The Effectiveness of Husbands’ Awareness of Menopausal Complications on Physical Psychological Experiences of Postmenopausal Women

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ABSTRACT

Introduction: Women are subject to extensive changes during menopause. Life crises such as menopause can affect women’s health and is a turning point in their lives. The husbands are the most important and closest people who can support their wives in this evolutionary crisis with their correct understanding of the situation.

Objective: This study aimed to determine the effectiveness of husbands’ awareness of the physical and psychological experiences of postmenopausal women.

Materials and Methods: This randomized clinical trial study was performed on 150 married postmenopausal women in Kashmar City, Iran, in 2019. The husbands of the intervention group received three sessions (60 minutes) of the menopause training program with one-week intervals. The spouses of both groups received routine care at the health center. The questionnaire of psychological and physical experiences of postmenopausal women and measuring men’s awareness of menopause in both groups was completed before the intervention and one month after the intervention. The collected data were analyzed using descriptive statistics and inferential statistics of the Chi-square, paired t-test, independent t-test, and analysis of covariance.

Results: The Mean±SD age of women in the intervention group was 51.13±2.68 years, and their Mean±SD menopausal age was 49.09±2.60 years. The Mean±SD score of menopausal experiences before the intervention was 144.99±38.09 in the intervention group and 143.47±28.48 in the control group and 105.53(35.41) in the intervention group, and 118.82 (82.21) in the control group. The statistical test showed that the mean score of menopausal experiences and the range of adaptation after the intervention and also between the two groups have statistically significant differences with each other (P=0.001).

Conclusion: Menopause has adverse physical and psychological symptoms. An intervention program to increase the awareness of men during menopause reduces negative menopausal experiences in women.
Introduction

As essential members of society, women comprise half of the world’s population and are the largest health care recipient [1]. With the increase in the life expectancy of women in the world, the number of postmenopausal women and the years they spend after menopause have increased too [2]. Also, due to the global trend of population aging, women’s health around menopause is becoming a significant health issue [3]. Menopause can affect women’s health, but women cannot feel it in the same way, and factors such as mental state, emotional health, and cultural and social context are involved [4]. Menopause is defined as the last menstrual period followed by 12 months of amenorrhea [5-7]. During menopause, the ovarian function ends [8], and if a woman reaches the age of 50, she will have to spend the next few years of her life in a state of estrogen deficiency, which can cause endocrine, physical (somatic), and psychological changes [9]. Physical, mental, social, and psychological changes, in the long run, cause cardiovascular diseases, osteoporosis, and bone fractures [10, 11]. The combination of these changes, along with the mood disorders caused by them [12], highlights the importance of taking care of the health of postmenopausal women.

Menopause is a period in a woman’s life that its effects and consequences can be reduced with the support of family, relatives, and friends that consequently improve the women’s quality of life [13]. The support of influential people such as the husband is the best predictor of menopausal experiences, and by increasing the level of social support, the physical and emotional problems of postmenopausal women can be reduced [14]. Experiences mean the information gained from any physical or psychological event in personal life [15]. The husband is the most important and closest person who can support the menopausal woman in this evolutionary crisis with a correct understanding of the situation and problems created for her [16]. Although having enough informa-
The inclusion criteria include completing the consent form; being postmenopausal women 45-65 years old; having Iranian citizenship; living in Kashmar with their husbands; passing one year after the last menstrual period; lacking psychological illness, alcohol consumption, drugs, accidents during the last 6 months, surgery or removal of the ovaries and uterus; not using hormonal drugs; trainability of their husbands; and not receiving education about menopause or reading books or pamphlets on menopause (based on self-report). The exclusion criteria included illness during the study, more than one session of attending training classes for the husband, and the occurrence of an accident during the study (Figure 1).

