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Association between Social Support and Quality of Life of Postmenopausal Women

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ABSTRACT

Background & aim: With the growing elderly population, addressing the personal and social aspects of menopausal women is vital. Paying attention to their quality of life and solving their physical, mental and social problems can be effective in improving the health of the family and ultimately the society. This study aimed to determine the relationship between social support and quality of life in postmenopausal women.

Methods: The present study was a cross-sectional study that was conducted on 158 women. Sampling was stratified with proportional allocation method between February 2019 and August 2019 in Mahshahr health centers. The data collection tools were the demographic profile questionnaire, the Menopause Quality of Life (MENQOL) and the Phillips Social Support Questionnaire. The data were analyzed using SPSS statistical software (version 24). Pearson's, ANOVA, linear regression tests were used to analyse data.

Results: The average score of social support and quality of life was 84.13±10.99 (range 34-112) and 58.30±30.69 (range 110-49), respectively. There was a significant correlation between the quality of life and social support (P=0.0001). In terms of quality of life dimensions, a significant relationship was observed between social support with psychosocial (P=0.001) and physical dimension (P=0.003).

Conclusion: According to the significant relationship between social support and quality of life, it seems that providing social support by the family and surrounding people can be effective in improving the quality of life of postmenopausal women.

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Introduction

According to the definition of the World Health Organization (WHO), menopause is 12 months of cessation of menstrual bleeding following the end of ovarian follicle activity, which occurs at the age of 40-55 years (1-2). This period is associated with extensive physical, psychological, and social changes for women (3). According to the statistics reported in Iran, nearly 16% of the population will be menopausal women in 2021, and in the coming years, due to the high number of births in the sixties, the population accumulation in 2036 will be transferred to 45-60-year-olds(2). This period is associated with extensive physical, psychological, and social changes for women, which is one of the issues of concern for reproductive health (3). Menopause affects all aspects of a person's health and research shows that the quality of life of women during menopause is severely threatened by the increase in symptoms and changes in the individual and social performance of women (4). Quality of life is one of the signs that have been proposed to measure health and it is a state of complete physical, mental, and social well-being and it means a person's understanding of the level of physical, mental, emotional, and social well-being of life (5-7). The quality of life during

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menopause is affected by many factors, which can be related or unrelated to the changes in menopause (8). A study in Kerman showed that menopause causes changes in the quality of life of women in all four areas: physical, mental, social, and environmental (9).In this regard, the results obtained from the study of Larroy et al. (2019) indicated that the symptoms of menopause and some demographic variables such as education level and income status are prominent influencing factors on the quality of life of menopausal women (10). The reported results of studies indicate that marital status, education level and physical activity have a significant effect on increasing the quality of life (11). Among the mentioned factors, the social dimensions of life have a significant impact on health in general and quality of life in particular (12). A study in Zahedan (2018) showed that support from the husband of menopausal women is a predictor of positive experiences in menopause (13). Psychological problems of women after menopause are related to their social support (14). Social support has a positive effect on women's attitudes towards menopause (15). The concept of social support is derived from clinical and therapeutic measures in the field of social psychology. According to some definitions, social support can be defined as the presence or access of people who can be trusted and valued. Perceived social support is multidimensional and includes "family", "friends" and other "important people" (16). Social support leads a person to believe that he is respected and important by others and that he is valuable and has dignity and respect. It also leads a person to believe that he feels a sense of belonging to his network of relationships and mutual obligations (17). Social support refers to the types of support received by a person from others. In general, in a form of classification, social support can be classified in the areas of emotional and instrumental support. Emotional support refers to the care, love, and affection received that increases personal worth. Instrumental support can be defined as support received in the form of things like childcare, housekeeping, transportation, and generally tangible support. Social support follows companionship and social interaction, leisure activities stimulate and motivate people to participate in community programs. Adequate social support contributes to a healthy and long life. Social support affects people's life styles (18). The research results indicate that people who have positive social support, better coping, and emotional feelings show less depression and dangerous behaviors. Social support is related to positive adaptation and adaptation to chronic diseases (19). Social support during menopause has been investigated in various studies. The findings from a study in China indicated that social support is low in menopausal women and perceived social support predicts the severity of psychological symptoms caused by menopause (20). In a study conducted in Turkey on the elderly, the amount of perceived social support was reported at an average level (16). In another study conducted by Shariat and colleagues (2015) in Iran, more than half of postmenopausal women had high social support. Also, according to the findings of this study, the average score of social support had the highest score in the family dimension and the lowest score in the friends dimension (17). The reports presented by previous research indicate that higher social support and a stronger social network during menopause can be associated with the reduction of menopausal symptoms, reducing the risk of physical diseases (such as some cancers and cardiovascular diseases), psychological diseases (such as Alzheimer's and depression) and generally with the improvement of health status in this group (21). Social support is the degree of love, assistance, and attention of family members, friends, and other people related to the individual and has a strong supportive effect on health (22). On the other hand, lower social support, leads to inappropriate behaviors and weakening of physical and psychological health (21). There are conflicting studies on the relationship between perceived social support and quality of life. In the study of Charles et al. (2020) on pensioners in India, the results showed that social support was positively and significantly related to quality of life (18). In another study conducted by Şahin et al. (2019) in Turkey, social support was able to predict nearly 22% of the changes made in the quality of life in elderly people (16). In another study conducted by Son et al. (2016) on female nurses,

