

# ***Induced Abortion and Mental Health***

## ***A systematic review of the mental health impact of induced abortion***

### **A summary of the CMF response to the Review**

#### **Background to the Review**

In 2010 nearly 190,000 women in England and Wales had an abortion. The vast majority of these abortions were reported as being performed because of a risk to the woman's mental health if the pregnancy continued.<sup>1</sup>

The prevalence of psychological risks post-abortion has long been a controversial topic in both the research literature and policy. However, with so many thousands of abortions per year the occurrence of even small detrimental effects could impact on significant numbers of women.

The Department of Health is funding the RCPsych to carry out this major review of the mental health impact of abortion on women. This report is likely to influence any future Government policy and advice on the health consequences and care of women post abortion.

*"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?" (p16).*

The review grades research data that studies mental health outcomes for women more than 90 days post-abortion.<sup>2</sup> Three review questions were used to guide the analysis of the data. At the end of each section, there are several concluding 'evidence statements'. These are significant as many people will only read these, and not the analysis on which they are based. The final discussion and conclusion section collects the evidence statements together.

The questions on which the consultation is structured, are:

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<sup>1</sup> 98% were carried out under ground C, and 99.96% of ground C only terminations were reported as being performed because of a risk to the woman's mental health. Ground C states: the pregnancy has not exceeded its twenty-fourth week and that the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman (section 1(1)(a)).

<sup>2</sup> A systematic search of the peer reviewed literature addressing the mental health factors associated with abortion resulted in 5,886 references. Of these, 103 were seen as potentially relevant for the specific review questions. As would be usual for such a review, studies were then excluded for reasons such as inappropriate sample, use of a non-validated measure of mental health, or non-usable data. This evidence was then graded for quality using a well-known tool, the GRADE approach (p24). Although this is not an entirely unusual rate of exclusion of studies, there is a concerning **lack of transparency in the reasons provided for inclusion and exclusion**. See our comments 4, 5 and 6 on page 4 below.

1. How prevalent are mental health problems in women who have an induced abortion?<sup>3</sup>
2. What factors are associated with poor mental health outcomes following an induced abortion?<sup>4</sup>
3. Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy/or who delivered a live birth?<sup>5</sup>

## **Summary of Findings**

Overall, we have concerns that:

There is insufficient transparency in the selection, exclusion and rating of research papers;

A key paper by Fergusson was re-analysed by the reviewers, producing a finding that contradicted his published paper;

Several summary evidence statements are more definitive and stronger than the actual evidence suggests;

Claims that there is 'no evidence' of an elevated risk of mental health post-abortion compared to post pregnancy are not justified by the data presented.

## **1. Methodology and Research**

### **General Points**

We welcome this study above other reviews. It is more robust than others and combines the approaches of the two major recognised reviews amongst peer-reviewed journals.<sup>6</sup> There is an attempt at transparency, consistency and rigor in analysis. Nevertheless, as this summary highlights, we have many concerns with both the data and conclusions.

1. The criteria used for inclusion of research in this study **limit it only to those that measure outcomes occurring more than 90 days post-abortion**. 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.

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<sup>3</sup> Twenty-one studies met the eligibility criteria for this question. See p27

<sup>4</sup> Eighteen studies were included for review of the factors associated with mental health outcomes following abortion. See p46.

<sup>5</sup> There are two wordings of Q3 in the review, as we note later. Thirteen studies met the eligibility criteria for the review of mental health outcomes (p65). Only four of these studies compared mental health outcomes for abortion and pregnancy (p75).

<sup>6</sup> The APA Task Force on Mental Health and Abortion, 2008 and the Charles Review 2008, both carried out from a US perspective. See p9-16. 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 and 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.

There is a body of evidence and literature on this, which the review group has therefore excluded.

2. 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 uncertain** evidence, which should be much more clearly reflected in the evidence statements.

3. Indeed, 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 **uncertainty of the data findings**. They are too definitive in claiming there are no differences between outcomes of pregnancy and abortion, when **the data itself is less clear**.