Data collection tools included the demographic questionnaire of women, the knowledge of husbands about menopausal experiences, and measuring the physical and psychological experiences of women during menopause. The researcher-made demographic questionnaire included questions about age, employment status, education, and midwifery characteristics (number of pregnancies, number of deliveries, number of children, menstrual age, menopausal age, duration of menopause) and a questionnaire for assessing the awareness of postmenopausal women. It contained 26 items scored on a 3-point Likert-type scale about the nature and effects of menopause, with 1 point for a correct answer and a 0 point for each incorrect answer or “I do not know” option. Therefore, the range of husbands’ awareness scores is between 0 and 26. A score of less than 26 indicates less awareness. Assessment of women’s experiences in menopause was determined using a questionnaire designed by Simbar et al. [23]. This questionnaire includes 44 items in 6 domains of concern (12 items), psychological effects (10 items), physical effects (11 items), negative emotions (5 items), negative attitudes (4 items), and adaptation (2 items). All expressions are scored on a 5-point Likert-type scale (never, low, medium, high, very high) from 0 to 4. The total score will range between 0 and 176, calculated as a percentage. Getting a higher score means more complications. The validity of the form “women's personal characteristics”, “husbands’ awareness of menopausal experiences”, and “assessment of physical and psychological experiences” was determined by the content validity method. These instruments were validated by 10 faculty members of Mashhad University of Medical Sciences. The reliability of the instruments “assessment of physical and psychological experiences” and “husbands’ awareness of menopausal experiences” was performed using a pilot study on 20 postmenopausal women and their husbands. Regarding the tool “mea-
surement of physical and psychological experiences” using the equivalence reliability method, the stability of the instrument was estimated to be 0.79, and the internal consistency of the instrument was estimated to be 0.97 using the Cronbach alpha coefficient. The reliability of the instrument “husbands’ awareness of menopausal experiences” the similarity of the answers in the two stages of the question was more than 0.82 cases.

After approval of the Vice-Chancellor for Research and the Ethics Committee of the University, the researcher went to health centers to recruit the samples. First, the study objectives and procedure and information confidentiality were explained to postmenopausal women, and their husbands were invited to attend the center. Written consent was obtained from the participants. Then, women and their husbands were given a questionnaire to assess the experiences of women in menopause.

Next, based on the adjusted educational program, a researcher with the educational experience provided 3 sessions of group training and 1-h face-to-face lectures (on the nature, symptoms, and complications of menopause) for the husbands of the women in the experimental group at weekly intervals in the meeting hall of the health center and also gave them an educational pamphlet on menopause (Table 1). However, the women in the control group were received only the routine care program of the health center (i.e., blood pressure, weight, nutrition, mobility, measurement of fat, blood sugar, hemoglobin, and hematocrit).

One month later, a health liaison referred to the samples, and all the women in the two groups completed the “physical and psychological experience assessment” tool, and their husbands completed the “awareness assessment form.” The researcher provided the samples with a telephone number to contact if they had any questions about the research. After entering the data into SPSS v. 25, frequency tables were used to describe the data, and the Chi-square, independent t-test, paired t-test, and analysis of covariance were used to analyze the data. The normality of data distribution was assessed using the Smirnov-Kolmogorov Smirnov test. P<0.05 was considered a significant level.

Results

The present study was performed on 150 (75 in the intervention group and 75 in the control group) postmenopausal women referring to health centers in Kashmar City, with a Mean±SD age of 51.13±2.68 years of women in the intervention group and 51.11±2.62 years in the control group. The age of clients, number of pregnancies, number of deliveries, number of children, number of abortions, age of child death, age of menarche, age of menopause, and duration of menopause were not statistically significantly different between the two groups (Table 2).

All the women in the study were natives of Kashmar and Iranian and lived with their husbands. More information about the qualitative demographic variables of the study participants is presented in Table 3.

The Mean±SD scores of menopausal experiences were 144.99±38.09 in the intervention group and 143.47±28.48 in the control group before the intervention and 105.53 ±35.41 in the intervention and 118.29±82.21 in the control group after the intervention. Statistical tests showed that the mean scores of different dimensions of menopausal experiences after the intervention and also between the two groups were significantly different. Besides, the results showed that the Mean±SD score of men’s knowledge in the intervention group was significantly higher before the intervention 29.57±4.72 and after the intervention 46.67±9.35 (P=0.001) (Table 4). The analysis of

| Sessions | Educational Contents | Targets |
|----------|----------------------|---------|
| First    | Pretest, introduction to group members and familiarity with the general program, definition of menopause, and related factors. | Familiarize group members with each other and the general program |
|          |                      | Familiarity with the physiology, complications, and common symptoms of menopause and ways to reduce the common complications of that period. |
| Second   | Awareness of physical, psychological, and sexual changes during menopause. | Creating a positive image of people towards their spouse, sex education to spouses. |
| Third    | Teaching how to understand the situation of the spouse and establish a positive relationship with him, a summary of all the meetings and discussions about the content presented. | Getting rid of negative perceptions and find solutions to deal with the problems and complications of menopause, make decisions about important issues in life, mutual understanding between spouses. |