the results showed that social support had a positive relationship with the quality of life of the intervention group (23). Study by Moeini et al. (2018) showed that the quality and quantity of social support can be considered as determinants and predictors of happiness in the elderly (24). Perhaps one of the mechanisms of social support's effect on the quality of life can be found in the reduction of stress and psychological pressure, which is achieved by higher social support. Also, reducing stress and mental pressure can lead a person to positive behaviors from a health point of view and ultimately improve the quality of life.

On the other hand, in some studies, positive social support did not have a significant and direct relationship with quality of life. In the study of Bennett et al. (2018) on lupus patients, the results did not show a significant relationship between positive social support and health-related quality of life (19). In Arnot et al.'s study on middle-aged American women, there was no correlation between increasing social support and decreasing menopausal symptoms (21).

Nowadays, due to the current trend of increasing the aging population and of course the increase in the population of postmenopausal women, it is very important to deal with the issue of menopause from various personal and social aspects. Paying attention to the issue of menopause helps to solve the problems of women in dealing with the problems and symptoms of menopause. On the other hand, considering the importance of a woman's role as the emotional and psychological axis of the family and the active force of work in society, paying attention to the quality of her life and solving her physical, mental, and social problems is very effective in improving the health of the family and ultimately the society. Social support plays a significant role in increasing the quality of life of different groups of society. Menopause causes changes in the quality of life of women in all four physical, psychological, social, and environmental areas (9). According to the mentioned issues and also considering that no study has been conducted in this field in the target population, therefore the researcher conducted a study on the relationship between social support and the quality of life of menopausal women.

Materials and Methods

The current research was a cross-sectional study between February 2019 and August 2019 on 158 postmenopausal women who were referred to selected health centers in Mahshahr.

Based on articles (23-25), the sample size was estimated to be 144 people, considering the significance level of 0.05 and the power of 0.95 and the following formula. Considering 10% sample drop out , it increased to 158 people.

$$n = \frac{(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta})^2}{(\frac{1}{2} Lx \frac{1+r}{1-r})^2} + 3$$

For 95% certainty $Z_{1-\alpha/2} = 1/96$

For 95% power $Z_{1-\beta} = 1/65$

$$r^2 = 0/354 \rightarrow r = 0/59$$

$$n = \frac{(1/96 + 1/65)^2}{(\frac{1}{2} Lx \frac{1+0/59}{1-0/59})^2} + 3 = 36$$

$$36 \times 4 = 144$$

Sampling was stratified with proportional allocation. Thus, at first, the city was divided into three areas based on social and economic categories: the upper city, the city center, and the lower city. Then the health centers of each region were listed and one health center was selected from each region using the available method. In the next step, according to the percentage of menopausal women aged 40-65 covered in that center, the number of menopausal women should be determined based on the table of random numbers from each center. In order to collect the samples, after the approval of the preliminary plan by the ethics committee of Ahvaz University of Medical Sciences and receiving the code of ethics (IR.AJUMS.REC.1399.544), the researcher went to health centers. Then, information and contact numbers of menopausal women were extracted from the files in the Sib system (Sib integrated system). Then, a phone call was made with them to participate in the study, and general explanations were given to them regarding the objectives and method of the study. People were invited to the study if they met the inclusion criteria. The inclusion criteria were: having natural menopause, being literate, having a maximum age of 65 years, and not having

mental or physical illness. The criteria for not entering the study were: having any incurable disease (such as cancer), having an advanced mental illness that requires treatment or hospitalization, having neurological disorders, taking antidepressants, and hormone therapy. Distorted questionnaires and an unwillingness to continue participating in the study were the reasons for withdrawal from the study. The invited people were present at the center on the day of their choice and the necessary explanations were given to the participants about the objectives of the study, the research process, and the confidentiality and anonymity of the information. Finally, if people want to participate in the study, they complete a written consent form. In order to comply with the protocols for the prevention of corona virus, people were referred to the centers one by one preferably in private time, and completed the questionnaires in a separate room. Then, demographic characteristics questionnaire includes 11 questions, Menopause quality of life questionnaire (MENQOL), and Phillips social support questionnaire were provided to them and completed.

