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Combining Cognitive- Behavioral therapy and Rogersi's Approach on Reducing Depression and Anxiety after Abortion in Women Referred to Therapeutic Centers in Tehran

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A B S T R A C T

Legal abortion is one of the negative events of pregnancy that affects the individual and social aspects of one's life leading to a decrease in quality of life, depression and anxiety. The purpose of this study was to investigate the effect of a combination of Rogersian and cognitive behavioral counseling on post-abortion depression and anxiety. In this quasi-experimental study, 120 pregnant women with legal abortion referral to counseling centers in Tehran during 139-13 years participated. Samples were divided into two groups of control (observation and data recording) and intervention group (face to face counseling before abortion and weekly telephone follow-up for up to 8 weeks). The control group and the control group were randomly assigned to the intervention group. After obtaining consent, demographic and pregnancy information questionnaires were completed for both groups. Then the samples were evaluated by Beck Depression and Anxiety Inventory before and 2 months after abortion and finally the two groups were compared. Data were analyzed by SPSS 16 software using chi-square, Fisher exact test, paired t-test and independent t-test. Significance level was considered $p < 0.05$. The findings showed that the mean score of anxiety before intervention in the intervention and control groups were 24.7 ± 11.0, 22.76 12 12.67 and $p = 0.412$, respectively, and two months after the intervention the mean score Anxiety in the intervention group was 1.10 /1 1.70 ($p < 0.0001$) and in the control group it was also 11.66 7 7.7 ($p < 0.001$). So $p = 0.028$. The difference between the decrease in depression score was calculated in the intervention and control groups and the results were significant (12.56 9 9.64, 4.42 6 6.89 and $p = 0.0001$, respectively). It seems that providing integrated Rogers and Cognitive Behavioral Counseling services after abortion can reduce anxiety and depression and performing integrated Rogers and Cognitive Behavioral Counseling can be effective in promoting women's health.

Keywords: Cognitive Behavioral Counseling, Depression, Anxiety, Legal Abortion.

INTRODUCTION

Deliberate termination of pregnancy is called medical abortion or legal abortion for medical necessity(Larijani & Zahedi, 2006). The term abortion means termination of pregnancy (whether spontaneously or intentionally) before the fetus reaches sufficient development to

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survive or terminate before 20 weeks or at birth weight less than 500 g (Cunningham, Leveno, Bloom, Spong, & Dashe, 2014). Abortion can generally be classified into three common categories: spontaneous or habitual abortion, criminal or unlawful abortion, and medical or legal abortion(Shabani, 2014). In our country, according to the latest decree of the Islamic Consultative Assembly (2005), abortion treatment is issued when the continuation of pregnancy may endanger the mother's life or cause a fetal genetic defect in the mother; Fertilization time) (Larijani & Zahedi, 2006).

Abortion is the most common cause of pregnancy loss, with approximately 42 million women having an abortion worldwide each year(Curley & Johnston, 2013). A review study (2013) showed that people who have had an abortion are more likely to have mental disorders such as depression and anxiety than those who did not have an abortion(Bellieni & Buonocore, 2013); Influencing different aspects of one's life and causing physical and marital problems can reduce one's quality of life. Mourning is one of the major risk factors for mental illness, sadness, depression and anxiety, which unfortunately occurs in over 30% of women who have had an abortion, and in 5 10 10% of cases the severity and persistence of symptoms lead to major depression. (Especially in pregnancy) (Bellieni & Buonocore, 2013; Curley & Johnston, 2013; Wilmoth, de Alteriis, & Bussell, 1992).

Steinberg, Tschann, Furgerson, and Harper (2016), and Biggs, Gould, and Foster (2013), believe that abortion in itself does not lead to psychological complications but rather factors such as pre-abortion mental health, domestic violence, pregnancy tendency, economic status, etc. in the aftermath of depression and anxiety. Abortion is effective. Others, however, believe that abortion as a traumatic and stressor can cause psychological complications(Steinberg, McCulloch, & Adler, 2014). However, post-abortion psychiatric complications may occur for any reason after abortion. According to Ingrid H Lok and Neugebauer (2007), the psychological symptoms of miscarriage are similar to those of mothers who have lost their baby. Despite the researchers' recognition and recognition of the psychological consequences of abortion, there are still insufficient findings to provide post-abortion medical care, and unlike postpartum depression, even effective and simple screening measures to prevent post-abortion psychological complications not well done(Ingrid H Lok & Neugebauer, 2007). Recent reports have shown that 92 percent of aborted women wanted post-abortion care, of which only one-third of patients received these care, and many patients expressed anger and dissatisfaction with inadequate psychological support after abortion. . In other words, physical complaints of women with miscarriage are more attentive to their psychological needs(Coleman, Coyle, & Rue, 2010; Ingrid H Lok & Neugebauer, 2007; Nikcevic, Tunkel, & Nicolaides, 1998). The results of Coleman et al. (2010) studies show that lack of counseling based on Rogersi's and Shanki's combined pre-abortion behaviors leads to post-abortion psychological problems.

