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RE: Health (Abortion Law Reform) Amendment Bill 2016

I make this submission on behalf of Real Choices Australia, an organisation established a decade ago to conduct and disseminate research on reproductive health issues including abortion, and to provide professional development programs to professionals working with women experiencing challenging circumstances during the perinatal period.

Our Board of Directors includes Dr Priscilla Coleman, the world's most published researcher on the adverse impact of abortion on mental health; Catherine Cooney, a counsellor who has worked in the provision of supportive services for women in crisis during the perinatal period for more than 20 years and John Garratt who has worked in not-for-profit governance in the disabilities sector for more than 25 years.

As Executive Director, I am a Registered Nurse with a 25-year background in the provision of counselling education and research, and counselling of women adversely impacted by abortion. I hold 2 Bachelor Degrees, a Master's Degree and am currently undertaking my PhD on practitioner interactions with women who divulge an abortion experience.

I am regularly invited to speak at events both nationally and internationally on women's experiences of abortion, including mental health harm and the inherent lack of choice women considering abortion often experience.

We strongly urge you NOT to support the introduction of this Bill which is based on a number of highly misleading assertions about abortion access and fails to safeguard women from coercive practises.

In support of our position I would like to address some key points raised in the Report from the Health, Communities, Disability Services and Domestic Family Violence Prevention Committee, August 2016, and make recommendations to address the evidential facts around abortion access and abortion harm.

Abortion as a woman's right

Inherent in the 'right to choose' must be the existence of other genuine and supported options for women. This must also include adequate time to consider all such options and a framework of information giving and consent that ensures such a right is an expression of the woman's freedom and autonomy.

With 95% of all abortions being undertaken for psychosocial reasons in Australia, it is important to understand how we are failing to address many of the inequities these women face and the way in which abortion becomes a default position in the face of a lack of real choice.

The term 'psychosocial'¹ in this context is used to describe a very wide range of circumstances including a lack of financial resources, inflexible work or educational environments where pregnancy or parenting are unsupported, inadequate or unsuitable housing, feeling a lack of ability to cope, and relationship coercion toward abortion among others. To promote the necessity of abortion in the lives of women to address such circumstances is to abdicate our ethical, and legal responsibilities to minimise or remove the social inequities that exist for women. A woman should never be forced to choose between her full participation in professional, educational and social worlds and the life of her unborn child.

When a woman is seeking abortion because nobody will support her to continue her pregnancy or she doesn't have enough resources, this is not an expression of her freedom to choose, but a desperate act resulting from a lack of options.

Coercion

Our office is contacted by at least one woman a month from all over Australia, who has experienced coercion toward abortion and is left devastated. Many of these women have attended an abortion clinic to commence a medical abortion and have had immediate regrets after taking the first drug, mifepristone. We have case records of women being pressured by the abortion provider to take the drug in his/her presence, when the woman was clearly ambivalent or refusing.

It is alarming to hear that women are experiencing this kind of pressure from doctors:

I said I wasn't sure, and the doctor told me to take the pill or get out, so I took it'

'I had the tablet in my mouth and I was crying and saying I wasn't sure. He said you could hardly bring a baby into the world when you so obviously don't love or want it can you. I was horrified and devastated. I swallowed the pill.'

Other women have phoned the abortion provider within minutes or hours after leaving the clinic in a panic and not wanting to continue only to be told they have no choice. We have documented evidence from an abortion provider that they are misinforming women about risks of discontinuing the medical abortion process and that women are being harassed to continue.

¹ Rosenthal, D., Rowe, H., Mallett, S., Hardiman, A., and Kirkman, M. (2009). Understanding Women's Experiences of Unplanned Pregnancy and Abortion, Final Report . Key Centre for Women's Health in Society, Melbourne School of Population Health, The University of Melbourne:

When women are already looking for a way out before they start their abortion or within minutes or hours later, we must begin to examine why they are not being appropriately screened or consented. Professor Douglas informed the Committee that doctors often 'reframe the woman's view of her circumstances' in order to ensure she fits a mental health criteria for abortion. The time spent in undertaking this questionable process is clearly taking away from meeting the woman's real needs.

Hearing about such practises, designed to encourage decriminalisation, should only encourage our governments to question why it is that so many women are struggling economically, experiencing discrimination or living in such untenable circumstances that they are so frequently forced to resort to abortion.

Removing abortion from the Criminal Code will not address any of the coercive factors driving women to abortions and in fact is a regressive step that belies the evidence of harm.

Mental health effects of abortion

The report states that there is no causal relationship between abortion and mental health outcomes. This statement is in direct contradiction to the best available evidence which attributes up to 10% of all mental health problems in women directly to abortion. I attach a concise summary of the large number of quality studies which identify links between abortion and increased risks of substance abuse, depression, anxiety and suicide.

While some argue that 10% is a small proportion, conservative estimates indicate that at least 80,000 abortions occur in Australia annually, equating to 8,000 women each and every year experiencing significant mental health harm directly attributable to abortion.

There are a range of well accepted, evidence based risk factors for predicting mental health harm for women (see attachment for references).

These include:

- Being young (teen or young adult)
- Being unsure about the abortion decision
- Making a decision in conflict with personal values
- Feeling coerced or pressured by people or circumstances
- Feeling a sense of connection to their unborn or believing that the unborn is a human being
- Having pre-existing mental health problems
- Immaturity, emotional instability, high anxiety, or difficulty coping
- Being in a conflicted, unsupportive or abusive relationship

With 95% of all abortions being undertaken for psycho-social reasons most of the women fit one of these categories. For the most part these women are physically and mentally healthy and undergoing a procedure for which there is no evidence of health benefit.

If other elective procedures in these numbers were being undertaken on healthy women who often experience pressure, with no risk factor screening and resulting in this level of adverse effect, we'd be banning it, not making it less restrictive.

Legislative change which seeks to create an environment of easier accessibility to abortion, with less safeguards will only serve to increase the considerable economic and social burden of mental health issues in our communities.