The MENQOL questionnaire includes 27 questions in 4 areas: vasomotor, psychosocial, physical, and sexual, which is measured with a 6-point Likert scale. A higher overall quality of life score indicates a worse quality of life and a lower score indicates a better quality of life (23). The validity and reliability of the menopause quality of life questionnaire was investigated by Hilditch et al. (1996) at the University of Toronto, Canada (26) and it was evaluated and confirmed by Ghazanfarpour et al. (2014) at Shiraz University of Medical Sciences. In this study, the internal consistency method (Cronbach's alpha) was used to check the reliability of the questionnaire. The overall Cronbach's alpha coefficient was 0.9 and in the vasomotor, psychosocial, physical, and sexual subscales, it was 0.8, 0.7, 0.8, and 0.3 respectively. The main (overall) item was acceptable due to Cronbach's alpha coefficient of more than 0.7, but the internal consistency of the sexual item was weak. The results of internal homogeneity in subgroups of age, disease, education, marital status, and smoking habit have been acceptable. Convergent validity (construct validity) was used to check the validity of the questionnaire. Evaluation of the validity of the questionnaire by Spearman's correlation coefficient (rs) showed that in the physical dimension, the two lowest correlations belong to weighing (rs=0.28) and feeling swollen (rs=0.401). Also, in the sexual dimension, the lower correlation belongs to vaginal dryness during intercourse (rs=0.385). The success rate was high in all subscales except the sexual subscale (range: 93.7-100 percent), so the sexual dimension needed to be rewritten, and the final Persian version of the questionnaire was prepared with 27 questions (27).

The Phillips Social Support Questionnaire has 23 questions that examine 3 areas of support from family (Questions 2, 4, 7, 9, 11, 13, 18 and 22), friends (Questions 1, 6, 10, 15, 16, 19, 23), and others (Questions 3, 5, 8, 12, 14, 17, 20 and 21). Questions are scored on a Likert scale from 1 for very little to 5 for very much. The validity and reliability of this questionnaire have been confirmed in several studies (25-26). The questionnaires were completed face-to-face and for 20 minutes. All analyses were performed in SPSS software version 24, and the significance level was considered $P<0.05$. At first, the normality of the data was checked with the Kolmogorov-Smirnov test. Then Pearson's test was used to analyze the main data. Linear regression was used to predict the quality of life by the social support variable. ANOVA test was used to investigate the relationship between demographic variables and social support and quality of life.

Results

In this study, 158 postmenopausal women were included in the study. The average age of the participants was 56.74 ± 4.76 and the average duration of menopause was 7.77 ± 5.12 years. The majority of participants in the study were housewives (78.5%), and more than half of them (60.8%) had primary and secondary education. In terms of economic status, 14.6% reported financial well-being and 17.1% reported severe financial problems (Table 1).

Table 1. Demographic characteristics of the research participants

Variable	Mean ± SD N = 158
Age (years)	56.74 ± 4.76
Menopause Duration (years)	7.77 ± 5.12
Number of Children	4.32 ± 2.17
Job	**Number (%)**
Housewife	124(78.5)
Governmental	7(4.4)
Free	4(2.5)
Retired	20(12.7)
Self-employment	3(1.9)
Education	
Illiterate	0(0.0)
Elementary and middle school	96(60.8)
High school and diploma	41(25.9)
University	21(13.3)
Wife's Job	
Governmental	19(12.0)
Free	61(38.6)
Retired	71(44.9)
Unemployed	7(4.4)
Wife's Education	
illiterate	8(5.1)
Elementary and middle school	72(45.6)
High school and diploma	58(36.7)
university	20(12.7)
Housing Situation	
Owner	122(77.2)
Tenant	28(17.7)
Living in a relative's home	8(5.1)
Income Status	
Financial prosperity	23(14.6)
Thrift	51(32.2)
Financial problem	57(36.1)
Always a financial problem	27(17.1)

The average score of social support was 84.13±10.99 and quality of life was 58.30±30.69. A significant inverse relationship was observed between the vasomotor area of quality of life and age (r=-0.228, P=0.004). In relation to the correlation between two variables, menopause period and vasomotor area, an inverse and significant relationship was also observed (r = -0.231, P=0.003). An inverse and significant relationship was observed the two variables of monthly income and mental area (r=-0.268, P=0.001) and overall quality of life score (r=0.215, P=0.007). The two variables of monthly income and social support had a direct and significant relationship (P=0.028, r=0.176). (According to the interpretations, a decrease in the score in the areas and the overall score of the quality of life of menopause means an improvement in the quality of life and its areas).

According to the results presented in Table 1, there is a significant relationship between the overall quality of life score and some of its dimensions with the social support score.

Table 2. Pearson's correlation test to investigate the relationship between perceived social support and quality of life dimensions of research participants

Variable	Social support (110-49) n = 158	
	r	P-Value
Dimensions of quality of life		
Vasomotor (3-18)	0/089	0.264
Psychological (6-32)	-0.258*	0.001
physical (15-76)	-0.237*	0.003
Sexuality (2-8)	-0.093	0.247
The overall quality of life score (34-112)	-0.281*	0.0001

*P <0.05

Based on the results of the correlation test, there was an inverse and significant relationship between social support and the quality of life score. (Pearson's correlation coefficient is equal to -0.281 and P=0.0001, which means that with the increase in the amount of social support, the quality of life score decreased, which indicates the improvement and promotion of the quality of life). Adjusted R2 showed that social support predicts quality of life by 0.073 units, which means that social support can predict quality of life by 7% (Table 3).