There are various ways to treat anxiety and depression that can be addressed by relaxation, logotherapy, drug therapy, film therapy, the use of electric shock, and psychotherapy(Fadaei, Pourreza, & Hashemian, 2004; Kajbaf, Ghasemiannejad Jahromi, & Ahmadi Forushani, 2016). Counseling based on the combination of Rogersian and Behavioral Oncology is one of the methods of treatment for depression and anxiety(Fadaei et al., 2004). Consultation sessions enable the patient to reconsider her decision to have an abortion and also to manage the triggers. Nurses, midwives, physicians and social workers as a health care team can provide patients with post-abortion psychiatric counseling and identify those at risk if needed, and refer them to appropriate centers. On the other hand, the interaction of the therapeutic team with the patient reduces the patient's fears and concerns about the lack of awareness and receives sufficient information about the abortion process(Haddad & Nour, 2009).

The International Confederation of Midwifery (2005) identifies midwives as responsible persons who have an important role to play in providing advice during pregnancy, labor and postpartum. On the other hand, today's medical care is a key component of care delivery across the United States(Reyhani, 2012), although research in Iran and other countries has emphasized the importance and impact of this integrated approach to behavioral and cognitive behavioral counseling(Azizi, 2010; Bastani, Hosseini, & Ghahfarokhi, 2012; Khakbazan, 2007; Reyhani, 2012). Although it seems that the value of telephone counseling is lower than face-to-face counseling, this technology can provide very useful care interventions in the short term, as well as socially managed care. And transformed caregiving into caregiving(Park, 2006). Since women go to health centers after being granted legal abortion to continue treatment and midwives are the first to contact them, they can play a role in this regard and can be counseled based on Rogers' combined behavioral and oncological approach and support. It is necessary and timely to reduce the psychological effects of abortion. The purpose of this study was to investigate the effect of a combination of Rogersian and cognitive behavioral counseling on depression and anxiety in women after legal abortion, hoping that based on the results of this study, the degree of psychological support and prevention of common psychological consequences of abortion will be investigated.

METHODOLOGY

The present study is a quasi-experimental interventional study in which 120 pregnant women with legal abortion who referred to counseling centers in Tehran during 2016-2017 participated in this study. Purposeful sampling was used.

Assuming a 50% prevalence of depression and anxiety in pregnant women awaiting legal abortion and $\alpha = 0.01$ and $\beta = 0.05$, the number of samples required in this study was determined with 10% loss of 60 individuals in each group.

Inclusion criteria: desire to participate in research, lack of known mental illness, lack of psychiatric medication, absence of accident causing anxiety, anxiety and depression such as death of relatives etc. in the last 2 months and exclusion criteria. These included unwillingness to continue working together or having an accident in one's life that led to her anxiety and depression. After obtaining permission from the Ethics Committee and Forensic Medicine Organization and also registering with the Clinical Trials Registration Center, code 1N2012111411468IRCT and obtaining written consent to participate in the study, the control group was not allowed to meet with the intervention group, based on the patients' referral to the couple day care center. The control group and the individual days were assigned to the intervention group. Both groups completed questionnaires of demographic information (age, level of education, occupation, religion, etc.) and pregnancy (number of pregnancy, number of children, number of abortions, gestational age, etc.) before abortion. Both groups were assessed for anxiety and depression by Beck questionnaire. The Beck Depression Inventory (BDI) consists of 21 questions that assess the defined symptoms of depression including sadness, guilt, loss of interest and social withdrawal, and suicidal ideation. This tool examines mood over the past two weeks. The items in this questionnaire include four options and are scored on a scale of zero to three, so the total score can vary between zero and 63. Beck's classification of the severity of depression on this scale was asymptomatic (0 to 9), mild depression (10 to 18), moderate depression (19 to 29), severe depression (30 to 63) (Azkhvsh, 2010). The Beck Anxiety Inventory (BAI) is a 21-item scale that selects one item in each item that represents the severity of his or her anxiety, and these four items are scored in a four-part range from zero to three, so the total score on the questionnaire is The range is (-63). The cut-off points suggested for this questionnaire are as follows: (7 - 0) minor anxiety, (8 - 15) mild anxiety, (16 - 25)

