

## The Effects of Cognitive-Behavioral Counseling on the Quality of Life in Postmenopausal Women

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### Abstract

**Background and objectives:** Menopause is associated with a lot of annoying symptoms due to estrogen deficiency. This symptoms affects women's health and quality of life during this period. Consultation can be useful to assist women in coping with these changes and Reduce. problems and improving the quality of life. Therefore, the objective of this study was to determine the effect of the cognitive-behavioral therapy on quality of life in postmenopausal women in Tuyserkan, Iran.

**Materials and method:** In this randomized clinical trial, 76 menopausal women who referred to health centers of Tuyserkan from September to December 2016 participated in this study. Six CBT sessions were held. The general quality of life questionnaire (item 26 BREF-WHOQOL) was applied. After completing six CBT sessions, the measurements were done. The data were analyzed using the paired t-test and independent t-test.

**Results:** Comparisons of quality of life scores between the two groups before initiating CBT was not significant ( $P > 0.05$ ). The results showed that the mean scores of quality of life in the physical, psychological, social and environmental fields before and after the psychological counseling in the intervention group were statistically significant ( $p$ -value  $< 0.05$ ). These changes were not significant in the control group ( $P > 0.05$ ).

**Conclusion:** It is suggested to use CBT for menopausal women to improve the quality of life of this group.

**Keywords:** quality of life; menopause; cognitive-behavioral therapy.

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### Introduction

The definitive diagnosis of menopause as one of the most important stages in women's life is done by the permanent discontinuation of menstruation with decreasing serum estrogen levels and the increased follicular stimulation hormone to over 40 international units per liter (1). The increasing age and the onset of menopause lead to physical, mental, and infertile diseases and idle thoughts in women.

Also, with the emergence of hormonal changes during this period, symptoms such as heart palpitations, perspiration, hot flashes, irritability, lethargy, depression, vaginal dryness, loss of libido and painful intercourse occur, which are usually

chronic (2). On the other hand, as women enter this stage of life, their lifestyles are often unhealthy (3). This unhealthy lifestyle is one of the predisposing factors of illness and death (4). Therefore, as women enter this stage of life, they are faced with problems and complications from the lack of sex hormones which affect their quality of life. The definition of the World Health Organization (WHO) of the quality of life includes: people's understanding of their position in life, culture, and value systems in which they live and with regard to their goals, expectations, communications, and needs (5). Studies done in Iran and around the world indicate the negative effects of menopause on the quality of life in postmenopausal women (6-8).

Women's health programs and services that are offered in Iran are limited to certain interventions such as routine pregnancy and family planning, and other basic needs for women's health including those of menopause, are neglected. (9). The quality of life in postmenopausal women guarantees their health and let them live qualitatively in an optimal way (9). Medications and hormones have short-term and long-term complications; hence, it is better to use non-pharmacological methods to improve the lifestyle and the quality of life among women. In recent years, the focus of the medical profession has been on education and counseling (11). One of the most effective counseling approaches in this field is cognitive behavioral counseling

. This counseling helps people think differently and as a result of this new thinking, they would show healthier behaviors against the newly created conditions (12).

In a study by Tizenobick et al., it was found that the use of counseling programs in postmenopausal women and their spouses could have a significant effect on improving and promoting their lifestyle (13). Various studies suggested the effectiveness of cognitive-behavioral counseling in improving the quality of life (14,15). However, the effects of using this counseling approach are still not well known.

Therefore, this study aimed to determine the impacts of cognitive-behavioral counseling on the quality of life in postmenopausal women, with the hope that it could lead to a more accurate planning of relevant counseling programs for improving the quality of life in postmenopausal women.

## Method

This study was a randomized controlled clinical trial. Participants were selected using a sampling method from clients referring to Tuyserkhan health centers. The study population included postmenopausal women referred to the health centers of Tuyserkhan.

