

## Study the effect of individual counseling on anxiety in women with an unintended pregnancy

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### ABSTRACT

Unwanted pregnancy is associated with many complications. Making decisions about keeping or termination of pregnancy is stressful for women, and the mental pressure caused by this situation develops stress for them. This study aimed to determine the effect of individual counseling on anxiety in women with unintended pregnancies.

**Materials & Methods:** This clinical trial was conducted on 90 women with unwanted pregnancies. The participants in the study were selected from eligible pregnant women in the city of Qom by cluster sampling method, and then were randomly divided into two intervention and control groups. In addition to routine care measures during pregnancy, the intervention group received four sessions of individual counseling every 4 to 7 days. Before the first session and four weeks after the last session, the rates of participants' anxiety were measured by Cattle anxiety scale and compared with each other.

**Results:** In this study, the values of mean anxiety scores before intervention had no statistically significant differences with each other ( $P = 0.678$ ). But, the values of mean anxiety scores after the intervention showed a statistically significant difference in both groups ( $P = 0.00$ ). The mean of anxiety scores after the intervention had no significant difference in the control group ( $P = 0.144$ ). However, the mean anxiety score after the counseling showed a significant difference in the intervention group ( $P = 0.00$ ).

**Conclusion:** The results of this study indicated that individual counseling in the first trimester of pregnancy led to reduced anxiety in women with unwanted pregnancies.

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### Introduction

Unwanted pregnancy is one of the problems of reproductive health, which is accompanied by unpleasant consequences (1). Unintended pregnancy is a major crisis for women at childbearing age (2), and its complications affect the family and society in addition to mother and child (3). Unwanted pregnancy refers to unwillingness of man or woman or both to have a child, and it is wanted at no time. Unplanned or mistimed pregnancy refers to pregnancies without prior planning that are unwanted at certain times (4). Almost all women of childbearing age are at risk of unwanted pregnancy (5). It is estimated that approximately 210 million pregnancies occurs around the world every year, of which about 38% are unwanted, and 22%

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of these unintended pregnancies would end with abortion (6). The prevalence of unwanted pregnancies is more common among adolescents and women that marry in older age. Factors affecting unintended pregnancies include low education level of mothers, low income families, depression, drug use, early sexual activity and having more than one sexual partner (2). Among health sector workers, midwives play an important role in counseling and health education for women, family and the society, and are responsible for maintaining and improving the health of mothers and children, promoting high-quality care and providing proper information to mothers. According to the International Confederation of Midwives, midwife as a responsible one has an important role in providing consultation, support, care and required recommendations during pregnancy, labor, delivery and the postpartum period (7). The aim of this study was to determine the effect of individual counseling on anxiety level of women with unwanted pregnancies. We hope that through the results we would be able to help women who are experiencing such pregnancies to gain more relaxation and put the pregnancy time with an appropriate psychological state behind.

### Methodology

This study was a clinical trial in which the units of study (subjects) were selected from eligible pregnant women admitted to clinics who were in the trimester of pregnancy. The minimum sample size for each group included 45 people, and a total of 90 subjects were considered for the two groups. According to the research objectives, the tools used in this study included Cattell anxiety assessment scale and a demographic information form. In this study, five clinics in the city of Qom were selected by cluster method. Thus, the city was initially divided into five sections (norther, southern, eastern, western and central) due to the geographical map, and each of these section was considered as a cluster. Then, a clinic was randomly selected from each district. From the patients referred to the selected clinics in each region, the samples required were selected by available approach from those eligible to participate in the study. Then, using toss, the selected individuals were randomly divided into control and intervention groups. Finally, the subjects in the two groups were matched in terms of effective underlying factors, including age, gestational age, education, occupation and education of husband. The study inclusion criteria included consent to participate in the study, less than 14 weeks gestational age, marriage, unwanted pregnancy, lack of known anxiety disorders and depression, not taking medications that increase anxiety and depression, absence of known mental and neurological illness in spouse and residence in the city of Qom. The exclusion criteria included the reluctance of participants to continue cooperation in the research, non-participation in two sessions or more, incidence of any pregnancy complications such as signs of threatening to miscarriage and fetal death. The consent form was completed by the intervention group subjects. Then, the Cattell questionnaire were completed as pre-test by subjects of both groups, and the anxiety level was measured in both groups. In the next stage, intervention was begun as individual counseling for subjects in the intervention group. GATHER counseling steps were used for consulting. This approach involves the following:

- Greet: Respecting the patient
- Ask: Asking question from the patient
- Tell: Response to the patient needs
- Help: Helping the volunteer to make the best decision
- Explain: Explaining and clarifying of issues
- Return: Scheduling for re-visit

Based on case, the subjects in the intervention group participated in counseling sessions, including 4 sessions of individual counseling every 4 to 7 days. Counseling time was 30 to 50 minutes depending on the tolerance. According to the above stages and the objectives of sessions at the end of four weeks after the last session, the Cattell questionnaire was again completed by both groups. After collecting the information, the questionnaires before and after intervention were compared with each other, and the results were analyzed. To analyze the data, the information collected was analyzed by SPSS Ver. 17.

### Results

In this study, the two groups were not statistically significant different in terms of age ( $P=0.402$ ), gestational age ( $P=0.07$ ), number of pregnancies ( $P=0.34$ ), number of children ( $P=0.283$ ) and monthly income ( $P=0.997$ ) (Table 1).