Domestic Violence and sexual assault as creating a need for abortion services

Domestic violence does feature as part of the lives of a percentage of women seeking abortion services. However, changing the current law does nothing to provide greater support to these women. Currently many women are told abortion is the solution to domestic violence, and many are coerced by violent partners to abort. Unfortunately a number of studies² undertaken in this area focus only on issues of birth control sabotage and coerced pregnancy and either fail to question, or fail to report on, questions of coerced abortion.

This is further evidence that we are failing to meet the real needs of women and to provide them with broader options than abortion, and that we need to protect women from such coercion. The proposed Bill does neither of these things.

The vast majority of all abortions are undertaken for psychosocial reasons, with sexual assault being a factor in around 1% of all cases. There is some international evidence³ that women who become pregnant after a sexual assault are less likely than women who experience unintended pregnancy from a consensual act, to seek abortion. This is the case even though this cohort of women often experience significant pressure toward abortion. To use such tragic circumstances to promote abortion does not serve these women.

Abortion as safer than childbirth

While noting that a number of high profile professional bodies continue to perpetuate the myth that abortion is safer than childbirth, this continues to be a serious misrepresentation of the data.⁴ Where accurate and comprehensive data are collected, such as in Finland, we see a very different outcome. The results of one large Finnish population based study⁵ demonstrates that post pregnancy death rates within one year were reported to be nearly four times greater among women who had an induced abortion, compared to women who carried to term. Other Finnish population based studies (where highly accurate reproductive health information is kept) have confirmed these findings.

² Elizabeth Miller *et al*, 'Pregnancy coercion, intimate partner violence, and unintended pregnancy', *Contraception*, 81(4), April 2010, p 316

³ David C. Reardon, Julie Makimaa, and Amy Sobie, eds., *Victims and Victors: Speaking Out about Their Pregnancies, Abortions, and Children Resulting from Sexual Assault* (Springfield, IL: Acorn Books, 2000)

⁴ [http://wecareexperts.org/sites/default/files/articles/Raymond%20&%20Grimes%20\(2012\)_Critique.pdf](http://wecareexperts.org/sites/default/files/articles/Raymond%20&%20Grimes%20(2012)_Critique.pdf)

⁵ Gissler, M., Berg, C., Bouvier, Colle, M. H., Buekens, P. (2004). Methods for identifying pregnancy associated deaths: population based data from Finland 1987-2000 *Paediatric and Perinatal Epidemiology*, 18(6),

Where unsafe childbirth practises do exist, the focus should be on improving childbirth outcomes, not using this as a justification for easier abortion access.

Does decriminalising abortion make it easier for women to access?

There is absolutely no evidence to support the assertion that decriminalising abortion results in greater access for women, or more providers of abortion services. This is demonstrated in the experience in Victoria since legislative change in 2008. Abortion availability has not increased in either metropolitan or regional areas, because access was not impacted by legality, but by doctor's reluctance to participate in the procedures for other reasons.

The majority of women access abortion by attending a private provider and are unaware at any time that there are any legal issues associated with it. Even a cursory examination of social media commentary around this proposed Bill provides evidence from many women assuring others that abortion is easy to access and for any reason. Many women state emphatically that abortion isn't illegal at all, such is the ease with which they were able to access one. Of the many hundreds of women who access information services from a variety of organisations, including our own, not one has ever been concerned about the legality of abortion.

Does decriminalising abortion make it less safe for women?

We would argue that the decriminalisation of abortion has the potential to create a more dangerous environment for women, particularly young women. Mr Pyne has stated that the case of a 12yr old seeking an abortion prompted him to propose his original Bill because of the bureaucracy that was involved in procuring one for her. It should be of grave concern to all of us if decriminalising abortion meant less oversight of abortion services for minors who are clearly living in high risk circumstances if they become pregnant.

When we also read in the Committee Report that doctors are reframing women's views of their own circumstances in order to circumvent the current laws we should be extremely alarmed at the ethics of such practitioners and concerned about how easier access, with less oversight can possibly benefit women. Practises of this nature are against all ethical and professional standards within which doctors ought to be practising informed consent, screening and the offering of genuine alternatives.

Abortion Ideology

Abortion divides and polarises our communities for very good reasons. Many believe it is only an issue of preborn life, however it is far broader than that. In my professional capacity talking to community and professional groups around the world, including in Queensland, I see that the majority of people are extremely uncomfortable at the idea that women are having abortions they don't really want; that women are not being genuinely supported; that they are being forced to choose and that such coercion is being sold to them as freedom and autonomy.

My current research is identifying many ways in which women are being isolated and abandoned because of ideological fears and silencing. When governments and abortion advocates continue to perpetuate the idea that abortion should be 'easier', that access is more important than the lived

experiences of women, they further isolate women from the supports they really need and silence those who are suffering.

The way in which abortion is currently promoted as an appropriate solution to social problems is clearly leading to coercive practise, and decreasing supports and genuine options for women. When the economic and social burdens created by the emotional suffering of women is not being acknowledged or addressed, it is not time to create less restriction around a practise that clearly contributes to this harm.

Queensland parliament has a unique opportunity to pave a new way forward for women. One that doesn't tell women they must choose between full participation in their chosen paths and their unborn children; one that values, supports and upholds a woman's right to bear her children without fear of abandonment.

Recommendations

In the USA the majority of States are legislating greater restrictions around abortion in response to the evidence of mental health harm and the injustice and inequities women experience. These legislative restrictions include waiting periods, parental consent for minors, information about foetal development, full disclosure of alternatives and supports to parent, among many others. Given that the United States is at the forefront of research in this area, it makes no credible sense for Australia to ignore the evidence and be moving in the opposite direction.

There is no evidence in Australia or internationally that abortion has a positive health affect for women, and growing evidence that it can cause considerable long term harm. If other elective procedures based on these facts were being undertaken in such numbers, we would be clamouring to legislate restrictions, not abandoning women to an unscrupulous, misleading ideology.

