Emotional distress following induced abortion

A study of its incidence and determinants among abortees in Malmö, Sweden

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Abstract

Objective: To study incidence and determinants of emotional distress following induced abortion. Setting: Department of Obstetrics and Gynecology, Lund University, University Hospital Malmö, Sweden. Subjects: A series of 854 participants at 12-month postabortion follow-up, representing 66.5% of the 1,285 women undergoing induced abortion at Malmö, 1989. Methods: Analysis of data elicited at a semistructured interview 1 year after induced abortion, risk factors for emotional distress being determined in a "case" subgroup ($n=139$) of women satisfying all the inclusion criteria (i.e., postabortion emotional distress, doubts about abortion decision, would not consider abortion again), as compared with a control group ($n=114$) satisfying none of the inclusion criteria. The study design is a retrospective study. Results: In the subgroup with emotional distress (duration ranging from 1 month to still present at 12-month follow-up), the following risk factors were identified: living alone, poor emotional support from family and friends, adverse postabortion change in relations with partner, underlying ambivalence or adverse attitude to abortion, and being actively
religious. **Conclusions:** Thus, 50–60% of women undergoing induced abortion experienced some measure of emotional distress, classified as severe in 30% of cases. The risk factors identified suggest that it may be possible to ameliorate or even prevent such distress.

**Author Keywords:** Induced abortion; Socio-demographic factors; Social support; Emotional distress; Psychology

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1. **Introduction**

It is a common experience among those involved in the care of women seeking induced abortion that for many of them it is a very stressful situation. Opinion differs as to the short- and long-term emotional consequences of abortion. Findings in several studies have been interpreted as suggesting that few women develop serious mental problems, and that postabortion reactions should be considered normal responses to stress [1, 2, 3, 4, 5].

However, most of these studies were performed several years ago, some of them rather small series and some of them in countries where both public attitudes and abortion legislation differ markedly from those in Sweden. According to the revised Swedish legislation, a woman is expected to take full responsibility for her abortion decision, although professional counselling and support at the community's expense is mandatory before abortion. It is not unlikely that for some women this increased responsibility may exacerbate an already stressful situation. In Sweden serious postabortion reactions are
currently estimated to occur in about 10% of cases [6], though many such cases seem to be characterized by preexisting psychological problems. Some assert the incidence to be even lower [7]. In a recent study from Denmark, however, not less than 21% of those studied developed emotional problems of at least 4 months duration [8].

In earlier studies we found that almost 10% of abortion applicants changed their mind and continued their pregnancy to term [9]. We also found that one in three of those who chose induced abortion did not wish to be interviewed about their experience of the care and treatment provided [10]. Such observations suggested that the incidence and determinants of postabortion emotional distress merited further exploration.

Accordingly, the purpose of this follow-up of women who underwent induced abortion in 1989 in Malmö, Sweden has been to determine the incidence of subsequent emotional distress, and to ascertain whether any relationship exists between its occurrence and such factors as the woman's age, education, occupation, ethnic background, access to social support, and attitude to ethical issues.

2. Material and methods

In Sweden, an applicant for pregnancy termination is required to attend a preliminary interview to confirm that she wishes to undergo induced abortion, to ensure that she knows the risks and the procedure involved and to make preparation and arrangements for the operation.

All those attending this preliminary interview in 1989 were informed that, as part of an ongoing evaluation of care and treatment in connection with induced abortion, it was planned to contact them for a retrospective follow-up interview approximately 1 year after the abortion. They could then accept or decline to participate. It was made quite clear that participation was voluntary, and that nonparticipation would in no way affect their treatment.

Of the 1285 women who underwent legal abortion in Malmö in 1989, 854 (66.5%) agreed to participate in a retrospective follow-up study.

The mandatory preliminary visit included an interview with one or another of the gynecologists at the department with about a third of the women being interviewed by one of the present authors (HS).

The interview included general history taking (i.e., detail of civil status, relation to their partner, education, occupation, ethnic origin etc), but also reproductive history including contraceptives usage. No questions about their psychological background were asked on that occasion unless it was considered pertinent to the abortion decision.
Of the series as a whole, 95.6% (1229/1285) underwent first trimester abortions, and 4.4% (56/1285) second trimester abortions. Of participants in the follow-up study, 97.2% (830/854) underwent first trimester abortion (vacuum aspiration under general anesthesia), and 2.8 (24/854) second trimester abortion (cervical dilatation, labor-induction, and evacuation under general anesthesia).

