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Comparing the effect of two health education methods, self-directed and support group learning on the quality of life and self-care in Iranian postmenopausal woman

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Abstract:

BACKGROUND: Women during menopause stages experience many symptoms, for which they lack enough knowledge to manage them. This study aimed to compare the effect of self-directed and support group health education on the quality of life (QOL) (and self-care of postmenopausal women.

MATERIALS AND METHODS: This field trial study was carried out with three groups. One hundred and eight menopause women were selected through convenient sampling method based on the inclusion criteria from three comprehensive health centers. Health centers were randomly assigned to support ($n = 36$), self-directed ($n = 36$), and control groups ($n = 36$). In the self-directed group, education was provided through educational package, and the control group received routine care from the health center. The support group received education through four group sessions by trained healthy volunteers. Data were collected by menopause-specific QOL and self-care standard questionnaire.

RESULTS: Immediately after the intervention, the mean scores of QOL in the self-directed group, support group, and control group were 41.82 ± 7.61 , 40.31 ± 4.80 , and 48.17 ± 8.45 , respectively ($P < 0.05$). In addition, the mean scores of self-care were significantly different between the self-directed (40.67 ± 7.36) and support (36.50 ± 3.36) groups compared to the control group (47.83 ± 8.47) ($P < 0.05$). After 1 month from intervention, QOL scores in the self-directed group (40.67 ± 7.36), support group (36.50 ± 3.36), and control group (47.83 ± 8.47) were significantly different ($P < 0.05$). In addition, the mean scores of self-care were 64 ± 6.79 and 65 ± 8.32 in the self-directed and support groups, respectively, compared to the control group (49.09 ± 9.43). *Post hoc* test (least significant difference) revealed higher effectiveness of the support group ($P < 0.001$).

CONCLUSIONS: Results indicated QOL and self-care in menopause women in self-directed and support groups improved. However, the support group provided higher effectiveness. Therefore, we recommended paying more attention to the capabilities of healthy volunteers for the promotion of QOL in menopause women.

Keywords:

Health volunteer, menopause, quality of life, self-care, self-directed learning, support group

Introduction

Menopause is a biological stage in a woman's life, which is marked by the cessation of menstruation.^[1] Most of the postmenopausal women face common

issues such as hot flashes, sleep problems, mood changes, osteoporosis, and sexual problems.^[2] Some studies suggest that women's quality of life (QOL), especially during the first 5 years of menopause, is reduced.^[3-5] In addition, studies show that

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postmenopausal women usually lack enough knowledge to manage their complications.^[6]

Several interventions delivery method were developed to improve the QOL in postmenopausal women. The self-directed learning method is one of the education methods which is useful for training them. In this method, trainer learned individual and achievement is depended to amount of their responsibility and commitment.^[7] Usually, educational material was provided by the health system.^[8] In the support group, people who have common experiences and concerns come together in a group sharing, providing their experiments and emotional support with each other.^[9] The presence of aware peers such as healthy volunteers in the support group meetings may help postmenopausal women to update their knowledge. Currently, the health system of Iran has been developing lifestyle and QOL enhancement program by self-care package and healthy volunteer training. Therefore, the researchers decided to evaluate the ability of a trained healthy volunteer as a peer to training postmenopausal women. Thus, the present study was conducted to compare the effect of health education in the self-directed and support groups (by trained healthy volunteer) on the QOL and self-care in postmenopausal women who were referred to comprehensive health centers in Isfahan.

Materials and Methods

This field trial study was approved by the Ethical Committee of Isfahan University of Medical Sciences with ethical code: IR.MUI.REC.1396.837. The population included Iranian married and literate menopause women who were referred to three comprehensive health centers in Isfahan for checkup programs (diabetes and hypertension). Each center was randomly assigned to one of the three groups: control group, self-directed group, and the support group. The sample size was estimated to be 32 for each group using the Pocock formula. With a probability of 10% dropout, the sample size was considered to be 36 for each group.^[10] At the end of the study, 35 women in the control group, 33 women in the self-directed group, and 32 women in the support group remained.