Table 3. Regression model of quality of life with social support of research participants

Variable	Social Support N = 158						
	r	Adjusted R Square	B	F	t	Beta	P-Value
overall quality of life score	-0.281*	0.073	-0.785	13.384	-3.658	-0.281	0.0001

The results of the above table show the correlation between quantitative demographic variables with dimensions of quality of life and social support using Pearson correlation tests. The results show that there is an inverse significant relationship between the vasomotor dimension of quality of life and age (r=-0.228, P=0.004) and the vasomotor dimension score also decreases with increasing age. Also, about the correlation between two variables, menopause duration and vasomotor dimension, an inverse and significant relationship was observed (r = -0.231, P=0.003). The relationship between other variables was not statistically significant (in accordance with the interpretations of the decrease in the score in the dimensions and the overall score of the quality of life of menopause means improvement in the quality of life and its dimensions).

The results of the above table show the correlation between qualitative demographic variables with dimensions of quality of life and social support using spearman's correlation tests. The results show that there is an inverse significant relationship between the vasomotor dimension of quality of life and income (P=0.029, r=0.174) and the vasomotor dimension score decreases with the increase in income. Also, the two variables of income status and mental dimension had an inverse and significant relationship, which indicates that with the improvement of income status, the average score of the psychosocial dimension (r=-0.268, P=0.001) and the overall quality of life score decreases (P = 0.007, r = 0.215). The two variables of spouse's education and psychosocial dimension also had an inverse and significant relationship, which indicates that with increasing education, the average score of psychosocial dimension also decreased (r=0.238, P=0.003). The spouse's education and overall quality of life score also had an inverse and significant relationship (p=0.008, r=0.210). There was a significant relationship between the housing status variable and the vasomotor aspect of quality of life (P=0.027). The relationship between other variables was not statistically significant (P < 0.05) (according to the interpretations, a decrease in the score in the dimensions and the overall score of the quality of life of menopause means an

improvement in the quality of life and its dimensions).

Table 4. The relationship of quantitative demographic variables with dimensions of quality of life and social support of research participants

variable	Social support (n=158)		Dimensions of quality of life (n=158)									
			Vasomotor		psycho-social		physical		sexual		overall score	
	r	P-Value	r	P-Value	r	P-Value	r	P-Value	r	P-Value	r	P-Value
Age	0.035	0.662	-0.228	0.004	-0.061	0.446	-0.098	0.219	-0.029	0.719	-0.131	0.101
Menopause period	0.050	0.529	-0.231	0.003	-0.049	0.542	-0.063	0.429	-0.001	0.992	-0.096	0.232
Number of children	0.088	0.274	-0.051	0.524	0.446	0.445	0.219	0.991	0.719	0.873	0.004	0.957

Table 5. The relation of qualitative demographic variables with quality of life and social support of research participants

variable	Social support (n=158)		dimensions of quality of life (n=158)									
			Vasomotor		psycho-social		physical		sexual		overall score	
	r	P-Value	r	P-Value	r	P-Value	r	P-Value	r	P-Value	r	P-Value
Education	0.028	0.729	-0.002	0.980	-0.012	0.884	0.106	0.185	0.080	0.317	0.077	0.336
Husband's education	0.079	0.322	-0.067	0.406	-0.238	0.003	-0.147	0.066	-0.108	0.175	-0.210	0.008
Income status	0.176	0.028	-0.174	0.029	-0.268	0.001	-0.118	0.140	-0.117	0.145	-0.215	0.007
Job	1.676	0.158	1.110	0.354	0.453	0.705	1.667	0.161	0.832	0.507	1.146	0.337
Husband's job	1.006	0.392	2.084	0.105	2.472	0.064	0.510	0.676	1.006	0.392	1.059	0.368
Housing situation	1.341	0.265	3.711	0.027	2.780	0.065	0.166	0.847	0.139	0.870	0.671	0.513

Discussion

This study aimed to determine the relationship between social support and quality of life in postmenopausal women. According to the presented results, an inverse correlation was observed between social support and the vasomotor dimension of quality of life, which indicated the improvement and promotion of this dimension with increasing social support, but this correlation was not statistically significant. The results of a study indicated that more than two-thirds of women who experience symptoms related to menopause talk about their symptoms with friends and family (28). In this regard, another study conducted on menopausal women in England showed that talking to others about menopause, experiencing a sense of support from them, and discussing different management strategies can help reduce menopausal symptoms (29). The results of several other studies also indicate that the social network and the high level of perceived social support can be effective in reducing the severity and frequency of menopausal symptoms (30, 31). However, in Arnot et al.'s study on middle-aged American women, there was no correlation between increasing social support and reducing menopausal symptoms (21). This difference can be caused by demographic differences between the studied populations and the tools used to measure quality of life and social support.