4. 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**. In addition, 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.<sup>7</sup> **There is insufficient transparency given for the reasons for throwing out hundreds of peer-reviewed studies**, many of which may have failed in one or two criteria but could still provide useful findings.

5. 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. These data tables should be provided.<sup>8</sup> **Because the data selection used is not fully transparent and clearly reliable and objective we are unable to verify all the analysis, leaving some of the analysis more open to question.**

6. Similarly, it is **not clear how the gradings were made for quality**. Which criteria were more important than others? Which criteria were met or not met? How did the reviewers reach conclusions about the quality of studies? For example, Fergusson 2009 has been rated as 'fair' and Steinberg 2008 study 2 as 'very good', which is different to previous reviews.<sup>9</sup>

7. Although this review uses well-recognised methodological analysis, **'evidence' can come in many forms. Considering the research evidence is still poor, this means that the views, and experiences of women, clinicians and other experts should be consulted, along with statutory organisations and relevant Royal Colleges (see p25-26). Their voice should therefore provide an important source of 'evidence'**

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<sup>7</sup> See p23.

<sup>8</sup> After the papers are selected for inclusion in the systematic review, data is extracted using a data extraction tool, which will have been designed and piloted for use in this review. It would have been helpful if the authors/reviewers had included the data extraction tool and the data extracted from the original studies.

<sup>9</sup> Also, Fergusson 2009 is a longitudinal study, a primary analysis and controls well for confounders. In contrast, Steinberg 2008 study 2 was a secondary analysis, it was cross-sectional and it used data from a pre-existing database. see p67.

and should contribute to the review.<sup>10</sup> **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.**

**Specific Points: Question 1, p27.**

Table 4, p34-36 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 **still higher than the general population** i.e. those not having an abortion. (See comment on para 3.6 below)

One problem with measurement is that many people with mental illness do not seek treatment, especially post-abortive women. The eligibility criteria on p19 therefore will be likely to have excluded many women who do not return to the health professionals who were involved in the abortion process. Clearly this would underestimate prevalence of mental health disorders.

**Specific Points: Question 3:**

The report has **two wordings for Question 3, which are different.**

P18, line 14-16 *“Are mental health problems more common in women who have an induced abortion, when compared with women who deliver an unwanted pregnancy?”*

P65, line 9-11 *“Are mental health problems more common in women who have an induced abortion, when compared with women who delivered a live birth?”*

Considering this is one of the three key questions under consideration this inconsistency reflects some sloppiness in report writing. More importantly, the two **answers produced could be different.** The answer to the p65 question would be yes, based on the evidence presented in this review. The answer to the question on p18 is harder to answer and depends on ‘wantedness’, which is not only subjective and difficult to measure but may change at any point throughout pregnancy and therefore should only be used with caution.

To compare mental health outcomes for women after abortion and after an unwanted or unplanned birth, the reviewers **eliminated all but four studies.**<sup>11</sup> Therefore the basis of the conclusions will inevitably be affected and the conclusions drawn, limited.

The reviewers have stated that they received additional figures from Fergusson, which led them to **reanalyse Fergusson 2008** data and reach a conclusion that is different to his published paper (see p78, line 24-26). However the reviewers do not provide these new figures, nor describe how the new analysis was undertaken, and nor do they state

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<sup>10</sup> Whilst personal stories and experiences may be of some value, the comment form states that: “Please do not include any material that you would not wish to be made public or personal medical information from which you or anyone else could be identified.”

<sup>11</sup> Fergusson 2008, Cogle 2005, Gilchrist 1995, Steinberg 2008, study 1b. See p75.

what the original findings clearly showed.<sup>12</sup> Seeing as their new ‘evidence’ actually **contradicts** the original evidence in the Fergusson paper, **more rationale must be provided to explain their 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.

Table 17 on p80 is useful as it compares like with like groups.<sup>13</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 *‘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’*. 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 (post-abortion). This statement needs amending for consistency – either there is evidence of risks for both, or for neither.<sup>14</sup>

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<sup>12</sup> In fact, the original paper by Fergusson 2008 states that there was a higher relative risk for those having an abortion: “...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 ‘Abortion and Mental Health Disorders: evidence from a 30-year longitudinal study’. *British Journal of Psychiatry*. 193, pp.444-451.

