

## An investigation of consultation effect on anxiety after legal abortion

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### **Abstract**

Abortion is one of the negative events of pregnancy which affects the personal and social aspects of life leads to reduced quality of life, depression and anxiety. The aim of this study was to evaluate the effect of counseling on anxiety after legal abortion. In this quasi-experimental study 120 pregnant women referred to Kosar hospital licensed legal abortion were selected in 2013. Intervention group received individual counseling for 30-45 minutes, and by phone were followed for 8 weeks. After 8 weeks, both groups were assessed for anxiety. Data were collected by Beck Anxiety Inventory and analyzed by descriptive and inferential statistics using SPSS-16. P-value less than 0.05 were considered statistically significant. Before individual counseling, the mean score of anxiety in the two groups was not significant difference ( $24.72 \pm 11.05$  vs.  $22.76 \pm 12.67$ ,  $p=0.412$ ). Two month after the intervention, the mean scores of anxiety between the two groups showed significant difference ( $11.10 \pm 1.70$  vs.  $11.66 \pm 7.76$ ,  $p < 0.0001$ ). Consulting services of midwives reduced mental complications after the abortion.

**Keywords:** Consultation, Anxiety, Legal abortion

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## Introduction:

Based on oxford dictionary 2002, the word “abortion” means a preterm birth in which the birth of an alive fetus. This term is synonym of miscarriage which means an unintentional abortion. The abortion also means the ending of pregnancy in order to remove the fetus. Also these two terms are often used identically in physiology literature, the term abortion is more frequent to notice the general ending of pregnancy. The abortion could be occurred spontaneously, unintentionally, or intentionally . the spontaneous abortion which sometimes called miscarriage includes the abortion in which there has been no preparation before. Contrarily, the intentional abortion includes the abortions done intentionally or with the permission of forensic or illegally ( Moseley D.et al.1981) .

Spontaneous abortion is a current event and may be occurred befor the pregnancy diagnosis. The mechanisms are not clear while they can be classified into foetal, maternal, and environmental parameters. The foetal parameters include chromosomal deficiencies like trisomy, monosomy of X, and maternal effects including disinfection, immunologic diseases, and high intake of alcohol and coffein( Fenster L. et al. 1991) .

Abortion has been often affected by miscellaneous effects including canon, customs, tradition, law, and ethics. Great thickers like socrates, platon, and aristotle have noticed the mental and physical damages of women originated from abortion( Moseley D.et al.1981, Adler NE. et al. 1990) .

Global data shows that 210 millions childbirths take place in all over the world in which 22% of them result in abortion because of miscellaneous reasons. In other words, the inductive abortion is 35 per 1000 women in fertility age (UNFP.UNDP.WHO.2002-2003). The world health organization has estimated that about 25% of childbirths or 50 million cases result in abortion annually( Tuladhar H, Risal A. 2010) Regarding the young population of Iran which consists of 50% of under 25 years age , the accessibility of abortion statistics is insufficient regarding the ethic and lehal exigensies. The abortion exceeds 26% in married women which means that 7.5 cases of abortion is observed anually per 1000 maried women at the 15-49 age range( Erfani A, McQuillan K. 2008) .

The women undergo abortion are affected by several side effects which may threaten even their life. The WHO estimates that about 500000 women die because of pregnancy outcomes and a main contribution of these rate is attributed to risky abortion which exceeds about 15% of death rate. The side effects of all abortion types are the main contribution of women diseases in under developing countries. Infertility, chronic disability, blood transfusion, and the necessity of emergency cares of abortion are the main side effects in which the pain and bleeding are the most prevalent abortion side effects. In medical and surgical abortions, the side effects of drugs like chill and fever , vomiting, diarrhea may occure in endometeric surgery( Fletcher T. 2014) .

The abortion can be destructive for mother from the feeling standpoint. Regarding the fact that fertility is aof great deal of importance in most cultures and having a child is one of most basic motives, an obnoxious feeling may be happened if the pregnancy is defeated resulting in a disorder in mental health. The mental health includes the behaviors consistent with society, cognition and acceptance of social facts and the ability to consist with them, satisfying the needs in a balanced manner and flourishing the intrinsic talents ( Bjørnerem A. et al . 1997).

Several post abortion syndromes (PAS) have been obderved in women including neural disorders (44%), sleeping disorders (36%), decision making ability (31%), and needing pharmacotherapy. The abortion arisen problems may affect othe aspects of life resulting in physical, matrimonial disorders( Hosseini S. et al . 2014) . Women loss their pregnancy in elementary steps experience a lower quality of life and higher levels of depression and anxiety compared to women of the same age in general population( Harwood B, Nansel T. 2008). The sudden and unexpected identity of abortion, when the sever paind, bleeding and surgery happens, may result in a ahigh level of anxiety ( Brier N. 1999). The anxiety is often stable and is observed in physical disorders. The expectation of unusual test may cause an anxiety in pregnant women and is gradually decreased during a 6 months period. Also, it needs 1 year to return to its level befor abortion and may cause sever anxiety symptoms in 20-40% of cases in a short period after abortion. The abortion may cause the reduction of ability to resist against daily problems ( Fauveau V, Blanchet T. 1989).