Guidelines that offer benefit to women include:

- Waiting periods of up to one week
- Comprehensive risk factor screening and full disclosure of risk
- Referral to services that can offer support to continue a pregnancy
- Parental notification and consent for minors
- Accurate information on foetal development
- Providers of termination services should be required to provide follow up of all women to assess for any mental health or emotional issues that may require referral for support.
- Access to perinatal hospice services so that women have a genuine option to continue a pregnancy when faced with an adverse foetal diagnosis
- Funded community based pregnancy support services which can provide material and practical assistance and help women navigate the supports available to them.

The Royal Australian and New Zealand College of Psychiatrists have made the statement⁶ that,

“Regardless of the difficulties in the research findings to date, adverse psychological outcomes are common enough to justify availability of expert counselling and support services for every woman undergoing a termination of pregnancy if required”

We believe that every woman should be required to be comprehensively screened, assessed and counselled as to her personal risk factors for psychological harm from abortion, and provided with accurate information about the supportive services available to her to continue her pregnancy. Such counselling can only be undertaken independently of abortion providers who clearly have a vested financial interest in the woman’s decision.

Data Collection

We need improved abortion data collection and publication to accurately monitor, assess and improve perinatal outcomes for all women. Such data collection must include processes for the collection of adverse outcomes for at least one year after an abortion.

We would support all of these safety guards being legislated for the protection of women and children in Queensland. Decriminalising abortion will provide none of these protections, and in fact can lead to it becoming more difficult for women to be fully informed and seek more support.

Regards



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Attachment

Does Abortion Cause Mental Health Problems

Evidence and References

2012

DOES ABORTION CAUSE MENTAL HEALTH PROBLEMS?

Priscilla K. Coleman, Ph.D.

Recent media attention has focused on the mental health impact of elective abortion. The main argument put forward is that while psychological problems may be associated with the termination of a pregnancy, there is no evidence that abortion causes any lasting and significant mental health problems. This report provides an objective lens to examine this controversy.



DOES ABORTION CAUSE MENTAL HEALTH PROBLEMS? THE EVIDENCE THROUGH AN OBJECTIVE SCIENTIFIC LENS

I. Background for understanding causality when studying human behavior

Due to the inherent complexity of human psychological health outcomes, such as depression and suicidal behavior, identification of a single, precise causal agent applicable to all cases is not possible. Every mental health problem is determined by numerous physical and psychological characteristics, background, and current situational factors subject to individual variation. Further, any one cause (e.g. abortion) is likely to have a variety of effects (e.g., anxiety, depression, suicidal behavior) based on the variables involved.

A *risk factor* refers to any variable that has been established to increase the likelihood of an individual experiencing an adverse outcome. Risk factor data are used in medicine and psychology for the explicit purposes of understanding etiology, warning patients of risks associated with various medical interventions, and development of effective prevention and intervention protocols to maximize health.

Assessment of degree of risk is often expressed in terms of *absolute risk*, which relates to the chance of developing a disease over a time-period (e.g., a 10% lifetime risk of suicide) or in terms of *relative risk*, which is a comparison of the probability of an adverse outcome in two groups. For example, abortion would be considered an increased risk for suicide if the relative risk is significantly higher for women who abort compared to women who give birth or never have children.

Determination of causality technically requires an experimental design in which there is random assignment of large groups to expected cause conditions (e.g., abortion, no abortion/delivery, no abortion/no pregnancy). However, as is true with numerous variables of interest in psychology and medicine, it is not ethical nor is it practically feasible to implement such a study. When scientists are not able to control or manipulate the variable of interest, risk factors for negative outcomes are established over time through the two primary scientific steps described below.

1. Analysis of each individual study. Each individual study published in a peer-reviewed journal is examined to assess the quality of evidence suggestive of a causal link between abortion and negative outcomes. The following three criteria are applied when the variable of interest such as abortion can not be manipulated.

a. Abortion must be shown to precede the mental health problem (referred to as *time precedence*). This is typically accomplished with longitudinal or prospective data collection in which testing occurs over an extended period of time following the abortion.

b. Differences in abortion history (abortion, no abortion) must be systematically associated with differences in mental health status (*covariation*).

c. Finally, all plausible alternative explanations for associations between abortion and mental health must be ruled out using a method of control. Typically third variables predictive of both the choice to abort and mental health (e.g. income, previous psychological problems, exposure to domestic violence etc.) are statistically removed from the analyses. Identifying, measuring, and statistically controlling for known predictors of abortion would go a long way to help establish causality; however there are many other means for achieving the same goal of infusing control. Additional control techniques include: (1) matching groups on all variables known to be related to abortion and the outcome measures; (2) measuring potential confounding variables and introducing them as additional variables to assess their independent effects; (3) identifying and selecting homogeneous populations to draw the pregnancy outcome groups.

2. Integrative analysis. After evaluating individual studies for causal evidence linking abortion to decrements in mental health, scientists assess the consistency and magnitude of associations between abortion and particular mental health problems across all available studies. This integrative process represents the second step for determining whether or not abortion is a substantial contributing factor for severe depression and other mental health problems.

a. *Consistency* refers to repeated observation of an association between abortion and mental health across several studies using different people, places, and circumstances tested at distinct points in time. When results become generalized in this manner, the probability that an association would be due to chance is dramatically reduced.

b. *Magnitude* (or strength of effect) refers to whether the associations between abortion and various mental health problems are slight, moderate, or strong. Strong associations across various studies are more likely causal than slight or modest associations. This point has been illustrated with the high risk ratios for the association between exposure levels of smoking and incidence of lung cancer.

II. Causal Evidence from Research on the Mental Health Risks of Abortion

The tables below provide an overview of the studies related to abortion and suicide ideation and suicide, abortion and substance use/abuse, abortion and depression, and abortion and anxiety. The arrangement of the data in the tables offers guidance regarding the extent to which the conditions for causality have been met.

