2.3.
5.4.1.	75-6	Table 15	Dept of Adult Psychiatry, University College Dublin	10/26	The quality assigned to Steinberg study 1 as very good is incorrect in our opinion since both were cross sectional study, were secondary analyses, using a pre-existing database. WE also disagree with the assignment of fair to Fergusson 2008 since this was a longitudinal study with much more extensive confounder control than Steinberg. Fergusson should be given a rating of good or very good in our opinion.	Thank you for your comments. In order to improve the transparency of the review we have now included further details about the quality assessment process. Within the review, we undertook three approaches to quality assessment: NICE study checklists, abortion specific quality criteria and GRADE. Full details of the quality ratings are provided in Appendix 11.  In light of the comments received during

						consultation we have now adapted the Charles quality criteria, and added a 'good' category. We have also included criteria to rate the representativeness of the sample included in the studies. We have provided further details about the adapted quality criteria, including definitions of each of the categories within Section 2.3. Since consultation we have double-rated each study using the adapted Charles criteria and have provided a measure of inter-rater reliability (see Section 2.9).
5.4.2	74	2	Catholic Medical Association (UK)	32/50	<p><b>The association of mental health with abortion.</b></p> <p>Having reduced the number of studies to a tiny number that are thought to adequately compare wantedness and unwantedness, it is remarkable that of the 4 studies mentioned here all 4 found that some mental health problem was associated with abortion. Gilchrist found increased self harm, and increased psychiatric admissions between 3 and 12 months post abortion (see below) . Steinberg anxiety after 2 abortions, Cogle anxiety and Fergusson of all mental health problems and substance misuse). The conclusion from this that "there is no evidence of elevated risk of mental health problems" after abortion does not appear to be adequately evidence based.</p>	Thank you for your comments. We have adapted the evidence statements to read 'insufficient evidence' where appropriate. We have also been able to conduct a limited meta analysis of the four studies (see Section 5.4.2). Where studies have found significant results we have discussed these.
5.4.2	76-78		Individual 13	3/4	<p>A third point is that over the pages 76-78 the reviewers claim to give estimates of the risk ratio from Fergusson et al 2008 which relate to the Odds Ratio comparing abortions against livebirth. However, Fergusson only give results comparing each of those against non-pregnant controls. Thus the reviewers have derived their results from the paper but have not shown which method they have used or the numbers involved. Because the authors have derived their own statistics, they have made an unconstrained choice in the way they have presented the Odds Ratios and have deliberately chosen to present the Odds Ratios in such a way that it looks, to the average reader, as though the Fergusson data are consistent with a thesis that abortion reduces the risk of mental health compared with live birth, whereas the opposite is true.</p> <p>This is at best deliberately misleading and arguably fraudulent. In fact, it is likely that the actual numbers involved in the</p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p> <p>We have now reversed the odds ratios to ensure they are consistent with the remainder of the review and to avoid confusion.</p>

					<p>comparison the reviewers have chosen to make are so small that the study would have been inadmissible under their own criteria.</p> <p>I do agree with the reviewers, however, that the ideal comparison is to compare abortions against live birth, if one is trying to counsel a pregnant woman about the risks of mental health as becoming unpregnant is not an option for her.</p>	
5.4.2.1	77	3	Dept of Adult Psychiatry, University College Dublin	11/26	<p>This states that Fergusson (2008) “used the Diagnostic Interview Schedule for Children to assess the DSM-IV anxiety disorders within their study”.</p> <p>This is only partially true: Fergusson (2008) used this schedule only for interviewing the participants up to and including the age of 16. Thereafter, in the interviews which occurred at ages 18, 21, 25 and 30 (surely the more relevant interviews for this study) the Composite International Diagnostic Interview was used, supplemented by additional measures.</p>	Thank you for your comments. This has been amended.
5.4.2.1	77-79	9-44	Elliot Institute, Springfield, Illinois, USA	68/87	<p>Gilchrist has several methodological problems that should be noted, particularly since his findings are at variance with so many other studies.</p> <p>First, the evaluation of psychological state was not standardized and relied on the report of general practitioners, not psychiatrists. The report of the study itself states: “The major disadvantages of using general practitioners’ reports were the likelihood of under-recognition and an imprecise diagnosis of psychiatric disorder” (p. 247).</p> <p>Second, the study did not attempt to identify or control for possible selection bias arising from the fact that that GP’s volunteered to participate. Some portion of these, perhaps a disproportionate number, may have had a special interest in the issue because they referred and/or performed abortions. Such involvement may have biased them to want to desire and see an optimal outcome for the women they helped have abortion.</p> <p>Third, women who have negative abortion reactions are less likely to return to the physician who referred or performed the abortion. For example, a survey of 2,215 abortion patients in 12 abortion clinics in the US found that two out of three women do not return for follow-up appointments at the abortion clinic. (see ‘From the Patient’s Perspective - Quality of Abortion Care’, Picker Institute. (1999). Boston, MA.) Women embarrassed a past</p>	<p>Thank you for your comments. Thank you for your suggested limitations of this study, however we have discussed the limitations of the evidence for this section including the measurement of mental health outcomes (see Section 5.4.3) and feel it has been adequately covered. We have also added further detail about the outcomes, including psychotic episodes, within the review.</p> <p>This is beyond the scope of the present review and what we are able to do. The aim of the review is to extract and analyse the data and to appraise the evidence. We cannot go beyond what has been reported.</p> <p>We have now included a limited meta-analysis within this section of the review.</p>

					<p>abortion may change providers to avoid facing the stress of seeing the doctor who approved the abortion. The resulting poor follow up of women most stressed may result in underestimation of the problem of significant adjustment problems post-abortion.</p> <p>Notably, however, the Gilchrist study did find a rise in self-harm similar to that reported by Morgan. (Christopher Morgan et al., Suicides After Pregnancy: Mental Health May Deteriorate as a Direct Effect of Induced Abortion, 314 BRIT. MED. J. 902 (1997).) Perhaps some meta-analysis could be done using figures from these two sources.</p>	
5.4.2.1	77	29-36	Mount Joy College, Victoria, British Columbia, Canada	88/103	<p>The authors seem to have inadvertently contradicted themselves. If, as they state a less than 1 OR indicates increased anxiety then that is what Fergusson found, OR = 0.55 p&lt;0.05. Whereas they authors write “no more likely to experience anxiety” Is this another indication of awkwardly rushing to confirm their preconceptions?</p> <p>These affirmative findings ( abortion isn’t good for most women) should always be considered and described in the light of very great difference in the woman’ s life post delivery to the woman who is post abortion, as almost every woman would attest. That any evidence points to a greater anxiety or depression in post abortion women is surely most remarkable considering the much higher level of stress to women with small children.</p>	<p>Thank you for your comments. We have now reversed the odds ratios for the Fergusson study to ensure they are consistent with the rest of the review and to avoid confusion. The p value in this case was greater than 0.05 and not smaller than 0.05. The confidence intervals for the effect were also wide. We have amended the evidence statements and text to read ‘insufficient evidence’ or ‘no statistically significant effect’ to more accurately reflect the data.</p>
5.4.2.1	77	29-36	Dept of Adult Psychiatry, University College Dublin	12/26	<p>This states that in the lagged model Fergusson (2008) found “that women who had an abortion were no more likely to experience anxiety disorders than those who delivered a pregnancy (OR 0.55; 95% CI, 0.20 – 1.48, p&gt;0.05)”. The odds ratio is not presented in the original paper.</p> <p>This contradicts Fergusson’s actual study which did in fact find a significant association (using data from the 5 year lagged model and from the concurrent model also and controlling for a wide range of confounders). For the concurrent model the figures were RR 1.55 (CI 1.03-2.32) for the abortion group and 1.19 (CI 0.81-1.74) for the live birth group. For the lagged model the figures were 2.31 (CI 1.24-3.64) and 1.31 (CI 0.8-2.14) for the concurrent and lagged models respectively. If the authors have re-analysed the data (and their presentation of odds ratio strongly points to this) this should be stated, along with the reason, bearing in mind that risk ratios rather than odds ratios</p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p> <p>We have now reversed the odds ratios to ensure they are consistent with the remainder of the review and to avoid confusion.</p> <p>We have not discussed the findings of the original paper as the comparison group used does not meet the eligibility criteria for the</p>



					are preferred for cohort studies such as this (Holcomb et al 2001). The calculation itself should also be shown. The authors should also cite the results from the original paper itself and discuss the differences between the two calculations.  <b>Ref.</b> Holcomb WL, Chaiworagongsa T, Luke DA, et al. An odd measure of risk: use and misuse of the odds ratio. <i>Obstetrics &amp; Gynecology</i> 2001; 98: 685-688	review.
5.4.2.1	77-78	29-36	Elliot Institute, Springfield, Illinois, USA	67/87	There should be much more elaboration regarding why Fergusson's own calculations are being dismissed and replaced with new calculations.  Has Fergusson agreed to withdraw his findings and publish a new analysis?	Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.
5.4.2.3	77	45-48	Mount Joy College, Victoria, British Columbia, Canada	89/103	The authors confuse the reader by interpreting Fergusson's findings one way and then in the opposite manner in these 3 paragraphs. The only thing which appears to be consistent here is that either way, the authors find support for their bias.	Thank you for your comments. We have now reversed the odds ratios reported to ensure they are consistent with the remainder of the review and to avoid confusion.
5.4.2.3	77	49	Dept of Adult Psychiatry, University College Dublin	13/26	This is a technical point and does not alter the authors conclusion. However in the interests of accuracy it is important to mention. There is no evidence of the Odds Ratio presented in this paragraph in the original paper, although the original paper does not find any significant association after controlling for confounders, using the risk ratio as the measure. Is this data which the writers of the review have re-analysed? If so this should be made clear and the reasons for same.	Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.
5.4.2.4	78	2-5	Dept of Adult Psychiatry, University College Dublin	14/26	The review says that "Fergusson 2008 also assess both alcohol and illicit drug dependents. In both cases, findings suggested that having an abortion was not significantly associated with an increased risk compared with delivering an unwanted pregnancy".  We concur that the data does not support a statistical association between alcohol misuse and abortion. We disagree that there is no association between substance misuse of illicit drugs and abortion since Fergusson found significant associations between abortion and illicit substance misuse for both the concurrent and lagged models in his paper while the associations were not significant for those giving birth and those never pregnant.. The data you cite is clearly a re-analysis. This	Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used. We have also added reference to the large effects found.

					should be stated, along with the reason, bearing in mind that risk ratios rather than odds ratios are preferred for cohort studies such as this. The calculation itself should also be shown. The authors should also cite the results from the original paper itself.	
5.4.2.5	78	21	Catholic Medical Association (UK)	34/50	<p>Problems with the review group's use of Fergusson data.</p> <p>We are very unhappy about the review groups presentation of Fergusson data. In 2009 Fergusson wrote of his 2008 paper that "These findings clearly suggested that unwanted pregnancy leading to abortion was likely to be a risk factor for subsequent mental health problems, whereas unwanted pregnancy leading to live birth was not a risk factor for these problems". In its peer reviewed published form Fergusson showed that "The overall rate of disorder for those who reported an unwanted/adverse reaction was 1.31 (95% CI 1.01–1.69) times higher than for those who did not (P&lt;0.05)."</p> <p>Comparing the outcome of abortion with both wanted and unwanted pregnancies Fergusson found significant excesses in several disorders in the abortion group.</p> <p>TOP was associated with increased rates of mental disorder OR1.86–7.08 with increases (when using a 5 years concurrent lagged model) in</p> <ul style="list-style-type: none"> <li>□ Overall OR 1.54 (CI 1.28 – 1.85; p&lt;0.001) <ul style="list-style-type: none"> <li>• Uncontrolled and controlled Relative Risks (both adjusted for other pregnancy outcomes)</li> </ul> </li> <li>□ Major depression 2.04/ 1.58 CI sig 1.54/1.31 CI ns</li> <li>□ Anxiety disorder 2.10/ 1.55 CI sig 2.72/2.13 CI sig</li> <li>□ Suicidal Ideation 2.07/ 1.35 CI ns 2.26/1.61 CI ns</li> <li>□ ADS 1.89/ 1.19 CI ns 5.33/2.88 CI sig</li> <li>□ Substance abuse 6.64/ 3.56 CI sig 4.82/2.85 CI sig</li> <li>□ Overall 1.49/ 1.37 CI sig p&lt;0.001</li> </ul>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p> <p>We have now reversed the odds ratios to ensure they are consistent with the remainder of the review and to avoid confusion.</p> <p>We have not discussed the findings of the original paper as the comparison group used did not meet the eligibility criteria for the review.</p>

					<p>1.48/1.32 CI sig</p> <p><input type="checkbox"/> All of these are significant as per 95% CI</p> <p>However in the live birth groups there was no significant increased risk of mental illness in either wanted or unwanted groups. :</p> <p><input type="checkbox"/> Wanted: RR 0.91 (0.75 – 1.09; p&gt;0.30)</p> <p><input type="checkbox"/> Unwanted: RR 1.18 (0.91 – 1.53; p&gt;0.20)</p> <ul style="list-style-type: none"> <li>• This study shows increased risk of various mental health problems post-TOP, which persists through control for other pregnancy outcomes, control for covariates and through the 5-year lagged model</li> <li>• Overall 30% increase in risk of mental health problems</li> <li>• So it seems truly bizarre that the review group have failed to quote any of this peer reviewed data while they have proceeded to state the result of their own un-peer reviewed analysis and have not even stated how they did that analysis. We are not sure that this is really in line with good practice in writing reviews.</li> </ul> <p>For their part, the review group state on page 78 (section 5.4.2.5) that the Fergusson 2008 study does not find an increase in the number of mental health problems ((RR 0.79, CI 0.51-1.23 ) nor of substance misuse. This is based upon their own analysis using a method that they have not disclosed and which has not been submitted to peer review. Their conclusion is, more or less, the opposite of the published conclusion.</p> <p>In short, without stating how they did their analysis, they have discarded the published data and replaced it with one analysis of their own. Given that their evidence contradicts the evidence in the paper, they must provide more data and rationale to explain their use of a study to make an opposite conclusion.</p>	
5.4.2.5	78	21-26	Christian Medical Fellowship	31/36	<p>The authors state that they received additional figures from Fergusson, leading them to <b>reanalyse Fergusson 2008</b> data and reach a conclusion that is different to his published paper. However the authors <b>do not provide these new figures</b>, nor describe how the new analysis was undertaken, and nor do they state what the original findings clearly showed. Since this new 'evidence' actually <b>contradicts</b> the original evidence in the</p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p>

					<p>Fergusson paper, more rationale must be provided to explain this conclusion, along with the new and original 'evidence'. This is an important point to rectify as Fergusson's 2008 findings have been widely cited to indicate a higher relative risk for those having an abortion.</p> <p>[The original paper states: "...women exposed to induced abortion had risks of mental health problems that were about 30% higher than women not exposed to abortion." Fergusson, D. et al, 2008]</p>	<p>We have now reversed the odds ratios to ensure they are consistent with the remainder of the review and to avoid confusion.</p> <p>We have not discussed the findings of the original paper as the comparison group used does not meet the eligibility criteria for the review.</p>
5.4.2.5	78	21-24	Dept of Adult Psychiatry, University College Dublin	15/26	<p>The overall number of mental health problems was measured by Fergusson in his study. He identified a significantly higher number of mental health problems for both the concurrent (RR 1.38 CI 1.17-1.63) and lagged (RR 1.32 CI 1.05-1.67) models in those exposed to abortion while the association was not significant in the birth and never pregnant groups. It is unclear why the reviewers recalculated his data. The calculations, along with the explanation should be shown, and the discrepancy between their results and Fergusson's findings discussed. The phrase used by the writers of the review "<i>figures were provided by the author which informed this analysis</i>" is somewhat dubious. Do they mean that the author provided data to allow a reanalysis or something else?</p> <p>It is striking that the authors of this review accepted the use of risk ratios in the Gilchrist study, also a cohort study, but did not in the Fergusson study and recalculated the data so as to obtain odds ratios. More transparency is required to explain this discrepancy in approach to the two studies.</p> <p>This points to the need for greater transparency in how decisions were made about re-analysis and also in relation to assigning quality measures to papers.</p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p> <p>We have now reversed the odds ratios to ensure they are consistent with the remainder of the review and to avoid confusion.</p> <p>We have not discussed the findings of the original paper as the comparison group used does not meet the eligibility criteria for the review.</p> <p>The re-analysis was not concerned with the use of relative risk but with the comparison group used. We have used the relative risks in the Gilchrist studies to approximate odds ratios (this has been made explicit) as the relative risks are for rare events, therefore we equal the odds ratios.</p>
5.4.2.5	78	21-26	Individual 16	25/33	<p>The conclusion reached from the re-analysis of Fergusson's 2008 data is different from the conclusion in the published paper! This requires much greater explanation. <b>Details of the new data provided for the re-analysis, and of the re-analysis itself, is</b></p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the</p>

					<b>essential here.</b>	inclusion criteria due to the comparison group used. We have not discussed the findings of the original paper as the comparison group used does not meet the eligibility criteria for the review.
<b>5.4.2.5</b>	78	21-26	Right to Life	7/8	<p>The document states that Fergusson (2008) “indicated that women who had an abortion were not at an increased risk of a higher number of mental health problems compared with those who deliver an unwanted pregnancy”. That is in fact a different conclusion to the paper referred to, but is justified on the grounds that “figures were provided by the authors which informed this analysis”. These new figures are not, however, provided in the document, not is any description given of how this analysis took place. Additionally, the original findings of the paper are not explicated. It would obvious that, given that this new data contradicts the findings of the original Fergusson paper, a truly transparent analysis would give not only the methodological reasons that would explain the conclusions come to, but a presentation of the newly-provided data and original evidence for comparison. The fact that this is not provided is a further lack of transparency.</p> <p>Moreover, did the authors of the document invite Fergusson submit on their findings on the new figures? If so, it should be included in their final document. If not, why not?</p>	<p>Thank you for your comments. We have now made it very explicit that data were obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used.</p> <p>We have not discussed the findings of the original paper as the comparison group used does not meet the eligibility criteria for the review.</p>
<b>5.4.2.6</b>	78	28	Catholic Medical Association (UK)	33/50	<p>Use of the Gilchrist data to set out a protective effect of abortion against psychosis. Data in fact shows a 2.5 fold excess in psychiatric admissions between 3 months and one year after abortion and is therefore very inconclusive.</p> <p>We are concerned that the RR and CI quoted by the review group (0.3 (0.2-0.4) is not the same as that in the original Gilchrist paper RR = 0.4, (CI = 0.3-0.7). The data is acknowledged as being of poor quality. Gilchrist et al specifically (and rightly) set out how poor much of the GP data was. The diagnostic classification used is ICD-8 and it is clear that if most cases were mild, many may well have not been psychotic. Therefore to use this paper as evidence of protection against psychosis may be unwise. The study comes from a time when many GP’s probably classified “baby blues” or mood disorders</p>	<p>Thank you for your comment. We have checked the data reported for Gilchrist to ensure it is consistent with what is reported in the paper for the correct comparison. We have also included an indirect comparison for those with an unwanted pregnancy who were denied an abortion.</p> <p>We agree that there are a number of limitations with the findings and have made these more explicit in the review.</p> <p>Throughout the review we are extracting and synthesising the data available in the original</p>