The inclusion criteria included normal menopause, not from taking medication or removing ovaries, aged 47 to 57 years and one to four years after the onset of menopause, not suffering from any chronic or acute illness over the past 12 months with an intensity causing a person not to move and not be able to attend the sessions, the lack of grief of one of the first-degree relatives in the past three months, the absence of a particular stressor such as the illness of the wife or children, not using hormone therapy to reduce the symptoms of menopause, mastery of Persian language, not suffering from severe nervous and psychiatric disorders, or taking psychiatric drugs, not suffering from addiction, not having psychosocial drugs suicidal thoughts, no history of psychosis or

suicide, none-participation in relaxation, yoga classes and similar programs.

The exclusion criteria included not attending two or more sessions of counseling sessions, using hormone therapy during the study, creating an unexpected stress during the counseling, and dissatisfaction of the individual to continue the study. The sample size was calculated using the comparison formula of a quantitative trait in two groups and based on the results of a similar study carried out by Hesar, et al. (16), 90 (45 participants each). In this study, normalization was done by typing the numbers individually on each paper and randomly selecting them by participants. During the normalization process, 90 consecutive sheets were written individually and put inside a box.

The even numbers were grouped into group A (control) and the odd numbers were assigned to group B (intervention). In order to hide the randomization process, a research collaborator (one of Tuyserkhan Town Midwives) was requested to contribute to the process of sampling as well the assignment of groups without knowing the nature of even or odd numbers in order to assign the participants in the intervention or control groups.

Having obtained the informed consent, the measurements were carried out for all participants using the BREF-WHOQOL. Then, the random distribution of the two groups was done. During the present study, blind performance and information analysis were implemented. Therefore, the participants were unaware of the nature of the control or intervention of groups A and B.

Also, the participants of two intervention and control groups were identified with a code (for example, codes 1 and 2) and the information analyst was not aware of the code theme, but since the implementation of the intervention was done by the researcher and she was aware of the type of intervention and the groups, blinding was not possible for the intervener and the present study was double-blind.

The general quality of life questionnaire (item 26 BREF-WHOQOL) measures four areas of physical, mental, social relationships, and environmental health (with 24 questions). The very first two questions do not belong to any of the areas and generally assess the health status and quality of life. Therefore, the questionnaire has a total of 26 questions.

For each question, a score of 1 to 5 is given. Then, these points are reversed for three questions (3, 4, and 26). After doing the necessary calculations, in each area, a score of 20-4 will be obtained, with 4 indicating the worst and 20 indicating the best condition of the desired area. Validity and reliability of this questionnaire in Iran were

evaluated by Rescue et al. and the alpha coefficient in all domains was higher than 7% (17).

The next tool was a data collection form which contained 19 questions and included demographic information and midwifery information. This form was designed by the researcher and approved by the faculty members of Kermanshah Faculty of Nursing and Midwifery.

For the intervention group, the counseling process in the form of groups of 12 to 11 people with a cognitive-behavioral approach was done during 6 sessions (60 to 90 minutes) in the Counselling Room of the welfare center of the city of Tuyserkhan, which is a suitable place in terms of light, and has a relaxing atmosphere in terms of noise and the number of people who refer, and enough seats and educational equipment.

The collected data were analyzed using SPSS version 23 and independent t-test, Chi-Square, Kolmogorov-Smirnov, Mann-Whitney, Friedman, ANOVA, Tukey, and Kruskal-Wallis tests. The changes in the confidence level were considered as 95% significant.

The contents of each session were as follows:

**Session one:** Welcome, the introduction of members and being familiar with each other, emphasis on confidentiality of the issues discussed in each session, describing the physiology of menopause.

**Session two:** Discussion about the effect of thought on emotions, social supports and the related issues, discussion about the effect of activities on mood, relaxation training by both lecture and practical method (gradual relaxation of muscles, respiration techniques, etc), providing participants with assignments to be done at home.

**Session three:** The review of previous session assignments and group feedback, becoming familiar with negative thoughts and opinions and the ability to separate them from reality, being familiar with evaluating emotions and the degree of belief in negative thoughts about menopause, doing 10 minutes of relaxation, raising positive thoughts and avoiding negative thoughts in self-care, providing assignment at home.