Married women who living with their spouses, had physical and mental abilities to participate in the study; and their menopause occurred naturally during the past 5 years were selected by convenient sampling method. Married women who had experienced a severe stressful incident in the past 6 months, and had menopause by drug or surgery were excluded from the study. The participants who were reluctant to continue research, and those who had not completed the questionnaire or and absent for more than one session were also excluded from the study.

The intervention groups received similar content with different training methods. The contents of this educational package were prepared according to the Health Ministry Guidelines for Menopausal Woman. The package was provided in four sections. The first section included menopause and its changes, the importance of self-care, recommendations for hot flashes, appropriate exercises, and proper nutrition. The second section included the genitourinary changes, suggested strategies for the prevention and treatment of urinary incontinence, appropriate strategies for the prevention of infection and urinary disorders, bone resorption, and prevention of osteoporosis. The third section included self-care, stress prevention, depression and memory enhancement, sleep improvement, changes in marital relationships, and sexual problem resolutions; the fourth section included skin and hair care and weight balance.

The self-directed group received a booklet weekly for each section, and the support group was trained by a trained healthy volunteer during four sessions. Twelve healthy volunteers were selected through purposive method among the volunteer menopausal women who came to the health center and were trained during a 3-h session by the research team. After assuring their ability, each trained volunteer joined with three menopause women. The support group was formed in three small groups, each of them comprising 15 persons (12 women + 3 health volunteers), and training was provided in four sessions and it lasted for 90 minute. During four sessions, menopause women received a systematic and guided discussion by health volunteers according to educational sections, under the supervision of the research team. Every session started with a brief explanation (30 minute). Subsequently, in 40 minute, the participants discussed about the session topic, in the last 20 minute, session concluded by research team. The control group received routine care from the health centers.

Data were gathered immediately and 1 month after the intervention by QOL of menopause women and self-care questionnaires. The menopause-specific self-administered QOL developed by Hilditch *et al.* (1996) included 29 items. In validated Persian version, 3 items were omitted and the Iranian version included 26 items in a Likert-scale (0–3) format.^[5] Each item assesses the impact of one of the four domains of menopausal symptoms, as experienced over the past month: vasomotor (2 items), psychosocial (7 items), physical (14 items), and sexual (2 items). Higher score indicates more severity of menopausal symptoms and lower QOL. The validity was checked by test–retest coefficient and the coefficient was calculated to be 0.92.^[10]

The self-care questionnaire designed by the UK Health Studies Center (2005) includes forty questions. The scoring is based on the Likert method.^[1-5] High scores indicate high self-care behaviors and low scores indicate to the low self-care behaviors. The validity of this scale through Cronbach's alpha was 0.93.^[11]

The SPSS-version 20 software (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp) was used to analyze the data. The significance level was considered to be < 0.05 . Chi-Square test, Kruskal-Wallis test, and *t*-test for independent groups, and one-way analysis of variance (ANOVA) and *post hoc* test (least significant difference [LSD]) were used to find the difference of three groups.

All ethical considerations were followed during the sampling, training, and analysis. Participants were allowed to participate in this study voluntarily with their informed consent. Their data were kept confidential. Participants were allowed to quit the study at any stage if they are reluctant to continue. If any of the participants has either physical or psychological problems during the study, he/she was referred to the relevant specialists of the center for further care.

Results

The age range of the participants was 45–65 years. The results of the comparison of the two intervention and control groups showed that the mean age, duration of the marriage, number of children, education level, monthly income, QOL, and self-care were not significantly different between the three groups before the intervention [Table 1].

Normality of data distribution and homogeneity of variance were checked by Kolmogorov-Smirnov

and Levene's test ($P < 0.05$). One-way ANOVA analysis showed that immediately and 1 month after the intervention; the mean score of QOL and its domains were significantly different between the three groups ($P < 0.01$). In addition, the results of LSD *post hoc* test indicated that the mean scores in the support group and self-directed group were less than that of the control group ($P < 0.001$). In addition, all domains of the QOL in the support group were significantly lower than that of the self-directed and control groups ($P < 0.001$) [Table 2].

