

## ASSOCIATIONS OF PREGNANCY LOSS AND PSYCHOLOGICAL STATE

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### Summary

Miscarriage and induced abortion are life events that can potentially cause mental distress. The objective of this study was literature review and to perform case study to determine whether there are any differences in the patterns of psychological symptoms after these two events and to point the importance of informed consent.

In our study 20 women who experienced miscarriages and 20 women who underwent induced abortions were interviewed in Vilnius out patients clinics. We found that women who had pregnancy termination had more mental distress than women who experienced a miscarriage (guilty, anxiety, anger, episodes of crying etc). Women undergoing abortion had significantly more conflicts in their partnerships. Separation occurred in about one-quarter of all couples. In conclusion women who had undergone an abortion exhibited higher frequency of psychological symptoms than after miscarriage. Although an answer to the causal question is not readily discerned based on the data available, as more prospective studies with numerous controls are being published, indirect evidence for a causal connection is beginning to emerge.

So we may consider that it is necessary still before induced abortion procedure to inform the couples about an increasing possibility of mental distress.

### Introduction

Abortion and miscarriage is regarded as a serious and distressing life events for a woman [1].

Responses to miscarriage are very diverse, and 'adjusting' after miscarriage is complex. For some, the emotional impact may be minimal, but many women experience depression and anxiety which can persist for months or years. Poor adjustment to miscarriage has been associated with psychological, social and reproductive risk factors. At a psychological level, a history of mental illness is associated

with poorer adjustment to miscarriage. However, there is a need to distinguish between women whose symptoms are a result of the miscarriage, and women whose symptoms are a continuation of an unrelated mental health problem. Few sociodemographic variables have been found to affect women's psychological outcomes after miscarriage, although the limited evidence suggests that single women and those who are older may be at a greater risk of psychological distress [2].

Abortion can cause anxiety and depression and can be experienced as a traumatic life event [3]. Results from research into the psychological implications of abortion are equivocal, and this has resulted in much debate, possibly because the theme is controversial on political, ethical and social grounds [4]. New evidences show, that anxiety symptoms are the most common adverse response and that our understanding of abortion as a potential trauma has increased [5], [6]. Few studies have compared the course of psychological responses after miscarriage with that after abortion [7]. Induced abortion and miscarriage are similar life events in that women abort after a short term of pregnancy. However, these two life events differ in important respects. Miscarriage happens involuntarily and suddenly to women who were expecting to give birth, whereas abortion is a planned and known event [8-9], however connected with feeling of guilty because decision is taken herself. The broader aim is to identify characteristics of women who cope well, or badly, after miscarriage to inform interventions to assist women dealing with this significant event [10-12].

**The aim of the study.** The objective of this study was to determine whether there are any differences in the patterns of psychological symptoms after these two events and to point the importance of informed consent.

### Materials and Methods

20 women who experienced miscarriages and 20 women who underwent induced abortions were interviewed in 3 Vilnius out patients clinics. All subjects completed the questionnaires with a period of 1 year or more after event. Data were assessed by Mann-Whitney *U* test. A systematic

search of the literature was also performed. Studies had to report a quantitative or qualitative evaluation of mental health after pregnancy termination

### Results and discussion

Demographic data of studied participants find, that the youngest woman was 18 years old, the oldest – 34. The main finding of our study is, that women who had pregnancy termination had more mental distress than women who experienced a miscarriage. (guilty 16 vs 10; anxiety 17 vs 8, suicidal minds 7 vs 3, episodes of crying 15 vs 10, anger 13 vs 2, community avoidance 12 vs 4,  $p < 0.05$ ). Recent studies have explored the traumatic aspects of abortion. One study reported that 1% of participants suffered from post-traumatic stress disorder (PTSD) even two years after the event [13, 14], and another reported that 10% of women were traumatized (according to a high Impact of Events Scale [IES] score) six months after the induced abortion [15].

