



# Psychological Aspects of Induced Abortion

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# Relationship between abortion and mental health

- Abortion causes mental health problems
- Abortion is the result of mental health problems
- Abortion and mental health problems are due to some common third factor (confounder) e.g. poverty, childhood deprivation, poor support

Need longitudinal studies to demonstrate causation controlling for confounders



## Research problems

- Anecdote
- Short follow-up period
- Confounders
- Small sample size
- Limited outcome measures
- Inadequate numbers at follow-up



# Which psychiatric disorders?

- Depressive disorders
- Anxiety disorders
- Substance misuse
- Suicidal behaviour

Not Post Abortion Syndrome



# What is currently accepted by both sides in this debate?

- Those with history of mental illness including depression
- Those who are young
- Those who are ambivalent or coerced
- Late abortions
- Abortion for foetal anomaly
- Those with maternal instincts
- Those with children already
- Those with poor social supports
- Those who have moral objections

The debate concerns the generality of women seeking abortion



# Post-abortion and postpartum psychotic reactions

**David et al 1981. Family Planning Perspectives. 13 (1):. 32-34.**

18.4/10,000 for women who had an abortion and 12/10,000 for those who gave birth



## Psychiatric admissions of low-income women following abortion and childbirth

Reardon, Cogle, Rue et al . Canadian Medical Association Journal. 2003. 168 (10). 1253-6

- California Medicaid records of women 13-49 at time of childbirth/abortion in 1989 followed for 90 days – 4 years
- Excluded those with prior psychiatric admissions or pregnancy events in year before the target pregnancy
- Data set - Pregnancy ending in abortion – 15, 299  
or in delivery – 41,442
- Record linkage study examining psychiatric admission following childbirth or abortion
- Used logistic regression to examine data



# Psychiatric admissions of low-income women following abortion and childbirth

## Results

- Significant differences in admission rates for women who had abortion compared to those giving birth
  - Adjustment reactions (Odds ratio 2.1)
  - Depressive episode (Odds ratio 1.9)
  - Recurrent depressive disorder (Odds ratio 2.1)
  - Bipolar disorder (Odds ratio 3)
  
- Post delivery admission (adjusted) 634.8/100,000
  
- Post-abortion admission (adjusted) 1117.1/100,000 (Odds ration 1.7)
  
- These differences persisted throughout the time periods studied



# UNWANTED RESULTS: THE ETHICS OF CONTROVERSIAL RESEARCH

**Editorial. Canadian Medical Association Journal. 2003. 169 (2)**

“The attack in our letters column is largely an *ad hominum* objection to the authors’ ideological biases and credential. There are two questions here: first does ideological bias necessarily taint research? Second are those who publish research responsible for its ultimate use?”

“In light of the passion surrounding the subject of abortion we subjected this paper to especially cautious review and revision.....**the hypothesis that abortion (or childbirth) might have a psychological impact is not unreasonable and to desist from posing a question because one may obtain an unwanted answer is hardly scientific.** If we disqualified these researchers from presenting their data, we would never hear from pro-choice views, either”.

“But if it is true that more explicit research into women’s health issues will point the way to better care, better outcomes and more equity in access, we cannot toss out data any time we don’t like their implications”

“We must allow the gradual and honest accumulation of further evidence to confirm or contradict what we think we know”



## State funded abortions versus deliveries: a comparison of out-patient mental health claims over 4 years

- First time psychiatric out-patient contact in 4 years post-abortion.
- 14,297 abortion group, 40,122 birth group
- Controlling for pre-existing psychological problems, age, number of pregnancies and months of eligibility
- 90 days - 63% more claims  
180 days - 42% more claims  
1 year - 30% more claims  
2 years - 16% more claims

Coleman et al. 2002. American Journal Orthopsychiatry. 72,1. 141-152.



# Abortion in Young Women and Subsequent Mental Health

**Fergusson, Horwood and Ridder. Journal of Child Psychology and Psychiatry. 2006. 47 (1), 16-24.**

- 25 year longitudinal birth cohort study of New Zealand children
- History of pregnancy/abortion/no pregnancy over 15-25 year interval
- Measures of DSM-IV mental disorders and suicidal behaviour
- Data on childhood, family and confounding factors and these controlled for in the analysis
- Face to face interviews with subjects at ages 15, 16, 18, 21 and 25
- Birth cohort of 1265 children from birth to age 25 born in Christchurch NZ
- Present analysis based on 506-520 females



## Abortion in Young Women contd

- Comparison
  - Those not pregnant
  - Those pregnant and ending in abortion
  - Those pregnant and ending in delivery
- Controlled for confounders e.g. family problems etc