				<p>following childbirth as puerperal psychosis.</p> <p>But more importantly, the rates quoted include puerperal psychosis which affected only women from the childbirth group. Gilchrist tells us that puerperal psychosis was frequently rated as mild and we know that this is a transient disorder with a good prognosis anyway. Not only that, the inclusion of events that will normally have occurred within the first three months after birth, is contrary to the agreed methodology for this study. The Review Group specifically set out to exclude the first three months post abortion or childbirth. But this study includes data from that first three months and despite all this uncertainty, the effect noted survives to form one of the only two positive conclusions in this section (page 81 line 46)</p> <p>Worse still, if you apply the review groups method of excluding the first three months of mental disorders post abortion it is stated in the text of the paper that in the group of women without a previous psychiatric history who gave birth only 2 women (rate 0.28/1000 deliveries) developed a psychosis between 3 months and one year. In the group that underwent abortion 5 women (rate 0.76/1000 terminations); became psychotic during that time period. These numbers are tiny and therefore not really of note, and it might be argued that we have fixed these results by excluding data from the first three months after the abortion. If, contrary to the design of this review, you include the first three months after abortion, data rates are 1.02/1000 deliveries post delivery and 0.93/1000 post termination. But, according to the eligibility criteria set by the Review Group this paper shows a 2.5 fold increase in psychiatric admission after abortion, compared to child birth, even after controlling for wantedness etc.</p> <p>Therefore, the conclusion that abortion may protect against psychosis is unsafe and not supported by the published evidence.</p> <p>Nevertheless it is clear to us that if that data was used to suggest that there is an odds ratio of 2.5 for increased admission to hospital with psychosis between 3 months and a year after abortion, such a conclusion would also be unsafe given the small numbers involved. But it is equally clear that to use the published evidence to suggest that abortion may reduce psychosis and to use that conclusion in the final summary of the report is no less</p>	<p>papers and therefore cannot go beyond what the original authors report.</p> <p>We have not stated that abortion protects against psychosis, instead we have stated that there was a significantly lower risk of psychosis within the abortion groups when compared with both unwanted and unplanned pregnancies.</p> <p>We feel we have adequately discussed the problems and limitations of the psychosis finding within Section 4 of the review.</p>
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				<p>unsafe and inappropriate.</p> <p>Notwithstanding the evidence of an increased admission rate for psychosis between 3 months and one year in the abortion group, we would say that the review group has overstated the relevance of this data, given the insufficient information to enable the identification of truly psychotic episodes.</p> <p>We do note that Gilchrist data did concur with other studies in terms of increased risk of self harm post abortion even after wantedness was controlled for.</p>		
5.4.2.6	78	29-38	Elliot Institute, Springfield, Illinois, USA	69/87	<p>Regarding Gilchrist's finding of reduced rate of psychosis associated with abortion, this section is very is very misleading and overstates the data and gives the misleading impression that meaningful conclusions can be drawn from it.</p> <p>The data reported in Gilchrist regarding psychosis is not reliable, as indicated by the authors who state "There was insufficient information to enable the identification of truly psychotic episodes (p244)"</p> <p>The only objective means of evaluating this report is to use the criteria of hospital admissions for psychosis, which Gilchrist reported. Only 7 women who delivered and 6 women who had abortions were hospitalized for psychosis during the first 12 months after pregnancy outcome (p245). These numbers are very small and the slight difference in hospitalization rates psychosis was not statistically significant (Odds Ratio 1.09, 0.33 - &lt; OR &lt; 3.65, p=.88).</p> <p>It is odd that this review has recalculated a number of odds ratios, but in this case the authors, in lines 34-38, report "higher" rate of psychosis following delivery and, relying on Gilchrist, state "no statistical comparison was provided."</p> <p>The structure of this section gives us the uncomfortable feeling that this section was couched in terms intentionally intended to imply that there is meaningful evidence that abortion reduces the risk of psychosis. At best, given the data limitations, Gilchrist's report indicates that this is an area deserving further investigation.</p> <p>Given the above issues, we suggest this section be re-written as follows:</p>	<p>Thank you for your comments. We have checked the data reported for Gilchrist to ensure it is consistent with what is reported in the paper for the correct comparison. We have also included an indirect comparison for those with an unwanted pregnancy who were denied an abortion.</p> <p>We agree that there are a number of limitations with the findings and have made these more explicit in the review. In particular we have added reference to the small sample size, low statistical power and the fact that many cases did not lead to admission, within this section of the review. Consequently, we feel we have adequately discussed the problems and limitations of the psychosis finding within Section 4 of the review.</p>

					<p>Gilchrist reported there was insufficient information to enable the identification of truly psychotic episodes. Given this caveat, however, GP's reported that women who aborted were 70% less likely to have psychosis in the first 12 months following pregnancy outcome compared to women delivering an unplanned pregnancy. About half of the cases reported among delivering women were coded as "puerperal psychosis." Examination of the records indicated many of the events were mild.</p> <p>Using hospitalization as a standard for comparing rates of serious psychotic episodes, only 7 women who delivered and 6 women who had abortions were hospitalized for psychosis during the first 12 months after pregnancy outcome. The slight difference in hospitalization rates for psychosis was not statistically significant (Odds Ratio 1.09, 0.33 - &lt; OR &lt; 3.65, p=.88).</p>	
5.4.2.6	78	30-31	Dept of Adult Psychiatry, University College Dublin	16/26	<p>This details the study of psychosis in the Gilchrist paper and says that <i>"women in the abortion group were 70% less likely to experience a psychotic illness than those in the delivery group.</i> It goes on to say that further study focussed on those needing hospital admission. The comment overplays the strength of this analysis since the authors of the paper itself (end of page 244) states that <i>"examination of the reports supplied by the general practitioners suggested that many of these events were mild and there was insufficient information to enable the identification of truly psychotic episodes, but we were able to determine the number of psychoses which led to hospital admission"</i> and in this there was no difference between those. In essence you have overestimated the size of the risk by using relative risk as compared to absolute risk (O'Mathuna 2010). The discussion of 6,2,3 should reflect the serious uncertainty concerning whether these people had psychosis or not.</p> <p><b>Ref.</b> O'Mathúna DP. Checking the numbers. International Journal of Nursing Practice 2010; 16(6): 635-639.</p>	<p>Thank you for your comments. We have checked the data reported for Gilchrist to ensure it is consistent with what is reported in the paper for the correct comparison. We have also included an indirect comparison for those with an unwanted pregnancy who were denied an abortion.</p> <p>We agree that there are a number of limitations with the findings and have made these more explicit in the review. In particular we have added reference to the small sample size, low statistical power and the fact that many cases did not lead to admission, within this section of the review. Consequently, we feel we have adequately discussed the problems and limitations of the psychosis finding within Section 4 of the review.</p>
5.4.2.8	79	1	Individual 10	3/5	<p>The leading error in the Gilchrist study was the classification of Deliberate Self Harm (DSH). No one can know what this means, but placing DSH, which in theory can legitimately include an attempt at hanging to an attempt at overdosing on 10 aspirin</p>	<p>Thank you for your comments. Throughout the review we are extracting and synthesising the data available in the original papers and therefore cannot go beyond what the original</p>

					places the interpretation of this study in question. Further, the GILCHRIST 1995 study notes a 70% increase in Deliberate Self Harm among those who requested and obtained an abortion, which neither the APA nor the Charles reports mentioned. Important evidence is simply being stored in an unlucky dip	authors report.
5.4.2.8	79	3-6	Dept of Adult Psychiatry, University College Dublin	17/26	This was studied in the Gilchrist study and a significant increase in the risk of self-harm (RR 1.7, CI 1.1-2.6) was identified although the confidence intervals were stated to be wide. While the wide confidence intervals are a limitation this is still a statistically significant finding albeit one with a degree of uncertainty attached also.	Thank you for your comment. We have amended the text to accurately reflect the evidence; we have also been able to use data from the 'unwanted pregnancy but denied an abortion' group to obtain data for deliberate self-harm.
5.4.2.8	79	3-6	Mount Joy College, Victoria, British Columbia, Canada	90/103	The authors have a persistent tendency to state that the confidence intervals are wide if they don't like the evidence presented. The rules of research state that a researcher must set what will be accepted as significant probability and confidence levels as part of the design prior to collecting any data. Once those levels are reached, the researcher will acknowledge the findings as significant whether or not he/she likes them. Yes, it is arbitrary but so is almost everything in this field of	Thank you for your comments. Throughout the review we have stated that the confidence intervals are often wide and that the estimate of the effect is consistent with a positive or negative effect. This is also taken into account in the GRADE process whether the findings is negative or positive.
5.4.2.8	80	Table 17	Christian Medical Fellowship	32/36	This table compares like with like groups. It reveals weak evidence of a higher risk of anxiety disorder and self-harm outcomes for women post-abortion. It also shows weak evidence of higher risk of psychotic illness for women post-birth than post-abortion (but see our comment on p81, line 37-40). Whilst only weak evidence, the authors should not conclude, page 81, line 38, that 'there is no evidence of elevated risk of mental health problems' post-abortion if they feel able to conclude that there is 'some evidence of lower rates of psychotic illness' post-abortion. As it stands, this evidence statement thus favours (cites) only the one outcome that demonstrates a positive effect (post-birth) whilst ignoring the two outcomes that show a negative effect (post-abortion). The evidence statement should be amended to either state: 'there is some evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those who	Thank you for your comments. We have now amended the evidence statements and text to read 'insufficient evidence' or 'no statistically significant effect' rather than no effect where appropriate. We feel the evidence statements accurately reflect the best available evidence.

					deliver a pregnancy' OR, there is no evidence for an elevated risk for either.	
5.4.3	80	10	Elliot Institute, Springfield, Illinois, USA	70/87	<p>Somewhere, perhaps in this section, there should be a discussion and review of information regarding adjustment to an unintended pregnancy carried to term.</p> <p>The claim that women will be harmed by refusing an abortion that may be contraindicated is an ideological assertion that is not supported by any substantial research.</p> <p>Human beings are remarkably resilient in adjusting to the presence of their children. In fact, research has shown that women who have been denied abortion will frequently claim in retrospect that they never really wanted an abortion in the first place and that they are happy that their children were born. (See Born Unwanted: Developmental Effects of Denied Abortion (H.P. David et al., eds.,1988). Research also shows that the affection women have for their children does not appreciably differ with regard to wantedness of the pregnancy or even if an abortion had been sought. (See P. Cameron &amp; J.C. Tischendor, The Swedish 'Children Born to Women Denied Abortion' Study: A Radical Criticism, 39 Psychol. Rep. 391 (1976) citing Rocky Mountain Psychol. Ass'n, Albuquerque, N. M., May 12, 1972.)</p> <p>It was perhaps for this very reason that Aleck Bourne (whose trial for an illegal abortion in 1938 sparked the trend toward the liberalization of abortion laws in Britain, if not the world), expressed his opposition to legalized abortion in a 1967 interview, saying that "Abortion on demand would be a calamity for womanhood. . . . I've had so many women coming to my surgery and pleading with me [sic] to end their pregnancies and being very upset when I have refused. But I have never known a woman who, when the baby was born, was not overjoyed that I had not killed it." (Valentine Low, The Rape that Really Changed Our Minds about Abortion, in Evening Standard (London), Feb. 28, 1992, at 20)</p> <p>In short, while an unplanned pregnancy will certainly change a life, and include many stresses, especially if a woman must raise the child without adequate social support, there is substantial evidence that the psychological benefits of being a parent outweigh the costs. By contrast, there is a dearth of evidence that the psychological benefits of abortion, if any, outweigh the</p>	Thank you for your comments. Unfortunately this is beyond the scope of the present review, which was to assess the scientific evidence for the impact of induced abortion on mental health outcomes.

					costs.	
5.4.3	80	22	Individual 9	17/25	Spelling of <i>subsequent</i>	Thank you, this has been amended
5.4.3	81	8	Church Of England: Mission and Public Affairs Council	4/11	The point made at 5.1 is acknowledged after a fashion at this point but the review then fails to make a distinction between unwanted and unplanned pregnancies in presenting its Evidence Statements (5.5)	Thank you for your comments. We have now made the differences in findings between unwanted and unplanned pregnancy more explicit within the findings and conclusions of the review.
5.4.3	81	14	Church Of England: Mission and Public Affairs Council	5/11	The fact that only one study on unwanted pregnancy, classified as 'fair' is included in the review makes any conclusions based on this study of limited value. Similarly, of the three studies on unplanned pregnancies, one was classified as 'poor', another as 'fair' and only one as 'very good', limiting the value of conclusions based on these studies	Thank you for your comments. We agree that this is a limitation of the evidence base, and have consequently suggested and recommended that more longitudinal prospective research is conducted into mental health, unwanted pregnancy and abortion.
5.5	81	4-10	Mount Joy College, Victoria, British Columbia, Canada	91/103	The authors are inconstant in their use of unwanted/unintended. When they wish, they use them interchangeably to give higher grading to findings they approve. When they don't like the evidence, they make a point of again writing, "an unplanned pregnancy is not the same as an unwanted pregnancy". Can they not understand, there is no scientific validity to this concept?	Thank you for your comments. We have now made the differences in findings between unwanted and unplanned pregnancy more explicit within the findings and conclusions of the review.
5.5	81	29-47	Christian Medical Fellowship	33/36	The quality of the evidence was graded very low by the reviewers so the evidence statements should more clearly reflect this <b>lack of validity and reliability</b> .	Thank you for your comments. Each evidence statement has started with a summary of the limitations of the evidence. Within the conclusion we have stated how these problems with the evidence base limit the conclusion of the review. Consequently we have recommended that more longitudinal prospective research is conducted into mental health , unwanted pregnancy and abortion.
5.5	81	29-47	Elliot Institute, Springfield, Illinois, USA	77/87	The following evidence statements should be added: <ul style="list-style-type: none"> <li>• There is evidence of a dose effect, with women who have two or more abortions being more likely to have mental health problems associated with abortion compared to delivering women. (Steinberger2008)</li> <li>• Compared to women who deliver, overall rates of psychiatric contact are higher among women who have abortions, both before they have abortions and after they have an abortion.</li> </ul>	Thank you for your comments and suggestions. We have amended the evidence statements where appropriate to read:  '1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of

				<p>There is conflicting evidence, or an absence of evidence, regarding the question of whether subsequent mental health problems are caused by, aggravated by, or alleviated by abortion. but there treatment rates are higher than for women who do not</p> <ul style="list-style-type: none"> <li>• A history of abortion is a diagnostic marker for higher risk of mental health problems compared to women without a history of abortion.</li> <li>• None of the studies comparing mental health of women who have abortions to women who carry to term identify any mental health benefits for women who have abortions, in general, or for any identifiable subset of women.</li> <li>• Where studies control for whether or not the pregnancy was planned or wanted, there is no statistically validated evidence that abortion reduces the risk of mental health problems compared to women who do not terminate their unplanned or unwanted pregnancies.</li> <li>• None of the statistically validated research done to date has identified any subset of women who, prior to becoming pregnant with an unintended or unwanted pregnancy</li> <li>• Among women who may have a pre-existing higher risk of mental health problems, there appears to be at least a continuing higher risk of mental health problems following an abortion. For at least some conditions and some subset of women, there is evidence that the risk of mental health problems may be elevated after an abortion.</li> <li>• There are no statistically validated criteria for identifying women who will face less mental health risks if they have an abortion than if they continue the pregnancy to term.</li> </ul>	<p><i>comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</i></p> <p><i>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</i></p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p><i>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</i></p> <ul style="list-style-type: none"> <li>• <i>there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</i></li> <li>• <i>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</i></li> <li>• <i>there was some evidence of lower rates of psychotic illness for women following abortion.</i></li> </ul> <p><i>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</i></p> <p><i>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</i></p> <ul style="list-style-type: none"> <li>• <i>those who have an abortion have</i></li> </ul>
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						<p><i>significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</i></p> <ul style="list-style-type: none"> <li><i>for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</i></li> <li><i>for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</i></li> </ul> <p><i>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</i></p> <p><i>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</i></p> <p><i>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</i></p> <p>However we feel that many of your suggestions are beyond the scope of the review and/or go beyond the evidence provided.</p> <p>Within the conclusion we have suggested that people with previous mental health problems, distress or negative reactions to an abortion are provided with support and monitoring</p>
5.5	81	31	Individual 12	7/8	should be numbered 1 and then other statements numbered consecutively?	Thank you this has been amended.
5.5	81	31	Catholic Medical Association (UK)	9/50	<p><b>Recommendation</b></p> <p>We therefore suggest that, from the published data, evidence based conclusions should be amended as follows.</p> <p><b>Question 3</b></p>	<p>Thank you for your comments and suggestions. We have amended the evidence statements where appropriate to read:</p> <p><i>"1. The evidence for this section of the review was</i></p>