We would like to mention one of the largest quantitative estimate of mental health risks associated with abortion available in the world literature. Calling into question the conclusions from traditional reviews, the results of this review revealed a moderate to highly increased risk of mental health problems after abortion. Consistent with the tenets of evidence-based medicine, this information should inform the delivery of abortion services.

The finding that abortion is associated with significantly higher risks of mental health problems compared with carrying a pregnancy to term is consistent with literature demonstrating protective effects of pregnancy delivered relative to particular mental health outcomes. For example, with regard to suicide, data reported the annual suicide rate for women of reproductive age to be 11.3 per 100 000, whereas the rate was only 5.9 per 100 000 in association with birth [16]. Several other studies conducted in different countries have revealed even lower rates of suicide following birth when compared with women in the general population [7,8]. More research is needed to examine systematically the specific nature of this protective effect against suicide, to determine the extent to which the protective effect holds for unintended pregnancies delivered, and to examine possible protective effects of childbirth relative to other mental health variables [16]. After adjusting for sociodemographics, abortion was associated with an increased likelihood of several mental disorders--mood disorders (adjusted odds ratio [AOR] ranging from 1.75 to 1.91), anxiety disorders (AOR ranging from 1.87 to 1.91), substance use disorders (AOR ranging from 3.14 to 4.99), as well as suicidal ideation and suicide attempts (AOR ran-

ging from 1.97 to 2.18). Adjusting for violence weakened some of these associations. For all disorders examined, less than one-half of women reported that their mental disorder had begun after the first abortion. Population attributable fractions ranged from 5.8% (suicidal ideation) to 24.7% (drug abuse)[17].

The longitudinal analysis with a population sample of women with a history of miscarriage supports previous small-scale clinical research showing that a number of variables are associated with adjustment after miscarriage. Women who reported two life events in the past 12 months, and women who reported greater levels of Stress, were most likely to have lower initial Mental Health scores. Stress has been associated with an increased risk of having a miscarriage as well as being an outcome of miscarriage. Thus, it seems that reducing stress during pregnancy may be of public health importance, as well as enhancing the general well-being of the individual woman [9]. Women who are pregnant or planning pregnancy, and experiencing high levels of stress, may benefit from cognitive-behavioural stress management interventions. Such interventions could potentially be incorporated into antenatal classes; alternatively, screening for high levels of stress could be a routine aspect of antenatal healthcare visits. Greater provision of information on managing stress, through PCPs and other community resources, may also be beneficial [2].

After termination of pregnancy, 4 couples of 20 separated. The majority of women ( $n = 18$ ) did not report changes in their sexual behaviour after miscarriage. On the other hand, 13 of women after abortion presented a decrease in sexual desire. Studies analyzing impact of abortion on psychosexuality show, that women undergoing abortion had significantly more conflicts in their partnerships [19]. Male pressure on women to have an induced abortion has a significant, negative influence on women's psychological responses in the 2 years following the event. Women who gave the reason "have enough children" for choosing abortion reported slightly better psychological outcomes [12, 18].

About relationship with children both groups of our study answered the same: 17 mentioned, that their stressful event had no influence to their relationship with children.

Changes in eating (mostly lack of appetite) habits mentioned 10 women in abortion group and 5 women in miscarriage group ( $p < 0.05$ ).

In abortion group 16 women mentioned that after event their sleep become more disturbed (insomnia, night mires), while in control group 12 had such problems ( $p > 0.05$ ). The start of use of anxiolytics mentioned 11 women in analyzed group and 9 women in miscarriage group ( $p > 0.05$ ).

Present conclusions are generally concordant with pre-

vious reviews. There has been increasing understanding of abortion as a potential trauma, and studies less commonly explore guilt. The quality of studies has improved, although there are still some methodological weaknesses. One of them in our study was small number of subjects. Questionnaire was one out of two parts of our work. Second part pointed review of the literature, that found the majority of novel which detects negative impact of abortion on mental health. Two recent meta-analyses claim that abortion leads to a deterioration in mental health [20]. Previous reviews concluded that the mental health outcomes following an unwanted pregnancy are much the same whether the woman gives birth or terminates the pregnancy, although there is an increased mental health risk with an unwanted pregnancy. Meta-analysis is particularly susceptible to bias in this area. The physical health outcomes for women with an unwanted pregnancy have improved greatly by making abortion legal. However improve the mental health outcomes associated with an unwanted pregnancy is not observed. Women who had undergone an abortion experienced an 81% increased risk of mental health problems, and nearly 10% of the incidence of mental health problems was shown to be attributable to abortion [17-20]. Some studies show, that even education in women health clinics showing the development of embryo development may be beneficial on decision making toward preborn child [20].