### Results

- Significantly higher risk of
    - Major depression 78-7-41.9% (depending on age group)
    - Anxiety disorder 64.3-39.2% ..
    - Suicidal ideation 50-27% ..
    - Illicit drug dependence 0-12.2% ..
    - Overall number of mental health problems 1.93-1.27 depending on age
- among those who had abortions compared with those who had not been pregnant or who had delivered

When confounders controlled - all the above except anxiety disorders significantly higher risk ratios in those who had an abortion



## Fergusson et al contd.

### Predictive analysis

- To ascertain if these associations are cause or effect
- Pregnancy/abortion history prior to age 21 used to predict subsequent mental health history while confounders controlled
- Rate ratio - No pregnancy 0.6
  - Pregnant no abortion 0.67
  - Abortion group 1



# Conclusions

Fergusson et al

“ The present research raises the possibility that for some young women, exposure to abortion is a traumatic life event which increases longer-term susceptibility to common mental disorders. These findings are inconsistent with the current consensus on the psychological effects of abortion. In particular, in its 2005 statement on abortion, the American Psychological Association concluded that “well designed studies of psychological responses following abortion have consistently shown that the risk of psychological harm is low...the percentage of women who experience clinically relevant distress is small and appears to be not greater than in general samples of women of reproductive age”. ...



## Conclusions contd.

This relatively strong conclusion about the absence of harm from abortion was based on a relatively small number of studies which had one or more of the following limitations....the statement appears to disregard the findings of a number of studies that had claimed to show negative effects for abortion.....While it is possible to dismiss these findings as reflecting shortcomings in the assessment of exposure to abortion or control for confounders it is difficult to disregard the real possibility that abortion amongst young women is associated with increased risks of mental health problems”.



# Abortion and depression: a population based longitudinal study of young women

**Pedersen 2008. Scandinavian Journal Public Health. 36. 424-428.**

Hypothesis: Is induced abortion a risk factor for subsequent depression?

Method: 15 year follow-up from age 12 at 4 time points of 768 women Norwegian women 15-27 from general population

Asked about pregnancy and abortion from T3 onwards

Asked about partner relationships

Asked about family of origin, support, monitoring

Depression questionnaire

Educational level and employment status

Results: 74% ascertainment for abortion

At time 3, 4% had given birth and 5% had an abortion – no sig.  
difference in risk of depression between groups when confounders controlled

At time 4, 30% had given birth and 16% had an abortion  
When confounders controlled odds of developing depression 2.9 times higher in abortion group as compared to the birth group and this only in the 21-26 year old age group

Abortion a risk factor for depression in young women

Not a risk factor among teenagers

Another possibility is that the depression has a delayed onset in the younger group until adulthood.



## **The course of mental health after miscarriage and induced abortion: a longitudinal, five-year follow-up study.**

**Broen *et al.* BMC 2005 December 12:3, 18**

The objective was to determine whether there are differences in the patterns of normalization of mental health scores after these two pregnancy termination events.

40 women who experienced miscarriages and 80 women who underwent abortions were interviewed at 10 days (T1), six months (T2), two years (T3), and five years (T4) after the pregnancy termination. Prior psychiatric history controlled for.

### **Results**

- Women who had had a miscarriage exhibited significantly quicker improvement in scores throughout the observation period.
- Women who experienced induced abortion had significantly higher scores than the miscarriage group at two and five years after the pregnancy termination and at 5 years 20% were still “cases”



## **Women's reflections upon their past abortions**

**Goodwin and Ogden. Psychology and Health 2007.22,2. 231-248.**

### Qualitative study

10 women interviewed 1 to 10 years post abortion

- Some described a linear pattern of change
- Many described other patterns including
  1. persistent upset
  2. Later onset distress
  3. No distress at any time

Related to view of fetus as human, poor social supports, a belief that society is either over judgmental or negates impact of abortion on women



# **Psychological outcome for women undergoing termination of pregnancy for ultra-sound detected fetal abnormality: a pilot study**

Davies et al. 2005. 25,4. 389-392 *Ultrasound Obstet Gynaecol.*

**Aim:** Examine psychological morbidity for women having 1st and 2<sup>nd</sup> trimester abortions for fetal abnormality

**Methods:** 14 women having first trimester and 16 having 2<sup>nd</sup> trimester abortions

20-40 years

Follow-up 6 weeks, 6 months and 12 months

Measures included GHQ, BDI, IES and perinatal grief scale



## Davies et al 2005 contd.

Results: High levels of distress for both groups

Present at all time points

Higher in those having 2<sup>nd</sup> trimester  
abortions at 6 weeks

Depression: 36%, 39%, 32% > cut-off score

Post-traumatic stress: 67%, 50%, 41% > cut-off  
score

Conclusion: Abortion for fetal abnormality is  
associated with persistent psychological distress

# Trauma and Grief 2-7 years after termination of pregnancy because of fetal anomalies- a pilot study

Kersting et al. J Psychosom. Obstet and Gynaecol  
2005

Methods: 83 women had abortion for fetal abnormality 2-4 years earlier compared with 60 2 weeks after abortion and 65 after spontaneous delivery. Compared 2-7 years afterwards

Results: No difference in distress between two abortion groups.