				<p><b>Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth?</b></p> <ol style="list-style-type: none"> <li>1. There is considerable evidence that there are increased risks of psychiatric treatment, admission, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth.</li> <li>2. There is considerable concern about the use of the term wantedness, which is a changeable dimension that is hard to measure and which may ensure, when stringently used, that outcomes in women who continue with an unwanted pregnancy may appear particularly poor.</li> <li>3. Where studies do control for whether or not the pregnancy was wanted, evidence is conflicting, but studies do indicate some effect in terms of increased risks of anxiety, self harm and psychiatric illness.</li> <li>4. Data from all outcomes is still limited by a number of factors including a lack of comparable data across a range of diagnostic categories and also by adequate control of confounding factors.</li> <li>5. Most of all, determining causation of effects is complex.</li> <li>6. Although there is evidence of increased risks of mental disorder after abortion, even when this is controlled for previous mental health, there is very little evidence of any protective effect of abortion upon subsequent mental health.</li> </ol>	<p><i>generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</i></p> <p><i>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</i></p> <ul style="list-style-type: none"> <li>• <i>there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</i></li> <li>• <i>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</i></li> </ul> <p><i>3. 3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</i></p> <ul style="list-style-type: none"> <li>• <i>there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</i></li> <li>• <i>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</i></li> <li>• <i>there was some evidence of lower rates of psychotic illness for women following abortion.</i></li> </ul>
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						mental health or to assess the benefits of abortion.
5.5	81	31-45	Elliot Institute, Springfield, Illinois, USA	71/87	For this and other sections titled "Evidence Statements" greater care must be taken in regard to summary statements that will be reported and read without close attention to details in other parts of the review. Specific recommendations will be discussed below	Thank you for your comments and suggestions. We take all suggestions and recommendations from consultation seriously and have amended the text where appropriate.
5.5	81	31-45	Elliot Institute, Springfield, Illinois, USA	73/87	<p>The opening paragraph does not sufficiently put these evidence statements into the limited context of the studies examined. In addition, it is unclear why the first statement is not enumerated. In our opinion, a new prologue paragraph should be added that reiterates that this section is limited to qualifying studies comparing women who have abortions and those who carry to term. Also, the first evidence statement, in an expanded form, should be enumerated and revised as follows:</p> <p><b>5.5 Evidence Statements</b></p> <p>The following statements summarize key findings of those studies meeting the tests for inclusion in this review which compare women who have abortions to women who carry a pregnancy to term.</p> <p>The studies reviewed that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric in-patient and out patient treatment, suicide, sleep disorders, bipolar disorder, adjustment reactions, some forms of depression, and substance use for women who undergo abortions compared with those who deliver a live birth.</p>	Thank you for your comments. This was an error which has now been amended. The problems with the evidence base have been added as the first evidence statement and further reflected up on in the conclusion (see Section 2.3).
5.5	81	31-35	Dept of Adult Psychiatry, University College Dublin	18/26	This paragraph should be evidence statement 1 since it covers studies discussed in section 5.3 and is the answer to the question in section 5.1, lines 9-11.	Thank you for your comments. This has been amended and added as the first evidence statement.
5.5	81	34-35	Elliot Institute, Springfield, Illinois, USA	72/87	<p>Even in regard to the limited number of studies it references, the statement "Findings for depression, anxiety disorders and PTSD did not indicate an increased risk" is false and does not accurately reflect even the findings selected for presentation in the current draft of sections 5.3.x.x.</p> <p>For example, 5.3.2.3 identifies that your reanalysis of Pedersen found depression was significantly higher for women 21-25. Significantly higher depression rates were also reported in</p>	<p>Thank you for your comments. We have now amended the evidence statements to read:</p> <p>There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <p>there are increased risks of psychiatric treatment, suicide and substance misuse for women who</p>

				<p>Reardon2003, thought this finding was omitted from the discussion.</p> <p>Similarly, 5.3.2.4 reports Steinberg finding significantly higher rates of anxiety for women with multiple abortion and for those who had given birth to their first pregnancy and aborted a subsequent pregnancy. Significantly higher anxiety rates are also reported by Coleman2002A, though this was omitted from the discussion.</p> <p>While it is true that none of these studies had statistically significant findings regarding PTSD, most did not explore this diagnosis or had such small numbers that it would be inappropriate to offer as a major conclusion of this review that the claimed association between PTSD and abortion (Major2000) does not exist.</p>	<p>undergo abortions</p> <p>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</p> <p>The text has been amended to clarify that we are referring to a lack of statistically significant effects. This has also been clarified throughout the findings sections of the review.</p>
5.5	81	37-40	Christian Concern, UK	<p>6/7</p> <p><b>Evidence Statements for Question 3 (para 5.5):</b></p> <p><b>Evidence Statement 1:</b></p> <p>The statement on page 81, lines 37-40, that there is “<i>some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy</i>” is not an accurate reflection of Gilchrist’s 1995 research findings, which were not as concrete as the statement suggests. Rates of psychosis are exaggerated.</p> <p>The indication that there is “<i>NO evidence of an elevated risk...</i>” is incorrect. This conclusion is in stark contradiction to the research findings which have linked poor mental health with abortion (such as the findings of Fergusson, which demonstrate that mental health disorders are more prevalent amongst post-abortive women). In fact, all four studies showed the existence of mental health problems amongst women who have had an abortion. Furthermore, Table 14 also demonstrates higher levels of drug and alcohol abuse and suicide in post-abortive women, when compared to those who continue with their pregnancy. The conclusion that there is “NO evidence” misrepresents the true position and must be amended to reflect research findings.</p> <p><b>Evidence Statement 3:</b></p> <p>Statement three at page 81, line 47 again <b>contradicts research findings</b>. Whilst Coleman stated that “women who had an abortion were significantly more likely to receive outpatient</p>	<p>Thank you for your comments. We have now amended the evidence statements to better reflect the findings of the review. Where appropriate we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.</p> <p>The evidence statements for this section now read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p>

				<p>psychiatric treatment up to 4 years later”, the conclusion drawn is inconsistent with this statement (p68, line 20). This must be corrected.</p>	<p>there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</p> <p>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</p> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <p>there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</p> <p>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</p> <p>there was some evidence of lower rates of psychotic illness for women following abortion.</p> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <p>those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</p> <p>for those who have an abortion, rates of</p>
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						<p>psychiatric contact after an abortion are no greater than before the abortion</p> <p>for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</p> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</p>
5.5	81	37-40	Christian Medical Fellowship	34/36	<p>Note our comments on Table 14, p73 above. Despite the limitations of the evidence, which are detailed in the review on p73-74, Table 14 clearly shows that the risks of many mental disorders are <u>increased</u> in women who have abortions, compared to those giving birth. Therefore <b>this does not justify the claim in evidence statement 1 (p81 line 38) that there is '...no evidence of elevated risk of mental health problems...'</b>. We are highly concerned about this statement which does not reflect the evidence.</p>	<p>Thank you for your comments. As stated in response to your previous comments we have now amended the text throughout the review to better reflect the findings of the review and reduce the chance of misinterpretation. Where appropriate we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.</p>
5.5	81	37-40	Christian Medical Fellowship	36/36	<p>The evidence used in statement one is selective and conflicting in also <b>ignoring Steinberg and Fergusson's findings</b>. Steinberg found increased risks for multiple abortions, although not for one. Fergusson 2008 clearly found higher mental health problems for those exposed to abortion. (see comments on p78 above. '<i>... exposure to abortion was associated with significant increases in risks of mental health problems</i>'. Fergusson 2008 p.449).</p> <p>Indeed, of the four studies selected, all four found some mental</p>	<p>Thank you for your comments. We have now amended the evidence statements to not only reflect the uncertainty within the evidence but to better and more accurately reflect the findings. In particular we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.</p>

				<p>health problems post-abortion. The other two found increased self-harm (Gilchrist) and anxiety (Cougler). Hence it is <u>all the more inaccurate and misleading to claim in the 'evidence' statement claims that there is "NO evidence of an elevated risk..."</u></p> <p>The statement should include words to the effect that there is a relationship between abortion and mental health problems identified by several studies. At the very least, there is <b>uncertainty</b> with the analysis, and <b>conflicting</b> evidence, which must be stated very clearly in the evidence statement.</p> <p>As this evidence statement one stands, it is misleading and open to misinterpretation by those less familiar with the research findings.</p>		
5.5	81	37-40	Dept of Adult Psychiatry, University College Dublin	19/26	<p>This should be evidence statement 2 as it covers studies discussed in 5.4. We suggest amending this statement to read as follows: <b>"Where studies control for whether or not the pregnancy was planned there is conflicting evidence concerning the risk of mental health problems with 1 study (Steinberg) showing an increase in anxiety disorders after a second but not a first abortion, another found an increase in anxiety (Cougler), while another has shown an increase in anxiety, illicit substance misuse and number of mental health problems (Fergusson 2008) although this varied with the statistical analysis. One study suggested a lower rate of psychosis in those having abortions but there is uncertainty about the accuracy of this diagnosis Gilchrist) and numbers were very small. Among those requiring psychiatric admission for psychosis there was no difference"</b>.</p>	<p>Thank you for your comments. We have now conducted a limited meta-analysis using the results of the four studies that controlled for pregnancy intention. We have reviewed all of the data for multiple abortions within the risk factors section but found limited and contradictory results depending on the confounder variables controlled for. We have amended the evidence statements where appropriate and have distinguished between no effect and a lack of statistically significant effect, or limited evidence.</p>
5.5	81	37-40	Elliot Institute, Springfield, Illinois, USA	74/87	<p>The first fact statement is doubly misleading, both in the first part 37-38 and the second part, 39-40.</p> <p>Despite more nuanced discussion in the body of the report, this summary statement would almost certainly be misinterpreted by some in the media and translated into the headline: "There is no evidence abortion increases mental illness." The second part might even inspire claims that "Abortion is beneficial in reducing rates of psychotic illness."</p> <p>In regard to studies comparing to a control group of women delivering unplanned pregnancies, it is grossly inaccurate to state</p>	<p>Thank you for your comments. We were not assessing the benefits of abortion for mental health outcomes. Instead we have merely reported the evidence as extracted from the studies. Within the evidence statements we do not claim that abortion has benefits in terms of psychotic illness. We have discussed this further in the conclusion and noted that the evidence for all outcomes is of poor quality.</p> <p>We have amended the evidence statements where appropriate and have distinguished</p>

				<p>that there is “no evidence of elevated risk of mental health problems” among women who abort (emphasis added).</p> <p>Even with the limited studies reviewed, Table 16 shows that 9 out of 13 findings have an odds ratios indicating higher risk of mental health problems after an abortion, and three of these are statistically significant (anxiety, self-harm). Three statistically significant findings certainly constitute evidence of increased mental health risk. Therefore, the phrase “no evidence” has no place in this conclusion.</p> <p>In addition, lack of statistical significant for the other six with higher OR (anxiety, suicidal ideation, alcohol dependence, and number of mental health treatments) may be due to inadequate sample size. Higher odds ratios with wide and insignificant confidence intervals should not be characterized as “no evidence.” The positive OR at least warrants words of caution and a call for more research, especially in light of all of the other studies which, though lacking a control group of women delivering unplanned pregnancies, show a consistently high rates of psychological issues associated with abortion. Again, the phrase “no evidence” should not be used.</p> <p>Moreover, this review includes only four studies comparing women who have abortions to women who carry unintended pregnancies to term.</p> <p>In Coleman’s 2011 meta-analysis, in press, three additional studies are identified that use unintended pregnancies that are delivered as control groups: Coleman2006, Reardon 2004, Schmiede 2005.</p> <p>In addition, combined with the studies identified in this review, Coleman identifies 13 outcomes tested, all of which had odds ratios showing a higher rate of negative outcomes relative to women who aborted, of which seven were statistically significant. Again, this affirms that it is an untrue and misleading to suggest that there is “no evidence” of higher rates of negative reactions.</p> <p>See: Coleman PK. Resolution of Unwanted Pregnancy during Adolescence through Abortion versus Childbirth: Individual and Family Predictors and Consequences. J Youth Adolesc 2006; 35: 903-911.</p>	<p>between no effect and a lack of statistically significant effect, or limited evidence.</p> <p>We have now conducted a limited meta-analysis based on these four studies. Please see Section 4.3 for further details. We have collated and assessed all of the references included in the Coleman paper to ensure that we have not missed any eligible papers. Many of the papers included in the Coleman review (as highlighted in Section 1.4 of the introduction) failed to adequately control for previous mental health problems and therefore were not eligible for this section of the review.</p> <p>Our aim is to accurately reflect the scientific data as reported within the papers and our analysis. It is not our aim or intention to over or understate any of the results within the review. Throughout the review we have been very careful to ensure that the limitations of the data set and evidence base as a whole are explicitly stated. Within the conclusion we have made it clear that these limit the generalisability of the results and make interpretation of the data problematic. Consequently we have made a number of recommendations, including one for further research to be conducted.</p>
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				<p>Reardon DC, Coleman PK, Cogle J. Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study. Am J Drug Alcohol Abuse 2004; 26: 369-383.</p> <p>Given the evidence that there are at least some conditions where there are significantly higher rates of disorders, the fact statement should be revised to read:</p> <p>Where studies control for whether or not the pregnancy was planned or wanted, there is evidence of elevated risk of anxiety, substance use, and self-harm.</p> <p>In regard to the second part of the statement, 39-40, as we discussed earlier (regarding 5.4.2.6) the statement that there is “some evidence of lower rates of psychotic illness among women who have an abortion” clearly relies on ambiguous and statistically insignificant data reported by Gilchrist. The choice to “cherry pick” and highlight this “evidence” gives the appearance of trying to find something good to say about abortion’s impact on mental health when the data relied upon is clearly weak and, in regard to hospitalization rates, shows no differences.</p> <p>Any attempt to highlight this cherry picked “data point” in a summary statement gives undeserved emphasis to data which the authors themselves describe as “insufficient” to identify true psychotic episodes.</p> <p>It does not seem prudent to highlight this isolated finding in a fashion that may give the false impression that there is an actual body of evidence (meaning data from more than one single study), supporting the idea that abortion might actually be a “cure” or “prophylactic” for psychosis.</p> <p>Remember, this report will be used to educate the public both through media reports on the review and also through informed consent processes and there are politically motivated abortion proponents who will exaggerate any claim of a “benefit” from abortion far beyond what the data supports or the authors of this review can anticipate.</p> <p>Most importantly, in regard to the informed consent process and prudent medical decision making, potential risks should not be understated and potential benefits should not be overstated. This same rule of thumb should guide the preparation and</p>	
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					presentation of this review.	
5.5	81	37-40	Individual 14	9/11	The conclusion here seems very definite when other parts of the paper indicates there are uncertainties in the findings – or as in Table 14 that there do appear some positive associations.	Thank you for your comments. Our aim is to accurately reflect the scientific data as reported within the papers and our analysis. Throughout the review we have been very careful to ensure that the limitations of the data set and evidence base as a whole are explicitly stated. Within the conclusion we have made it clear that these limit the generalisability of the results and make interpretation of the data problematic. Consequently we have made a number of recommendations, including one for further research to be conducted.
5.5	81	37-40	Individual 16	26/33	Despite the limitations of the evidence, which are detailed in the review on p73-74, Table 14 appears to show that the risks of many mental disorders are increased in women who have abortions, compared to those giving birth. So when, in line 38, the authors state that there is ' <i>...no evidence of elevated risk of mental health problems...</i> ', this is at variance with the presented data. This is troubling, and smacks of predetermined views, to my eyes.	Thank you for your comments. We have now amended the evidence statements to better reflect the findings of the review. Where appropriate we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.
5.5	81	37-40	Individual 16	28/33	Notwithstanding comments on the re-analysis above, Fergusson 2008 states ' <i>... exposure to abortion was associated with significant increases in risks of mental health problems</i> '. (p.449). Also, all the 4 studies used did find some mental health problems post-abortion. So saying there is "no evidence" here is much too strong, and could cause confusion and mis-interpretation. The uncertainty of the data should be better presented.	We have now amended the evidence statements to better reflect the findings of the review. Where appropriate we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.
5.5	81	39-40	Individual 16	27/33	Please note that Gilchrist was much more cautious in interpretation of data in that paper, saying there was insufficient information to truly discern psychotic episodes, and furthermore, the number in the paper are very very small! This would not appear to support the definiteness of the statement that there is evidence of lower rates of psychotic illness post-abortion cf. in women who deliver the pregnancy	Thank you for your comments. We have checked the data reported for Gilchrist to ensure it is consistent with what is reported in the paper for the correct comparison. We have also included an indirect comparison for those with an unwanted pregnancy who were denied an abortion.  We agree that there are a number of limitations with the findings and have made these more explicit in the review. In particular we have

						added reference to the small sample size, low statistical power and the fact that many cases did not led to admission, within this section of the review. Consequently, we feel we have adequately discussed the problems and limitations of the psychosis finding within Section 4 of the review.
5.5	81	39-40	Christian Medical Fellowship	35/36	<p>The statement that there is: “<i>some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy</i>” needs amending as it <b>misrepresents Gilchrist’s actual findings</b> in the data, which are far less certain. It overstates rates of psychosis and relies on statistically insignificant data:</p> <p>Gilchrist states in her research paper that many of the episodes were actually “<i>mild</i>” and there was “<i>insufficient information to identify truly psychotic episodes</i>”. Moreover, the numbers on which this was based were very low - 7 women post-birth and 6 post-abortion. Gilchrist et al, 1995, p244.</p> <p>(Note also our comments on Table 17 above and the failure to include evidence for increases in two disorders post-abortion.)</p>	<p>We have checked the data reported for Gilchrist to ensure it is consistent with what is reported in the paper for the correct comparison. We have also included an indirect comparison for those with an unwanted pregnancy who were denied an abortion.</p> <p>We agree that there are a number of limitations with the findings and have made these more explicit in the review. In particular we have added reference to the small sample size, low statistical power and the fact that many cases did not led to admission, within this section of the review. Consequently, we feel we have adequately discussed the problems and limitations of the psychosis finding within Section 4 of the review.</p>
5.5	81	44	Elliot Institute, Springfield, Illinois, USA	75/87	<p>The statement: “Adequate control of confounding factors was shown to impact results,” should be revised.</p> <p>It is evident that not even one of the studies reviewed in this section employed “adequate control of confounding factors.” Indeed, it is still unclear what all the confounding factors may be in this very complex area of research. It would be more accurate to simply state that:</p> <p>“Results are impacted by efforts to control for confounding factors. More research is required to better understand these effects.”</p>	<p>Thank you for your comments. We have now amended this statement to read:</p> <p>‘Inadequate control for confounding factors was shown to have an impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.’</p> <p>We have also recommended that further research is conducted into unwanted pregnancies, abortion and mental health.</p>
5.5	81	46-47	Elliot Institute, Springfield, Illinois, USA	76/87	<p>Statement 3 appears to be based on an overly broad and potentially misleading representation of MunkOlsen.</p> <p>First, the unqualified statement “Rates of psychiatric contact did not increase following abortion” implies that women who seek</p>	<p>Thank you for your comments. We have now amended these statements to read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with</p>