**Session four:** Review of the previous session assignment and group feedback, being familiar with automatic thoughts and cognitive errors, decreasing anxiety regarding not being supported by others, becoming familiar with respiratory relaxation techniques, providing home assignment.

**Session five:** Review of previous session assignment and group feedback, becoming familiar with confirmatory and rejecting evidence of negative beliefs about menopause, performing relaxation for 10 minutes using respiratory techniques, providing home assignment.

**Session six:** Reviewing the previous session assignment and group feedback, encouraging the participants to talk about the stress and anxiety as a result of menopausal symptoms and discussing about them, developing positive thoughts and decreasing negative thoughts in doing physical activity, exercise, and adhering to healthy diets through becoming familiar with exercise benefits and diet, discussing the side effects of unhealthy diets and sedentary lifestyle, solving misinterpretations through group discussion and Socrates communication, and final conclusion.

At the end of 6 weeks, some measurements including quality of life was performed by the researcher's assistant in two groups. To observe the ethical principles of the control group, an educational counseling session was given after the end of the second stage.

### Findings

After the completion of the sampling, 7 patients out of 90 participants in the study were excluded from the intervention due to the absence of more than 3 sessions, and 7 from the control group were excluded from the group due to the lack of re-acquisition for post-test. In this study, 76 postmenopausal women participated in two groups (38 in each intervention and control groups) with a mean age of  $53 \pm 2.86$  years. In the intervention and control group, 81.6% and 97.4% were married, 100% and 94.7% were housewives and 68.4% and 84.2% had cycle education, respectively (Table 1). Also, the average time spent during menopause was 65.2 years old in two groups. Chi-square test was used to examine the homogeneity in both control and intervention groups as for demographic characteristics including marital status, educational level, employment status, body mass index, number of children, number of deliveries, exercise, and income. The results indicated homogeneity of variables in the control and intervention groups except for the income situation (Table 1).

**Table 1:** The frequency comparison of demographic variables in intervention and control groups

Variable		Intervention group		Control group		P-value
		fr	%	fr	%	
Marital status	Married	31	81.6	37	97.4	00.74
	Single	5	13.2	1	2.65	
	Divorced/widower	2	5.3	0	0	
Education	Illiterate	11	28.6	5	13.2	0.238
	Under diploma	26	68.4	32	84.2	
	High school diploma and university	1	2.6	1	2.6	
Occupation	Housewife	38	100	36	94.7	0.152
	Clerk and retired	0	0	2	2.6	
BMI	18.5 to 24.9	9	23.7	6	15.8	0.592
	25 to 29.9	18	47.4	22	57.9	
	> 30	11	28.9	10	26.3	
Number of children	No child	5	13.2	1	2.6	0.185
	1 to 2	5	13.2	9	23.7	
	3 to 4	21	55.3	24	63.2	
	≥ 5	7	18.4	4	10.5	
Number of deliveries	No delivery	6	15.8	1	2.6	0.069
	1 to 2	3	7.9	9	23.7	
	3 to 5	24	63.2	25	65.8	
	≥ 5	5	13.2	3	7.9	
Exercise activity	No exercise	9	23.7	7	18.4	0.843
	Regular exercise	8	21.1	8	21.1	
	Sporadic exercise	21	55.3	23	60.5	

The results of independent t-test for homogeneity of variables such as age, body mass index and menopause duration in the intervention and control groups showed that the said variables were not homogeneous in both groups and were not statistically significant (Table 2).