ANOVA test with repeated observations showed that the mean score of self-care was significantly different between the three groups immediately and 1 month after the intervention ($P < 0.001$). The LSD *post hoc* test showed that the mean score of self-care in the support group was significantly higher than that of the self-directed and control groups ($P < 0.001$) [Table 3].

Discussion

This study was conducted with a view to comparing the effect of health education methods, self-directed and support groups, on the QOL and self-care of postmenopausal women. The results showed that the interventional groups immediately and 1 month after the intervention reported a significantly lower score in the total QOL and all its domains. Therefore, education has been effective in improving the QOL of the intervention groups. However, the QOL scores between the support and self-directed groups did not differ significantly. This finding is in accordance with the results of Dąbrowska *et al.*,^[12] Jayabharathi and Judie, and^[13] Farokhi *et al.*^[14] However, there was no significant difference in the physical and psychosocial domain QOL in Farokhi *et al.*'s study.^[14] This difference is due to the differences in the educational content in the two studies. In this study, in addition to the mental health

Table 1: Comparison of groups in the pretest stage

Variable	Self-directed group	Support group	Control group	Significant (P)
Education, n (%)				
Elementary and guidance	14 (42.4)	15 (46.9)	10 (28.6)	0.31
Diploma and high school	17 (51.5)	11 (34.3)	19 (54.3)	
Academic	2 (6.1)	6 (18.8)	6 (17.1)	
Income monthly, n (%)				
Below 500,000 T	18 (54.5)	13 (40.6)	16 (45.7)	0.65
500,000-1,000,000 T	1 (3)	14 (43.8)	5 (14.3)	
1,000,000-2,000,000 T	11 (33.3)	5 (15.6)	9 (25.7)	
Above 2,000,000 T	3 (9.2)	0	5 (14.3)	
Age (years), mean±SD	51.73±4.51	53.41±5.39	53.37±5.25	0.31
Duration of marriage (years), mean±SD	30.58±5.32	30.47±10.26	32.94±7.53	0.35
Number of children, mean±SD	2.21±1.11	2.19±0.78	1.94±0.80	0.40
Total QOL, mean±SD	51.39±9.33	50.16±8.19	48.26±9.81	0.37
Self-care, mean±SD	50.33±6.70	51.16±8.25	51.69±7.55	0.76

There was no significant difference between the education level, disease, and income of participants in three groups ($P > 0.05$). QOL=Quality of life, SD=Standard deviation

Table 2: Mean comparison self-care, quality of life, and its dimensions between the three groups before, immediately, and 1 month after the intervention

Time	Dimension	Mean±SD			ANOVA	
		Self-directed group	Support group	Control group	F	P
Before intervention	Vasomotor	3.06±1.196	3.22±1.03	3.34±1.06	1.04	0.36
	Psychological	17.93±4.04	16.65±4.35	17.46±3.50	0.896	0.41
	Physical	27.51±4.32	25.31±4.39	26.25±3.96	2.33	0.10
	Sexual	3.33±1.24	3.34±1.16	3.09±0.99	0.50	0.60
	Total QOL	51.39±9.32	48.25±9.81	50.15±8.19	1.01	0.36
	Self-care	50.33±6.71	51.68±7.54	51.15±8.24	1.48	0.24
Immediately after intervention	Vasomotor	2.42±0.71	2.63±0.87	2.97±0.75	4.33	0.002*
	Psychological	14.15±3.33	13.50±2.44	16.54±4.90	7.26	0.001*
	Physical	23.12±4.21	21.97±3.26	25.60±4.43	7.21	0.001*
	Sexual	2.48±0.51	2.22±0.71	3.06±0.97	10.82	0.001*
	Total QOL	41.82±7.61	40.31±4.80	48.17±8.45	11.09	0.001*
	Self-care	55.88±6.61	59.69±8.37	51.23±4.18	5.38	0.001*
1 month after intervention	Vasomotor	2.42±0.79	1.66±0.60	2.97±0.75	28.12	0.001*
	Psychological	13.12±3.30	11.53±2.17	16.37±3.97	21.29	0.001*
	Physical	22.42±3.76	19.44±1.78	25.86±4.32	24.85	0.001*
	Sexual	2.36±0.60	1.59±0.56	3.11±0.96	35.45	0.001*
	Total QOL	40.67±7.36	36.50±3.36	47.83±8.47	23.71	0.001*
	Self-care	64±6.79	65±8.32	49.09±9.43	39.52	0.001*