				<p>mental health care after an abortion do not seek it more often than women who carry to term. In fact, as mentioned earlier, the evidence is strong that abortion, seeking it or a history of it, should be treated as a <u>diagnostic marker</u> for identifying women who may benefit from a referral for psychiatric counselling. Munk-Olsen does not contradict, but rather confirms this observation, but this summary statement tends to obliterate this distinction.</p> <p>Second, unless the reader has fully read and understood the rest of this report, on the face of it this sentence appears to be saying that women who give birth have elevated rates of psychiatric treatment whereas women who abort do not. In fact, as Munk-Olsen shows, women who have abortions have several fold more likely to seek psychiatric treatment – both before and after their pregnancies than women who give birth, but this important finding seems to get lost in the rush. By contrast, women who give birth have a much lower rate of prior mental health issues prior to giving birth and a modest increase following delivery which is still far below the rate of mental health problems experience by women who abort, either before or after their abortions.</p> <p>Third, Munk-Olsen reports only on rates of first psychiatric contact, not all psychiatric contact. In other words, Munk-Olsen does not report on how frequently or for how long psychiatric contact takes place for individual women. He uses only a single, first contact as a measure then tells us nothing else. Similar limitations apply to nearly all of the studies in this section. Therefore, the phrase “rates of psychiatric contact” needs additional qualification along the lines of “the rate of women having at least one psychiatric contact in the first 12 months following pregnancy outcome...”</p> <p>Fourth, by controlling for at least one year prior to pregnancy outcome, Reardon2003 found that the annual rate of inpatient treatment increased from zero to non-zero for both aborting and delivering women, with the rate for aborting women significantly higher than for delivering women overall and for many individual diagnoses.</p> <p>Unfortunately, Reardon2003 does not report outpatient treatment rates prior to the pregnancy. Nonetheless, the finding of increased rates of inpatient treatment rates makes the evidence</p>	<p>many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy: there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</p> <p>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</p> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy: there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</p> <p>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</p> <p>there was some evidence of lower rates of psychotic illness for women following abortion.</p> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when</p>
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				<p>statement as it appears inaccurate.</p> <p>To avoid misinterpretation or overgeneralization of the Munk-Olsen findings, we recommend that evidence statement #3 should be corrected to read:</p> <p>In the only available study reporting rates of outpatient treatment both prior to and following the pregnancy outcome, women who had abortions had significantly higher rates of pre- and post-outcome psychiatric contact compared to women who carried to term. After excluding women with a history of inpatient psychiatric care, this study found that rate of pre-outcome psychiatric contact during the nine months prior to abortion was not different than the rate of having at least one psychiatric contact during the first 12 months following the abortion. By contrast, rates of first time contact in the first 12 months following a delivery were significantly higher than the rate of psychiatric contact in the nine months prior to delivery, however. In this study, no comparison was made regarding the severity or frequency of contacts among those women who did seek psychiatric care after the pregnancy outcome.</p>	<p>factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <p>those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</p> <p>for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</p> <p>for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</p> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</p> <p>We hope that this amendment clarifies that the rates reported in the paper.</p> <p>As previously stated, the limitations of using first psychiatric contact specifically and medical treatment records in general have been emphasised throughout the review.</p>
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5.5	81	46-47	ProLife Alliance	7/13	The conclusion that there is an increase in psychiatric treatment following a pregnancy should be further researched to separate whether or not the pregnancy was planned because it is possible that the rate of psychiatric treatment after birth will be higher for unplanned pregnancy. Here, a distinction is needed in the statistics between planned and unplanned pregnancy.	Thank you for your comments. We agree that this is an important issue that cannot be answered at present. Therefore we have recommended that further research is conducted into unwanted pregnancy, abortion and mental health (see Section 6.3).
5.5	81	47	Individual 16	29/33	There is a contradiction between this statement and page 68 line 20 onwards.	Thank you for your comment. We are unsure which evidence statement your comment refers to. However We have now amended the evidence statements to better reflect the findings of the review. Where appropriate we have distinguished between no effect and a lack of statistically significant effect, or limited evidence.
5.5	82	4	Catholic Medical Association (UK)	37/50	<p><b>What the Munk Ohlsen study contributes.</b></p> <p>The most important point about this study is that because it is a study about referral to secondary mental health care involving just 1.5% of women per year, it is a study of severe mental illness and cannot be extrapolated more widely than that. Consequently, the use of the study to support a conclusion that “rates of psychiatric contact were found to be significantly higher in the abortion group 9 months prior to abortion” requires substantial qualification.</p> <p>The Munk Ohlsen study therefore failed to find evidence of increase rates of psychiatric referral for women who had abortions, compared to the nine months prior to abortion. Using pregnancy and subsequent childbirth as a comparator group, it is clear that women who are pregnant and give birth have remarkably low rates of psychiatric referral.</p> <p>Having used pregnancy and childbirth as a comparator group, the study may in fact merely show the protective effects of motherhood. Such a finding would also find replication in data from other studies on suicide, self harm, substance abuse and other conditions. However we should state we do not see evidence that abortion is aetiological in causing severe mental illnesses such as schizophrenia and recurrent major depressive illnesses.</p> <p>A more accurate conclusion might be.</p> <p>Munk Ohlsen studied severe mental illness in women who</p>	<p>Thank you for your comments. We have now amended these statements to read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy: there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</p> <p>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</p> <p>3. Where studies controlled for whether or not</p>

				<p>underwent abortion and those who gave birth. They did not find evidence of a significant rise in referral to secondary care mental health services after abortion , but did find that pregnant women and those who gave birth had lower rates of contact. These results cannot be generalised to mental disorders that were not referred to secondary care and thus have limited use. They reflect previous findings, from Gilchrist and others, that abortion does not appear to be aetiological in causation of severe mental illnesses such a schizophrenia, manic depressive psychosis and severe recurrent depression.</p>	<p>the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <p>there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</p> <p>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</p> <p>there was some evidence of lower rates of psychotic illness for women following abortion.</p> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <p>those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</p> <p>for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</p> <p>for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</p> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following</p>
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						<p>abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</p> <p>We hope that this amendment clarifies that the rates reported in the paper.</p>
					<b>Section 6 – Discussion and Conclusion</b>	
6			The Maranatha Community	7/8	The assertions in the conclusions are not borne out by the studies reviewed which are admittedly plagued by limitations in several areas. The body of evidence from the studies reviewed is too weak for abortion to be regarded as not constituting a huge burden on the mental health of women. I submit that no scientifically credible conclusion can be made without rigorous conduct of the studies intended and designed to investigate this potentially serious live event with grave psychological consequences in women who abort their pregnancy.	Thank you for your comment. We believe that our conclusions and evidence statements are an accurate reflection of the evidence. Throughout the review and conclusion we have been clear and explicit about the limitations of the evidence base as a whole. We have made revisions to this section to ensure that our conclusions are as clear and unambiguous as possible.
6			Individual 1	3/10	<p><b>1. Language of the discussion and conclusions section</b></p> <p>Although such a review is an entirely valid scientific exercise with implications for policy and practice, one of the reasons why reviews related to the subject of abortion continue to be considered necessary is that there is an active anti-abortion movement that has realised for some years now that re-wording and distorting complex scientific findings is a good way to create unease about abortion in the public mind. They are aided in this by sections of the media who believe they can sell papers and programmes if they report these attempts to “stir it up” as well.</p> <p>In such a context, the wording of the least scientific section of a review like this, the only part that many non-scientists are likely to be able to make sense of (i.e. the discussion and conclusions) needs to be as clearly and straightforwardly written as possible, so as not to open itself to misinterpretation and ease of</p>	Thank you for your comments and the examples you have given. In the light of comments received we have made revisions to this section to ensure that our conclusions are as clear and unambiguous as possible. We have also included a concise summary in the Executive Summary.

					deliberate disinformation. Here are some specific examples in some of the most important conclusions of the document, which seem problematic to me.	
6			Individual 12	3/8	The discussion and conclusion are clear and succinct. Could I suggest a short summary or using the conclusion/ the question and answer style component of discussion with bullet points only as a summary?	Thank you. In the light of consultees' comments, we have now included an Executive Summary.
6	83		Secular Medical Forum	10/16	We hope that the present review will state whether its evidence supports the RCOG (2004) advice for women which states "some studies suggest that rates of psychiatric illness or self-harm are higher among women who have had an abortion compared with women who give birth and to non-pregnant women of similar age. It must be borne in mind that these findings do not imply a causal association and may reflect continuation of pre-existing conditions."  If it agrees with the RCOG findings then the current review should make this clear so as to prevent confusion amongst health professionals and patients.  We also recommend that the current review states whether or not it agrees with the broad findings of the APA and Charles reviews.	Thank you. Our brief was to review the research evidence, rather than comment on guidance issued by other organisations. However, the RCOG have now revised their 2004 Evidence Based Guideline Number 7 and republished it in 2011.
6	83		Secular Medical Forum	11/16	<b>We recommend that the current review states whether it supports the findings of the Charles review.</b> Specifically, that the "higher the quality of the study, the greater the likelihood that the study would find no association between abortion and the risk of mental ill-health" (p. 11, current review).	In that section we gave an over view of the previous reviews and described the remit and scope of the present review. The purpose of our review was to answer the three review questions, not to specifically review and comment on the findings of the previous reviewers.
6	83		The Maranatha Community	8/8	It is essential that a far more thorough examination take place of the serious long-term consequences of induced abortion, otherwise women will be misled into a false belief that abortion is a minor medical process with little or no physical or emotional consequences.	Thank you for your comments. We agree that more research is required and have recommended that further longitudinal prospective research is conducted into unwanted pregnancy, abortion and mental health. Within our review, we have included all studies of over 90 days which did include some longer term studies.  We would support information for woman that is



						accurate.
6	89	25-31	CARE UK	3/6	<p>We would concur with the Review that the support and monitoring offered to any woman who has an unwanted pregnancy should be underpinned by NICE guidelines. Nevertheless, it would appear to us that women with mental health problems would more than likely require additional and specific psychological interventions in order to handle and work through feelings such as guilt, fear, anger or loss. In order to provide the necessary support in response would require specialised interventions which are not prevalent to all. Where these kinds of targeted interventions are provided it is mostly provided by charities such as Care Confidential, which seeks to provide respectful and compassionate pregnancy and post-abortion counselling centres across the UK to support women and their partners. It is our belief that the Review could therefore be amended in the following ways: (a) to recognise more explicitly that there is need for specific and focused therapies to be made available (b) that healthcare professionals be suitably informed of the factors that can lead to negative outcomes and briefed as to where they can direct women to find the necessary support and intervention as and when it is required.</p>	<p>Thank you for your response. It was beyond the scope of the review to look at specific therapies and treatments. We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are based upon our findings.</p>
6.1	83	7-15	Mount Joy College, Victoria, British Columbia, Canada	92/103	<p>The strong inbuilt bias of the authors keep shows in how they state the background and the evidence for this draft review. They reiterate that women “may elect” or “have the option” That may be what they hope is the situation but the law is clear. Physicians may recommend and may perform an abortion if the appropriate indications are present. The law is only concerned with parameters for what the legislators of that time deemed to be the correct practice of medicine. The law is not addressed to women.</p> <p>By ignoring this fundamental constraint, the authors have disqualified themselves to write this review.</p> <p>By stating “the presence of risk to either the mother or child” without any reference to studies of the effect of abortion on children, the authors can only mean the risk of being alive for a child with disabilities. If being alive post pregnancy is a risk, it is one every human shares.</p> <p>It is remarkable that the authors do not consider any post pregnancy condition for the mothers who give birth as if financial, social etc well being have no bearing on the woman’s mental</p>	<p>Thank you for your comment. In the UK a woman has the right and can elect to request an abortion. One could also say that she can choose or elect or has the option to have an abortion, subject to approval by physicians and subject to the law.</p> <p>In the brackets are examples of conditions for granting a legal abortion in the UK. Within the Abortion Act there are conditions about both existing children of the family or the child that might be born if abortion isn’t granted. It was beyond the scope of the review to assess the outcomes for children. The remit of the review was to focus on the mental health outcomes from the perspective of the women.</p> <p>We believe we have used the best comparators, and have discussed the limitations in Section 2.</p>

					health. Nor do they consider all of the many other pregnancy outcome such as adoption, fostering etc. as if these were never used or were equally conducive to health or illness.	
6.1	83	7-38	Comment on Reproductive Ethics	7/8	<p>As the categories of '<i>wanted</i>' and '<i>unwanted</i>' pregnancies are continually referred to, it would be helpful if there were comprehensive definitions of these terms. In particular it would be useful to know how many studies have been made specifically of women who continued pregnancies which they originally stated were unwanted.</p> <p>And as adoption is also a possible solution to a difficult pregnancy, was any note taken of studies involving mothers who chose this option?</p>	<p>Thank you for your comment. The definitions of 'unwanted' and 'unintended' in Section 1.2, set out our use of the terms, rather than their use in the literature. We acknowledge that that the definitions in papers may differ. This, as well as the problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3, 5.4.3 and 6.2.</p> <p>The remit of the review was to focus on women who had had an abortion and not to focus on an unwanted pregnancy. However, we agree that this is an important area and have recommended further research is conducted into mental health problems, unwanted pregnancy and abortion.</p> <p>Unfortunately there is very little data on the outcomes of abortion compared to adoption or other outcomes for unwanted pregnancies.</p>
6.1	83	11	Individual 9	18/25	Or an existing child of the family	<p>Thank you for your comment. In the brackets are examples of conditions for granting a legal abortion in the UK. Within the Abortion Act there are conditions about both existing children of the family or the child that might be born if abortion isn't granted.</p> <p>It was beyond the scope of the review to assess the outcomes for children. The remit of the review was to focus on the mental health outcomes from the perspective of the women.</p>
6.1	83	11-13	ProLife Alliance	8/13	The report stresses the importance for women to understand the physical and mental health risks associated with birth and abortion. The issue here is how to determine if women actually <i>understand</i> the risks, particularly the mental health risks, which may result. A study should be included on the information presented to women at pre-abortive counselling, if women even attend at all, to determine if they are truly understanding the risks	Thank you for your comment. This is beyond the scope of the present review, although we agree that this is an important area.

					involved in both abortion and birth. A sea of information seems useless, if the women cannot understand it or have access to it.	
6.1	83	15	Individual 9	19/25	Delete <i>of</i>	Thank you. This has been corrected.
6.1	83	17-23	Church Of England: Mission and Public Affairs Council	6/11	The language used in this paragraph is 'firmer' when speaking of the physical and psychological risks of pregnancy and birth than when speaking of these risks associated with abortion. This gives the impression that, before the evidence is discussed there is a potential bias against interpreting the data to indicate significant mental health risks associated with abortion.	Thank you for your comment. This section refers to what is known about risks related to birth, than about risks related to abortion. This is not indicative of any bias, but stating the current state of evidence and knowledge. Throughout the conclusion we have checked the language and amended where appropriate to ensure that the language is representative of the available evidence.
6.1	83	17-23	Royal College of Obstetricians and Gynaecologists (RCOG)	5/9	The serious physical risks associated with abortion are extremely rare and this point should be emphasised. The risks are for example less than with continuing a pregnancy to term.	Thank you for your comment. We have not changed this as our point is that more is understood about the physical risks than the mental health risks.
6.1	83	30	Royal College of Obstetricians and Gynaecologists (RCOG)	6/9	It would be appropriate to be less critical of the APA and Charles reviews which were both methodologically sound and explained in detail how they included and excluded studies.	Thank you for your comment. We have not changed this as although there are many very good aspects of both reviews, both reviews have identifiable limitations we have aimed to address within the present review.
6.2.1	84	22-23	Elliot Institute, Springfield, Illinois, USA	78/87	It should also be noted that there is greater certainty that abortion of a wanted pregnancy, or a pregnancy about which a woman has considerable ambivalence, is known to have higher rates of post-abortion maladjustments. Also, in this context, a woman's request for an abortion does not necessarily mean that the pregnancy is unwanted (at least by her). In many cases women may be agreeing to abort to please other persons or because it is the only "practical" solution to financial or other problems.  In short, it is a mistake to couch this discussion in the context of the assumption that a woman's decision to go ahead with an abortion means her pregnancy is "unwanted."  This oversimplification of "unwanted pregnancy" also appears in lines 23-29 regarding Steinberg2008study1.	Thank you for your comment. It was beyond the scope of the review to focus on abortions of <b>wanted</b> pregnancies, such as those carried out as a result of fetal abnormality.  Evidence from the included studies suggests that up to 95% of abortions occur in unplanned pregnancies. However we agree that not all unplanned pregnancies are unwanted and have discussed this in Section 2.3 of the review. We agree that partner pressure is an important area. This is reflected in 6.2.2, evidence statements 3 and 4.

