

Depression Following Induced Abortion

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OBJECTIVE: To evaluate the effects of number of abortions and time passed after abortion in women with a history of induced abortion on the development of depression.

STUDY DESIGN: Women who admitted to family planning center during November 2003 – February 2004, answered a questionnaire. Depression levels between women who had induced abortion and those who did not were compared. Women with a history of previous abortion were classified according to the time passed after abortion (0-3 months, 3-6 months, more than 6 months). Depression levels were evaluated using Beck depression scale.

RESULTS: Rates of clinical depression in women with a history of induced abortion were increased ($p<0,05$). Depression scores were increased in women who have had induced abortions ($p<0,001$).

CONCLUSIONS: In women with a history of induced abortion, short term depression scores were found to be increased and clinical depression rates were markedly increased. Long term effects of this psychological trauma is a topic to be investigated. Our research data shows us that it may be helpful to provide pre- and postabortive psychological counseling to decrease the frequency and severity of depression encountered after induced abortion.

(*Gynecol Obstet Reprod Med; 13:2 80-84*)

Key Words: Induced abortion; Depression; Unintended pregnancy

At the end of sixties, induced abortus became legal in most of the developed countries. Legalization caused an increase in the performance of induced abortuses.¹ In Turkey, pregnancies could be terminated legally up to 10th week of gestation since 1983.² It's been shown in researches carried out in United States and Europe that 57% and 21% of undesired pregnancies end with an induced abortion respectively.³ Lifetime induced abortion rate is 26.6% for Turkey. However, this rate differs from 17.8% to 30.9% for the different regions of Turkey.⁴

For mother candidates, particularly, if they are young and have undesired pregnancies, becoming a parent is an important life event which includes many risks (psychological, economical and concerning marriage)⁵ It was determined that, elective termination of pregnancy causes negative psychiatric problems including anxiety and depression, in many women.⁶ In studies evaluating the post-abortion response, it was shown that anxiety and depression markedly increases in the first month following abortion. Personal importance of abortion,

emotional weakness, undesired pregnancy, previous history of abortion, and unwilling of a new pregnancy within one year following abortion are the important risk factors in the development of psychological stress. Possible indicators of psychological distress following induced abortion are weakness of psychological health prior to the event, negative attitude against abortion, doubt about the decision and significance level. In some women, the negative effect following induced abortion is anxiety rather than depression, and a high level of anxiety seems to carry on 4 weeks after the event in one fourth of these women.⁶ Reardon and Cogle⁷ reported that risk of clinical depression in women whose undesired first pregnancy was voluntarily terminated was higher than those who carried on their undesired first pregnancy till the term. They also mentioned that it is important to warn these women who decide to terminate their undesired pregnancy about the high risk of depression. In studies evaluating the psychological effects of termination of pregnancy after 6 months and further, no significant differences were found between these women and the general population with regard to psychological health. A similar level of psychological interaction was reported to be present in the comparison of spontaneous and induced abortion.⁶ This study was carried out to examine the factors affecting the frequency of abortions, to determine whether or not abortion led to depression and to find out whether there was a difference in the incidence of depression between women who had abortion and who did not.

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Submitted for Publication: 09.03.2007

Accepted for Publication: 16.04.2007

Material and Methods

The study was carried out in the Afyonkarahisar Ministry of Health Family Planning Center. Two hundred and thirty

four married women within an age group of 15-49 were evaluated for the study. Ninety five of these women had a history of one or more induced abortions. Women with at least one delivery and no history of psychiatric diseases were included. Women with reasons that will lead them to abortion, such as sexual assault, incestuous relation, violence within family, being left alone, chronic systemic disease, financial straits, problem with relationships were excluded from the study. Women with a history of previous abortion were classified according to the time passed after abortion (0-3 months, 3-6 months, more than 6 months).

Within the survey socio-demographic characteristics, pregnancy stories were queried and Beck Depression Scale was applied. In this scale, 21 questions with four choices are present. Each answer gets a point between 0 and 3. With addition of these points, the depression score is obtained. The highest possible score is 63. A high total score indicates depression severity. The cut-off point for depression was accepted as 17. Women with a score under 17 were accepted not to have depression. Women with a score of 17 or higher were defined to have depression.⁸

The data were analyzed with SPSS 10.0 package programme (SPSS Inc., Chicago, USA). Chi-square, t-test, one-way variance and Kruskal-Wallis tests were used to evaluate the data.

3.Limitations of research

Subjects have not been evaluated psychologically before abortion. That's why we considered the presence or absence of depression prior to abortion, according to personal features. This was a limitation of our study. We followed up the subjects for 6 months after induced abortion. So we have the short term effects. We think that it will be useful to investigate how these effects change in long term. We think that prospective, randomized future studies on this subject will provide useful information.