moderate anxiety, (26 - 36) severe anxiety. The Beck Anxiety Inventory was designed to exclude symptoms of depression(Beck & Steer, 1991). Various studies have confirmed the validity of the Beck Anxiety Inventory in different situations(Morejón, Jiménez, & Zanin, 2014; Osman et al., 2002). In the Beck study, there was a positive correlation between the scores of clinical specialists and the Beck Depression Inventory (0.65 and 0.67 in two separate studies) (Beck & Steer, 1991; Beck, Steer, & Carbin, 1988). Content validity was used to validate the instruments. Reliability of depression and anxiety questionnaires in internal studies with Cronbach's alpha coefficient was 0.93 and 0.92, respectively(Beck et al., 1988; Osman et al., 2002). Then, the intervention group presented a face-to-face, Rogersian and Cognitive Behavioral Counseling approach, for 45- 30 minutes. The counseling was cognitive and emotionally focused and was taught to the midwife (researcher) by the design consulting expert. The content of the consultation includes 1) providing medical information about abortion and its physical consequences to reduce anxiety and fear of lack of awareness, 2) asking questions of patients' concerns and ambiguities and resolving them as far as possible, 3) alerting them They believe that abortion is either a loss or mourning, and thus can lead to symptoms similar to mourning, as well as informing the counselor of possible psychological problems after abortion and then providing strategies for coping With negative mood 4) Providing assurance and confidence to receive counseling services based on a combination of Rogers and Cognitive Behavioral Approaches up to 8 weeks after obtaining a miscarriage permit, weekly, whenever the individual feels the need. The intervention group was followed up by telephone for 8 weeks each week and provided with counseling if needed including answers to medical questions such as contraceptive methods, time to marry, time needed The purpose of re-pregnancy was to address concerns about re-pregnancy, to help reduce guilt, and so on. After 8 weeks, both groups were contacted and the questionnaires were completed again. Then both groups were compared in terms of depression and anxiety.

Data were analyzed by SPSS software version 16 and statistical tests such as chi-square, Fisher exact test, paired t-test and independent t-test were considered significant at the significant level of 0.05.

RESULTS

Eight weeks after the study, 10 subjects in the control group were not responding to the calls and eventually 50 samples remained. Therefore, in the intervention group up to 50 patients continued follow-up. Findings showed that the subjects in the intervention and control groups were demographic characteristics including age, educational level, occupation, relationship with spouse, religion, gestational age, number of children, number of miscarriages, pregnancy desire, homogeneous anxiety level.

Table 1. Statistic of samples

Changing	Group	Intervention		Witness		p
		Percentage	Number	Percentage	Number	
Age	Less Than 20	12	6	4	2	0.0004
	20_25	26	13	28	14	
	26_29	22	11	32	16	
	Over 30	40	20	36	18	
Education	Illiterate	2	1	6	3	0.297
	Elementary	24	12	18	9	
	Guidance _ High School	54	27	42	21	
	Academic	20	10	34	17	

Job	Manual Worker	2	1	0	0	0.760
	Employee	10	5	14	7	
	Housewife	88	44	86	43	
Wanting to be pregnant	Wanted	66	33	72	36	0.666
	Unwanted	34	17	28	14	
Pregnancy age	The First Three Months	26	52	30	60	0.198
	Second Quarter	24	48	20	40	

Mean and standard deviation of pre-counseling depression score based on Rogersi and Behavioral Integrated Behavioral approach were 18.88 9 9.9 and 20.66 11 11.6, respectively (p = 0.028) and 2 months, respectively. After providing the combined approach of Rogersian and Cognitive Behavioral Counseling, the mean depression in the intervention and control groups changed to 3.24 5 5.5 and 16.24 ± 10.5, respectively (p = 0.028). But since the pre-counseling depression was not homogeneous in both groups (p = 0.028), the mean difference of depression reduction in the two groups was assessed by the t-test. The results of this test showed that the mean difference of depression reduction in the intervention group was 12.56 9 9.6 and in the control group was 4.4 6 6.8 and there was a statistically significant difference in the mean depression score decrease (p = 0.0001). (Table 2)

Table 2. Distribution of absolute and relative prevalence of depression before and after counseling based on the Regression and Behavioral Integrative Approach Intervention and control group

Depression	Before the combined approach of regression and cognitive behavioral counseling				2 months after the combined approach of rogers cognitive and behavioral counseling			
	Control group		Intervention group		Control group		Intervention group	
	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number
No depression (1 to 15)	36	18	56	28	46.9	24	96	48
Mild (16 to 31)	52	26	34	17	42.9	21	4	2
Medium (32 to 47)	6	3	10	5	10.2	5	0	0
Severe (48 to 62)	6	3	0	0	0	0	0	0
Mean and standard deviation	20.66±11.67		50.80±9.99		3.24±5.58		16.24±10.56	
P - value	P = 0.028				P = 0.0001			

Also the mean and standard deviation of anxiety score before the combination of Rogersian and cognitive behavioral counseling in the intervention and control groups were 24.72, 11, 11.05 and 22.76, 12, 12.67, respectively, but 2 months after the Rogersian counseling integrated approach. The mean scores of anxiety in the intervention and control groups were 1.10 /1 1.70 and 11.66 7 7.76, respectively.