6.2	84	25	British Psychological Society	21/22	Overall, the analysis of studies considered is balanced and reasonable. However, queries over the adequacy of the process of searching and selection raises significant questions about the reliability of this work. In addition, cultural context is lacking: a brief outline and consideration of the legal framework and abortion prevalence rates in each country would be a useful inclusion.	Thank you for your comment. In order to improve the transparency of the review We have included more detailed information on inclusion and exclusion criteria used throughout (see Section 2.3) and a new section on the legal framework in 1.3. The country in which each study was conducted, is listed within the narrative review and in the study characteristic tables. However, we did not feel that it was relevant to separate the prevalence rates by country. Within section 6.1 of the conclusion we have discussed the potential problems with generalising the findings of studies from one country to another.
6.2.1	84	27	The Anscombe Bioethics Centre, Oxford, UK	7/10	<p><b>How prevalent are mental health problems in women who have an induced abortion?</b></p> <p>The results of the Review are discussed from p. 84 onwards, beginning with the question of prevalence.</p> <p>The first statement summarising the results is <b>'When prior mental health is not taken into account, rates of mental health problems post-abortion appear to be high.'</b> This accurately summarises the results inasmuch as there is a great body of evidence, well-presented by the Review, that rates of mental ill health are higher in women who have had abortions than they are in the female population generally (as seen for example in statistical comparisons with women who give birth). Nevertheless the way this is expressed in this statement is somewhat misleading. Given the weight of the evidence it is misleading to say that rates of mental ill health <b>'appear to be'</b> high. Such rates simply are high. The use of <b>'appear to be'</b> makes it sound as though either (1) the finding is uncertain or (2) because prior mental health is not taken into account the high rate of ill health is somehow unreal or illusory. It may be that the phrase <b>'appears to be'</b> was used because what is demonstrated is correlation rather than causality. Nevertheless, correlation may be significant and useful in practice whether or not the issue of causality can be resolved. For example, it helps identify abortion as a risk factor for mental ill health (whether that risk factor is causal or is a marker for other causal factors or both).</p> <p>The next summary statement is <b>'If women with previous</b></p>	<p>Thank you for your comment.</p> <p>The evidence statements for this section of the review have been amended to ensure clarity of the findings. It is important to note that within this section of the review we did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p> <p>Furthermore, the terminology of the evidence statements reflects the uncertainty and limitations of the evidence base. We have now amended these statements to read:</p> <p>"The most important confounding variable appears to be mental health problems prior to</p>

				<p><b>mental health problems are excluded, the rate of mental health problems after abortion, are lower.'</b> Again there is ample evidence for this presented in the Review and this is sufficient to show that there is a correlation between previous mental health problems and abortion. Nevertheless, while the rates are lower if one controls for prior mental ill health, it seems that they remain higher than in the general population. This should also be stated.</p> <p>The last statement is 'The studies included in the review are limited in a number of ways, making it difficult to form confident conclusions from the results.' While this is true in relation to <i>causality</i>, as will be discussed below, and also in relation to the quantitative extent of the correlation, the limitations of these studies do not undermine legitimate confidence that there is a positive correlation between abortion and mental ill-health. This is well-attested in the evidence discussed at length in the body of the Review.</p>	<p>the abortion.</p> <p>Where studies included women with previous mental health problems, the rates of mental health problems after an abortion were higher than in studies which excluded women with a history of mental health problems".</p> <p>In terms of providing an accurate estimate of the prevalence rates, we believe that problems inherent in the data reduce the confidence of conclusions drawn.</p>
6.2.1	84	30, 38, 39	British Psychological Society	<p>22/22</p> <p>Evidence searched for has mainly classified 'mental health problems' in terms of diagnosed, clinical issues rather than poor emotional health and compromised wellbeing. As a result, the prevalence of difficulties may have been underestimated.</p> <p><b>References</b></p> <p>Bankole, A., Singh, S. &amp; Haas, T. (1999). Characteristics of Women Who Obtained Induced Abortion: A worldwide review. <i>International Family Planning Perspectives</i>, 25, 68-77.</p> <p>Bradshaw, Z. &amp; Slade, P. (2005). The Relationships Between Induced Abortion, Attitudes to Sexuality and Sexual Problems. <i>Sexual and Relationship Therapy</i>, 20, 391-406.</p> <p>Bradshaw, Z. &amp; Slade, P. (2003). The Impact of Termination of Pregnancy on Emotions and Relationships. <i>Clinical Psychology Review</i>, 23, 929-958.</p> <p>Coleman, P.K. &amp; Nelson, E.S. (1998). The Quality of Abortion Decisions and College Students' Reports of Post-Abortion Emotional Sequelae and Abortion Attitudes. <i>Journal of Social and Clinical Psychology</i>, 17, 425-442.</p> <p>Felton, G.M., Parsons, M.A., &amp; Hassell, J.S. (1998). Health Behavior and Related Factors in Adolescents with a History of Abortion and never-pregnant adolescents. <i>Health Care for</i></p>	<p>Thank you for your comment . We have collated and assessed all of the studies recommended in the consultation for inclusion within the review (see Appendices 4 and 7..</p>

					<p><i>Women International</i>, 19, 37-47.</p> <p>H.M. Government (1967). <i>Abortion Act</i>. London: HMSO.  <a href="http://www.legislation.gov.uk/ukpga/1967/87/contents">http://www.legislation.gov.uk/ukpga/1967/87/contents</a>. Accessed June 2011.</p> <p>Howie ,F.L., Henshaw, R.C., Naji S.A., Russell, I.T. &amp; Templeton, A.A. (1997). Medical Abortion or Vacuum Aspiration? Two year follow up of a patient preference trial. <i>British Journal of Obstetrics &amp; Gynaecology</i>, 104, 829-833.</p>	
6.2.1	84	35	Royal College of Obstetricians and Gynaecologists (RCOG)	7/9	This statement is not correct. The mental health problems are not high, although they may be higher than when prior mental health problems are not accounted for.	Thank you for your comments. We have now amended this statement to ensure clarity.
6.2.1 point1	84	35-36	Individual 1	4/10	<p>“When prior mental health is not taken into account, rates of mental health problems post-abortion appear to be high.”</p> <p>Comment: If I wished to use this for my own ends, I could easily report from this statement that rates of mental health problems post-abortion appear to be high, ignoring the first part of the sentence. It would be better to re-phrase it as follows: “Rates of mental health problems post-abortion appear to be high only if mental health problems prior to the need for abortion are not taken into account.”</p>	<p>Thank you for your comment and suggested re-wording.</p> <p>We have amended the wording of this evidence statement, both within the chapter and in the conclusion. This is to improve clarity and ensure that each statement accurately represents the evidence.</p> <p>We have also added an Executive Summary to try and make points such as this much clearer.</p>
6.2.1	84	36-39	Individual 16	30/33	Statement 2. is inappropriately definite and should better reflect the uncertainty of the data.	Thank you for your comment. We have amended the wording of this evidence statement, both within the chapter and in the conclusion. This is to improve clarity and ensure that each statement accurately represents the evidence.
6.2.1	84	38-39	Church Of England: Mission and Public Affairs Council	7/11	<p>‘If women with previous mental health problems are excluded, the rate of mental health problems after abortion, are lower.’</p> <p>It is unclear what ‘lower’ refers to in this sentence. Is this a reference to mental health problem rates being lower when compared to women who have had previous mental health problems prior to having an abortion or to women who continue their pregnancies to birth, or to women in the general population?</p>	<p>Thank you for your comment. We have amended the wording of this evidence statement, both within the chapter and in the conclusion. This is to improve clarity and ensure that each statement accurately represents the evidence.</p> <p>The evidence statement now reads:</p> <p><i>“The most important confounding variable appears to be mental health problems prior to the abortion.</i></p> <p><i>Where studies included women with previous</i></p>



						<i>mental health problems, the rates of mental health problems after an abortion were higher than in studies which excluded women with a history of mental health problems”.</i>
6.2.1	84	38-39	Dept of Adult Psychiatry, University College Dublin	20/26	We recommend that this sentence should read as follows: “If women with previous mental health problems are excluded, the rate of mental health problems after abortion are lower, but are still higher than in the general population”. Table 7, p 45.	Thank you for your comment. We have amended the wording of this evidence statement, both within the chapter and in the conclusion. This is to improve clarity and ensure that each statement accurately represents the evidence. The evidence statement now reads:  <i>“The most important confounding variable appears to be mental health problems prior to the abortion.</i>  <i>Where studies included women with previous mental health problems, the rates of mental health problems after an abortion were higher than in studies which excluded women with a history of mental health problems”.</i>
6.2.1 point2	84	38-39	Individual 1	5/10	“If women with previous mental health problems are excluded, the rate of mental health problems after abortion, are lower.”  Comment: This is unclear. Lower than what? Yes, I know you mean lower than if prior mental health problems are not excluded, but how much lower? Low? Very low? Lower enough to conclude that abortion does not cause mental health problems?	Thank you for your comment. We have amended the wording of this evidence statement, both within the chapter and in the conclusion.
6.2.1	84	41	Royal College of Obstetricians and Gynaecologists (RCOG)	8/9	This overstates the situation in all three systematic reviews (APA, Charles and present one) and appears to downgrade the findings.	Thank you for your comments. We feel it is important to acknowledge the limitations of the evidence base.
6.2.1	85	14-21	Elliot Institute, Springfield, Illinois, USA	79/87	This entire section should be updated to reflect material commented upon earlier.  However, lines 15-21 are particularly convoluted. Controlling for previous mental health rates reduces how high the post-abortion mental health rates, but at least some conditions, for at least some groups of women, remain significantly higher than (a) for the general population, (b) for women who carry to term, and (c) for women who carry an unplanned pregnancy to term.	Thank you for your comments. We have amended the statements in this section to summarise the evidence statements within section 3 of the review:  <i>“1. The studies included in the review are limited in a number of ways, making it difficult to form confident conclusions from the results.</i>  <i>2. The most important confounding variable</i>

					<p>The fact that evidence shows elevated rates remain elevated, even after controlling for pre-existing psychiatric issues, should be clearly stated. The last line in this paragraph, 19-21 is a convoluted, double negative. It is better to simply state that “the studies included in this review show that the rates for post-abortion mental health problems amongst women with no history of mental health problems occur at rates higher than women in the general population.”</p>	<p><i>appears to be mental health problems prior to the abortion.</i></p> <p><i>3. Where studies included women with previous mental health problems, the rates of mental health problems after an abortion were higher than in studies which excluded women with a history of mental health problems.”</i></p> <p>It is important to note that within this section of the review, review we did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
6.2.1	85	17	Individual 12	8/8	<p>sentence commencing <b>although</b> – do this mean the rate of mental health problems is higher or lower than general population?</p>	<p>Thank you for your comments. We have amended the statements to ensure clarity. However it is important to note that within this section of the review we did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population. Although we accept that there are a number of ways in which the women who have an abortion face similar problems to women in the general population, the available evidence suggests that women with an unwanted pregnancy may differ from other women on a number of factors, such as exposure to violence and abuse, particularly connected to their partner.</p>
6.2.1	85	17-20	Individual 1	6/10	<p>“Although these findings confirm the APA review findings, the included studies for this review do not show that the rates for</p>	<p>Thank you for your comment. We have amended the conclusion to remove this statement as</p>

					<p>post-abortion mental health problems amongst women with no history of mental health problems occurs at the same level as that of women in the general population.”</p> <p>Comment: This sentence has too many negatives and is too long, and is finally very unclear. A number of other sentences are also too long and will lose the thread for some readers, making misinterpretation easier.</p>	<p>unlike the APA review we did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population.</p>
6.2.1	85	17-21	Individual 9	20/25	We feel this sentence needs rewriting as it is not clear	Thank you we have removed this sentence.
6.2.1	85	17-21	Individual 16	31/33	<p>Why is this phrased so opaquely? It would be better to simply state that the included studies show that rates of mental health problems post abortion (amongst women with no history of such problems) are higher than for women in the general population. The authors seem to be avoiding saying this through near obfuscation. Again, this creates concern that there are pre-set views in play.</p>	<p>Thank you for your comment. We have amended the conclusion to remove this statement as unlike the APA review we did not systematically compare the rates of mental health problems for women who have an abortion with different groups or with the general population</p>
6.2.2	85	32	The Anscombe Bioethics Centre, Oxford, UK	8/10	<p><b>What factors are associated with poor mental health outcomes following an induced abortion?</b></p> <p>Again there are three statements summarising the evidence: ‘The evidence base reviewed is restricted by a number of limitations and the lack of UK-based studies reduces the generalisability of the data.’ This point is well taken but it is more applicable to the third point (below) than to the second.</p> <p>The second point is, ‘<b>The most reliable predictor of post-abortion mental health problems is having a history of mental health problems prior to the abortion.</b>’ This would be better expressed without a comparator (which needlessly introduces uncertainty). There is very good evidence supporting a more limited statement, which could be expressed thus, ‘<i>Post-abortion mental health problems are higher among those who have a history of mental health problems</i>’. This indeed is the concomitant of the second statement of 6.2.1.</p> <p>The third point is much more speculative, ‘<b>A range of other factors produced more mixed results; although there is some suggestion that life events and negative attitudes towards abortions in general, and towards a woman’s personal experience of abortion, may impact negatively on mental health.</b>’ This is problematic both because an association is asserted despite the weakness of the evidence (‘there is some</p>	<p>Thank you for your comments. On balance we feel the summaries and statements included in the corresponding chapter accurately reflect the evidence reviewed. In parts we have amended the language used to ensure clarity, as follows:</p> <p><i>“1. The evidence reviewed is restricted by a number of limitations and the lack of UK-based studies reduces the generalisability of the data.</i></p> <p><i>2. The most reliable predictor of post-abortion mental health problems is having a history of mental health problems prior to the abortion.</i></p> <p><i>3. A range of other factors produced more mixed results, although there is some suggestion that life events, pressure from a partner to have an abortion, and negative attitudes towards abortions in general and towards a woman’s personal experience of the abortion, may have a negative impact on mental health.</i></p> <p><i>4. Women who show a negative emotional reaction immediately following an abortion are</i></p>

					<p>suggestion that...'), and because the inclusion of such speculative factors is necessarily selective as the Review states: <b>'the list of potential risk factors reviewed here is not exhaustive. A number of other factors such as exposure to violence, reasons for the abortion and coping mechanisms may be associated with variations in post-abortion mental health.'</b> (p.63 ln.35) This should be stated explicitly as there is a danger that factors which are mentioned explicitly will be given greater prominence than those which are not. Consideration should be given to not mentioning any particular factors in the summary statement, but giving examples in the explanation that follows (in which also, it should be made explicit that negative attitudes to abortion may include 'doubt' at the time of abortion (p.57 ln.31)).</p>	<p><i>likely to have a poorer mental health outcome</i></p> <p><i>5. There was an overlap in the risk factors associated with mental health problems following an abortion and those factors associated with mental health problems following a live birth, and factors associated with mental health problems for women in general."</i></p>
6.2.2	85	44-45	Church Of England: Mission and Public Affairs Council	8/11	<p>While this is undoubtedly true, it might be worth pointing out that this is precisely what one would expect in almost any area of mental health.</p>	<p>Thank you for your comment. We agree with this statement, although the remit of the current review is to focus on mental health following abortion.</p>
6.2.2	85	44-45	ProLife Alliance	9/13	<p>The report states that the most reliable predictor of post-abortion mental health problems is having mental health problems prior to abortion. Abortion Statistics by the Department of Health concludes that the "vast majority (99.96%) of ground C only terminations were reported as being performed because of a risk to the woman's mental health." (Department of Health, Abortion Statistics, England and Wales: 2010, page 8, sec. 2.8). As the best predictor of post-abortive mental health problems relates to prior mental health problems, a more comprehensive study is needed as to what specific mental health problems qualify under ground C termination. It is recommended that the criteria for registered medical practitioners to assess the presence of mental health problems prior to abortion should be included in this study because 99.96% of ground C terminations are done for the mental health of the mother.</p>	<p>Thank you for your comments. We agree that this is an important area for future study. We have now added a recommendation for future longitudinal prospective research to be conducted into the relationship between mental health problems, unwanted pregnancy and abortion.</p>
6.2.2	85	48	Dept of Adult Psychiatry, University College Dublin	21/26	<p>We suggest adding "distress" to this sentence so that it reads "some suggestion that life events, <b>distress post abortion</b>, and negative attitudes..."</p>	<p>Thank you for your comments. We feel this is adequately covered by the term "negative emotional reaction"</p>
6.2.2	86	1-28	Mount Joy College, Victoria, British Columbia, Canada	93/103	<p>Having written an earlier review of research on this matter (20), I conclude the studies were good as far as they went or could go with the research funding, time and support available to them,</p>	<p>Thank you for your comment. We do not believe we have allowed biases to influence the work. This review is a systematic and transparent</p>