Conclusions: Abortion is a source of major trauma that is detectable many years later



# **Suicide after pregnancy in Finland, 1987-1994: register linkage study**

**Gissler et al BMJ. 1996. 313. 1431-1434**

5.4% of all suicides in women were pregnancy related

Mean suicide rate among women in Finland 11.3/100,000

Suicide rate associated with birth 5.9/100,000

Suicide rate associated with abortion 34.7/100,000



## Explanations

- Abortion causes suicide
- A common factor linking both e.g. mental illness, impulsivity



## **Long Term Physical and Psychological Health Consequences of Induced Abortion: Review of the evidence.**

**Thorp, Hartmann and Shadigian. Obstetrical and Gynecological Survey  
2003.**

“Although earlier studies focusing on secondary outcome were reassuring, more recent large cohort studies linking abortion to the ‘hard’ outcomes of either suicide, psychiatric admission or deliberate self-harm are concerning ... the uncertainty limits a clinicians ability to reassure such a woman that her decision will not have long-term mental health effects. The observation of the association, regardless of the lack of causal linkage, suggests careful screening and follow-up for depression ...”



# Conclusion

Recent longitudinal studies point to a causative association between abortion and mental problems

Abortion is associated with suicide

Abortion more damaging in the long term than miscarriage


Abortion for fetal anomaly associated with long term emotional problems

Further longitudinal studies with large samples are required to confirm the direction of the association i.e whether abortion causes these complications but there are pointers from these studies that it does

This information should be made available to women seeking abortion, at minimum the risk for those with prior history depression.




END



Statham et al. 2000. Prenatal diagnosis of fetal abnormality: psychological effects on women in low risk pregnancies. *Balliere's Clinical Obstetrics and Gynaecology*.

- No studies comparing those who abort with those who continue to term, only case series reports
- “there are reasons to hypothesis that women who elect to continue a pregnancy to term may experience a better psychological outcome than women who terminate: such women are thought to be spared the guilt associated with decision-making and have more time to prepare for the death of their baby”.



# **Depression and unintended pregnancy in the National Longitudinal Survey of Youth: a cohort study**

**Reardon and Cougle BMJ 2002 151-153**

# **Depression and unwanted first pregnancy: longitudinal cohort study**

**Schmiege and Russo. BMJ. 2005. 331. 1303**

Same sample, different methods, different results



## No effect studies

- Major et al 2000. Psychological responses of women after first-trimester abortion. *Archives Gen. Psychiatry.* 57, 777-784.

882 women agreed to participate.

442 follow-up.

Depression decreased and self-esteem increased.

Negative emotions increased and decision satisfaction decreased.

Pre-pregnancy history of depression risk for negative reaction

Depression present in 22% at two year follow-up, and paper says this is similar % to general population figures but the latter is life time rate



# Pregnancy-associated mortality after birth, spontaneous abortion, or induced abortion in Finland, 1987-2000

Gissler et al. *American Journal of Obstetrics and Gynaecology*. 2004. 190, 2. 422-427.

- To test the hypothesis that pregnant and recently pregnant women enjoy a "healthy pregnant women effect," compared the all natural cause mortality rates for women who were pregnant or within 1 year of pregnancy termination with all other women of reproductive age.
- Record Linkage study
- Mortality rate for non pregnant women, 57.0 per 100,000, natural causes 32
- Mortality after birth 25.9/100,000, natural causes 16.3, directly pregnancy related 3.9
- Mortality after spontaneous abortion 55.7/100,000, natural causes 21.1, directly pregnancy related 3.4
- Mortality after induced abortion 82.3/100,000, natural causes 22.3, directly pregnancy related 1.3



## Injury deaths, suicides and homicides associated with pregnancy, Finland 1987–2000

Gissler et al. *European Journal of Public Health* 2005. 15,5. 459-463

- Record linkage study on deaths from external causes among women aged 15–49 years in Finland in 1987–2000
- **Results:** The mortality rate for women during pregnancy and within 1 year of pregnancy termination from external causes was lower than mortality from internal causes among non-pregnant women (relative risk 0.79; 95% confidence interval 0.69–0.91).
- An increased risk was observed for women after abortions, especially in the age group of 15–24 years due to homicide and suicide.
- **Conclusions:** The low rate of deaths from external causes suggests the protective effect of childbirth, but the elevated risk after a terminated pregnancy needs to be recognized in the provision of health care and social services.



# Reactivated mourning

Kumar and Robson. Psychological  
Medicine. 1978. 8,4. 771-715

Kitamura et al. 1996. Psychotherapeutics  
and Psychosomatics. 65, 3. 117-123.