Table 1. Titles of menopause complications training sessions
covariance on the effect of educational intervention on menopausal experiences and its domains confirmed the significant effect of the intervention on reducing these experiences (Table 5).

Discussion

This study aimed to determine the effect of teaching menopausal complications to husbands in Kashmar. The present study results showed that their mean score of postmenopausal knowledge has increased after training. The overall score of menopausal experiences compared to before the intervention was also shown. Besides, the mean score of different dimensions of physical and psychological experiences of postmenopausal women decreased after the intervention.

Educating people in adulthood about coping skills and adherence to supportive resources increases their ability to access the social resources needed to maintain mental health and resist trauma from stressful life events [24]. Men, on the other hand, may experience a lot of stress during their wives’ menopause, including the reduced female sexual response. Facing these ten-

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Figure 1. Flowchart of the sampling process of postmenopausal women

Table 2. Distribution of quantitative variables of study participants

| Variables               | Mean±SD     | Sig.* |
|-------------------------|-------------|-------|
|                         | Intervention| Control|       |
| Age (y)                 | 51.13±2.68  | 51.11±2.62 | 0.951 |
| Number of pregnancies   | 5.52±2.48   | 5.19±2.02  | 0.369 |
| Number of deliveries    | 5.04±1.79   | 4.67±1.82  | 0.207 |
| Number of children      | 4.76±1.85   | 4.56±1.88  | 0.512 |
| Number of abortions     | 0.43±0.90   | 0.49±0.83  | 0.638 |
| Age of child death (y)  | 0.13±0.34   | 0.16±0.44  | 0.678 |
| Menarche age (y)        | 12.36±1.36  | 12.25±1.46 | 0.645 |
| Menopausal age (y)      | 49.09±2.60  | 49.08±2.53 | 0.975 |
| Menopause duration (y)  | 2.25±1.34   | 2.04±1.14  | 0.295 |

*Independent t-test.
sions and the low husband’s information about menopause may interfere with their support for wives [21]. Caçapava et al. concluded that more than 25% of husbands have no or little information about menopause [25]. Of course, men cannot be studied in this field and be ashamed to ask questions in this case. Also, due to poor access to education in the city of Kashmar and the deprivation of this region compared to metropolises, this restriction is more visible.

Also, women during menopause, due to the end of ovarian function, undergo physical, psychological, hormonal, and social changes that make them face many difficulties in interacting with their husbands and enduring these changes [5]. In this study, implementing an educational program and teaching menopausal complications to husbands in the intervention group showed a significant decrease in the mean total score of menopausal experiences after the intervention. This finding confirms that when the husband of a postmenopausal woman

| Variables         | No. (%) | Sig. |
|-------------------|---------|------|
| **Education**     |         |      |
| Illiterate        | 21 (28) | 18 (24) | 0.913 * |
| Primary           | 35 (46.7) | 33 (44) | 0.108 * |
| Guidance school   | 14 (18.7) | 17 (22.7) | 0.156** |
| Secondary         | 4 (5.3) | 6 (8) |
| University        | 1 (1.3) | 1 (1.3) |
| **Job**           |         |      |
| Manual worker     | 21 (28) | 1 (13.3) | 0.012 * |
| Employee          | 17 (22.7) | 25 (33.3) | 0.257 * |
| Housewife         | 23 (30.7) | 28 (37.3) | 0.019 ** |
| Retired           | 26 (17.3) | 12 (16) |
| **Spouse job**    |         |      |
| Manual worker     | 20 (26.7) | 7 (9.3) |
| Employee          | 10 (13.3) | 18 (24) | 0.012 * |
| Self-employed     | 31 (41.3) | 27 (36) |
| Retired           | 14 (18.7) | 23 (30.7) |
| **Spouse education** |     |      |
| Illiterate        | 42 (56) | 44 (58.7) |
| Primary           | 15 (20) | 22 (29.3) | 0.156** |
| Guidance school   | 13 (17.3) | 8 (10.7) |
| Secondary         | 5 (6.7) | 1 (1.3) |
| **Type of house** |         |      |
| Owned             | 60 (80) | 54 (72) | 0.257 * |
| Rented            | 14 (18.7) | 21 (28) |
| Other             | 1 (1.3) | 0 (0.0) |
| **Income level**  |         |      |
| Low               | 31 (41.3) | 17 (22.7) |
| Moderate          | 40 (53.3) | 47 (62.7) | 0.019 ** |
| High              | 4 (5.3) | 11 (14.7) |