Table 1: Scientific Studies Identifying Abortion as a Risk Factor in Suicidal Behavior.

Study	Time sequence	Co-variation	Controls and Other Strengths	Results/Magnitude of effect
1. Fergusson, D. M. et al. (2006). Abortion in young women and subsequent mental health. <i>Journal of Child Psychology and Psychiatry</i> , 47, 16-24.	✓	✓	Pregnancy delivered and never pregnant used as comparison groups. Controlled for demographic, family of origin, history of abuse, partner, personality, and mental health history variables. National sample, high retention, low concealment, thorough assessments of outcomes.	27% of women who aborted reported suicidal ideation. The risk was 4X greater for women who aborted compared to never pregnant women and more than 3X greater for women who delivered.
2. Fergusson, D.M. et al. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study, <i>The British Journal of Psychiatry</i> , 193, 444-451.	✓	✓	Pregnancy delivered and never pregnant used as comparison groups. Controlled for demographic, family of origin, history of abuse, partner, personality, mental health history, exposure to adverse events variables and pregnancy intendedness. National sample, high retention, low concealment, thorough assessments of outcomes.	61% increased risk of suicide ideation associated with abortion.
3. Gilchrist, A. C. et al. (1995). Termination of pregnancy and psychiatric morbidity. <i>British Journal of Psychiatry</i> 167, 243.	✓	✓	Compared women who were refused abortion and women who chose abortion but changed their minds. Pregnancy intendedness controlled.	Among women with no history of psychiatric illness, the rate of deliberate self-harm was significantly higher (70%) after abortion than childbirth.
4. Gissler, M. et al. (1996). Suicides after pregnancy in Finland, 1987-94: Register linkage study. <i>British Medical Journal</i> , 313, 1431-4.	✓	✓	Compared women who aborted to those who delivered, miscarried, and the general population. Large study population Use of medical claims data: ICD-8 codes.	Suicide rate was nearly 6X greater among women who aborted compared to women who delivered.
5. Gissler, M. et al. (2005). Injury deaths, suicides and homicides associated with pregnancy, Finland 1987-2000. <i>European Journal of Public Health</i> , 15, 459-463.	✓	✓	Compared women who aborted, delivered, miscarried, and were not pregnant. Large study population Use of medical claims data: ICD-8 codes. Distinguished level of risk associated with suicide and other forms of death.	Abortion was associated with a 6X higher risk for suicide compared to birth.
6. Reardon, D.C. et al. (2002). Deaths associated with delivery and abortion among California Medicaid patients: A record linkage study. <i>Southern Medical Journal</i> , 95,834-41.	✓	✓	Use of homogenous population. Controlled for prior psychiatric history, age, and eligibility for state medical coverage. Large sample	Suicide risk was 154% higher among women who aborted compared to those who delivered.
7. Rue, V.M. et al. (2004). Induced abortion and traumatic stress: A preliminary comparison of American and Russian women. <i>Medical Science Monitor</i> 10, SR 5-16.	✓	✓	Controlled for stressors pre-and post-abortion, demographic and psycho-social variables (including abuse and parental divorce, etc.). Women specifically asked if they believed the abortion was the cause.	36.4% of the American women and 2.8% of the Russian women respectively reported suicidal ideation.
8. Mota, N.P. et al (2010). Associations between abortion, mental disorders, and suicidal behaviors in a nationally representative sample. <i>The Canadian Journal of Psychiatry</i> , 55 (4), 239-246.		✓	Nationally representative sample. Controlled for the experience of interpersonal violence and demographic variables.	When compared to women without a history of abortion, those who had an abortion had a 59% increased risk for suicide ideation.

Table 2: Scientific Studies Identifying Abortion as a Risk Factor in Depression.