Based on data extracted from 22 studies, the results of this meta-analytic review of the abortion and mental health literature indicate quite consistently that abortion is associated with moderate to highly increased risks of psychological problems subsequent to the procedure. The magnitude of effects derived varied based on the comparison group (no abortion, pregnancy delivered, unintended pregnancy delivered) and the type of problem examined (alcohol use/misuse, marijuana use, anxiety, depression, suicidal behaviors). Overall, the results revealed that women who had undergone an abortion experienced an 81% increased risk of mental health problems, and nearly 10% of the incidence of mental health problems was shown to be directly attributable to abortion. The strongest effects were observed when women who had an abortion were compared with women who had carried to term and when the outcomes measured related to substance use and suicidal behavior.

Healthcare professionals are responsible for educating patients in a manner that reflects the current scientific literature; however, the average practitioner does not generally have the time and expertise to study and attempt to resolve conflicting interpretations of the published research in order to extract the most reliable information. The responsibility therefore rests initially within the research community

to set aside personal ideological commitments, objectively examine all high-quality published data, and conduct analyses of the literature that are based on state-of-the-art data analysis procedures, yielding readily interpretable synopses as has been attempted here. Once this goal is satisfactorily realised, professional organisations will face the challenge of developing efficient protocols for informing practitioners and for streamlining the dissemination of information to the public[16].

### Conclusion

Women who had undergone an abortion exhibited higher frequency of psychological symptoms than after miscarriage. The responses of women in the miscarriage group were similar to those expected after a traumatic and sad life event. The more complex nature of the induced abortion event may also account for differences in the course of psychological responses between the two groups. Women in both groups should be given information about common psychological responses to pregnancy termination, and follow-up talks with health personnel. Thus, the social, moral and psychological context of an induced abortion may be more complicated than that of a miscarriage, and may result in different psychological responses.

Although an answer to the causal question is not readily discerned based on the data available, as more prospective studies with numerous controls are being published, indirect evidence for a causal connection is beginning to emerge[16].

Women who undergo an induced abortion will have a more protracted course of mental disturbance than women who experience a miscarriage. So we may consider that it is necessary still before induced abortion procedure to inform the couples about an increasing possibility of mental distress.

### References

1. Klier CM, Geller PA, Ritsher JB. Affective disorders in the aftermath of miscarriage: a comprehensive review. *Arch Women Ment Health* 2002; 5:129-149.
2. Rowlands I, Lee C. Adjustment after miscarriage: Predicting positive mental health trajectories among young Australian women. *Psychol Health Med (England)* 2010; 15(1):34-49.
3. Engelhard IM, van den Hout MA, Arntz A. Posttraumatic stress disorder after pregnancy loss. *Gen Hosp Psychiatry* 2001; 23:62-66.
4. Kero A, Hogberg U, Lalos A: Wellbeing and mental growth – long-term effects of legal abortion. *Soc Sci Med* 2004; 58:2559-2569.
5. Bradshaw Z, Slade P. The effects of induced abortion on emo-