* Chi-square test; ** Fisher exact-test.

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gains more information about his spouse’s physical and mental condition, he will better understand and support his wife [17]. Similarly, Shariat Moghani et al. reported that social support for postmenopausal women, especially from their husbands, reduces menopausal experiences. In other words, by increasing social support from various sources, the physical and emotional problems of the wives can be avoided [14]. The present study results on increasing the support and understanding of menopausal women’s husbands are consistent with the above study’s findings. The present study showed that menopausal face-to-face training for husbands reduced the mean score of various dimensions of postmenopausal women’s physical and psychological experiences after the intervention. So there was a significant difference between them. Siobán also reported that teaching the symptoms of menopause to the husbands of postmenopausal women reduces anxiety and depression in these women significantly [19]. Implementing educational programs and increasing men’s awareness for the proper understanding of the wife increases the social support perceived by women and promotes their health. In general, the social support received from the husband has beneficial effects on a woman’s physical and mental health, and satisfaction with social support prevents depression, stress, sadness, anxiety, and physi-
In the present study, the mean score of menopausal experiences and its domains in the control group whose husbands were not trained showed a significant decrease after the intervention. This issue can show the effect of the questionnaire in studies and be considered a limitation because women did not react to these symptoms until they faced the menopause experience questionnaire and lack of information about it. But after learning the areas of menopausal experience, they showed a greater understanding of it, presenting a decrease in the score. Also, about half of the people in both groups were illiterate, which is a limitation of this study. But with the implementation of face-to-face training, this restriction was controlled, and men’s awareness increased as expected.

**Ethical Considerations**

**Compliance with ethical guidelines**

This study results from a student project in the field of midwifery education in Mashhad School of Nursing and Midwifery, Mashhad University of Medical Sciences in clinical trial (Code: IRCT2018050903959SN2 and Ethics Code: ID IR.MUMS.NURSE.REC.2018.011).
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Authors’ contributions

Methodology: Sedigheh Shariat Moghani; Data collection: Mahdieh Ebrahimzadeh; Writing – original draft: Sedigheh Shariat Moghani and Mahdieh Ebrahimzadeh; Data analysis: Jamshid Jamali, and Ali Safari; Final review: All Authors.

Conflict of interest

The authors declared no conflict of interest.

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References

[1] Yazdkhasti M, Simbar M, Abdi F. Empowerment and coping strategies in menopause women: A review. Iranian Red Crescent Medical Journal. 2015; 17(3):e18944. [PMID] [PMCID]

[2] Hoga L, Rodolfo J, Goncalves B, Quirino B. Women’s experience of menopause: A systematic review of qualitative evidence. JBI Database of Systematic Reviews and Implementation Reports. 2015; 13(8):250-337. [DOI:10.11124/jbirs-2015-1948] [PMID]

[3] Pachana NA, Helmes E, Gudgeon S. An Australian facts on ageing quiz. Australasian Journal on Ageing. 2013; 32(2):117-21. [DOI:10.1111/j.1741-6612.2012.00635.x] [PMID]

[4] Ghorbani M, Azhari S, Esmaeily HA, Ghanbari Hashem. The relationship between perceived social support and women experiences in menopausal transition. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

[5] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referred to gynecology clinics of university hospitals in Mashhad, Iran. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

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References

[1] Yazdkhasti M, Simbar M, Abdi F. Empowerment and coping strategies in menopause women: A review. Iranian Red Crescent Medical Journal. 2015; 17(3):e18944. [PMID] [PMCID]