Study	Time sequence	Co-variation	Controls and Other Strengths	Results/Magnitude of effect
1. Coleman, P. K. et al. (2002). State-funded abortions vs. deliveries: A comparison of outpatient mental health claims over four years. <i>American Journal of Orthopsychiatry</i> , 72, 141-152.	✓	✓	Homogeneous population. Controls for pre-pregnancy psychological difficulties, age, and months of eligibility. Large sample. Used actual claims data, eliminating the concealment problem. Avoids recruitment, retention problems, and simplistic forms of assessment.	Across the 4-yrs, the abortion group had 40% more claims for neurotic depression than the delivery group.
2. Coleman, P. K. (2006). Resolution of unwanted pregnancy during adolescence through abortion versus childbirth: Individual and family predictors and psychological consequences. <i>The Journal of Youth and Adolescence</i> , 35, 903-911.	✓	✓	Nationally representative, diverse sample. Exclusive focus on unwanted pregnancies aborted and delivered. Implemented controls for several demographic, psychological, and familial variables.	After implementing controls, adolescents with an abortion history, when compared to those with a birth history, were: 5X more likely to seek counseling for psychological or emotional problems and 4X more likely to report frequent sleep problems, a common symptom of depression.
3. Coleman, P. K. et al. (2009). Induced Abortion and Anxiety, Mood, and Substance Abuse Disorders: Isolating the Effects of Abortion in the National Comorbidity Survey. <i>Journal of Psychiatric Research</i> , 43, 770-776.		✓	Controlled 22 different demographic, history, and personal/situational variables mostly related to adverse life events. Nationally representative sample. Thorough assessments of psych outcomes by trained professionals. PAR statistic calculated.	After implementing controls, an abortion increased the risk of developing Major Depression with Hierarchy by 42.5%. Abortion was linked to 4.3% of the incidence of Major Depression with Hierarchy.
4. Cogle, J., et al. (2003). Depression associated with abortion and childbirth: A long-term analysis of the NLSY cohort. <i>Medical Science Monitor</i> , 9, CR105-112	✓	✓	Controlled for prior psychological state, age, race, marital status, divorce history, education, and income (stratification by ethnicity, current marital status, and history of divorce). Nationally representative, racially - diverse sample. Extended time frame.	Women whose 1 st pregnancies ended in abortion were 65% more likely to score in the “high-risk” range for clinical depression. (White: 79% higher risk; married: 116% higher risk; 1 st marriage didn’t end in divorce: 119% higher risk).
5. Dingle, K., et al. (2008). Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study. <i>The British Journal of Psychiatry</i> , 193, 455-460.	✓	✓	Controlled for maternal and familial factors, pre-existing behavior problems and substance misuse, and demographic factors.	Young women reporting an abortion history had almost twice the risk for 12 month depression compared to women who did not report an abortion.
6. Fergusson, D. M. et al. (2006). Abortion in young women and subsequent mental health. <i>Journal of Child Psychology and Psychiatry</i> , 47, 16-24.	✓	✓	Pregnancy delivered and never pregnant used as comparison groups. Controlled for demographic, family of origin, history of abuse, partner, personality, and mental health history variables. National sample, high retention, low concealment, thorough assessments of outcomes.	42% of the women who had aborted reported major depression by age 25.
7. Fergusson, et al. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study, <i>The British Journal of Psychiatry</i> , 193, 444-451.	✓	✓	Pregnancy delivered and never pregnant used as comparison groups. Controlled for demographic, family of origin, history of abuse, partner, personality, pregnancy intendedness, and mental health history variables. National sample, high retention, low concealment, thorough assessments of outcomes.	Major depression: 31% increased risk associated with abortion.
8. Harlow, B. L. et al. (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.	✓	✓	Employed demographic controls (age, age at menarche, educational attainment, and history of marital disruption). Population-based sample. 73.5% response rate.	Compared to women with no history of induced abortion, those with two or more were 2-3X more likely to have a lifetime history of major depression.
9. Major, B. et al. (2000). Psychological responses of women after first trimester abortion. <i>Archives of General Psychiatry</i> , 57, 777-84.	✓	✓	Controlled for demographic characteristics, medical complications, and prior mental health.	Two years post-abortion, 20% were depressed. Younger age and having more children pre-abortion predicted more negative post-abortion outcomes.

10. Pedersen W. (2008). Abortion and depression: A population-based longitudinal study of young women. <i>Scandinavian Journal of Public Health</i> , 36 (4):424-8.	✓	✓	Controlled for parental education level, parental smoking habits, parental support, and prior history of depression. Large national sample	Women with an abortion history were nearly 3X as likely as their peers without an abortion experience to report significant depression.
11. Pope, L. M. et al. (2001). Post-abortion psychological adjustment: Are minors at increased risk? <i>Journal of Adolescent Health</i> , 29, 2-11.	✓	✓	Compared current sample results with those reported in other studies using similar samples.	19% experienced moderate to severe levels of depression 4 weeks post-abortion.
12. Reardon, D. C., & Cougle, J. (2002). Depression and Unintended Pregnancy in the National Longitudinal Survey of Youth: A cohort Study. <i>British Medical Journal</i> , 324, 151-152.	✓	✓	Confined analyses to unintended pregnancy aborted or delivered. Nationally representative sample. Controlled for the following: prior psychiatric state, family income. Education, race, age at first pregnancy. Stratified by marital status.	The percentage of women who carried to term considered to be in the high-risk range for depression was 22.7% compared to 27.3% of women who aborted (OR=1.54). Among married women, the percentage of women who carried to term considered to be in the high-risk range for depression was 17.3% compared to 26.2% of women who aborted (OR=2.38).
13. Reardon, D. C. et al. (2003). Psychiatric admissions of low-income women following abortion and childbirth. <i>Canadian Medical Association Journal</i> , 168, 1253-1256.	✓	✓	Homogeneous population. Controls for pre-pregnancy psycho-logical difficulties, age, and mos. of eligibility. Large sample. Used actual claims data, eliminating the concealment problem. Avoids recruitment and retention problems, and simplistic forms of assessment.	Across the 4-yrs, the abortion group more claims for depressive disorders compared to the birth group, with the percentages equaling 90%, 110%, and 200% for depressive psychosis, single and recurrent episode, and bipolar disorder respectively.
14. Rees, D. I. & Sabia, J. J. (2007) The relationship between abortion and depression: New evidence from the Fragile Families and Child Wellbeing Study. <i>Medical Science Monitor</i> , 13(10), 430-36.	✓	✓	A number of controls were incorporated: race, ethnicity, age, education, household income, number of children, prior depression.	Women who had an abortion were at a significantly higher risk for reporting symptoms of Major Depression compared to women who had not become pregnant. After adjusting for controls, abortion was associated with more than a two-fold increase in the likelihood of having depressive symptoms at second follow-up.
15. Schmiege, S., & Russo, N. F. (2005). Depression and unwanted first pregnancy: Longitudinal cohort study. <i>British Medical Journal</i> .	✓	✓	Employed controls to only some analyses <i>with no explanation</i> . The analyses in Table 3 of the article do not incorporate controls for variables identified as significant predictors of abortion (higher education and income and smaller family size). This is highly problematic since lower education and income and larger family size predicted depression. Without the controls, the delivery group will have more depression variance erroneously attributed to pregnancy resolution.	Percent of women exceeding the depression cut-off after an abortion: Married white women: 16% Married black women: 24% Unmarried black women: 38% Among the unmarried, white women, 30% of those in the abortion group had scores exceeding the clinical cut-off for depression, compared to 16% of the delivery group. Statistical significance is likely to have been achieved with the controls instituted.
16. Söderberg et al. (1998). Emotional distress following induced abortion. A study of its incidence and determinants among abortees in Malmö, Sweden. <i>European Journal of Obstetrics and Gynecology and Reproductive Biology</i> 79, 173-8.	✓	✓	Utilized a case control data analysis strategy. Extensive semi-structured interview methodology.	50-60% of the women experienced emotional distress of some form (e.g., mild depression, remorse or guilt feelings, a tendency to cry without cause, discomfort upon meeting children), classified as severe in 30% of cases.
17. Mota, N.P. et al (2010). Associations between abortion, mental disorders, and suicidal behaviors in a nationally representative sample. <i>The Canadian Journal of Psychiatry</i> , 55 (4), 239-246.		✓	Nationally representative sample. Controlled for the experience of interpersonal violence and demographic variables.	When compared to women without a history of abortion, those who had an abortion had a 61% increased risk for Mood Disorders

Table 3: Scientific Studies Identifying Abortion as a Risk Factor in Anxiety.