- tional experiences and relationships: a critical review of the literature. *Clin Psychol Rev* 2003 Dec;23(7):929-58.
6. Fergusson DM, Horwood LJ, Boden JM. Reactions to abortion and subsequent mental health. *Br J Psychiatry* 2009; 195(5):420-6.
  7. Broen AN, Moum T, Bødtker AS, Ekeberg O. The course of mental health after miscarriage and induced abortion: a longitudinal, five-year follow-up study. *BMC Med*. 2005; 12;3:18.
  8. Broen AN, Moum T, Bødtker AS, Ekeberg O. Psychological impact on women of miscarriage versus induced abortion: A 2-year follow-up study. *Psychosom Med* 2004; 66:265-271.
  9. Broen AN, Moum T, Bødtker AS, Ekeberg O. Predictors of anxiety and depression following pregnancy termination: a longitudinal five-year follow-up study. *Acta Obstet Gynecol Scand* 2006; 85(3):317-23.
  10. Kimport K, Perrucci A, Weitz TA. Addressing the silence in the noise: how abortion support talklines meet some women's needs for non-political discussion of their experiences. *Women Health (England)* 2012; 52(1):88-100.
  11. Stotland NL. Induced abortion and adolescent mental health. *Curr Opin Obstet Gynecol* 2011 ; 23(5):340-3.
  12. Broen AN, Moum T, Bødtker AS, Ekeberg O. Reasons for induced abortion and their relation to women's emotional distress: a prospective, two-year follow-up study. *Gen Hosp Psychiatry* 2005; 27(1):36-43.
  13. Stalhandske ML, Ekstrand M, Tyden T. Women's existential experiences within Swedish abortion care. *J Psychosom Obstet Gynaecol (England)* 2011; 32(1):35-41.
  14. Major B, Cozzarelli C, Cooper ML, Zubek J, Richards C, Wilhite M, Gramzow RH. Psychological responses of women after first-trimester abortion. *Arch Gen Psychiatry* 2000; 57(8):777-84.
  15. Perrin E, Bianchi-Demicheli F. Sexual life, future of the couple, and contraception after voluntary pregnancy termination. Prospective study in Geneva (Switzerland) with 103 women. *Rev Med Suisse Romande* 2002; 122(5):257-60.
  16. Coleman PK. Abortion and mental health: quantitative synthesis and analysis of research published 1995-2009. *Br J Psychiatry* 2011;199(3):180-6.
  17. Mota NP, Burnett M, Sareen J. Associations between abortion, mental disorders, and suicidal behaviour in a nationally representative sample. (Patikslinti)
  18. Erfani A. Induced abortion in Tehran, Iran: estimated rates and correlates. *Int Perspect Sex Reprod Health* 2011; 37(3):134-42.
  19. Bianchi-Demicheli F, Kulier R, Perrin E, Campana A. Induced abortion and psychosexuality. *J Psychosom Obstet Gynaecol* 2000; 21(4):213-7.
  20. Kendall T, Bird V, Cantwell R, Taylor C. To meta-analyse or not to meta-analyse: abortion, birth and mental health. *Br J Psychiatry* 2012; 200:12-4.

## RYŠYS TARP NĖŠTUMO NUTRAUKIMO IR PSICHOLOGINĖS BŪKLĖS

**D. Serapinas**

Raktažodžiai: nėštumas, psichologinė būklė, precencija.  
Santrauka

Šiandien apie poabortinį sindromą yra nemažai kalbama, tačiau patikimų, kliniškai pagrįstų tyrimų apie šio sindromo egzistavimą yra nedaug. Autoriai, teigiantys, kad poabortinis sindromas egzistuoja, daugiausia remiasi teoriniais teiginiais, moterų laiškais ir nuomonėmis. Remiantis moterų įvardintais išgyvenimais yra išskiriami poabortinio sindromo simptomai, kuriuos būtų galima suskirstyti į tris stambias dalis: psichologiniai, socialiniai ir fiziologiniai poabortinio sindromo simptomai. Tyrimą sudarė 20 moterų, patyrusių abortą, ir 20 moterų, turėjusių savaiminį persileidimą, apklausa. Atlikta moterų apklausa parodo, kad po nėštumo nutraukimo moterys jaučia ryškesnius psichologinius, socialinius ir fiziologinius sutrikimus nei moterys, patyrusios persileidimą. Remiantis šio tyrimo rezultatais ir teoriniais teiginiais galima daryti išvadą, kad būtina moteris informuoti apie aborto neigiamą įtaką moters psichikai.

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