There are different mechanisms to reduce the anxiety. Persuading the patient to express herself abouth her problems often results in a noticeable mental relaxation. The patient should feel that she has the opportunity to express her feelings, and her probllems are noticed. The consultation by health care is one of interventions

which can be effective as the secondary prevention of mental disorders ( Abdali K, Taghizadeh R, Amoei S, Tabatabai SHR. 2013).

Catherine et al have studied on 347 persons which showed that the absence of consultation after abortion may cause the anxiety disorder and mental problems. The consultation permits the patient to overview her decision about the abortion and make her able to manage the anxiety motives. Also, the patients having emotional stresses are appropriately cared through consultation.

In a poll in Hong Kong among 288 aborted women, more than a half of them believed in the necessity of professional mental cares and a half of them were unsatisfied about the received mental supports( Yam EA, Dries-Daffner I, García SG..2006, Chung TKH. 1999) .

Since the forensics is the only center which women can refer to take the permission of abortion and the legal midwife should relate with this persons, the midwife can have a basic role who is able to reduce the anxiety and depression of mother having proper consultation and supports resulting in promotion of mother health.

Regarding the fact that the activity of midwives in forensic is a new issue, there has been an appropriate opportunity to classify the tasks and abilities of them in this field.

Since rare works have considered the consultation effect on mental side effects after abortion, this work has purposed to consider the consultation effect on anxiety mood after the legal abortion by midwife and also to propose an efficient way to support the patient mentally and prevent the mental side effects based on obtained results.

## Research methodology

### *The population, sample and sampling*

The current research is the quasi- experimental interventional type in which 120 pregnant women who had licensed legal abortion and referred to the Kosar Hospital of Qazvin in 2012 were assessed. The convenience method was used for sampling. The statistical population of the study was composed of women licenses for legal and medical abortion. In this research assuming the prevalence of 50 % depression and anxiety in the pregnant women pending the abortion, and

$\alpha = 0.01$  and  $\beta = 0.05$ , the number of required samples was calculated according to the formula of 
$$\frac{2(Z_{1-\alpha/2} + Z_{1-\beta})^2 pq}{(P_0 - P_1)^2} = 48$$
 for each group including 48 people. While the number was increased to 60

people per group in order to achieve more insurance.

Inclusion criteria included: willingness to participate in research, no known history of mental illness, lack of psychiatric medication application, lack of events that lead to sadness, anxiety and such as the death of a relative and so on in the last 2 months. After obtaining a license from the ethics committee and forensic organization and also recording in the clinical trials registry with the code of IRCT2012111411468N1 and also earning a written consent to participate in the study, even days of the week were assigned to the control group whereas the intervention group could refer to the hospital in the odd days that aimed to the patients of two groups do not meet together. Then demographic information, anxiety and questionnaire of Beck was given to the both groups. The intervention group was received individual counseling by researcher for 30- 45 minutes (The mentioned consolation was the type of cognitive and emotional directed and it had been taught by psychologist of program to the midwife); The content of the consolation in this project included 1) giving medical information about abortion and its physical complications in order to reduce the anxiety and fears caused by lack of knowledge, 2) asking questions about the concerns and ambiguities of patients and resolve them as much as possible, 3) informing them the abortion is considered as a type of loss or bereavement and therefore can result in symptoms similar to the mourning, and also informing the counseling people from the possible mental problems after Abortion and then offering the solutions in order to cope with negative mood, 4) giving confidence and reassuring in order to receive the consulting services. The intervention group was followed 8 weeks every week by phone and if it was needed, then the people were consulted including answer to medical questions such as contraception, the beginning time of the marriage, required preparations for another pregnancy, resolving the concerns about the pregnancy, helping to reduce feelings of guilt, etc. After 8 weeks both groups were contacted and the relevant questionnaires were again completed while the groups finally were compared in terms of the anxiety.

## Research tools

The data collection instrument was the Inventory in addition to a demographic properties Inventory .

1. The data collecting instrument includes the questions related to age, education, the job of mother and spouse, income sufficiency, religion, fertility condition including : number of pregnancies, number of children, number of abortions, pregnancy age, the reason of present abortion etc.

2. The Beck Anxiety Inventory is a 21 item scale in which an item which is an index of anxiety is selected and are marked in a 4 quarter from 0 to 3 points classified as No(0), low (1), moderate (2), and sever (3), thus, the total mark of this Inventory ranges 0-63. The proposed selected points for this Inventory are as follows:

0-7 partial anxiety, 8-15 low anxiety, 16-25 moderate anxiety, 16-63 sever anxiety

The Beck Anxiety Inventory has defined in such a way that it does not include the depression side effects while the simultaneity of these two interventions results in a high correlation of this two instruments as a rule not an exception( Bélanger E, Melzack R, Lauzon P.1989, Klock SC, Chang G, Hiley A, Hill J.1997) .