Study	Time sequence	Co-variation	Controls and Other Strengths	Results/Magnitude of effect
1. Broen, A.N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2004). Psychological impact on women of miscarriage versus induced abortion: A 2 year follow-up study. <i>Psychosomatic Medicine</i> , 66, 265-271.	✓	✓	Number of children Marital status Vocational status	10 days after the pregnancy ended, 30% of those who had an abortion scored high on measures of avoidance or intrusion, which includes symptoms such as flashbacks and bad dreams. 2 years after the pregnancy ended, nearly 17% of 80 women who had an abortion scored highly on a scale measuring avoidance symptoms, compared with about 3% of those who miscarried.
2. Broen, A.N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2005). 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, 36-43.	✓	✓	Marital status Psychiatric history	Male pressure on women to abort was significantly associated with negative abortion-related emotions in the two years following an abortion. Pre-abortion psychiatric history was not significantly related to immediate negative abortion related emotion or with negative emotional responses measured at 2 years out. 23.8% of the sample scored high on The Impact of Events Scale (a measure of stress reactions after a traumatic event) 10 days after the abortion, 13.3% at 6 months, and 1.4% after 2 years.
3. Coleman, P.K., Coyle, C.T., Shuping, M., & Rue, V. (2009). Induced Abortion and Anxiety, Mood, and Substance Abuse Disorders: Isolating the Effects of Abortion in the National Comorbidity Survey. <i>Journal of Psychiatric Research</i> . 43, 770–776.		✓	Twenty two different demographic, history, and personal/situational variables mostly related to adverse life events.	For PTSD, Agoraphobia with or without Panic Disorder, Agoraphobia without Panic Disorder, a history of abortion when compared to no history was associated with an 81.6%, 1.24 6%, and a 1.32% increased risk respectively after implementing statistical controls. Calculation of population attributable risks indicated that abortion was implicated in 8.3% of the incidence of PTSD, 12.3% of the incidence of Agoraphobia with/or without Panic, and 13.0% of Agoraphobia without Panic.
4. Coleman, P.K., & 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.	✓	✓	Gender: Compared men and women with abortion experience. Time elapsed since abortion	Anxiety increased after the abortion: female: 13.3%; male: 9.7%
5. Cogle, J., Reardon, D. C., Coleman, P. K., & Rue, V. M. (2005). Generalized anxiety associated with unintended pregnancy: A cohort study of the 1995 National Survey of Family Growth. <i>Journal of Anxiety Disorders</i> , 19, 137-142	✓	✓	All women were experiencing an unintended pregnancy Stratification by ethnicity, current marital status, and age.	The odds of experiencing subsequent Generalized Anxiety were 34% higher among women who aborted compared vs. delivered. Greatest differences among the following demographic groups: Hispanic: 86% higher risk, Unmarried at time of pregnancy: 42% higher risk; under age 20: 46% higher risk.
6. 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.	✓	✓	Used a matched control group	Previous abortion was significantly associated with anxiety among the pregnant women
7. Fergusson, D. M., Horwood, J., & Ridder, E. M. (2006). Abortion in young women and subsequent mental health. <i>Journal of Child Psychology and Psychiatry</i> , 47, 16-24.	✓	✓	Those who delivered and were never pregnant used as comparison groups. Controlled for maternal education, childhood sexual abuse, physical abuse, child neuroticism, self-esteem, grade point average, smoking, prior history of depression, anxiety, prior history of suicide ideation, living with parents, living with partner	39% of post-abortive women suffered from anxiety disorders by age 25.
8 Fergusson, D.M., Horwood, J. H., & Boden, J. M. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study, <i>The British Journal of Psychiatry</i> , 193, 444-451.	✓	✓	Controls: childhood socio-economic circumstances, childhood family functioning, parental adjustment, abuse in childhood, individual characteristics, educational achievement, adolescent adjustment, lifestyle and related factors such as exposure to adverse events, and pre-abortion mental health.	Anxiety Disorder: 113% increased risk associated with abortion.