Before the combined approach of Rogersian and Cognitive Behavioral Counseling, there was no difference between the two groups regarding anxiety, but after intervention the anxiety score in the intervention group was significantly lower than the control group (p = 0.0001).

Table 3. Distribution of absolute and relative frequency of anxiety before and after the combined approach of Rogersian and Cognitive Behavioral Counseling in the intervention and control groups

Anxiety group	before the combined approach of Rogersian and cognitive behavioral counseling				2 months after the combined approach of rogers cognitive and behavioral counseling			
	Control group		Intervention group		Control group		Intervention group	
	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number
Healthy (zero to 7)	12	6	6	3	32	16	100	50
Mild (8 to 15)	22	11	18	9	44	22	0	0
Medium (16 to 25)	30	15	28	14	20	10	0	0
Severe (26 to 63)	36	18	48	24	4	2	0	0
Mean and standard deviation	22.76±12.67		24.72±11.05		1.10±1.7		11.66±7.76	
P - value	P= 0.412				P= 0.0001			

CONCLUSION

The results of this study indicate that providing a combined approach to Rogers' Cognitive Behavioral Counseling and weekly follow-up to abortion women can reduce their anxiety and depression. In a study by Kaviani (2008) and Rahbar, Ghorbani, Moazen, and Sotoudeh Asl (2010), 11.1% of pregnant women had symptoms of sleep disturbance and anxiety four weeks after abortion. that in the present study there was still anxiety in both control and intervention groups after 8 weeks of abortion but in the intervention group due to counseling support and weekly follow-up, this The rate was significantly reduced.

In another study by Ingrid Hung Lok, Yip, Lee, Sahota, and Chung (2010), the rate of depression immediately after abortion was reported to be 42.1%, which over time (three months and one year) reached 26.8%, respectively. And decreased by 9.3%. Comparing this study with the present study, it is found that depression rates naturally decrease with time, such as anxiety, but decline is faster in those who are counseled based on the Rogersian and Cognitive Behavioral and Follow-up approach. Earlier people can achieve mental health before their miscarriage. In most studies, post-abortion psychiatric complications have been demonstrated, but the rate of reduction of post-abortion psychiatric complications has been reported with time and with different interventions. Some believe that these effects persist for up to 6 months after abortion and disappear within 3 years(Biggs, Neuhaus, & Foster, 2015) and others believe that it takes time to eliminate all the psychological effects of abortion 5 years(Munk-Olsen, Laursen, Pedersen, Lidegaard, & Mortensen, 2011). However, if intervention by health care providers may reduce the duration of women's depression and anxiety, the results of Coleman et al. (2010), study also confirm the fact that lack of counseling based on a combined Rogersian and cognitive-behavioral approach and follow-up leads to post-abortion anxiety disorder and more psychological problems. Also, a survey of 288 abortion women in Hong Kong found that more than half of the patients (52.7%) found the combination of Rogers' counseling and cognitive behavioral counseling necessary after abortion. Such services were and in another study women found the combination of training and cognitive behavioral counseling to reduce psychological complications after miscarriage(Ingrid H Lok & Neugebauer, 2007), pious also believe that it is possible to discuss the health, feelings and personal situations of women under Abortion treatment is important with careful, informed, and non-judgmental counseling and this can help These are patients who have both significant or emotional stress, proper attention to (Nikcevic et al., 1998). In this study, the necessity of providing counseling services based on Rogers 'Integrated Behavioral and Behavioral Counseling approach after abortion was again demonstrated and it was observed that by providing Rogers' combined cognitive behavioral and cognitive behavioral counseling and weekly follow-up, one could reduce the amount of ambiguity and related concerns such as Subsequent pregnancies and contraceptive methods, etc., which cause and aggravate anxiety and depression in patients. But some of the limitations of this study are that families' support for mothers after abortion varies from one family to another, which may affect the severity and severity of anxiety and depression, which is beyond the control of an outside researcher Was.

The results of this study showed that the combination of Rogers and Cognitive Behavioral Counseling after abortion is very effective in reducing anxiety and depression and health care providers, especially midwives, can use Rogers Cognitive Behavioral Counseling and Identifying women at risk, and sometimes referring them to specialist counseling centers, can reduce the severity and severity of post-abortion psychological complications, thereby contributing to the promotion of women's health and community health. Finally, in future studies, it is suggested to compare and compare the effects of Rogersian and cognitive

behavioral counseling with spouse and without spouse on the reduction of psychological complications after abortion.

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