<sup>13</sup> It summarises mental health outcomes of abortion compared with delivery of unplanned/unwanted pregnancies.

<sup>14</sup> For example, it should 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 deliver a pregnancy’* OR, there is no evidence for an elevated risk for either.

## **2.Evidence Statements**

These statements are important as they provide a ‘summary’ of the data analysis and will provide the basis for the conclusions. As they stand, there are some that fail to fully reflect the data and need amending, even if simply to say there is less certainty than is implied.

### **Specific points: Evidence Statements for Question 1 (para 3.6):**

P45, lines 23-25 state that: “*studies that controlled for previous mental health problems reported lower rates of mental health problems following an abortion...*” Whilst generally true, this fails to make clear that mental health problems are **not eliminated**, even though controlling for previous mental health does **reduce** the apparent risk. **Therefore, it should be stated that whilst lower, they are not eliminated.**<sup>15</sup> Moreover, on p85 lines 17-21, despite convoluted wording, the authors do acknowledge that even when prior mental health is controlled for, there are higher rates of mental health problems post-abortion compared to the general population. This is not in the evidence statements.

### **Specific points: Evidence Statements for Question 2 (para 4.5)**

P64, lines 2-4 states: “*When considering prospective studies, the only consistent factor to be associated with poor post-abortion mental health is pre-abortion mental health problems.*” This may indeed be the most reliable predictor of adverse effects, according to the research, however there are other factors that are also shown to have an effect.<sup>16</sup> 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.<sup>17</sup> Therefore the evidence statement should be amended to be stronger.<sup>18</sup> 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.

### **Specific points: Evidence Statements for Question 3 (para 5.5):**

The reviewers graded the quality of the evidence very low so the evidence statements should more clearly reflect this **lack of validity and reliability**.

#### **Evidence Statement 1:**

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<sup>15</sup> P45, table 7, sets out the rates of mental disorders post-abortion. For example, the rate of depression is 18.14 even when accounting for prior mental health.

<sup>16</sup> For example, distress after abortion (Fergusson 2009).

<sup>17</sup> For example, distress after abortion is a predictor (Fergusson 2009). Some studies (Broen and Fergusson) have found that ‘negative attitudes’ to abortion can increase risk of poor outcomes. Fergusson actually found that mental disorder could be *caused* by abortion: “...*exposure to abortion has a small causal effect on the mental health of women...*” Fergusson, D. et al, 2008 ‘Abortion and Mental Health Disorders: evidence from a 30-year longitudinal study’. *British Journal of Psychiatry*. 193, pp.444-451

<sup>18</sup> For example, ‘evidence shows that’, ‘some evidence that...’

P81, lines 37-40. We are highly concerned about this statement which does not reflect the evidence. The statement that there is “*some evidence of lower rates of psychotic illness for women who have an abortion compared with those who deliver the pregnancy*” needs amending as it **misrepresents Gilchrist’s 1995 actual findings** in the data, which are far less certain. (Gilchrist states in her research paper that many of the episodes were actually “*mild*” and there was “*insufficient information to identify truly psychotic episodes*”. Moreover, the numbers on which this was based were very low - 7 women post-birth and 6 post-abortion.<sup>19</sup> It overstates rates of psychosis. (Note also our comments on Table 17 and their failure to include evidence for increases in two disorders post-abortion.)

The evidence used in statement one, p81, lines 37-40, is selective and conflicting in also **ignoring Steinberg 2008 and Fergusson 2008 findings**. Steinberg found increased risks for multiple abortions, although not for one. Fergusson found higher mental health problems for those exposed to abortion. Indeed, **of the four studies selected, all four found some mental health problems post-abortion**. The other two found increased self-harm (Gilchrist 1995) and anxiety (Cogle 2005). Hence it is all the more misleading to state there is: “*NO evidence of an elevated risk...*” in the evidence statement.