## The Analysis of Data

Descriptive statistical analysis and inferential statistics (Chi- square test, Fisher exact test, and paired t- test) and SPSS- 16 software were used to analyze the data.

## Research Findings

After 8 weeks, in the control group 10 People did not respond to calls and 50 samples remained, therefore the consolation was continued with 50 patients in the intervention group, but no downward was observed in this group. The results showed that the subjects in the two groups in terms of demographic characteristics such as age, education, occupation, compared with spouses, religion, age, pregnancy, number of children, number of abortions, the demands of pregnancy, were similar in both anxiety . Demographic groups studied in Table 1 below.

Table 1: Demographic and Reproductive two groups

Variable	groups	intervention		control		P
		number	percentage	number	percentage	
Age	less than 20	6	12	2	4	0.0004
	20 - 25	13	26	14	28	
	26 - 29	11	22	16	32	
	Top 30	20	40	18	36	
Education	Illiterate	1	2	3	6	0.297
	Elementary	12	24	9	18	
	Middle & High School	27	54	21	42	
	Collegiate	10	20	17	34	
Job	Worker	1	2	0	0	0.760
	Jobholder	5	10	7	14	
	Homemaker	44	88	43	86	
Asked pregnancy	Wanted	33	66	36	72	0.666
	Unwanted	17	34	14	28	
Gestational age	First trimester	52	26	60	30	0.198
	Second trimester	48	24	40	20	

Table 2,3 shows that Before the consulting the average of anxiety and standard deviation in both control and intervention groups were  $24.74 \pm 11.05$  and  $22.76 \pm 12.67$  respectively. The averages of anxiety 2 months after consultation in two groups were  $1.10 \pm 1.70$  and  $11.66 \pm 7.76$  respectively. There was no difference in the anxiety level between two groups before consultation, however after intervention the anxiety level in the intervention group was significantly less than the control group ( $p = 0.0001$ ).

Table2: absolute and relative frequency distribution of anxiety befor consultation in control and intervention groups

anxiety	groups	intervention		control	
		number	percentage	number	percentage
Healthy (zero - 7)		3	6	6	12
low(8 - 15)		9	18	11	22
Moderate(16 - 25)		14	28	15	30
Severe(26 - 63)		24	48	18	36
sum		50	100	50	100
Mean (SD)		$24.72 \pm 11.05$		$22.76 \pm 12.67$	
P-value		P = 0.412			

anxiety	groups	intervention		control	
		number	percentage	number	percentage
healthy(zero - 7)		50	100	16	32
low(8-15)		0	0	22	44
moderate(16 - 25)		0	0	10	20
severe(26 - 63)		0	0	2	4
sum		50	100	50	100
Mean (SD)		$1.10 \pm 1.70$		$11.66 \pm 7.763$	
P-value		P = 0.0001			

Table3: absolute and relative frequency distribution of anxiety after the intervention in control and intervention groups.

### Conclusion:

The obtained results of this research suggested that consolation by midwives reduced anxiety after the legal abortion, Even though anxiety is reduced after abortion with the passage of time, but this aim is obtained in less time by consolation. Rahbar,et al. (2011) in their research showed that 11.1 % of pregnant women had suffered from sleep disorders and anxiety symptoms four weeks after abortion. In the present study, the anxiety level was reduced in both control and intervention groups 8 weeks after abortion while the decrease was more significant in the intervention group due to the consulting supports and intervention following- ups by midwife. Its note worthy that the support of relatives is efficient in reducing the anxiety which is verified by the anxiety reduction in control group inspite of more noticeable anxiety reduction of intervention group. The results of a poll In Hong Kong on 288 women who had abortions, showed that more than half of patients (52.7 %) though professional psychological supports after abortion was necessary (Ingrid.et.al. 2010). The results of Catherin, et al. (2010) on the 347 patients showed that lack of consultation before abortion leads to the anxiety disorder after abortion and psychological problems(Catherine T. et al. 2010). The difference between the family supports of women after abortion in different families can be noted as one of the limitations in this study while it would affect the

severity of anxiety, which was out of the researcher's control. Results of this study demonstrated that consolation by midwives is effective on reduction of the anxiety levels after abortion. Therefore the training of midwifery students through the provision of courses or study fields like counseling can make simple identification of the number women who may be at the risk and also reduce their concerns and uncertainties by consolation and thereby promote the health of women and society.

#### **Educative application of research findings**

Regarding the high importance of mental health of women and high prevalence of abortion in society and since the health staff often neglect the mental side effects of abortion, holding workshops and educative programs for midwives at medical-health centers is proposed to emphasize on the importance of mentioned issue.

Since the midwife is often encountered as the first person with the woman faced abortion, can reduce the mental side effects of the patients especially the anxiety and depression having appropriate consultations resulting in the promotion of women health. Its necessary to have the related educative programs in university courses resulting in new insights and horizons in new skills in midwifery field.

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