9. Lauzon, P., Roger-Achim, D., Achim, A., & Boyer, R. (2000). Emotional distress among couples involved in first trimester abortions. <i>Canadian Family Physician</i> , 46, 2033-2040.	✓	✓	Random sample of the general population of reproductive age used as the control group	Before the abortion, 56.9% of women and 39.6% of men were much more distressed than their respective controls. Three weeks after the abortion, 41.7% of women and 30.9% of men were still highly distressed.
10. Major, B., & Gramzow, R. H. (1999). Abortion As stigma: Cognitive and emotional implications of concealment. <i>Journal of Personality and Social Psychology</i> , 77, 735-745.	✓	✓	.	Two years after abortion: Intrusive thoughts - quite a bit: 3% - some intrusive thoughts: 62%
11. Mota, N.P. et al (2010). Associations between abortion, mental disorders, and suicidal behaviors in a nationally representative sample. <i>The Canadian Journal of Psychiatry</i> , 55 (4), 239-246.		✓	Nationally representative sample. Controlled for the experience of interpersonal violence and demographic variables.	When compared to women without a history of abortion, those who had an abortion had a 61% increased risk for social phobia.
12. Pope, L. M., Adler, N. E., & Tschann, J. M. (2001). Post-abortion psychological adjustment: Are minors at increased risk? <i>Journal of Adolescent Health</i> , 29, 2-11.	✓	✓	Compared current results with those in other studies using similar samples.	Impact of Events Scale – Intrusion Subscale Score = 13.46, which is similar to adults experiencing a recent parental bereavement.
13. Rue, V. M., Coleman, P. K., Rue, J. J., & Reardon, D. C. (2004). Induced abortion and traumatic stress: A preliminary comparison of American and Russian women. <i>Medical Science Monitor</i> 10, SR 5-16.	✓	✓	Controls for severe stress symptoms prior to the abortion, other stressors pre-and post-abortion, several demographic variables, psycho-social variables (harsh discipline, abuse, parental divorce, etc).	The percentages of Russian and U.S. women who experienced 2 or more symptoms of arousal, 1 or more symptom of re-experiencing the trauma, and 1 or more experience of avoidance (consistent with DSM-IV diagnostic criteria for PTSD) were equal to 13.1% and 65% respectively.
14. Sivuha, S. Predictors of Posttraumatic Stress Disorder Following Abortion in a Former Soviet Union Country. <i>Journal of Prenatal & Perinatal Psych & Health</i> , 17, 41-61 (2002).		✓	.	35% of women had some posttraumatic consequences of abortion (elevated avoidance, intrusion, or hyper-arousal scores) 46% of women had evidence of PTSD, exceeding the cut-offs for intrusion and avoidance subscales. 22% of women experienced PTSD, exceeding the cut-offs on all 3 subscales.
15. Slade, P., Heke, S., Fletcher, J., & Stewart, P. (1998). A comparison of medical and surgical methods of termination of pregnancy: Choice, psychological consequences, and satisfaction with care. <i>British Journal of Obstetrics and Gynecology</i> , 105, 1288-1295.	✓	✓		1 month post-abortion: Cases of anxiety: 27%
16. Suliman et al. (2007) Comparison of pain, cortisol levels, and psychological distress in women undergoing surgical termination of pregnancy under local anaesthesia vs. intravenous sedation. <i>BMC Psychiatry</i> , 7 (24), p.1-9.	✓	✓	Baseline levels of depression, state anxiety, self-esteem, and functional disability.	The percentages of women experiencing PTSD symptoms after abortion were 17.5% and 18.2% at one and three months respectively.
17. Williams, G. B. (2001). Short-term grief after an elective abortion. <i>Journal of Obstetrics, Gynecologic, and Neonatal Nursing</i> , 30, 174-183.	✓	✓	Controlled for other forms of loss and psychiatric history. Control group with no abortion history.	History of elective abortion associated with more grief in terms of loss of control, death anxiety, and dependency than controls.
18. Urquhart D.R., & Templeton, A. A. (1991). Psychiatric morbidity and acceptability following medical and surgical methods of induced abortion. <i>British Journal of Obstetrics and Gynecology</i> , 98, 396-399.	✓	✓	.	Clinically significant feelings of anxiety at 1 month post-abortion by 10% of the sample.

Table 4: Scientific Studies Identifying Abortion as a Risk Factor in Substance Use/Abuse.

Study	Time sequence	Co-variation	Controls and Other Strengths	Results/Magnitude of effect
1. Amaro H., Zuckerman B, & Cabral H. (1989). Drug use among adolescent mothers: profile of risk. <i>Pediatrics</i> , 84, 144-151.	✓	✓	Other forms of perinatal loss as comparison groups	Adolescent drug users when compared to nonusers were significantly more likely to report a history of elective abortion (33% vs. 16.3%). No associations were identified between drug use and parity or other forms of perinatal loss (miscarriage /stillbirth).
2. Coleman, P. K. (2006). Resolution of Unwanted Pregnancy During Adolescence Through Abortion versus Childbirth: Individual and Family Predictors and Consequences. <i>Journal of Youth and Adolescence</i> .	✓	✓	Demographic, educational, psychological, and family variables found to predict the choice to abort Exclusive focus on unwanted pregnancies	After implementing controls, adolescents with an abortion history, when compared to adolescents who had give birth were 6 times more likely to use marijuana.
3. Coleman., P.K., Coyle, C.T., Shuping, M., & Rue, V. (2009), Induced Abortion and Anxiety, Mood, and Substance Abuse Disorders: Isolating the Effects of Abortion in the National Comorbidity Survey. <i>Journal of Psychiatric Research</i> . 43, 770– 776.		✓	Controlled for twenty two different demographic, history, and personal/situational variables mostly related to adverse life events.	Abortion was related to an increased risk for substance abuse disorders after statistical controls were instituted. An induced abortion was specifically associated with a 105%, 134%, 70.9%, 104% increased risk for Alcohol Abuse with or without Dependence, Alcohol Dependence, Drug Abuse with or without Dependence, and Drug Dependence respectively. Calculation of population attributable risks indicated that abortion was implicated in 9% of the incidence of Alcohol Abuse with/or without Dependence, 12.5% of the incidence of Alcohol Dependence, 7.1% of the incidence of Drug Abuse with/or without Dependence, and 10.4% of the incidence of Drug Dependence.
4. Coleman, P. K., & Maxey, D. C., Spence, M. Nixon, C. (2009). The choice to abort among mothers living under ecologically deprived conditions: Predictors and consequences. <i>International Journal of Mental Health and Addiction</i> 7, 405-422.	✓	✓	Controls for the following variables: mother and father married at baseline, mother considered an abortion during first pregnancy, and relationship with father got worse or remained the same after first pregnancy confirmed, and 11 variables related to paternal involvement in the care of the child born at baseline.	Women who chose abortion when compared to women who delivered a second child were more likely to report recent heavy use of alcohol (239% increased risk) and cigarette smoking (99% increased risk).
5. Coleman, P. K., Reardon, D. C., Rue, V., & Cogle, J. (2002). History of induced abortion in relation to substance use during subsequent pregnancies carried to term. <i>American Journal of Obstetrics and Gynecology</i> , 187, 1673-1678.	✓	✓	Results were stratified by potentially confounding factors (marital status, income, ethnicity, and time elapsed since a prior abortion or birth)	Compared with women who had previously given birth, women who aborted were significantly more likely to use marijuana (929%), various illicit drugs (460%), and alcohol (122%) during their next pregnancy. Differences relative to marijuana and use of any illicit drug were more pronounced among married and higher income women and when more time had elapsed since the prior pregnancy. Differences relative to alcohol use were most pronounced among the white women and when more time had elapsed since the prior pregnancy.
6. Coleman, P. K., Reardon, D. C., & Cogle, J. (2005) Substance use among pregnant women in the context of previous reproductive loss and desire for current pregnancy. <i>British Journal of Health Psychology</i> , 10, 255-268.	✓	✓	Other forms of loss Age Marital status Trimester in which prenatal care was sought Education Number in household	No differences were observed in the risk of using any of the substances measured during pregnancy relative to a prior history of miscarriage or stillbirth. A prior history of abortion was associated with a significantly higher risk of using marijuana (201%), cocaine-crack (198%), cocaine-other than crack (406%), any illicit drugs (180%), and cigarettes (100%).
7. Dingle, K., Alta, R., Clavarino, A. et al. (2008). Pregnancy loss and psychiatric disorders in young women: An Australian birth cohort study. <i>The British Journal of Psychiatry</i> , 193, 455-460.	✓	✓	Controlled for maternal and familial factors, pre-existing behavior problems and substance misuse, and demographic factors.	Young women reporting an abortion history had almost 3 times a greater risk of experiencing a lifetime illicit drug use disorder (not including marijuana) and twice the risk for an alcohol use disorder compared to women who did not report an abortion.