Moreover, despite the limitations of the evidence detailed in the review on p73-74, Table 14 clearly shows 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**.<sup>20</sup> **Despite the limitations of the evidence this does not justify the claim in evidence statement 1 (line 38) that ‘there is no evidence of elevated risk of mental health problems’**

The statement should therefore at least include words to the effect that there was a relationship between abortion and mental health problems identified by several studies. At minimum, there is **conflicting** evidence, which must be reflected in the evidence statement.

#### Evidence Statement 3:

P81, Line 47 Statement three also **fails to reflect all the findings in the research**. For example, p68, line 20, finds the opposite to the evidence statement.<sup>21</sup>

These findings should be reflected in the evidence statements for Q3.

### **P89, 6.3 Conclusion Statements**

1. We generally agree

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<sup>19</sup> Gilchrist et al, 1995, p244.

<sup>20</sup> Which would therefore give an answer ‘yes’ to the Question 3 wording on p65.

<sup>21</sup> “*Coleman reported that women who had an abortion were significantly more likely to receive outpatient psychiatric treatment up to 4 years later*”. (p68, line 20).

2. This does not reflect the uncertainties and conflicting findings in the data. Nor does it reflect that there is a range of mental disorders more common after abortion than those who continue with their pregnancy. We note above (see p6, evidence statement for Q1) the rates of mental health problems are higher post-abortion than in the general population, even when controlling for mental health problems.

Therefore **we suggest that on p89 an extra evidence statement is added to clarify that when prior mental health problems are controlled for, rates of post-abortion mental health problems occur at higher rates than the general population.** This would fit with the evidence cited in the review at p 85, and p45.

Or alternatively, add a statement to the effect that mental health outcomes are not better if a woman opts for abortion rather than continuing with unwanted pregnancy.

3. We generally agree but note that abortion does not offer protection from mental health problems post-abortion.
4. *“For all women who have an unwanted pregnancy, support and monitoring should be offered....underpinned by NICE guidance.”* **Properly informed consent to abortion requires information on the risks to mental health and should be a standard part of professional practice.**
5. Moreover, while we agree that NICE guidelines would be useful, it is likely that women with mental health problems post-abortion will in addition need more specific psychological interventions. For example, they may feel guilt, anger or longing for the baby. There are few targeted, specialist, interventions for women experiencing these feelings. What there is, is primarily delivered by charities, such as CareConfidential. The Review could suggest that there is a need for specific and focused therapies.

Health professionals need to be fully informed and aware of factors that can lead to negative outcomes in order to offer information, including other options, and to be able to signpost on where necessary.

6. We support this.

Finally we note that there are no recommendations offered in this review, as would usually be expected in a major review of literature.

One that we would strongly recommend is that in order to enable further studies on this in UK **there is an urgent need for record linkage studies**. Linked data, using the NHS number linked to the female health record, is needed in order to enable future longitudinal studies of patient safety and outcome in the UK. The review’s reliance on studies from other countries highlights the lack of UK data and the need to rectify this.



### **3. The Steering Group**

The steering group has 11 members including representatives from the RCOG, DoH and RCGP. The Appendix details financial and other interests of members of the steering group. The Review states that all steering group members had to declare personal interests such as: "*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.*" (p17, line 38-39).

**Yet three members were also on the Royal College of Obstetricians and Gynaecologists consultation** on '*The Care of Women requesting Induced Abortion*'. 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. The members on both are Tahir Mahmood, Claudette Thompson and Lisa Westall. We are concerned that no members have been required to declare neutrality 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.

Moreover, the review Chair, Dr Roch Cantwell, and Dr Ian Jones both stated in a commentary in 2008 that: "*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.*" 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 and there is no statement of neutrality offered.

Dr Ian Jones was also involved in the Munk-Olsen 2011 report.<sup>22</sup> 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.

Public Policy Department  
Christian Medical Fellowship  
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<sup>22</sup> "We thank ... Dr. Ian Jones of Cardiff University, Cardiff, Wales, for reading and commenting on early versions of the manuscript". <http://www.liedegaard.dk/Publ/11%20Munk-Olsen.pdf>