2.1. The postabortion interview

This semistructured interview took place approximately a year after the abortion. Only one interviewer (HS) was involved, no other person being present unless an interpreter was needed; in such cases we tried to find somebody other than the woman's partner which was possible in all but three cases.

The interview, carried out in a secluded office to avoid any disturbances, took 45–75 min. Telephone interviews were used in 14.9% (191/1285) of cases in the series as a whole.

The interview started with questions about the woman's physical experience of the abortion, followed by questions on whether she had felt sure what to do as soon as she had discovered she was pregnant, or had postponed her decision until after the preliminary interview. Those who reported having decided on abortion from the outset were listed as "determined" the others as "ambivalent". Questions on whether they had asked their partner, parents, friends, or workmates for advice were answered by yes or no.

One issue was whether they felt that they had had good emotional support from their family and friends, and from their adviser at the preliminary visit. Another was whether their relations with the biological father were good, indifferent, poor, terminated or just a casual encounter. They were also asked whether they would consider abortion if pregnant again, and whether they felt certain that they had made a correct decision. The reply alternatives to these questions were yes, no and don't know.

The women's attitude to abortion prior to their own unwanted pregnancy was also explored.

Another focus of the interview was on their emotional reactions after the abortion. They were asked to describe how they had felt after the abortion and, if they had felt depressed or dispirited, whether had been in contact with a psychiatrist, psychologist or medical social worker, and how long the emotional reactions had lasted. Other questions concerned religious beliefs, participation in church activities, possible alcoholic intoxication in conjunction with conception, and contraceptive usage.

Slight emotional distress was defined as the occurrence of mild depression or remorse guilt feelings, a tendency to cry without cause, discomfort upon meeting
children, or recurrent fantasizing about the child that may have been (its gender, looks etc)

Women who had needed help from a psychiatrist or a psychologist, or who could not work because of depression, were considered to have serious emotional problems, and were offered consultation with a medical social worker.

Hence, in each case estimation of the severity and duration of the emotional reaction was based upon each woman's own assessment.

2.2. Statistical methods

Risk factors for serious emotional distress were assessed using a case-control approach, the "case" subgroup comprised 139 women who had experienced some kind of emotional distress, who would not consider abortion if pregnant again and who were uncertain whether they had made a correct decision. The control subgroup comprised 114 women reporting no emotional distress, who would consider abortion if pregnant again and who were sure they had made the right decision (Fig. 1). Relationship between the occurrence of emotional distress and demographic characteristics, reproductive history, degree of emotional support, ethical attitude or ethnic background were expressed in terms of odds ratios (with 95% confidence intervals), an odds ratio above 1.0 indicating the evaluated factor to be more common in the case than in the control subgroup.

Fig. 1. Distribution of "case" subgroup (n=139) characteristics in the study population as a whole (n=854).

3. Results

Of the study subgroup as a whole (n=854), 354 (42%) experienced no psychological reaction at all, 467 (55%) experienced remorse or emotional
distress of shorter or longer duration, 138 (16.1%) still had slight emotional problems at the time for the interview and 33 (3.9%) had a deeper depression, 20 (2.3%) persisting for a longer time.

3.1. Risk factors associated with emotional distress

3.1.1. Civil status and education

Young women who were living alone and whose education had been brief were overrepresented in the case group (Table 1).