8. Fergusson, D. M., Horwood, J., & Ridder, E. M. (2006). Abortion in young women and subsequent mental health. <i>Journal of Child Psychology and Psychiatry</i> , 47, 16-24.	✓	✓	Those who delivered and were never pregnant used as comparison groups. Controlled for maternal education, childhood sexual abuse, physical abuse, neuroticism, self-esteem, grade point average, smoking, prior history of depression, anxiety, suicide ideation, living with parents, living with partner	6.8% indicated alcohol dependence, and 12.2% were abusing drugs. By age 25.
9. Fergusson, D.M., Horwood, J. H., & Boden, J. M. (2008). Abortion and mental health disorders: Evidence from a 30-year longitudinal study, <i>The British Journal of Psychiatry</i> , 193, 444-451.	✓	✓	Controls: Measures of childhood socio-economic circumstances, childhood family functioning, parental adjustment, exposure to abuse in childhood, individual characteristics, educational achievement, adolescent adjustment, lifestyle and related factors which included exposure to adverse events, and pre-abortion mental health.	Alcohol dependence: 188% increased risk associated with abortion Illicit drug dependence: 185% increased risk associated with abortion.
10. Hope, T. L., Wilder, E. I., & Watt, T. T. (2003). The relationships among adolescent pregnancy, pregnancy resolution, and juvenile delinquency, <i>The Sociological Quarterly</i> , 44, 555-576.	✓	✓	Controls for a wide range of socioeconomic and demographic variables likely to influence juvenile delinquency.	Compared to adolescents who ended their pregnancies through abortion, those who keep their babies experienced a dramatic reduction in smoking and marijuana use
11. Pedersen, W. (2007). Addiction. Childbirth, abortion and subsequent substance use in young women: a population-based longitudinal study, 102 (12), 1971-78.	✓	✓	Controls for social background, parental and family history, smoking, alcohol and drug use, conduct problems, depression, schooling, and career variables. Comparison groups included those who had never been pregnant and those who delivered.	Elevated rates of substance use (nicotine dependence: 400% increased risk; alcohol problems: 180% increased risk; Cannabis use: 360% increased risk; and other illegal drugs: 670% increased risk) compared to other women
12. Reardon, D. C., Coleman, P. K., & Cogle, J. (2004) Substance use associated with prior history of abortion and unintended birth: A national cross sectional cohort study. <i>Am. Journal of Drug and Alcohol Abuse</i> , 26, 369-383.	✓	✓	Age Ethnicity Marital status Income Education Pre-pregnancy self-esteem and locus of control	Compared to women who carried an unintended first pregnancy to term, those who aborted were 100% more likely to report use of marijuana in the past 30 days and 149% more likely to use cocaine in the past 30 days (only approached significance). Women with a history of abortion also engaged in more frequent drinking than those who carried an unintended pregnancy to term. Except for less frequent drinking, the delivery group was not significantly different from the no pregnancy group.
13. Reardon D.C., Ney, P.G. (2002) Abortion and subsequent substance abuse. <i>American Journal of Drug and Alcohol Abuse</i> , 26, 61-75.	✓	✓	Controlled for substance use prior to the abortion and age	Women who aborted a first pregnancy were 5 times more likely to report subsequent substance abuse than women who carried to term and 4 times more likely to report substance abuse compared to those who had a non-voluntary pregnancy loss
14. Yamaguchi D, & Kandel D. (1987). Drug use and other determinants of premarital pregnancy and its outcome: A dynamic analysis of competing life events. <i>Journal of Marriage and the Family</i> , 49, 257-270.	✓	✓		The use of illicit drugs other than marijuana was 6.1 times higher among women with a history of abortion when compared to women without a history.
15. Mota, N.P. et al (2010). Associations between abortion, mental disorders, and suicidal behaviors in a nationally representative sample. <i>The Canadian Journal of Psychiatry</i> , 55 (4), 239-246.		✓	Nationally representative sample. Controlled for the experience of interpersonal violence and demographic variables.	The increased risk for alcohol abuse, alcohol dependence, drug abuse, drug dependence, and any substance use disorder were equal to 261%, 142%, 313%, 287%, and 280% respectively.