The results showed that social support has an inverse and significant correlation with the psychosocial dimension. In line with the current study, Moghani et al. (2016), who investigated the relationship between social support and menopause experience, showed that social support has a significant and inverse

relationship with the psychological problems experienced by menopausal women (32). For many women, changes in their family and social environment during menopause can create a crisis that leads to conflicts in relationships. These issues are challenging not only for women but also for families and communities. These changes can affect their work, management decisions, and efficiency. Having a positive and strong social support system is a positive factor in preventing emotional or psychological problems during menopause. Adequate and strong social support can help women cope with the loss of menopause. Studies have reported that women with less family support have more severe psychological problems and irritability during the transition to menopause (15). Also, the results showed that social support has an inverse and significant correlation with the psychosocial dimension. Consistent with the current study, Moghani et al. (2016), who investigated the relationship between social support and menopause experience, reported that social support has a significant and inverse relationship with the physical problems experienced by menopausal women (32). In this regard, a significant relationship between social support and the physical dimension of quality of life was observed in the study of Jalambadani et al. (2020) and colleagues (33), which is similar to the findings of several other studies (17, 34). In general, the social support received from the husband has beneficial effects on a woman's physical health, and satisfaction with social support prevents physical symptoms during old age and menopause (17). There is not just one factor or key source of social support that affects health. Support from different sources may be interchangeable as long as one has access to people to talk to about very important and personal issues. There is strong evidence that social support is associated with health-promoting behaviors. Perceived support has been associated with more physical activity, less smoking, and alcohol, and better sleep quality (35).

In addition, the results showed that social support has an inverse correlation with the sexual dimension, however, this correlation was not statistically significant. However, several other studies reported this relationship as significant (36, 37). In this regard, a significant relationship between social support and the sexual dimension of quality of life was observed in the study of Jalambedani and colleagues (2020) (33). People with high social support showed fewer symptoms of depression, more well-being, and more satisfaction from the relationship, which can ultimately be associated with health and improvement in sexual performance (38). The results of the study showed that social support has an inverse and significant correlation with quality of life. In line with the results obtained in the present study, there was a positive correlation between the quality of life and the social support of family, friends, and others in the study of Unsar and colleagues (39). Also, in the research of Sahin et al. (2019), social support and quality of life in the elderly had a positive relationship with each other, and in addition, these two factors predicted the level of life satisfaction (16). According to studies, social support promotes mental health and acts as a buffer against stressful life events. Lack of social support determines mental health problems and negatively affects the quality of life (40). In line with the present study, in a study conducted on students, social support was able to function as a strong predictive factor in the quality of life and have a positive and meaningful relationship with increasing their quality of life (40). The relationship between social support and quality of life has been investigated in different groups. In the study of Munikanan et al. (2017) on patients with schizophrenia, social support had a positive and significant relationship with various dimensions of quality of life, including psychological, physical, and environmental dimensions (41). In this regard, in another study conducted on heart failure patients, a significant positive relationship between perceived social support and quality of life was observed (42). In their study, Ma and colleagues also reported a positive relationship between social support and quality of life in the elderly with osteoporosis (43). Social support is an important situational resource that can improve quality of life, especially in individuals facing health crises. The results of a study indicated that social support can increase adaptation and adaptability to disease and treatment and thus

increase the quality of life (44). According to Berkman et al.'s conceptual model for social support, social components can affect the quality of life through different mechanisms. Social support may directly affect the quality of life (45). In the present study, the social support score had a direct relationship with the age, duration of menopause, and the number of children of the participants, although this relationship was not statistically significant. In the study of Erbil et al. (2018), which was conducted on postmenopausal women, the level of perceived social support was directly related to the age of women (15). Also, according to the results of this study, the age and duration of menopause had a significant and direct relationship with the vasomotor dimension of quality of life, as vasomotor symptoms improved with increasing age. In line with this study, in research conducted on Indonesian postmenopausal women, there was an improvement in the quality of life with increasing age and the passage of time from menopause. It seems that adapting to the changes and creating a balance in the metabolism and anabolism of hormones can be the causes of this relationship (46). In addition, the analysis of the results showed that income status had a direct and significant relationship with social support, however, no significant relationship was observed between social support and other variables. The results obtained from several studies indicate that people with low socio-economic status usually have less social capital than people with higher socio-economic status, and low social capital has been described as inequality in health (47, 48). The mechanism of this effect can be found in the social network theory. According to this theory, with the increase in the level of education and income, the capacities and potential of people are also improved and they will have more ability to create social links in social networks. These people will also be able to integrate more into social structures, which will increase social support and improve the quality of life for people (49). In addition, people with a lower education level usually have a lower income, all of which can be effective and powerful factors in the occurrence of anxiety and depression, and ultimately endanger social capital and perceived social support (47, 50-55).