<table>
<thead>
<tr>
<th>Age</th>
<th>≤25A Cases</th>
<th>≤25A Controls</th>
<th>CR</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress of shorter or longer duration</td>
<td>36</td>
<td>10.8</td>
<td>46</td>
<td>12.0</td>
</tr>
<tr>
<td>Living alone</td>
<td>27</td>
<td>23.5</td>
<td>31</td>
<td>27.5</td>
</tr>
<tr>
<td>Living with partner or parent</td>
<td>30</td>
<td>18.8</td>
<td>49</td>
<td>21.0</td>
</tr>
<tr>
<td>Relationship with biological father</td>
<td>9</td>
<td>9.9</td>
<td>9</td>
<td>9.9</td>
</tr>
<tr>
<td>Stable relationship</td>
<td>30</td>
<td>20.0</td>
<td>30</td>
<td>20.0</td>
</tr>
<tr>
<td>Transient encounter</td>
<td>8</td>
<td>5.3</td>
<td>11</td>
<td>7.3</td>
</tr>
<tr>
<td>Education</td>
<td>66</td>
<td>66.0</td>
<td>66</td>
<td>66.0</td>
</tr>
<tr>
<td>Basic schooling</td>
<td>2</td>
<td>3.1</td>
<td>9</td>
<td>14.3</td>
</tr>
<tr>
<td>Higher education</td>
<td>3</td>
<td>3.3</td>
<td>4</td>
<td>4.1</td>
</tr>
<tr>
<td>Employment</td>
<td>84</td>
<td>84.0</td>
<td>84</td>
<td>84.0</td>
</tr>
<tr>
<td>Unemployed</td>
<td>9</td>
<td>9.9</td>
<td>9</td>
<td>9.9</td>
</tr>
</tbody>
</table>

Table 1. Distribution of socio-demographic factors in the case and control subgroups

3.1.2. Social support and relations with the biological father

As compared with the control subgroup, the case subgroup was characterized by a greater proportion of women reporting inadequate social support, higher frequencies of poor, terminated, or casual transient relations with the biological father, and a higher frequency of postabortion deterioration in relations with the biological father (Table 2).

<table>
<thead>
<tr>
<th>Age</th>
<th>≤25A Cases</th>
<th>≤25A Controls</th>
<th>CR</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support from family and friends</td>
<td>Good</td>
<td>47</td>
<td>72.3</td>
<td>43</td>
</tr>
<tr>
<td>Poor</td>
<td>10</td>
<td>27.7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Social support from attending gynecologist</td>
<td>Good</td>
<td>46</td>
<td>70.6</td>
<td>38</td>
</tr>
<tr>
<td>Poor</td>
<td>10</td>
<td>29.4</td>
<td>4</td>
<td>9.7</td>
</tr>
<tr>
<td>Quality of relation with partner</td>
<td>Good</td>
<td>36</td>
<td>51.4</td>
<td>49</td>
</tr>
<tr>
<td>Poor</td>
<td>20</td>
<td>48.6</td>
<td>23</td>
<td>31.9</td>
</tr>
<tr>
<td>Changed relations with partner</td>
<td>No adverse change</td>
<td>40</td>
<td>66.2</td>
<td>64</td>
</tr>
<tr>
<td>Adverse change</td>
<td>25</td>
<td>33.8</td>
<td>8</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Table 2. Social support in the cases and control subgroup

3.1.3. Religiosity, attitude to abortion, alcoholic intoxication, and ethnic origin

The case subgroup was characterized by statistically significant overrepresentation of women who were actively religious, of women with a
negative attitude to abortion, and of women who had been ambivalent about the abortion decision, whereas the control group was characterized by overrepresentation of women who had been intoxicated in conjunction with conception. However, the two subgroups did not differ significantly in the proportions of immigrants and native Swedes (Table 3).

<table>
<thead>
<tr>
<th></th>
<th>Age ≤24</th>
<th>Age 25+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases (%)</td>
<td>Controls (%)</td>
</tr>
<tr>
<td>Social support from family and friends</td>
<td>Good 47 (23.2) 42 (100)</td>
<td>38 (78.4) 68 (94.4) 1.0</td>
</tr>
<tr>
<td></td>
<td>Poor 18 (27.7) 0</td>
<td>16 (21.6) 4 (5.6) 4.7 1.6-13.3*</td>
</tr>
<tr>
<td>Social support from attending gynecologist</td>
<td>Good 46 (70.6) 30 (90.5) 1.0</td>
<td>60 (93.2) 64 (88.4) 1.0</td>
</tr>
<tr>
<td></td>
<td>Poor 19 (29.2) 4</td>
<td>9 (6.8) 6 (11.1) 0.6 0.2-1.8</td>
</tr>
<tr>
<td>Quality of relation with partner</td>
<td>Good 35 (53.8) 24 (71.1) 1.0</td>
<td>38 (51.4) 40 (68.1) 1.0</td>
</tr>
<tr>
<td></td>
<td>Poor 30 (46.2) 20</td>
<td>25 (56.2) 20 (31.9) 2.0 1.0-3.9*</td>
</tr>
<tr>
<td>Changed relations with partner</td>
<td>No adverse change 31 (78.9) 30 (90.3) 1.0</td>
<td>40 (66.2) 64 (88.9) 1.0</td>
</tr>
<tr>
<td></td>
<td>Adverse change 14 (21.1) 4</td>
<td>9 (5.6) 9 (11.1) 4.1 1.8-9.5*</td>
</tr>
</tbody>
</table>