					<p>except those who allowed their biases to affect their findings of which there were many. Sadly these authors have allowed their biases to compound the problems of biased research.</p> <p>Some countries are notorious for not reporting abortions and the health effects of abortions notably Canada the USA and the UK In the UK the Dept of Health and Social Services was so reluctant to publish the data concerning post abortion maternal mortality it was necessary to table a parliamentary question.(16) Since the aborting conditions in the UK approximate those of Denmark where a good study was done, it is safe to assume the prevalence of abortions in these three countries is approximately 60 to 70% of all women by the age of 45 years. The authors misunderstand this and thus many of their statements are not based on this reality.</p>	<p>review of the best available scientific evidence following a set and standard produce described in Section 2 of the methods. We have also included full details of any declarations of interest.</p> <p>Within the review we are only able to extract and analyse what is reported in the studies, In light of the responses received during consultation we have added a section to the introduction with discusses abortion legislation (see Section 1.3).</p>
6.2.2	86	30-31	ProLife Alliance	10/13	<p>Since <i>any</i> mental health problem prior to pregnancy will increase the risk of post-abortion mental health problems, a more comprehensive discussion should be undertaken as to the definition of “any mental health problem.” An assessment of the meaning of mental health as per ground C termination, particularly whether it requires a specific diagnosis (depression, bi-polar, schizophrenia, etc.) or any mental distress (simply unplanned pregnancy or single motherhood) is needed.</p>	<p>Thank you for your comment. In this case any mental health problem refers to the definitions of mental health outcomes used in the review and within the individual papers. The data does not allow us to be more specific.</p>
6.2.2	87	2-14	Elliot Institute, Springfield, Illinois, USA	80/87	<p>As noted earlier, a number of other statistically validated risk factors have been identified and most have been confirmed in multiple studies. A more complete list of risk factors should be included here.</p>	<p>Thank you for your comments. We have noted and summarised all the risk factors within the review, which were found to significantly impact on outcomes. With reference to past reviews, we have made it explicit that any identified factors were examples of a longer list, but we did not feel it was necessary to replicate the list here.</p>
6.2.3 point4	87		Individual 1	8/10	<p>Lastly, dealing with women who have mental health problems prior to pregnancy and/or risk factors for mental health problems during and after pregnancy and due to or after abortion should be clearly separated out. The numbers of women in Britain with mental health problems related to abortion are low. The review does not clarify this in its concern to ensure that there is guidance offered on what to do about those who do have such problems.</p> <p>In sum, I feel the the phrasing of the whole discussion section</p>	<p>Thank you for your comments. It was beyond the scope of the review to assess the number of women with previous mental health problems requesting an abortion. However we feel this is an important area and have recommended that further research is conducted into the link between mental health problems, unwanted pregnancy and abortion.</p> <p>We have amended the discussion and</p>

					and the conclusions and recommendations of the review should be worked on further.	conclusion in parts, to ensure clarity and best fit with the evidence reviewed .
<b>6.2.3</b>	87		Secular Medical Forum	13/16	With reference to the suggested inclusion of Brewer (1977) it seems likely that the difference in risk of psychosis after childbirth compared with after abortion is underestimated and that abortion is relatively safer in this respect than is currently stated.	Thank you for your comment. The Brewer study was excluded from the review as it was published prior to the start date for the literature search used within the review.
<b>6.2.3</b>	87-89		Elliot Institute, Springfield, Illinois, USA	81/87	All the issues noted earlier should be reflected in a revised summary of the studies relevant to this study question	Thank you for your comments. We have considered all of your comments and suggestions and amended the review where appropriate.
<b>6.2.2</b>	87	8-11	Mount Joy College, Victoria, British Columbia, Canada	94/103	The differences of post abortion life and post-partum life are so great, they make comparisons between the results of induced abortion and childbirth are meaningless but these difference are almost totally ignored by these authors who continue to use data from studies where this comparison is made.	Thank you for your comments. We have used the best available evidence for the review in the absence of any gold standard study design. This has been explicitly discussed within Section 2.3 of the method.
<b>6.2.3</b>	87	17	Church Of England: Mission and Public Affairs Council	9/11	All the comments made under section 5 above are relevant here as well.	Thank you for your comments. We have considered all of your comments and suggestions and amended the review where appropriate.
<b>6.2.3</b>	87	17	The Anscombe Bioethics Centre, Oxford, UK	9/10	<p>Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy?</p> <p>It is in this section of the conclusion that there is the greatest danger of bias in presenting the conclusions, and this is already apparent in the choice of question. What is meant by the phrase 'women who deliver an unwanted pregnancy'? Does this relate to a pregnancy that is still unwanted at the time of delivery? Does it relate to a pregnancy that was unwanted at any point during pregnancy? How is unwantedness to be measured? Does it have degrees of strength?</p> <p>Because the Review places so much weight on controlling for unwantedness it is left with only four studies all of which treat wantedness as a fixed and measurable variable. The alleged reason for wishing to control for wantedness is that an unwanted pregnancy is likely to be one that occurs in adverse circumstances (financial constraints, mental ill health, domestic</p>	<p>Thank you for your comments. We have based the conclusions on the best available evidence and comparison groups available and taken all possible steps to minimise bias (as outlined in Section 2.8 of the methods section.</p> <p>We have used the phrase "women who deliver an unwanted pregnancy" to refer to women who did not want to continue the pregnancy, but had gone on to give birth (instead of, for example, having an abortion). We have clarified our use of the terms 'unwanted' and 'unintended' in Section 1.2. We have also acknowledged that the definitions in papers may differ. The problems with categorising unwanted and unplanned pregnancies, has now been included as a limitation of the evidence base as a whole in Sections 2.3, 5.4.3 and 6.2.</p>



				<p>violence etc.) which may affect mental health. However, if it is these factors that are significant then the reviewers should have sought to control for these factors, not for the subjective quality of 'wantedness'.</p> <p>Looking at wantedness also begs the question as to whether wantedness can change, i.e. whether an unwanted pregnancy can become a wanted one. If so, and if unwanted pregnancy (whether it results in abortion or not) is a risk factor for mental ill health, then interventions that enable a woman to want a pregnancy would be protective of mental ill health. Nevertheless, the Review seems to regard unwantedness as a brute fact not susceptible to change – though no-one would suppose this of risk factors like domestic violence. This is a major flaw in its approach.</p> <p>In this section there are five statements, the first being that 'Studies that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth.' While this statement is accurate in reflecting the evidence, the way it is expressed could be misleading. As mentioned already it is not clear how well one can measure or control for wantedness. Again, the use of the phrase 'suggest that' understates the evidence: there is good evidence of 'increased risks' of these outcomes when compared to those for women who deliver a live birth. This does not show a causal relation but it does show that women who have abortions are in a risk category. Women who deliver may be in better circumstances than women who have abortions, but at least some of these circumstances may be susceptible to change as indeed may wantedness, whether this is based on these circumstances or not.</p> <p>The second evidence statement is the most problematic in the whole Review: 'Where studies control for whether or not the woman planned to get pregnant or whether the pregnancy was unwanted, there is no evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy.' Taken on face value this does not accurately reflect the evidence presented in the Review in</p>	<p>We have extensively discussed the problems and limitations of the definition and measurement of pregnancy wantedness throughout the review.</p> <p>The language used in the conclusion reflects the uncertainty and limitations of the evidence base as a whole. Throughout the review we have amended the language to distinguish between "no effect", "insufficient evidence" or "no statistically significant effect".</p> <p>We have amended the evidence statements for this section to read:</p> <p>"1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories, which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with women who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with women who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there was insufficient evidence of elevated risk of mental health problems such as depression,</li> </ul>
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general nor in the four studies highlighted by the Review. Each of the four studies that attempted to control for plannedness or wantedness showed some evidence of elevated health problems. Gilchrist showed 'a significant increase in the risk of self-harm' (p.79 ln.3), Cogle found 'a significant effect of abortion on rates of anxiety' (p.80 ln.30), while Steinberg found that 'those who reported two or more abortions were significantly more likely to experience anxiety' (p.70 ln.27). The Review is also less than transparent in its use of Fergusson, for though it quotes his 2008 paper a number of times, it does not quote his conclusion that 'exposure to abortion was associated with significant increases in risks of mental health problems' (Fergusson 2008 p.449). So also the figures presented in the Review are not those presented in the original 2008 peer reviewed paper but are the result of further analysis by the committee. In short, all four of those studies chosen by the Review showed some evidence of an adverse effect of abortion on mental ill health.

It is therefore false to assert that there is 'no evidence' of an elevated risk of mental health problems. Furthermore, in many cases the Review misrepresents lack of evidence with evidence of lack. For example, it is asserted that women were 'no more likely to experience depression' (p.77 ln.40) when the result showed a 37% increase in depression but with a wide confidence interval. It would be more correct to say that the study 'did not provide evidence that women were more likely to experience depression'. In the case of modest but consistent effects it may be that the method is not sensitive enough to show the effect with one abortion, but it might show the effect with two abortions as is precisely the case in the Steinberg study.

The Review also asserts that there is 'some evidence of lower rates of psychotic illness for women who have an abortion'. The use of the word 'some' is evidence of the uncertainty and indeed Gilchrist, on whose work this is based, admits that there was 'insufficient information to enable the identification of truly psychotic episodes' (Gilchrist 1995, 244). Furthermore, only a handful of episodes resulted in hospital admission and most of these were in the initial 90 day period that was generally excluded by the Review. What is striking here is the inconsistency between stating emphatically that there is 'no evidence' of elevated mental health risk with abortion (when there is some evidence even from the limited selection of four

anxiety and non-psychotic illness following abortion

- there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group
- there was some evidence of lower rates of psychotic illness for women following abortion.

4. Inadequate control for confounding factors was shown to have an impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.

5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:

- those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9 month period prior to birth
- those who have an abortion have rates of psychiatric contact after an abortion no greater than before the abortion
- those who go onto birth have rates of psychiatric contact after birth significantly higher than before birth.

6. This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.

- An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.
- When a woman has an unwanted pregnancy, rates of mental health problems will be largely

				<p>studies the Review favours) while asserting nonetheless that there is 'some evidence' of reduced psychotic illness.</p> <p>The next two statements may be taken together: 'Rates of psychiatric contact did not increase following an abortion, compared to birth, whereas there was a significant increase in the likelihood of receiving psychiatric treatment following a pregnancy (without controlling for the pregnancy being planned).'</p> <p>'Rates of psychiatric contact are significantly higher in women who have an abortion during the nine months prior to the abortion. This may be a reaction to an unwanted pregnancy or that women with mental health problems are at greater risk of having an unplanned (and unwanted) pregnancy. In any event, there appears to be a propensity towards mental health problems present before the abortion.'</p> <p>Though there is a later statement (p.88 In.1) about the uncertainty of the evidence, neither of these statements is expressed in a way that makes that uncertainty apparent. Rather rates 'did not increase' and 'are significantly higher'. These findings need to be expressed with far more circumspection, especially as the primary evidence is one study (Munk-Olsen 2011) that is flawed in a number of ways: it did not exclude prior out-patient mental health contact, did not measure frequency of use of mental health services or severity of diagnosis, and in the case of live birth used the nine months of pregnancy as a baseline. There is good evidence from multiple studies that those who present for abortion have 'a propensity towards mental health problems present before the abortion'. However the specific claim that psychiatric contact does not increase after abortion is far more contentious and its assertion in the summary statements should require more than the results of a single study. It would be better omitted.</p> <p>While it is good to point out that 'The studies included in the review are limited in a number of ways, making it difficult to form confident conclusions from the results' this is no substitute for greater care in framing the language of the evidence summaries and care in what is included or omitted from those statements.</p>	<p>unaffected whether she has an abortion or goes on to give birth.”</p> <p>With regards to the use of the Fergusson data, We have made it very explicit that data was obtained from a reanalysis provided by the authors. Without the re-analysis, the study would not have met the inclusion criteria due to the comparison group used. The re-analysis has since been used in an eletter published by the British Journal of Psychiatry</p> <p>Finally with reference to the Gilchrist study, we have discussed the limitations of the findings regarding psychotic illness in Section 1.4.2 of the review.</p>
6.2.3	87	17-19	Dept of Adult Psychiatry, University College Dublin	22/26 This question differs from that on page 65, lines 9-11, section 5.1	Thank you this has been amended.

6.2.3 and 5.5	87 and 81	26 and 31-42	Catholic Medical Association (UK)	28/50	<p>Evidence statements on question 3.</p> <p>Interestingly, despite our concerns earlier in this paper where the review group failed to point out that having controlled for previous mental health rates of mental illness remained elevated after abortion, we find that we are bound to agree with the statement in 6.2.1 which states that “Studies that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth.appeared to suggest that controlling for previous mental health”.</p> <p>We must however note that Fergusson controlled for wantedness and still found an effect. Moreover of the 4 studies included here all 4 found that some mental health problem was associated with abortion. Gilchrist found increased self harm, and increased psychiatric admissions between 3 and 12 months post abortion (see below). Steinberg found anxiety after 2 abortions, Cogle anxiety and Fergusson of all mental health problems and substance misuse).</p> <p>So it simply cannot be said that “Where studies control for whether or not the pregnancy was planned or wanted, there is no evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy”,</p> <p>The review group may conclude that there is conflicting evidence or the evidence is not clear but they really cannot claim there is no evidence. To do so denies the evidence base. Further, given the clear issues with the psychosis issue in the Gilchrist study we think it is unsafe to mention that evidence in the conclusions of this study. For the reasons that we have set out below the reference to psychosis reference should be removed.</p> <p>As Fergusson stated in 2008 “These findings are consistent with the view that exposure to abortion has a small causal effect on the mental health of women.”.</p> <p>We therefore suggest that the review group reword the evidence statement to say that</p> <p>Where studies do control for whether or not the pregnancy was wanted, evidence is conflicting, but studies do indicate some</p>	<p>Thank you for your comments.</p> <p>We have amended the evidence statements for this section to read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy: there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</p> <p>there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</p> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy: there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</p> <p>there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</p> <p>there was some evidence of lower rates of psychotic illness for women following abortion.</p> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences</p>
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				<p>effect in terms of increased risks of anxiety, self harm and psychiatric illness.</p> <p>An alternative question 3 might be</p> <p>Does abortion reduce the mental ill-health which may result from delivering a pregnancy?</p> <p>The answer to that would also be pretty simple. There is very little evidence indeed that abortion can improve the mental health of women who abort. The evidence that there is, is overwhelmingly negative.</p>	<p>between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <p>those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</p> <p>for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</p> <p>for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</p> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</p> <p>Regarding your alternative question 3, we did not look at the benefits of abortion in treating or preventing mental health problems. This is a different question from assessing potential harm and would require a different approach. This was beyond our remit.</p>
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6.2.3	87	26-29	Secular Medical Forum	12/16	The SMF recommends that point 1 have an additional sentence stating “However, these conclusions must inevitably be limited by the lack of differentiation between wanted and unwanted pregnancies.”	The problems with categorising unwanted and unplanned pregnancies, have now been included as a limitation of the evidence base as a whole in Sections 2.3, 5.4.3 and 6.2. We have extensively discussed the problems and limitations of the definition and measurement of pregnancy wantedness throughout the review. We have also amended the evidence statements for this section and we feel that they more clearly reflect the evidence and uncertainties (see Section 6.2.3)
6.2.3 point1	87	26-34	Individual 1	7/10	<p>“Studies that do not control for whether or not the pregnancy was planned or wanted suggest that there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions compared with those who deliver a live birth.</p> <p>“Where studies control for whether or not the woman planned to get pregnant or whether the pregnancy was unwanted, there is no evidence of elevated risk of mental health problems and some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy.”</p> <p>Comment: People reading this may not know the significance of controlling or not controlling for specific factors, and the consequent differences in the findings. Moreover, both these statements are phrased very densely. There are four issues here: wanted or unwanted pregnancy, carry the pregnancy to term or have an abortion. They need to be far better distinguished:</p> <ul style="list-style-type: none"> <li>• If pregnancy is unwanted and the woman has an abortion, are there increased mental health problems or not?</li> <li>• If pregnancy is unwanted and the woman carries the pregnancy to term, are there increased mental health problems or not?</li> <li>• If the pregnancy is wanted and the woman has an abortion, are there increased mental health problems or not?</li> <li>• If the pregnancy is wanted and the woman carries the pregnancy to term, are there increased mental health problems</li> </ul>	<p>Thank you for your comment.</p> <p>The language used in the conclusion partly reflects the uncertainty and limitations of the evidence base as a whole However in the light of consultee comments, we have amended the wording of the evidence statements, both within the chapters and in the conclusion. This is to improve clarity for the reader and to ensure that each statement accurately represents the evidence (see Section 6.3).</p>



					or not?	
6.2.3.	87	31-35	Dept of Adult Psychiatry, University College Dublin	23/26	<p>The statement in point 2 needs to be amended significantly concerning some of the mental health problems and concerning psychosis as it misrepresents what the Gilchrist paper itself (end of page 244) says that “examination of the reports supplied by the general practitioners suggested that many of these events were mild and there was insufficient information to enable the identification of truly psychotic episodes, but we were able to determine the number of psychoses which led to hospital admission” and in this there was no difference between those. This is referred to in section 5.4.2.6 above. The increased risk of anxiety disorders in those undergoing multiple abortions, described by the Steinberg study should be incorporated into the above conclusions also. Finally the findings of Fergusson in his paper and the different findings from your calculation of the odds ratios (relating to anxiety and illicit substance misuse) should be incorporated. We suggest the following: Where studies control for whether or not the pregnancy was planned there is conflicting evidence concerning the risk of mental health problems with 1 study (Steinberg) showing an increase in anxiety disorders after a second but not a first abortion, (another am increase in anxiety (Cogle)while another has shown an increase in anxiety, illicit substance misuse and number of mental health problems (Fergusson 2008) although the former varied with the statistical analysis. One study suggested a lower rate of psychosis in those having abortions but there is uncertainty about the accuracy of this diagnosis Gilchrist) and numbers were very small. Among those requiring psychiatric admission for psychosis there was no difference.</p>	<p>We have amended the wording of this evidence statement, both within the chapter and in the conclusion. This is to improve clarity and ensure that each statement accurately represents the evidence. In section 1.4.2 of the review, we have discussed the limitations of Gilchrist study.</p> <p>We have amended the evidence statements for this section to read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</li> <li>• there was some limited evidence to</li> </ul>

						<p>suggest increased rates of self-harm following an abortion, but only in the unplanned group</p> <ul style="list-style-type: none"> <li>• there was some evidence of lower rates of psychotic illness for women following abortion.</li> </ul> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <ul style="list-style-type: none"> <li>• those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</li> <li>• for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</li> <li>• for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</li> </ul> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes</p>
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						on to give birth.'
6.2.3	87	37-40	ProLife Alliance	11/13	If the rates of psychiatric contact did not increase after abortion compared to birth, then women should be informed that some evidence (as summarized from section 5.5) shows that a woman is no more likely to suffer from adverse mental health if she gives birth to the child, particularly if the woman does not have any prior mental health problems.	We have amended the wording of the evidence statements, to improve clarity and ensure that each statement accurately represents the evidence. We feel that this is now covered more clearly in 6.3.
6.2.3	89	3-5	ProLife Alliance	13/13	An explanation is needed as to why women with mental health problems have a higher chance of having an unplanned or unwanted pregnancy.	Thank you for your comment. This is beyond the scope of the present review, however we agree this is an important area and have recommended further research assesses the link between mental health problems, unwanted pregnancy and abortion.
6.3	89		Christian Concern, UK	7/7	<p><b>P89, 6.3 Conclusion Statements</b></p> <p>1. We agree.</p> <p>2.&amp;3. Abortion does not protect women from mental health disorders after an abortion.</p> <p>4. We agree that the NICE guidelines will be helpful, however, at the same time we believe that women will require more specific psychological therapies to women who feel regret, guilt, or anger as a result of terminating their pregnancy. Such help is not widely available.</p> <p>5. We support this.</p> <p>We believe that professionals should be required to inform all women seeking an abortion of the mental health risks involved. Professionals should also be made fully aware of these risks in order to provide effective advice on this issue.</p>	<p>Thank you for your comments.</p> <p>1. Thank you</p> <p>2 &amp; 3. When a woman has an unwanted pregnancy, rates of mental health problems appear to be largely unaffected whether she has an abortion or goes on to give birth. However this is not exactly the same as saying that giving birth or having an abortion can help to protect women from mental health problems.</p> <p>5. We have not specifically identified that women seeking an abortion are at a greater risks of mental health problems. There is some indication that the greatest risk for women is in having an unwanted pregnancy, regardless of how that is resolved.</p>
6.3	89		Secular Medical Forum	14/16	The SMF suggests the need for the insertion of a statement (either here in the conclusions or elsewhere) that the review finds no evidence for the existence of 'post-abortion syndrome' given that this is previously mentioned on p. 7.	Thank you for your comment. We were not specifically assessing the evidence for post abortion syndrome and instead were focusing on mental health outcomes as defined in Sections 1.5 and 2.2..
6.3	89	9	The Anscombe Bioethics Centre,	10/10	The <b>conclusion</b> reiterates the limitations of the evidence, the relative risks with or without abortion, and the specific risk factors	Thank you for your suggestions. In the light of your and other people's comments, we have