**Table 1:** Mean and standard deviation for quantitative variables in the two groups

Group Variable	Intervention group		Control group	
	Mean	SD	Mean	SD
Age	30.08	6.43	28.95	6.34
Gestational age	9.57	2.29	10.44	1.94
Number of pregnancies	3.13	1.17	2.86	0.89
Number of children	2.13	1.17	1.84	0.90
Monthly income	1.255	0.429	1.377	0.146

Also, the two groups had had no statistically significant differences in terms of education level, job, spouse job and education level (Table 2). There was no history of known anxiety and depression in all the samples and their husbands.

**Table 2:** Frequency distribution of subjects

Group Variable	Intervention group		Control group		Statistic
	Number	Frequency	Number	Frequency	
Education level					
Below diploma	26	55.6	17	37.8	df=2 Sig=0.131 X <sup>2</sup> =3.91
Diploma	13	28.9	22	48.9	
Higher than diploma	7	15.6	6	13.3	
Job					
Housewife	42	93.3	43	95.6	df= 1 Sig= 0.644 F=0.213
Employee	3	6.7	2	4.4	
Husband job					
Self-employed	20	44.4	21	46.7	df=2 Sig=0.752 X <sup>2</sup> =0.57
Employee	13	28.9	10	22.2	
Worker	12	26.7	14	31.1	
Husband education level					
Below diploma	20	44.4	23	51.1	df=2 Sig=0.631 X <sup>2</sup> =0.919
Diploma	14	31.1	10	22.2	
Higher than diploma	11	24.4	12	26.6	

The mean anxiety scores before consultation in the intervention and control groups were as  $21.24 \pm 5.93$  and  $21.84 \pm 7.61$ , respectively. The values of mean and standard deviation of anxiety scores after consultation in the intervention and control groups were obtained as  $13.28 \pm 4.04$  and  $21.22 \pm 7.64$ , respectively. The independent t-test was used to determine the level of anxiety in the intervention and control groups before counseling. Based on the results ( $P = 0.678$ ), no significant differences were seen between the two groups (Table 3). The independent t-test was used to determine the level of anxiety in the intervention and control groups after counseling. Based on the results ( $P = 0.00$ ), a significant difference was seen between the two groups (Table 3).

**Table 3:** Analysis the difference between the intervention and control groups before and after the intervention in terms of anxiety

		Number	Mean	SD	Mean standard error
Anxiety level before intervention	Intervention	45	21.24	5.93	0.88
	Control	45	21.84	7.61	1.13
df= 83.03		t= - 0.417		sig= 0.678	
Level of anxiety after intervention	Intervention	45	13.28	4.04	0.60
	Control	45	21.22	7.64	1.13
df= 88		t= - 6.154		sig= 0.00	

The paired t-test was used to compare the mean level of anxiety in the control group before and after counseling. Based on the results ( $P = 0.144$ ), the difference was not significant (Table 4).

The paired t-test was used to compare the mean level of anxiety in the intervention group before and after counseling. Based on the results ( $P = 0.00$ ), the difference was significant (Table 4).

**Table 4:** Comparison of anxiety level in the intervention and control groups before and after counseling

Anxiety level before and after the intervention			
Group	Mean	SD	Paired t-test
Intervention			df=44
Before	21.24	5.93	t= 10.14
After	13.28	4.04	Sig= 0.00
Control			df= 44
Before	21.84	7.61	t= 1.48
After	21.22	7.64	Sig= 0.144

## Discussion

The results of this study indicated a decrease in level of anxiety in women with unintended pregnancy in the intervention group, which can represent the effect of counseling on reducing anxiety. The main goal of this study was to determine the effect of individual counseling on anxiety level of women with unintended pregnancies in the city of Qom. The results of the study showed the mean anxiety scores in the intervention group before and after counseling were as 21.24 and 13.28, respectively, while these values in the control group were as 21.84 and 21.22, respectively. Thus, according to  $P = 0$ , the difference between the two groups before and after intervention was significant. The results of Gamble and et al. studies in 2005 showed that although counseling after a traumatic childbirth had reduced anxiety rate in subjects of the intervention group, but this difference was not significant compared to the control group (8). The reason for inconsistency of the results of this study with the present study could be due to small sample size in Gamble study. The results of study by Tragea et al. in 2014 showed that stress management exercises has not made a significant statistical difference in the obvious and latent anxiety levels before and after the intervention (9). The reason for inconsistency can be due to differences in methods of intervention to reduce anxiety and the used tools.

The results of Balci et al. study in 2011 showed that counseling before amniocentesis in during pregnant mothers has significantly reduced pain and anxiety (10). The results of this study are consistent with the current research. The results obtained by Whitney et al. in 2008 indicated that mind-based intervention reduce anxiety at the end of the second half of pregnancy and decreased the negative sense in the third trimester of pregnancy in the intervention group. The results of this study are also consistent with the present study (11). The results of this study were similar to our study. Approaches used to reduce and control anxiety in this study included relaxation techniques, MFA skills training and teaching problem-solving skills. The results obtained by Chang et al. in 2012 demonstrated that relaxation training program led to immediate improvement in the visual analog scale scores of anxiety in women with preterm labor. The anxiety scores in the intervention group were also significantly lower than the control group, but this difference was not significant (12).

## Conclusion

The findings of this study showed that consulting has made significant difference in the rate of anxiety of women experiencing unintended pregnancy. Therefore, if these women receive counseling and support from midwives and health care providers, they would be more relaxed and tolerate less anxiety during pregnancy.

## Suggestions

It is recommended to evaluate the impact of counseling on compatibility rate of women with unwanted pregnancies in a study.

It is recommended that future studies will investigate the effect of counseling on maternal and fetal outcomes in women with unwanted pregnancies.

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