Also, the results showed that some dimensions of quality of life had a significant and direct relationship with variables such as housing status, spouse's education, and income status. In line with the results obtained from this research, increasing income and education level and improving the housing situation can be an important predictive factor in the quality of life of postmenopausal women. It has been proven in several studies that the quality of life can be affected by the socioeconomic status of people (52-53, 56-59). In the study of Senthilvel et al. on postmenopausal women in India, the level of education and economic status had a significant relationship with quality of life (52). In explaining the above findings, it can be stated that people with higher education levels have more opportunities and capacity to get better jobs with higher incomes. As a result, they can experience less stress and anxiety and finally experience a better quality of life. During menopause, educated men with knowledge about menopause can improve the quality of life of women by doing activities such as spending more time with their wives (21, 31).

Since this study is conducted considering different areas of the city as well as clients to different centers in the city, this case can be considered as the strong point of the study. However, one of the limitations of this study is the limited access to the studied community due to the corona virus, which was tried to be done in private hours until the time of the participant's visit, and the questionnaires were completed in a separate room. Second, information on participants' quality of life and social support was self-reported and therefore susceptible to information bias. Therefore, more studies with a stronger design such as cohort or case-control and larger sample size are recommended to better understand the association.

Conclusion

The results of the present study indicated the average levels of social support and quality of life of postmenopausal women. There was a significant relationship between the two variables and postmenopausal women with higher level of social support experienced a

better quality of life. Considering the stress caused by entering the menopausal period from one hand and the stress caused by epidemics on the other hand, it seems that providing more social support can be effective in improving the quality of life of these vulnerable population. Achieving this requires more appropriate planning and policies from the responsible authorities.

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Conflicts of interest

The authors declared no conflicts of interest.

References

1. Azimipour A, Loripoor M, Sadeghi T. The Effect of Black Cohosh (Cimicifuga Racemosa) on Menopausal Symptoms: A Randomized Clinical Trial. Journal of Rafsanjan University of Medical Sciences. 2017; 16(8): 715-726.
2. Taher-Karami Z, Hossieni O, Dasht-Bozorgi Z. The Effectiveness of Compassion-Focused Therapy on Resiliency, Self-discrepancy, Hope and Psychological Well-being of Menopausal Women in Ahvaz. Community Health (Salāmat-i ijtimāī). 2018; 5(2): 189-97..
3. Alspaugh A, Im E-O, D. Reibel M, Barroso J. The Reproductive Health Priorities, Concerns, and Needs of Women in Midlife: A Feminist Poststructuralist Qualitative Analysis. Qualitative Health Research. 2021; 31(4): 643-653.
4. Abdi N, Solhi M. Quality of life in postmenopausal women in Tehran. Iranian Journal of Health Education and Health Promotion. 2014; 2(2): 87-96.
5. Rasafiani M, Sahaf R, Shams A, Vameghi R, Zareian H, Akrami R. Validity and Reliability of the Persian Version of the World Health Organization Quality of Life Questionnaire – the Older Adults Edition. Salmand: Iranian Journal of Ageing. 2020; 15(1): 41-28.
6. Qorbanpoor lafmejani A, yaghouti M, rezaei S. The mediating role of social support in the relationship between mental hardiness and the sense of coherence with quality of life among staff at hospitals in Quchan. Social Psychology Research. 2019; 9(34): 119-140.
7. Monshipour SM, Mokhtari Lakeh N, Rafat F, Kazemnejad Leili E. Related factors to Menopausal women's quality of life in Rasht. Journal of Holistic Nursing And Midwifery. 2016; 26(1): 80-88.
8. Schneider H, Birkhäuser M. Quality of life in climacteric women. Climacteric. 2017; 20(3): 187-194.
9. Foroud A, Mehdipour S, Zaegeshenas S. The Quality of Life in Menopausal Women in Kerman. Journal of Health. 2014; 5(3): 257-265.
10. Larroy C, Marin Martin C, Lopez-Picado A, Fernandez Arias I. The impact of perimenopausal symptomatology, sociodemographic status and knowledge of menopause on women's quality of life. Archives of Gynecology and Obstetrics. 2020; 301: 1061-1068.
11. Farzianpour F, Arab M, Hosseini SM, Pirozi B , Hosseini S. Evaluation of quality of life of the elderly population covered by healthcare centers of marivan and the influencing demographic and background factors in 2010. Iranian Red Crescent Medical Journal. 2012; 14(11): 695.
12. Forozan A. The role of social support in elderly quality of life. Social Welfare Quarterly. 2009; 8(33): 149-167.
13. Shakiba M, Rouhbakhsh M, Kermansaravi F, Navidian A. The effect of couple counseling on severity of menopausal symptoms in women. Journal of Hayat. 2019; 25(1): 25-38.
14. Bahri N, Yoshany N, Morowatisharifabad MA, Noghabi AD, Sajjadi M. The effects of menopausal health training for spouses on women's quality of life during menopause transitional period. Menopause. 2016; 23(2): 183-188.
15. Erbil N, Gümüşay M. Relationship Between Perceived Social Support and Attitudes Towards Menopause among Women and Affecting Factors. Middle Black Sea Journal of Health Science. 2018; 4(2): 7-18.
16. Şahin DS, Özer Ö, Yanardağ MZ. Perceived social support, quality of life and satisfaction with life in elderly people. Educational Gerontology. 2019; 45(1): 69-77.
17. Shariat MS, Simbar M, Dolatian M, Nasiri M. The relationship between perceived social support and women experiences in