			Oxford, UK	<p>for adverse mental health outcomes for women presenting for abortion. In general these points are well made, especially the last which it is to be hoped remains in the final document.</p> <p><b>‘If women who have an abortion show a negative emotional reaction to the abortion, or are experiencing stressful life events, support and monitoring should be offered as they are more likely than others to develop a mental health problem.’</b></p> <p>However, the second point in the conclusion stands apart from the others in that it neither reflects the evidence in the Review nor informs the practical conclusions. It is stated that <b>‘mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth.’</b> This conclusion does not reflect the evidence that is present in the literature nor the evidence that is present in the Review itself. Even were the reviewers to take a maximally sceptical approach and discount all the evidence of adverse effects, including those of Gilchrist, Cogle, Steinberg and Fergusson, the most that could be said is <b>‘the available evidence does not show that mental health outcomes are significantly worse, when women with unwanted pregnancies opt for an abortion’</b>. However this conclusion would misrepresent the widespread evidence of a modest but consistent adverse effect of abortion, which affects some women more than others. The conclusion of Fergusson’s 2008 paper seems to represent well not only the results of his study but the evidence more broadly:</p> <p><b>‘In general, the results lead to a middle-of-the-road position that, for some women, abortion is likely to be a stressful and traumatic life event which places those exposed to it at modestly increased risk of a range of common mental health problems.’</b> (Fergusson 2008, p. 450)</p> <p>As stated above this is not the primary determining factor in relation to the ethics or law of abortion, which must consider justice towards the unborn child and the moral meaning of the link with the mother in pregnancy. Nevertheless, the care of women who have had abortions, and those who present for abortion, is also a proper professional and ethical concern. This care would be enhanced if the Review more clearly acknowledged that, even considering only the studies it favours, there is evidence that abortion <i>can have</i> adverse mental health</p>	<p>made revisions to this section to ensure that our conclusions are as clear and unambiguous as possible. We believe that our conclusions and evidence statements are an accurate reflection of the evidence and throughout the review and conclusion we have been more clear and explicit about the limitations of the evidence base as a whole.</p> <p>The statements now read:</p> <p>‘1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</li> <li>• there was some limited evidence to suggest increased rates of self-harm</li> </ul>
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				<p>effects, especially for some more vulnerable groups.</p>	<p>following an abortion, but only in the unplanned group</p> <ul style="list-style-type: none"> <li>• there was some evidence of lower rates of psychotic illness for women following abortion.</li> </ul> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <ul style="list-style-type: none"> <li>• those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</li> <li>• for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</li> <li>• for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</li> </ul> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely unaffected whether she has an abortion or goes on to give birth.'</p>
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6.3	89	11-36	Catholic Medical Association (UK)	10/50	<p>We therefore suggest that, from the published data, evidence based conclusions should be amended as follows.</p> <p><b>Conclusions</b></p> <ol style="list-style-type: none"> <li>1. Although there are significant limitations with the dataset included in this review, this review is perhaps a little more robust, combining the approaches of both main previous reviews, and confirms many of the findings in previous reviews.</li> <li>2. There is a range of mental disorders that are significantly more common after abortion when compared to woman who miscarry or continue with a pregnancy. When controlling for previous mental health, risks of abortion to subsequent mental health remain significant. Even when controlling for wantedness there is some evidence of increased risks to subsequent maternal mental health</li> <li>3. Women with mental health problems prior to abortion or birth, are associated with increased mental health problems after the abortion or birth. Those with negative attitudes towards abortion are also especially at risk, although there is no evidence of any particular factors that are associated with a favourable outcome after abortion.</li> <li>4. For all women who have an unwanted pregnancy, support and monitoring should be offered as the risk of later mental health problems are greater whatever the pregnancy outcome. The offer of support should depend upon the emergence of mental health problems, whether during pregnancy, post-abortion or after birth, and should be underpinned by NICE guidance for the treatment of the specific mental health problems identified.</li> <li>5. Women should be told of the possible need for support and monitoring after the abortion and also informed of how to obtain it. This should be included in the consent procedure.</li> <li>6. However women who suffer mental health problems after abortion will require specific targeted psychiatric and psychological interventions just as do women who suffer rape, abuse or other accidents. In particular, feelings of guilt, remorse and bereavement for the lost baby indicate careful support. Current provision for this is patchy and often provided by the voluntary sector. There is a need to develop and research the specific therapies that are relevant here.</li> </ol>	<p>Thank you for your suggestions. In the light of your and other people's comments, we have made revisions to this section to ensure that our conclusions are as clear and unambiguous as possible. We believe that our conclusions and evidence statements are an accurate reflection of the evidence and throughout the review and conclusion we have been more clear and explicit about the limitations of the evidence base as a whole.</p> <p>The statements now read:</p> <p>'1. The evidence for this section of the review was generally rated as poor or very poor, with many studies failing to control for confounding variables and using weak controls for previous mental health problems, such as 1-year previous treatment claims. There was also a lack of comparable data across the diagnostic categories which restricted the use of meta-analysis. These factors limit the interpretation of the results.</p> <p>2. There was some evidence from studies that did not control for whether or not the pregnancy was planned or wanted suggesting that, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there are increased risks of psychiatric treatment, suicide and substance misuse for women who undergo abortions</li> <li>• there was insufficient evidence to determine if there was an increased risk of depression, anxiety disorders, suicidal ideation or PTSD.</li> </ul> <p>3. Where studies controlled for whether or not the pregnancy was planned or wanted, compared with those who delivered a pregnancy:</p> <ul style="list-style-type: none"> <li>• there was insufficient evidence of elevated risk of mental health problems such as depression, anxiety and non-psychotic illness following abortion</li> </ul>
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				<p>7. If women who have an abortion show a negative emotional reaction to the abortion, or are experiencing stressful life events, support and monitoring should be offered as they are more likely than others to develop a mental health problem.</p> <p>8. Consent to medical procedures requires a discussion of important risks from that procedure. Risk to mental health from abortion should be discussed as part of pre abortion counselling and informed consent.</p>	<ul style="list-style-type: none"> <li>• there was some limited evidence to suggest increased rates of self-harm following an abortion, but only in the unplanned group</li> <li>• there was some evidence of lower rates of psychotic illness for women following abortion.</li> </ul> <p>4. Inadequate control of confounding factors was shown to impact on the results. Differences between groups did not remain significant when factors such as previous experience of abuse and violence were controlled for.</p> <p>5. For women with no prior recorded history of psychiatric contact up to 9 months before a pregnancy event:</p> <ul style="list-style-type: none"> <li>• those who have an abortion have significantly higher rates of psychiatric contact before the abortion than do women in the same 9-month period prior to birth</li> <li>• for those who have an abortion, rates of psychiatric contact after an abortion are no greater than before the abortion</li> <li>• for those who go onto birth, rates of psychiatric contact after birth are significantly higher than before birth</li> </ul> <p>This suggests that women who have an abortion are already at higher risk of mental health problems, which does not increase following abortion.</p> <p>6. An unwanted pregnancy may lead to an increase risk of mental health problems, or other factors may lead to both an increased risk of unwanted pregnancy and an increased risk of mental health problems.</p> <p>7. When a woman has an unwanted pregnancy, rates of mental health problems will be largely</p>
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						unaffected whether she has an abortion or goes on to give birth.'
6.3	89	13-36	Mount Joy College, Victoria, British Columbia, Canada	12/103	Conclusions. Despite the above considerations, the authors make bold conclusions. They admit that due to heterogeneity, a meta analysis could not be performed. The problem is less with the data than it is with the biased interpretation of it. There is no scientific justification to any conclusion other than, there is no evidence of benefit to mental health from having an abortion.	Thank you for your comments. We have now conducted a limited meta analysis and discussed the results of this alongside the results of the narrative review. We have also discussed the limitations of conducting a meta analysis, which is our view added no more certainty to the findings than a well conducted narrative review.
6.3	89	13-16	Mount Joy College, Victoria, British Columbia, Canada	95/103	Stating that their conclusions confirm the findings of the badly biased APA review is a most self incriminating statement. It can only be concluded that they share the same blatant biases and conclude the same faulty findings	Thank you for your comment. We believe that our conclusions and evidence statements are an accurate reflection of the evidence and throughout the review and conclusion we have now been clear and explicit about the limitations of the evidence base as a whole. We have also made revisions to ensure that our conclusions are as clear and unambiguous as possible.
6.3	89	18	Catholic Medical Association (UK)	39/50	<p><b>We suggest, especially in the light of the data on PTSD that a conclusion is added to the review to the effect that</b></p> <p>However women who suffer mental health problems after abortion will require specific targeted psychiatric and psychological interventions just as do women who suffer rape, abuse or other accidents. In particular, feelings of guilt, remorse and bereavement for the lost baby indicate careful support. Current provision for this is patchy and often provided by the voluntary sector. There is a need to develop and research the specific therapies that are relevant here.</p> <p>And reword conclusion statement 2 two state that</p> <p>“There is a range of mental disorders that are significantly more common after abortion when compared to woman who miscarry or continue with a pregnancy. When controlling for previous mental health risks of abortion to subsequent mental health remain significant. Even when controlling for wantedness there is some evidence of increased risks to subsequent maternal mental health although that evidence is conflicting”.</p>	Thank you for your suggestions. We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are based upon our findings.

6.3	89	18-19	Church Of England: Mission and Public Affairs Council	10/11	<p>'mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth'</p> <p>This statement requires further explanation. While it may be true statistically, it is not true for individual women. As it stands, it gives the impression that the mental health outcomes for any individual are likely to be unchanged regardless of whether an abortion is chosen or not, but this is not what the reviewed studies indicate.</p> <p>There is also a problem with comparing mental health implications of abortions and births (whether the pregnancy is planned, unplanned or unwanted). The factors contributing to mental health problems in these differing circumstances vary considerably as the studies indicate; they do not permit ready or easy comparison as this section indicates.</p>	Thank you for your comment. In the light of comments received we have made revisions to this section to ensure that our conclusions are as clear and unambiguous as possible. We believe that our conclusions and evidence statements are clearer and an accurate reflection of the evidence.
6.3	89	18-19 25-31	Comment on Reproductive Ethics	8/8	<p>There should be more work conducted in this field and those experienced in post-abortion counselling should be consulted on this. The trauma for women suffering after abortion is related closely to her responsibility for the abortion. It is easier for her to turn an unwanted child into a wanted one if the child is still alive.</p> <p>Whilst not clearly defined throughout the consultation the exact meanings of 'wanted' and 'unwanted' pregnancies, it would certainly seem appropriate to offer support to somebody facing an 'unwanted' pregnancy regardless of the '<i>emergence of mental health problems</i>'. Experience of those involved in counselling in crisis pregnancy shows that 'unwanted' can be an extremely complex issue based often on family or relationship friction or serious material needs.</p>	We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are based upon our findings.
6.3	89	18-19	Dept of Adult Psychiatry, University College Dublin	25/26	This sentence should be amended to say that <b>"the possibility that abortion may have a small causal role in triggering mental health problems in women undergoing abortion for an unwanted pregnancy cannot be ruled out although further confirmatory studies are required"</b> .	Thank you for your suggestion. We have revised this section to ensure that our evidence statements are clearer and an accurate reflection of the evidence, although the revised wording is not exactly as you have suggested.
6.3	89	18-19	Elliot Institute, Springfield, Illinois, USA	82/87	The conclusion "mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth" is not supported by any particular study or group of studies. It is instead simply the ideological claim made by the APA and Charles reviews and ignores other literature reviews, as noted earlier.	Thank you for your suggestion. We have revised this section to ensure that our evidence statements are clearer and an accurate reflection of the evidence, although the revised wording is not exactly as you have suggested.

					<p>Moreover, since UK law requires that abortion have <u>less</u> risk associated with it than continuing a pregnancy, the conclusion that the outcomes are the same, even if correct, should be reworded to more clearly reflect the issue which referring physicians are expected to answer.</p> <p>It should be reworded as follows</p> <p>mental health outcomes are not likely to be better if a woman opts for abortion rather than continuing with unwanted pregnancy.</p>	
6.3	89	18-19	Individual 16	32/33	<p>This is not a good reflection of the findings! Whilst a desire to be clear and brief is laudable in principle, this statement goes beyond the data and should be changed to reflect the uncertainties and difficulties with the data. Media organisations reading final version are likely to focus on conclusions so it is extremely important they are not inappropriately definite.</p>	<p>Thank you for your suggestion. We have revised this section to ensure that our evidence statements are clearer and an accurate reflection of the evidence, although the revised wording is not exactly as you have suggested.</p>
6.3	89	18-19	Mount Joy College, Victoria, British Columbia, Canada	96/103	<p>Finding that the mental health status for women post abortion and post pregnancy, though their post pregnancy lives are almost totally different, should have alerted the authors to the conclusion that the impact of abortion was much more harmful, but it didn't. This also indicates their determination to conclude what they precluded.</p>	<p>Thank you for your comment. On balance we feel that our findings and statements accurately reflect the evidence reviewed. In parts we have amended the language used to ensure clarity.</p>
6.3	89	18-19	ProLife Alliance	12/13	<p>In order to obtain informed consent from women who are considering abortion, women must be informed that the mental health outcomes are likely to be same, whether an unwanted pregnancy ends in abortion or birth. This is particularly relevant if the woman does not have any prior mental health problems.</p>	<p>We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although we would support good information based upon the best available evidence.</p>
6.3	89	20-26	Mount Joy College, Victoria, British Columbia, Canada	97/103	<p>The fatuous sop that all women should have "support" if needed post abortion indicates how little these authors understand the deep dehumanizing damages inflicted by abortion and how long and complicated the treatment must be (26) to resolve the severest psychological conflicts known to human kind that arise from natures most unnatural behaviour, killing the young of your own species, yes and even killing your own child. They may retort, if the damages are so severe, how is it possible to they are so difficult to detect. A very good question that they should have</p>	<p>We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are</p>

					addressed from the beginning. There is at least a tentative explanation (see the summary to follow).	based upon our findings.
6.3	89	21-23	Individual 9	21/25	Suggested rewording: There is an association between a history of mental health problems prior to an abortion or birth and increased mental health problems after the abortion or birth.	Thank you for your suggestion. We have revised this section to ensure that our evidence statements are clearer and an accurate reflection of the evidence, although the revised wording is not exactly as you have suggested.
6.3	89	21-23	Individual 15 (McNicholas)	2/2	<p>The review has no mention of medically prescribed anti-depressant and/or psychotropic drugs. It is known that women who have abortions are heavier users of both of these before and after having an abortion.</p> <p>The state of mental health of women who have abortions is not at all being adequately considered when these treatments are ignored. The NHS dispenses over one billion of these drugs each year. The conclusion at page 89 / section 6.3 / lines 21-23 is noted but there is no attempt to investigate how the patterns of usage in respect of anti-depressants and psychotropic drugs develop after both abortions AND live births.</p>	We agree that these are important issues but they were beyond the scope of this review.
6.3	89	38-40	Elliot Institute, Springfield, Illinois, USA	84/87	<p>We recommend that the review should include a recommendation for a large prospective cohort study to better resolve the issues that other research methods have been unable to answer.</p> <p>We would recommend the following:</p> <p>Past and current research efforts to understand the interactions between reproductive experiences and mental health are hampered by many methodological problems.</p> <p>The most definitive answers to the questions addressed in this review can only be addressed through a large scale prospective cohort study. Such a study could explore not only the mental health impact of abortion and unplanned pregnancies, but could be designed to explore all reproductive health issues in relation to mental health. Ideally, study participants should be asked to sign a release to allow their medical records, properly scrubbed of identifying information, to be included in the data set. This would provide researchers with data from both annual interviews and data extracted from medical records and death certificates, for at least a portion of the subjects, which is not subject to recall</p>	Thank you for your suggestion. We have added a research recommendation to suggest that longitudinal prospective research should look at the link between mental health problems, unwanted pregnancy and abortion within the UK context (see Section 6.3).