*P<0.05. SD=Standard deviation, QOL=Quality of life, ANOVA=Analyze of variance

promotion training, information for physical care was also provided. This finding is explainable as the content of educations in both the intervention groups covered the overall dimensions of QOL, as the topic of sessions included menopausal changes, management of hot flashes, exercise training, nutrition information, urinary incontinence management, osteoporosis prevention strategies, stress, depression and memory management, sleep quality improvement, sexual relationship management, and skin and hair care.

The results also showed that the intervention groups reported higher self-care scores after the intervention. This finding is consistent with the results of the research by Firouznia,^[15] Motaghi *et al.*, and^[16] Santoro *et al.*^[17] In addition, the results showed that the self-care scores in the support group were higher than that of the self-directed group, and this difference was maintained after a month. This finding is consistent with the results reported by Jafarzadeh,^[18] Abedi *et al.*,^[19] and Fisher *et al.*^[20] These findings are explainable by considering the group effect, presence in the group creates empathy and eventually leads to behaviors, which is not expected. Abedi *et al.* showed that social bonding and group support increase learner motivation and create deeper effects.^[19]

The results showed that the QOL and self-care score changes in the support group were greater than that of the self-directed group, and this difference was maintained after 1 month. This finding is consistent with the results reported in Abedi *et al.*^[19] They conducted a study to compare the effect of individual and group training

on sexual satisfaction in postmenopausal women. The results showed a superior effectiveness of group education. Parsa *et al.*^[21] confirmed the effectiveness of group counseling on QOL of menopausal women. Jafarzadeh^[18] investigated the effectiveness of group and individual education on postmenopausal women. The results of this study also showed stronger effectiveness of group education compared to the individualized group. Fisher *et al.*^[20] also examined in a review study the effectiveness of support groups and found that training in the support groups has many benefits. It seems despite the similarity of educational content participants in the support group were more affected by education. According to cognitive theory of Bandura, people are more likely motivated to engage and activate in the peer groups. Sharing problems and coping strategies in a group of people gathered to discuss about the same problem make strong support for the participants.

Conclusions

Finally, we conclude that both educational methods showed a significant effectiveness, but the support group for improving QOL and self-care in menopausal women showed greater effectiveness.

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Table 3: Results of post hoc test (least significant difference)

Variable	Groups	Pre-post intervention		1 month after intervention	
		MD	P	MD	P
Self-care	Self-directed				
	Control	4.65	0.001*	14.91	0.001*
	Support	2.88	0.05*	2.01	0.05*
Total QOL	Self-directed				
	Control	7.16	0.001*	0.49	0.001*
	Support	4.16	0.016*	0.50	0.001*
Vasomotor	Self-directed				
	Control	0.54	0.05*	0.72	0.001*
	Support	0.20	0.30	0.58	0.001*
Psychological	Self-directed				
	Control	2.39	0.05*	3.45	0.001*
	Support	0.65	0.43	1.58	0.051
Physical	Self-directed				
	Control	2.20	0.05*	2.47	0.05*
	Support	1.26	0.22	1.15	0.25
Sexual	Self-directed				
	Control	0.57	0.05*	0.75	0.001*
	Support	0.26	0.16	0.76	0.001*
	Self-directed				
	Control	0.83	0.001*	1.52	0.001*

*P<0.05. QOL=Quality of life, MD=Mean Difference

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Conflicts of interest

There are no conflicts of interest.

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