menopause. Beheshti University of Medical Sciences. 2015 :55-64.
18. Charles S, Kulandai A. Perceived Social Support and Quality of Life of Pensioners. Journal of Xi'an University of Architecture & Technology. 2020; 7(3): 1153-1165.
19. Bennett SC. Examining the Impact of Self-Efficacy, Positive Social Support, Problematic Social Support and Race on Quality of Life in Systemic Lupus Erythematosus Patients (Doctoral dissertation, The University of North Carolina at Charlotte). 2018.
20. Zhang Y, Zhao X, Leonhart R, Nadig M, Hasenburg A, Wirsching M, et al. A cross-cultural comparison of climacteric symptoms, self-esteem, and perceived social support between Mosuo women and Han Chinese women. Menopause. 2016; 23(7): 784-791.
21. Arnot M, Emmott EH, Mace R. The relationship between social support, stressful events, and menopause symptoms. PloS one. 2021; 16(1): e0245444.
22. Moghani SS, Simbar M, Dolatian M, Nasiri M. The relationship between perceived social support and women experiences in menopause. Advances in Nursing & Midwifery. 2016; 25(90): 55-64.
23. Sun N, Lv D-M, Man J, Wang X-y, Cheng Q, Fang H-l, et al. The correlation between quality of life and social support in female nurses. Journal of Clinical Nursing. 2017; 26(7-8): 1005-1010.
24. Moeini B, Barati M, Farhadian M, Ara MH. The association between social support and happiness among elderly in Iran. Korean Journal of Family Medicine. 2018; 39(4): 260.
25. Bloor LE, Sandler RS, Martin C, Uchino BN, Kinney AY. Associations between emotional support and health–related quality of life among a population–based sample of Blacks and Whites. Journal of Social and Clinical Psychology. 2006; 25(1): 96-116.
26. Hilditch JR, Lewis J, Peter A, van Maris B, Ross A, Franssen E, et al. A menopause-specific quality of life questionnaire: development and psychometric properties. Maturitas. 1996; 24(6): 161-175.
27. Ghazanfarpour M, Kaviani M, Rezaiee M, Ghaderi E, Zandvakili F. Cross cultural adaptation of the menopause specific questionnaire into the Persian language. Annals of Medical and Health Sciences Research. 2014; 4(3): 325-329.
28. Duffy O, Iversen L, Hannaford PC. The impact and management of symptoms experienced at midlife :a community-based study of women in northeast Scotland. BJOG: An International Journal of Obstetrics & Gynaecology. 2012; 119(5): 554-564.
29. Duffy O, Iversen L, Hannaford PC. The menopause 'It's somewhere between a taboo and a joke'. A focus group study. Climacteric. 2011; 14(4): 497-505.
30. Yazdkhasti M, Keshavarz M, Khoei EM, Hosseini A, Esmaeilzadeh S, Pebdani MA, et al. The effect of support group method on quality of life in post-menopausal women. Iranian Journal of Public Health. 2012; 41(11): 78.
31. Zhao D, Liu C, Feng X, Hou F, Xu X, Li P. Menopausal symptoms in different substages of perimenopause and their relationships with social support and resilience. Menopause. 2019; 26(3): 233-329.
32. Moghani SS, Simbar M, Dolatian M, Nasiri M. The relationship between perceived social support and women experiences in menopause. Advances in Nursing and Midwifery. 2016; 25(90): 55-64.
33. Jalambadani Z, Rezapour Z, Movahedi Zadeh S. Investigating the Relationship between Menopause Specific Quality of Life and Perceived Social Support among Postmenopausal Women in Iran. Experimental Aging Research. 2020; 46(4): 359-366.
34. Schwarz S, Völzke H, Alte D, Schwahn C, Grabe HJ, Hoffmann W, et al. Menopause and determinants of quality of life in women at midlife and beyond :the Study of Health in Pomerania (SHIP). Menopause. 2007; 14(1): 123-134.
35. Uchino BN, Bowen K, de Grey RK, Mikel J, Fisher EB. Social support and physical health: Models, mechanisms, and opportunities. Principles and Concepts of Behavioral Medicine. 2018; 341-372.
36. Başar K, Öz G. Resilience in Individuals with Gender Dysphoria: Association with Perceived Social Support And Discrimination. Turkish Journal of Psychiatry. 2016; 27(4).
37. Tagliabue M, Gottero C, Zuffranieri M, Negro M, Carletto S, Picci RL, et al. Sexual function in women with type 1 diabetes matched with a control group: depressive and psychosocial aspects. The Journal of Sexual Medicine. 2011; 8(6): 1694-1700.
38. del Mar Sánchez-Fuentes M, Salinas JM, Sierra JC. Use of an Ecological Model to Study Sexual Satisfaction in a Heterosexual Spanish Sample. Archives of Sexual Behavior. 2016; 45(8): 1973-1988.
39. Unsar S, Erol O, Sut N. Social support and qualıty of life among older adults.