					<p>bias.</p> <p>To better ensure that this proposed prospective study would include all of the data necessary to comprehensively address the issues raised, the study design should include participation by researchers on all sides of the often contentious issues surrounding abortion and mental health.</p> <p>To facilitate the analysis and reanalysis of the data by a diverse number of qualified researchers in a fashion that precludes allegations that a small number of researchers are releasing data that supports a limited perspective, the data should be made freely available to all researchers in a fashion similar to many of the government funded studies in the United States.</p>	
6.3	89	38-40	Elliot Institute, Springfield, Illinois, USA	85/87	<p>We would also recommend that this report should recommend a closer investigation of suicide rates in Britain that may be associated with abortion.</p> <p>This is important to gather meaningful data on the UK's own risk relevant to deaths associated with abortion. The fact that such an analysis has not yet been published poses a significant obstacle to the present enquiry. This review should therefore specifically request such an analysis.</p> <p>Therefore, this review should include a formal request that the RCOG's next Confidential Enquiry into Maternal Deaths should explore mortality rates associated with abortion in a fashion similar to the Gissler and Reardon studies (see also Gissler M, Berg C, Bouvier-Colle MH, Buekens P. Pregnancy-associated mortality after birth, spontaneous abortion or induced abortion in Finland, 1987-2000. Am J Ob Gyn 2004; 190:422-427)</p> <p>The Morgan study can and should be replicated in greater detail. (Christopher Morgan et al., Suicides After Pregnancy: Mental Health May Deteriorate as a Direct Effect of Induced Abortion, 314 BRIT. MED. J. 902 (1997).)</p>	<p>We agree that these are important issues but they were beyond our brief for this review.</p> <p>We have now added a recommendation for future longitudinal prospective research to be conducted into the relationship between mental health problems, unwanted pregnancy and abortion (see Section 6.3).</p>
6.3	89	38-40	Elliot Institute, Springfield, Illinois, USA	86/87	<p>We recommend that this report should identify the importance of additional research to evaluate the effectiveness of post-abortion counselling models and efforts to improve post-abortion counselling.</p> <p>To our knowledge, there is only one published evaluation of post-abortion counselling efforts (SD Layer, C Roberts, K Wild, J</p>	<p>We agree that these are important issues but they were beyond our brief for this review.</p>



					Walters. Postabortion Grief: Evaluating the Possible Efficacy of a Spiritual Group Intervention. Research on Social Work Practice, Vol. 14, No. 5, 344-350 (2004)  Additional research is warranted. Moreover, women at higher risk of negative emotional reactions should be given referral information at the time of their abortions.	
6.3	89	18	Secular Medical Forum	15/16	Line 18 states: 'Mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth'. In the case of psychosis – although an uncommon complication - the evidence favours abortion over childbirth, especially given that in most studies, most of the women giving birth could be presumed to have wanted their babies. It is possible that women bearing an unwanted child might have a slightly higher risk of psychosis. They are unlikely to have a lower risk.  <b>The SMF recommends the inclusion of this information in the conclusion to the review.</b>	Thank you for your suggestion. We have revised this section to ensure that our evidence statements are clearer and an accurate reflection of the evidence, although the revised wording is not exactly as you have suggested.
6.3	89	18	Individual 14	10/11	Appears to be a more categorical assertion than the previous uncertainties would seem to allow.	We do not believe this is the case, although we have amended it for clarity.
6.3	89	25	Catholic Medical Association (UK)	6/50	<b>Informed consent</b> Given the review groups statement that “it is noted that women with unwanted pregnancies require support and monitoring as the risk of later mental health problems are greater whatever the pregnancy outcome” at least accepts that women who abort remain at high risk of mental disorder after abortion, it follows from this that women who abort will also need to be informed of the need for such support and monitoring. That would need to be a part of the consent procedure.  A statement relating to this is indicated as a part of the conclusions from this review.	We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although we would support good information based upon the best available evidence.
6.3	89	25	Individual 14	11/11	Should there not be a stronger encouragement to identify women who have pre-existing mental illness before considering an abortion, as they appear to be at risk of developing further complications.	Thank you for your comment we have amended the recommendations of the review to read (add in). We feel that this point is adequately covered in the reviews conclusions and recommendations.
6.3	89	27	Dept of Adult Psychiatry, University College Dublin	26/26	The report states that those with unwanted pregnancies should be offered support and monitoring as the risk of mental health problems are higher whatever the outcome. The report should	Thank you for your comment we have now amended the recommendations of the review to

					add that <b>“these women, whether giving birth or choosing abortion should be informed of the need for monitoring and provided with details on how to access this”</b> .	read: (add in)
6.3	89	30	Dept of Adult Psychiatry, University College Dublin	24/26	This states that treatments should be underpinned by NICE Guidelines. While we acknowledge that NICE guidelines are useful in treating the syndromal diagnosis, it is likely that women with mental health problems post-abortion will, in addition need more targeted and specific psychological interventions just as do those who have suffered major trauma such as accidents or sexual abuse. There are very few targeted interventions for this group of women who may have specific feelings of guilt, of remorse or of longing for the baby. Psychological treatment at present is delivered mainly by charities, both religious and secular. We believe this review should highlight this deficit in psychological treatments and that it should call for specific and focussed therapies, using a cognitive or a bereavement model. In addition we would urge the writers to call for evaluation of these using randomised controlled trials.	We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are based upon our findings.
6.3	89	33	Elliot Institute, Springfield, Illinois, USA	83/87	There should be a positive recommendation to be alert for negative reactions to abortion. Something along the following lines:  Abortion is consistently associated with higher rates of mental health issues, both before and after the abortion. Clinician’s should routinely enquire about pregnancy history, including all pregnancy losses, including abortion, miscarriage and still birth. Any report of a pregnancy loss, whether voluntary or involuntary, will alert the clinician to a higher likelihood of mental health needs. In addition, a compassionate and non-judgmental interest in past pregnancy losses, including abortion, give women “permission” to discuss an issue which they might otherwise never volunteer any information. An alert clinician will recognize emotional responses which may invite an offer to discuss any unresolved issues, exploration of which may lead back to other pre-abortion issues such as a history of sexual abuse or other trauma.  Women presenting for an abortion should be asked about their mental health history, any history of sexual, emotional, or physical abuse and given appropriate referrals. Moreover, clinicians should be aware that abortion may be a stepping stone	We have recommended that women are provided with support and monitoring, especially if they display either distress or a negative reaction to the abortion. It was beyond the remit of the review to make further recommendations in detail, although professional organisations may well develop more detailed recommendations for practitioners which are based upon our findings.

					for a series of experiences, decisions, and problematic behaviours that may require sensitive response and alert efforts to offer appropriate interventions. For example, clinical evidence, self-reports indicate that victims of childhood sexual abuse may be at greater risk of becoming pregnant, perhaps in an effort to break free and start their own homes, but may also be more vulnerable to giving into demands for an abortion. Combined with substance abuse before and after an abortion, such a woman may be on a fast moving train toward self-destruction. Reasonable efforts should be made to offer women presenting for an abortion intervention counselling. Moreover, women should be advised that any unresolved issues that pre-exist the abortion may require counselling in the future and should be encourage to seek counselling as soon as any symptoms are observed.	
<b>6.3</b>	89	37	Church Of England: Mission and Public Affairs Council	11/11	We should like to see suggestions for further study that would include such factors as spirituality/faith, the role of GPs in recognising mental health problems and the nature of the relationship between the high rates of abortion and teenage pregnancy in the UK and mental health.	Thank you for your comment. We feel that these are important areas for further research.
<b>6.3.3</b>	89		Individual 17	3/3	A final point – which you may think rather tangential but which I think is still relevant to your conclusions. Far more early induced abortions were caused by early intrauterine contraceptive devices (IUDs) than by all abortionists. Religious opponents of abortion will reluctantly admit this if pressed (the last Pope certainly did) but then usually change the subject. Modern hormone-impregnated devices are more likely to act before fertilisation or implantation but studies using very sensitive pregnancy-specific hormonal assays show that post-implantation embryo destruction (ie induced abortion by any criteria) still occurs. I know of no reported case where a woman has presented with post-abortion guilt or distress because of IUD use, presumably because nobody has tried to make them feel guilty about it (as opposed to feeling guilty about using a religiously disapproved method of contraception). The more that aborted women are encouraged to feel guilty, worried or unhappy about their abortion, the more likely it is that some of them will respond by feeling worried, guilty or unhappy. The doctrinally-inspired opponents of abortion (who will scrutinise your report very closely for any signs of encouragement) are committed to	Thank you for your comment. We feel that these are important areas for further research, although beyond the scope of our current review.  Regarding psychosis, there are a number of suggestions raised by the evidence that require further evidence to be conclusive. We have added a recommendation for future longitudinal prospective research to be conducted into the relationship between mental health problems, unwanted pregnancy and abortion (see Section 6.3).

					<p>maximising such feelings. If your committee are, as I rather suspect, more interested in minimising them, then perhaps one of your conclusions could be stated a little more robustly.</p> <p>In line 18, you state: ‘Mental health outcomes are likely to be the same, whether women with unwanted pregnancies opt for an abortion or birth’. In the case of psychosis – admittedly an uncommon (though potentially catastrophic and lasting) complication - the evidence favours abortion over childbirth, especially given that in most studies, including mine, most of the women giving birth could be presumed to have wanted their babies. It is possible that women bearing an unwanted child might have a slightly higher risk of psychosis. They are rather unlikely to have a lower risk.</p>	
<b>Section 7 – Appendices</b>						
<b>App 1</b>	90		Mount Joy College, Victoria, British Columbia, Canada	101/103	The authors ask some potentially useful questions but do not provide us with the answers. And still many more questions should have been asked of researchers not only about their studies but about themselves to hopefully provide these authors with an indication of where their biases lay. Maybe it is well they didn't because that would have deepened the impact of the draft author's predilections and prejudices.	Thank you for your comment. We feel we have used the best available evidence and method to answer the three research questions within the remit of the review. We feel that we have done all that we can to minimise bias in our interpretation of the evidence.
<b>App 1</b>	90	18-20	Individual 4	1/1	The Roman Catholic Church is an organisation with a stated opposition to termination of pregnancy. Was this made clear to the declarations of interest section, or were members able to declare that they did not hold with the declared policy of the RCChurch on this matter?	Thank you for your comment.  In the declaration of interests, we did not specify that members must include their religion, unless it specifically represented a conflict of interest.
<b>App 1</b>	91		Individual 9	22/25	We doubt Tahir Mahmood is paid by the RCOG	Thank you. This has now been corrected.
<b>App 2</b>	93		Mount Joy College, Victoria, British Columbia, Canada	7/103	<b>Unpublished research.</b> An analysis of published vs. unpublished drug studies shows a strong bias toward publishing that research that show “positive results” for the drugs in question. The authors did not attempt to ascertain whether or not there is a bias in the publication of articles showing abortion does not contribute to mental health problems. Comparing our publication rate for articles on child abuse and neglect (almost 100%) to the publication success rate for our research into the effects of abortion, which are better studies, the success rate is	Thank you for your comments. It was beyond the scope of the review to consider unpublished research, unless it was in press and due for publication.

					much lower. Ours is not the only experience like this.	
<b>App 2</b>	93	1-28	American Association of ProLife Obstetricians and Gynecologists	5/5	A very important meta-analysis about to be published in the British Journal of Psychiatry has been omitted. Priscilla Coleman, who has authored many more studies on abortion and mental health than the authors contacted in this section, was apparently not asked about this important work in progress.	Thank you for your comment. We have included this review in our report and have discussed the findings and limitations of the review in Section 1.4.1 of the introduction.
<b>App 2</b>	93	1-28	Bowling Green State University, Ohio	1/6	No information is provided regarding the selection of particular researchers contacted to identify existing, published, or soon to be published research. Only a few of the many researchers engaged in scholarly work on the psychology of abortion were contacted. Had I been contacted (the author of over 30 peer-reviewed studies on this topic), I could have informed the Steering Group of my quantitative review of the literature on abortion and mental health that is currently in press ( <i>British Journal of Psychiatry</i> ). In contrast to the view voiced in this report regarding a meta-analysis being inappropriate, I strongly believe that it is not only appropriate, but long overdue. Fortunately the journal staff at the <i>BJP</i> agreed. The findings of the meta-analysis contradict the final conclusions derived in this report. After applying methodologically-based selection criteria and extraction rules to minimize bias, the sample was comprised of 22 studies, 36 measures of effect, and 877,181 participants (163,831 experienced an abortion). The results revealed a significant increased risk associated with abortion for mental health problems even when the comparison group was restricted to unintended pregnancy delivered.	Thank you for your comments and for the help that you have given us since consultation. We have reviewed your article and have included it within our report. We have also carried out a limited meta-analysis which is present in the final report.
<b>App 2</b>	93		Mount Joy College, Victoria, British Columbia, Canada	98/103	Why such a limited list of researchers who were contacted? There are hundreds more who have addressed this subject, many indirectly.	Thank you for your comment. We approached researchers whose studies did not contain data which we needed to complete our analysis. We have been in touch with you since consultation and we would like to thank you for your help.
<b>App 2</b>	94		Mount Joy College, Victoria, British Columbia, Canada	8/103	<b>Soliciting data not included.</b> There is a very limited list of researchers who were contacted for any unpublished data that could be considered in this analysis. There are more who should have been contacted including Reardon, Coleman, Shuping, Cogle, Ney, Gissler, etc. all of whom are less likely to give evidence to support the authors unstated thesis the abortion isn't harmful to mental health. There is bias in this limited list.	Thank you for your comments. Thank you for your comments. We approached researchers whose studies did not contain data that we needed to complete our analysis. We have been in touch with a number of additional researchers since consultation, including yourself and some of the people you have listed.

				<p><b>Arbitrary cut off date.</b> There is no explanation given by the authors as to why 1990 was used as the cut off date for excluding research. It has little to do with the quality of the research but quite possibly much to do with avoiding unsupportive data.</p> <p><b>Citation rate bias.</b> Although Reardon et al have done larger studies and published more research, Major is cited proportionally more often. ( 93 to 89 times)</p>	<p>The cut-off date of 1990 provided the best match with studies included in the reviews we were updating and this corresponded with changes in UK abortion legislation in 1990. The reasons for exclusion are set out in Appendices 7 and 8. The number of times a study is cited in our report bears no direct relation to its importance.</p>	
App 4	95		Mount Joy College, Victoria, British Columbia, Canada	99/103	<p>Despite the convincing evidence that valuable studies which are medically incorrect and/or reputationally unprofitable (27) are less likely to be published, these authors made no serious attempt to find and use them. Surely a wise and learned person needs to listen most carefully to the messages he/she does not wish to hear.</p>	<p>Thank you for submitting the list of studies that you felt we had overlooked. We have collated and assessed all the studies recommended during consultation. These are listed in Appendix 4.</p>
App 4	95-99		Mount Joy College, Victoria, British Columbia, Canada	100/103	<p>I am reasonably sure I am not the only one to wonder why some very useful search items are so conspicuous by their absence. This list should include: Health, mourning, weight gain, bonding, partner support, child mistreatment, child abuse, child neglect, social support, employment, and many others. They weren't included not because they are irrelevant to a woman's mental health but because the authors biases betrayed them into thinking these were the most important.</p> <p>Why did the UK Fellowship of Psychiatrists not include in the mandate of this study, an equal consideration of men, children and families. Surely they understand the health of one member of the family or species has a very large effect on the others. Are they totally unaware of the impact of abortion on men and children. Have they never read the studies on children who grow up in families where one or more of their siblings was aborted. Admittedly these isn't much to read, not because there is a lack of effort or data or articles submitted for publication in professional journals but because this is the last thing that those who insist on the idea that abortion is almost harmless want to read or hear about. Yet if anyone is attempting a systematic review, Post Abortion Survivor Syndrome ( 9 ) must be a most important subject of inquiry just because it is so difficult, if for no other reason.</p> <p>Does the Fellowship still adhere to the ancient notion of the mind-body dichotomy. Surely not. Then why confine this study to</p>	<p>Thank you for your comment,</p> <p>You are quite correct that we did not look into some of the areas you have listed as we were charged with reviewing the mental health outcomes of abortion.</p> <p>Many of the areas you have listed, such as the impact upon family members and physical health outcomes are important areas worthy of further research. However, they were beyond the scope and remit of this review.</p> <p>Our brief was focused and was to find out if induced abortion for unwanted pregnancies, is linked to mental health problems after the abortion. Although this may seem a rather narrow scope, it has been an area of uncertainty and worthy of attention in its own right.</p>



					mental health with not the slightest indication of interest in how physical ill health affects the rate of mental unwellness and visa versa. There are none so blind as those who refuse to look in the direction from which relatively new information is likely to come.	
App 6	103		Individual 9	23/25	This Table could do with some explanatory comments. It needs to be pointed out that Prevalence column refers to Section 3, Risk factors column to Section 4 and Comparators to Section 5 of the Review.	Thank you for your comment. This change has been made
App 6	107	Gissler 2005	Right to Life	8/8	<p>Gissler's 2005 epidemiological study (Injury deaths, suicides and homicides associated with pregnancy, Finland 1987–2000, Gissler et al, European Journal of Public Health (2005), 15:459-463), conducted by Finland's National Research and Development Centre for Welfare and Health. The comprehensive three-year study of the entire population of women in Finland found that, compared to women who have not been pregnant in the prior year, deaths from suicide, accidents and homicide are 248% higher in the year following an abortion. The study also found that a majority of the extra deaths among women who had abortions were due to suicide. The suicide rate among women who had abortions was six times higher than that of women who had given birth in the prior year and double that of women who had miscarriages. The researchers looked at data between 1987 and 2000 on all deaths among women of reproductive age (15 to 49). Yet this study is <i>entirely</i> excluded purely on the grounds that it did not control for previous mental health difficulties in women.</p> <p>As with comments on Table 4 (pg. 34-36), it still seems pertinent to point out the higher rates of suicide than the rest of the population, and unwise to exclude on such narrow and strict grounds.</p> <p>It is worth noting that China is unique for having a higher suicide rate amongst women than men, and that this may well be linked to the compulsory abortions forced on women in that country, which would fit with the findings in Finland. Whilst RTL staff no actual experience of any girl attempting suicide, several seemed to find comfort in ideation of their own deaths or suicides.</p> <p>At the very least more work needs to be done on this entire area, and it behoves the PCPsych to admit this and to work for such studies to be made, in order that a fuller more long-term picture</p>	<p>Thank you for your comments. GISSLER2005 was included in our reviews of the prevalence of mental health and risk factors associated with poor mental health outcomes. It was excluded from the review of mental health outcomes.</p> <p>The problem with not controlling for previous mental health problems is that if a study shows that there is an increase in mental health problems after an abortion, there is no way to know if the mental health problem already existed before the abortion, in which case it was likely to not brought about by the abortion itself.</p> <p>We did not find a link between suicide and abortion. However, it was beyond the resources of the review to assess studies that were not available in English..</p>

					might be fleshed out.	
					<b>Section 8 – References</b>	
8	113		Individual 9	24/ 25	Although APA is in list of abbreviations, should be written in full in Reference List.	Thank you. The reference list uses the name of authors and title used by the publication itself, which we do not edit. Within the reference, APA is included in full as the publisher.
8	115		Individual 9	25/ 25	Spelling of The Stationery Office	Thank you. This has been corrected.