Results

The mean age of the women was 32±7,1, have had mostly (58%) elementary school graduates and were housewives (78%). Most of them live in urban areas (55%) and belong to lower income level group (92%) (Table 1). It was found that in the examined sample 40.6% of women had abortion at least once.

Table 1: Demographic data

Education	n	%
Illiterate	13	5,6
Primary school	137	58,5
High school	53	22,6
University graduate	31	13,2

Work		
Housewife	182	77,8
Working women	52	22,2
Place of residence		
Rural	105	44,9
Urban	129	55,1
Income level		
≤ poverty line	216	92,3
≥ poverty line	18	7,7

Examination of the factors affecting the frequency of abortions revealed that parity, educational level, familial income, marriage age and duration were associated with the increased frequency of induced abortions ($p<0.05$). The place of residence did not cause a significant difference in the frequency of induced abortion (Table 2).

Table 2: The relation between induced abortion and parity, age at marriage, duration of marriage, income of family, educational level and place of residence

	Induced abortion (-) n=139, %	Induced abortion (+) n=95, %	p
Parity			
1	23.0	0.0	
2-3	59.0	25.3	p=0.000
>4	18.0	74.7	
Marriage age			
<18 age	36.7	55.8	
19-24 age	54.7	41.1	p=0.009
25-29 age	8.6	3.2	
Marriage duration			
1-10 years	56.1	31.6	
11-19 years	26.6	42.1	p=0.001
>20 years	17.3	26.3	
Familial income			
Düşük (250 ytl ve altı)	31.7	49.5	
Orta (250ytl-1500 ytl)	58.3	46.3	p=0.013
Yüksek (1500ytl üstü)	10.1	4.2	
Educational level			
Illiterate	4.3	7.4	
Primary school	51.1	69.5	p=0.008
High school	27.3	15.8	
University graduate	17.3	7.4	
Educational level of partner			
Illiterate	0.7	1.1	
Primary school	32.4	54.7	p=0.006
High school	43.9	31.6	
University graduate	23.0	12.6	
Place of residence			
Village	9.4	13.7	
Town	39.6	25.3	p=0.058
District	17.3	13.7	
City center	33.8	47.4	

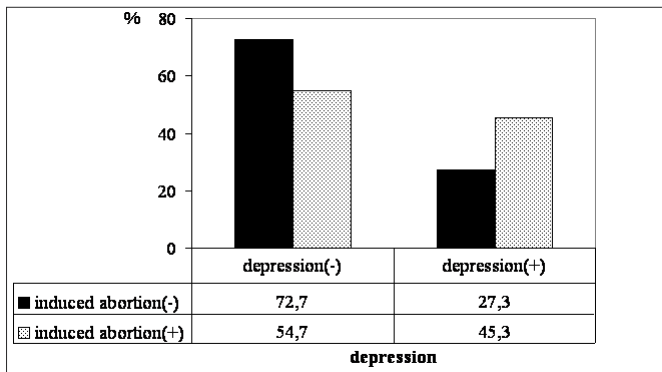
Questioning the reasons of induced abortion, we found that unwilling of another child was the most frequent reason (50.5%) followed by medical reasons (28.4%), economical reasons (14.7%) and already having a younger baby (6.35%).

The family planning methods used by the women who had induced abortion prior to that pregnancy were as follows: nothing (37.9%), interruption of coition (37.9%), intrauterine device (9.5%), oral contraceptives (7.4%) and condoms (7.4%).

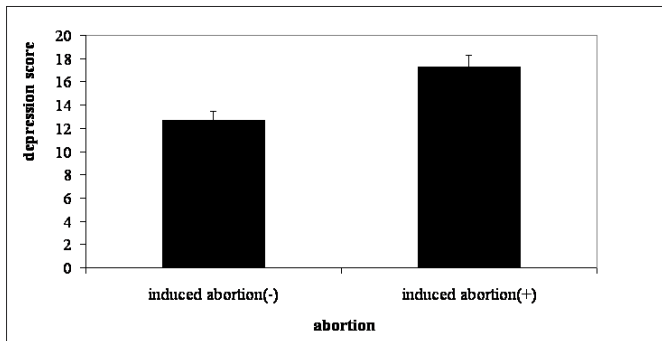
Significantly increased rates of clinical depression in women with a history of induced abortion are shown in Graphic 1. We found that depression scores increase in women who have had induced abortions (Graphic 2).

It was found that women who had three or more abortions, had significantly higher depression scores than those who had abortion once or twice ($r=0.271$, $p=0.000$) (Graphic 3).