**Table 2:** Assessment of women's age consistency status in intervention and control groups

Variable	Group	No	Mean	SD	Significance level
Age	Intervention group	38	53.15	2.78	.1622
	Control group	38	52.84	2.77	
BMI	Intervention group	38	27.87	4.18	.366
	Control group	38	28.70	3.80	
Menstruation period	Intervention group	38	2.83	1.55	.175
	Control group	38	2.37	1.39	

The results of the paired t-test showed that the mean scores of quality of life in the physical, psychological, social and environmental fields before and after the psychological counseling in

the intervention group were statistically significant (p-value <0.05). (Table 3)

**Table 3:** Comparison of the mean changes in the quality of life in the intervention and control groups before and after the cognitive-behavioral counseling

P-value	Test Statistic	Control	Intervention	Group Dimension
		The mean difference before and after the Control group	The mean difference before and after the intervention group	
		Mean ±SD	Mean ±SD	
•/•••	•/√•	-•/••±•/••	•±•/••	Physical field
•/•••	•/••	-•/••±•/••	•/••±•/••	Psychological field
•/•••	•/••	-•/••±•/••	•/••±•/••	Social relations field
•/•••	•/••	-•/••±•/••		Environmental field
•/•••	•/••	-•/••±•/••	•/••±•/••	Quality of life (Total score)

This intervention did not have any negative or adverse effects on the participants.

### Discussion and conclusion

The results of this study showed that quality of life in physical, psychological, social, and environmental areas has increased in subjects undergoing cognitive-behavioral group therapy as compared to those who did not receive this treatment. This suggests the effectiveness of cognitive-behavioral group counseling on improving the quality of life. These results are in line with the findings of Isazadegan et al. (2013)(18) that while investigating the effects of cognitive-behavioral counseling on the quality and style of life, concluded that the mean scores of pre-test and post-test in the intervention group were significantly different. Therefore, there was a significant increase in the mean scores of style and quality of life after intervention in the intervention group as compared to the control group. Results of the research done by Tomwaikhi et al. (2008)(19) showed a significant increase in the quality of life in the Cognitive- Behavioral. The results of the study by Gelljens et al. (2006) (20) also showed that cognitive-behavioral intervention significantly increases the quality of life. In explaining the reasons for the impact of cognitive-behavioral counseling on improving lifestyle quality, it can be said that numerous advantages of cognitive-behavioral group therapy such as communication skills training, muscle relaxation, training for having a rational life, identifying and prioritizing goals, identifying negative thoughts and feelings and their replacement with positive thoughts and feelings, planning for the daily activities of life,

problem solving, self-expression, anger management, identification of supportive resources and positive feedback and cognitive restructuring are among the factors which would decrease depression and would increase the quality of life (21).

In a study by Rayle et al. (22), it was found that counseling does not affect the quality of life of the individuals. In a study by Davis et al. (23) on the impacts of counseling on the quality of life in patients with breast cancer, it was found that quality of life in the first year after becoming aware of cancer following the counseling less affected. But researchers suggested that more clinical trials should be conducted to measure the impact of counseling on the quality of life of these individuals. A study by Hermann et al. (24) showed that counseling could have mild to moderate effects on the quality of life of older cancer patients.

It seems that the differences in the counseling approach of the three above-mentioned studies and also the differences in the target groups studied are among the reasons for these contradictions.

The present research has some limitations: First, the World Health Organization's Quality of Life Questionnaire has been used and the quality of life questionnaire of postmenopausal women was not used in this age group. It is suggested that a special questionnaire be used in future studies to assess the quality of life of postmenopausal women. Also, considering the fact that this research is a clinical trial type, it is another restriction imposed on the researcher in the implementation of an interventional program which in turn can affect

the bias of the results. It is also recommended that in order to avoid bias, interventionist be apart from the researcher in other clinical trials.

One of the strengths of the research was the use of cognitive-behavioral approach and the effective techniques of this approach in counseling. Also, the grouping of this process provides an opportunity for empathy and sympathy for other people's troubles which in turn will lead to their self-esteem.

### Conclusion

The results of the present study showed that cognitive-behavioral counseling could have an impact on the improvement of the quality of life among postmenopausal women. Therefore, community health and community planners are suggested to use this counseling as an effective approach to improve the quality of life of postmenopausal women and to provide a method for completing services during menopause. As a practical solution, it is also recommended to use cognitive-behavioral counseling as an effective approach to improve the quality of life of postmenopausal women along with other health services of the Ministry of Health.

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