Table 3. Putative determinants of postabortion emotional distress in cases and control subgroups

3.1.4. Method of the induced abortion

As compared with first trimester abortion, second trimester abortion was associated with a higher incidence 37.5% (9/24) of severe postabortion emotional problems. However, these nine women had all been ambivalent about abortion from the outset.

4. Discussion

Although many women seem to experience emotional distress after induced abortion, our findings suggest that its duration and severity may vary substantially from case to case. It needs to be born in mind, however, that our results are based on the 67% who agreed to participate in the follow-up interview. In a previous study focused on selection bias due to nonresponse [10], we showed nonparticipants to be characterized by overrepresentation of socio-demographic conditions known to be associated with increased vulnerability. On the other hand, findings in other follow-up studies (e.g., Ref. [11]) suggest that, among the 33% who refused the interview in our study, there may have been many women for whom the abortion was a true relief [11].

Although it has been suggested that emotional distress following abortion should be considered a normal stress reaction [12], our results do not support this view. Of the 854 women who when interviewed about a year after the abortion, not less than 650 (76.1%) said that they would never consider an abortion if they became pregnant again, and 169 (19.8%) were still undecided as to whether their decision on abortion had been the right one. The duration of emotional distress ranged from about a month to still manifest at the time of the interview. It has been the subject of debate whether a late abortion is more distressing
than an early abortion. Our results suggest that it may be, though women undergoing late abortion have also been reported to be more ambivalent regarding the decision of abortion [13, 14].

The case-control approach led to identification of a certain number of risk factors associated with the occurrence of emotional distress. Inadequate social support seems to be one risk factor, and the presence of unresolved ethical issues or religious concerns another. Similar relationships have been found in other studies [15, 16].

It may be appropriate to consider the results and conclusions to be drawn from them in relation to the circumstances of the follow-up interview. As the interview took place a year after the abortion, it is conceivable that in some cases other intervening conditions and events may have modified the women's experience. It is also open to question whether women who at the interview stated that they had had ethical and religious concerns prior to the abortion actually had, or whether such concerns were in fact triggered by the postabortion emotional reaction. In some cases it is not impossible that such reported concerns and reactions may, at least to some extent represent an attempt to "please the interviewer". Although in Sweden women are entitled to abortion, public opinion is, if not actually antiabortionist at least divided.

The fact that so few of the present women had sought medical advice and help does not necessarily mean that few women need help. It seems likely that in many cases another early follow-up visit at the hospital, for instance after 3 months, might have been of benefit, and that with appropriate support both the duration and severity of the emotional reaction might have been less pronounced. Observations in some cases with a long follow-up indicate that for some women an abortion may cause long-term problems with intimate relationships [17]. The occurrence of a new continued pregnancy after an abortion has by some been interpreted as a coping measure triggered by a postabortion sense of guilt and remorse [18]. About 10% of the women in the present series completed a new pregnancy within 2 years.

In Sweden, every applicant for abortion is required to attend a preliminary interview to ensure that she actually wants an abortion, and for her to be informed about the procedure and potential somatic health hazards. The complication rate associated with the methods used to day is very low; our study shows adverse emotional reactions to be common. As 30 000–35 000 women undergo induced abortion in Sweden annually it seems appropriate to evaluate in clinical trials whether, by giving these women further information and support, it might be possible to reduce the severity and duration of postabortion emotional distress.
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References