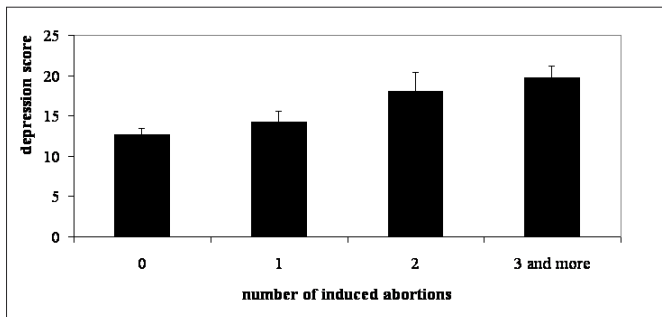
Distribution of depression scores according to the time passed after induced abortion in women who had no psychiatric diseases is shown in Graphic 4.



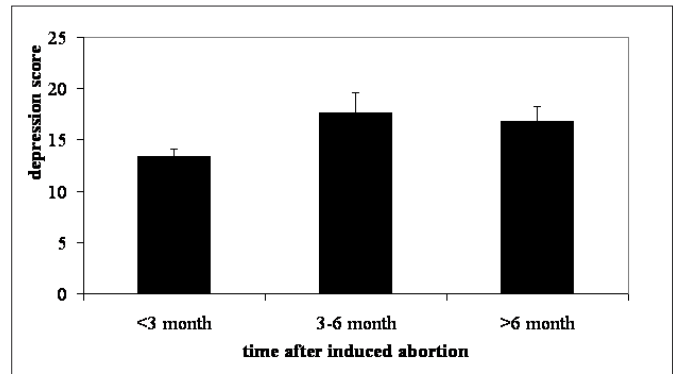
Graphic 1: Frequency of depression in women with and without induced abortion



Graphic 2 : Mean depression scores of women with and without induced abortion



Graphic 3: Depression scores with regard to number of induced abortions



Graphic 4: Depression scores with regard to the time passed after induced abortion

Discussion

Application of medication due to psychiatric causes are more often observed in women who experienced an abortus event than those who did not.⁹⁻¹¹ Studies report that the rate of admission to a physician due to psychiatric causes are increased within 90 days after an induced abortus, but in 2 years of follow up this rate gradually decreases. They also report that the most common negative influences of induced abortus are anxiety, depression and drug addiction.¹¹⁻¹⁴

Studies suggest that women who aborted were 62% more likely to die due to any cause when compared to women who refused abortion and delivered. Increased risk estimates associated with specific causes of death were also identified in the study: violent causes (81%), suicide (154%), and accidents (82%).¹⁵⁻¹⁹ Cougle et al²⁰ found 65% increased risk score for clinical depression in women who terminate their first pregnancy with abortion. In a prospective longitudinal observation study on women who had induced abortions, Broen et al⁶ found increased scores of depression and anxiety 10 days after the abortion compared with the general population. They also found that these scores were still high after 6 months. In these women depression scores were significantly increased in the 10th day and 1st month, but normalize in the following period. In contrast, in the 5 years follow up period anxiety levels were markedly increased in these women.

Studies propose that a negative attitude against induced abortion is a risk factor for a negative psychological response after abortion. Oppression of male partner and presence of a prior psychiatric disorder were mentioned to be risk factors for developing psychological problems in women after abortion.⁶ Based on an extensive review of the literature, Bradshaw and Slade²¹ concluded that up to 30% of women experience clinical levels of anxiety and/or high levels of general stress one month post-abortion. In a recent study, women who aborted were 65% more likely to score in the “high risk” range for clinical depression, compared to women who gave birth. They

have found a strong relation between abortion and substance abuse. Comparing women with a history of abortion and those without: women with a history of abortion has a 10 fold more use of marijuana, 5 folds more use of various illegal drugs, and twice more alcohol consumption.^{12,13} Studies report that abortion is associated with increased sexual dysfunction, communication problems, separation and divorce.^{7,22} Among first-born children, maternal history of abortion was associated with lower emotional support in the home among children ages one to four, and more behavioral problems among five- to nine-year-olds.²³

Scientific studies on psychological responses to legal, non restrictive abortion in the United States suggest that severe negative reactions are infrequent in the immediate and short term aftermath, particularly for first-trimester abortions. Women who are terminating pregnancies that are wanted and personally meaningful, who lack support from their partners or parents for the abortion, or who have more conflicting feelings or are less sure of their decision before hand may be relatively higher risk for negative consequences.²⁴

Presence of higher depression scores in women with a history of induced abortion, and proportional increase of depression scores with the number of abortuses found in our study were comparable with the aforementioned literature.^{6,20} Our research data shows us that it may be helpful to provide pre- and postabortive psychological counseling to decrease the frequency and severity of depression encountered after induced abortion. It is not surprising to see frequent undesired pregnancies in countries, also in Turkey, where family planning is not common and traditional methods are commonly used for protection against pregnancy. Induced abortion is considered as life saving procedure among these communities. It is important to determine the yields and harms of induced abortion to physical and mental health. Results of the study also demonstrate that efficient provision of family planning services can be beneficial to not only physical, but also mental aspects of women's health, by preventing unwanted pregnancies.

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