International Journal of Caring Sciences. 2016; 9(1): 249-257.
40. Alsubaie MM, Stain HJ, Webster LAD, Wadman R. The role of sources of social support on depression and quality of life for university students. International Journal of Adolescence and Youth. 2019; 24(4): 484-496.
41. Munikanan T, Midin M, Daud TIM, Rahim RA, Bakar AKA, Nik J, et al. Association of social support and quality of life among people with schizophrenia receiving community psychiatric service: A cross-sectional study. Comprehensive Psychiatry. 2017; 75(1): 94-102.
42. Cheraghi MA, Davari Dolatabadi E, Salavati M, Moghimbeigi A. Association between Perceived Social Support and Quality of Life in Patients with Heart Failure. Iran Journal of Nursing. 2012; 25(75): 21-31.
43. Ma L, Li Y, Wang J, Zhu H, Yang W, Cao R, et al. Quality of life is related to social support in elderly osteoporosis patients in a Chinese population. PloS one. 2015; 10(6): e0127849.
44. Lim J-w, Zebrack B. Different pathways in social support and quality of life between Korean American and Korean breast and gynecological cancer survivors. Quality of Life Research. 2008; 17(5): 679-689.
45. Berkman LF, Glass T, Brissette I, Seeman TE. From social integration to health: Durkheim in the new millennium. Social Science & Medicine. 2000; 51(6): 843-857.
46. Tarigan I, Sanusi SR. Dominant Factors Affecting In Quality Of Life Menopause Women.. 2018; 50(50): 26.
47. Nordgren L, Söderlund A. Received and needed social support in relation to sociodemographic and socio-economic factors in a population of people on sick leave due to heart failure. ESC Heart Failure. 2017; 4(1): 46-55.
48. Uphoff E, Pickett B, Cabieses N, Small J. A systematic review of the relationships between social capital and socioeconomic inequalities in health: a contribution to understanding the psychosocial pathway of health inequalities. International Journal for Equity in Health. 2013; 12: 1-2.
49. Addelyan Rasi H, Jalali H. Social Support and Dyadic Adjustment Among Women Applicants for the Divorce. Quarterly Journal of Social Work. 2016; 4(4): 5-16.
50. Henry A, Tourbah A, Camus G, Deschamps R , Mailhan L, Castex C, et al. Anxiety and depression in patients with multiple sclerosis: The mediating effects of perceived social support. Multiple Sclerosis and Related Disorders. 2019; 27(1): 46-51.
51. Shao R, He P, Ling B, Tan L, Xu L, Hou Y, et al. Prevalence of depression and anxiety and correlations between depression, anxiety, family functioning, social support and coping styles among Chinese medical students. BMC Psychology. 2020; 8(1): 1-19.
52. Senthilvel S, Vasudevan S, Anju PS, Sukumaran A, Sureshbabu J. Assessment of Symptoms and Quality of Life among Postmenopausal Women in a Tertiary Care Hospital in Kochi, South India: A Hospital-based Descriptive Study. Journal of Midwifery & Reproductive Health. 2018; 9(4): 185-190.
53. Mohamed S, Vettore MV. Oral clinical status and oral health-related quality of life: is socioeconomic position a mediator or a moderator. International Dental Journal. 2019; 69(2): 119-129.
54. Partovi S, Kianifar H R, Gholami Robatsangi M, Ghorbani Z, Saeidi R. Evaluation of massage with oil containing medium chain triglyceride on weight gaining in preterm. Koomesh. 2009; 11(1): 1-6.
55. Jafari A, Alami A, Charoghchian E, Delshad Noghabi A, Nejatian M. The impact of effective communication skills training on the status of marital burnout among married women. BMC Womens Health. 2021; 21(1): 231.
56. Charoghchian Khorasani E, Peyman N, Esmaily H. Effect of education based on the theory of self-efficacy and health literacy strategies on exclusive breastfeeding: A randomized clinical trial. Koomesh. 2019; 21(1): 633-638.
57. Noroozi M, Mohebbi-Dehnavi Z. Comparison of the effect of two educational methods based on mindfulness and cognitive emotion strategies on psychological well-being and anxiety of eighth-semester midwifery students before the final clinical trial. Journal of Education and Health Promotion. 2022; 11(1): 295.
58. Golmakani N, Shaghaghi F, Ahmadi Z, Gholami M, Kamali Z, Mohebbi-Dehnavi Z. Investigating the relationship between the dimensions of mindfulness and maternal attachment to the fetus during pregnancy. Journal of Education and Health Promotion. 2021; 10: 433.
59. Gholami M, Moallem SA, Afshar M, Etemad L, Karimi G. Gestational Exposure to Silymarin Increases Susceptibility of BALB/c Mice Fetuses to Apoptosis. Avicenna Journal of Medical Biotechnologyl. 2017; 9(2): 66-70.