[2] Hoga L, Rodolfo J, Goncalves B, Quirino B. Women’s experience of menopause: A systematic review of qualitative evidence. JBI Database of Systematic Reviews and Implementation Reports. 2015; 13(8):250-337. [DOI:10.11124/jbirs-2015-1948] [PMID]

[3] Pachana NA, Helmes E, Gudgeon S. An Australian facts on ageing quiz. Australasian Journal on Ageing. 2013; 32(2):117-21. [DOI:10.1111/j.1741-6612.2012.00635.x] [PMID]

[4] Ghorbani M, Azhari S, Esmaeily HA, Ghanbari Hashem. The relationship between perceived social support and women experiences in menopausal transition. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

[5] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referred to gynecology clinics of university hospitals in Mashhad, Iran. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

[6] Tabatabaeieehr M, Nazari S, Bagheri M, Niazi I, Abasiz S, Soltani M, et al. Effect of oral saffron on sexual function of postmenopausal women: A clinical trial study (Persian). The Iranian Journal of Obstetrics, Gynecology and Infertility. 2020; 22(12):46-53. [DOI:10.22038/ijogi.2020.15552]

[7] Carpenter JS, Groves D, Chen CX, Otte JL, Miller WR. Menopause and big data: Word adjacency graph modeling of menopause-related ChaCha data. Menopause. 2017; 24(7):783-8. [DOI:10.1097/ GME.0000000000000833] [PMID] [PMCID]

[8] Shariat Moghani S, Dolatian M, Nasiri M. The relationship between personality characteristics and sleep quality in menopausal women referred to gynecology clinics of university hospitals in Mashhad, Iran. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

[9] Fisher WI, Thurston RC. Measuring hot flash phenomenonology using ambulatory prospective digital diaries. Menopause. 2016; 23(11):1222-7. [DOI:10.1097/GME.0000000000000685] [PMID] [PMCID]

[10] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referred to gynecology clinics of university hospitals in Mashhad, Iran. Journal of Midwifery and Reproductive Health. 2013; 11(1):26-32. [DOI:10.22038/JMRH.2013.1222]

[11] Fisher WI, Thurston RC. Measuring hot flash phenomenonology using ambulatory prospective digital diaries. Menopause. 2016; 23(11):1222-7. [DOI:10.1097/GME.0000000000000685] [PMID] [PMCID]

[12] Woods NF, Mitchell ES, Percival DB, Smith-Dilullo K. Is the menopausal transition stressful? Observations of perceived stress from the seattle midlife women’s health study. Menopause. 2009; 16(1):90-7. [DOI:10.1097/ GME.0b013e31817ed261] [PMID] [PMCID]

[13] Carpenter JS, Groves D, Chen CX, Otte JL, Miller WR. Menopause and big data: Word adjacency graph modeling of menopause-related ChaCha data. Menopause. 2017; 24(7):783-8. [DOI:10.1097/ GME.0000000000000833] [PMID] [PMCID]

[14] Shariat Moghani S, Simbar M, Dolatian M, Nasiri M. The relationship between perceived social support and women experiences in menopause (Persian). Advances in Nursing & Midwifery. 2016; 25(90):55-64. https://journals.smu.ac.ir/en-pm/article/view/11664

[15] Benton T, Craib I. Philosophy of social science: The philosophical foundations of social thought. London: Macmillan International Higher Education; 2010. https://books.google.com/books?id=ewmkcQAACAAJ&dq=Philosophy+of+social+science:+The+philosophical+foundations+of+social+thought

[16] Novak E. Berek & Novak’s gynecology: Lippincott Williams & Wilkins; 2009. https://books.google.com/books?id=ewmkcQAACAAJ&dq=Philosophy+of+social+science:+The+philosophical+foundations+of+social+thought

[17] Carpenter JS, Churu P. The effectiveness of self-compas- sion group reactions to an arts-based educational exhibit on meno-pause (Persian). Advances in Nursing & Midwifery. 2016; 25(90):55-64. https://journals.smu.ac.ir/en-pm/article/view/11664

[18] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referring to family counselling (Persian). Knowledge & Research in Applied Psychology. 2017; 18(1):38-45. http://jsr-p.khuisf.ac.ir/article_534049.summary_of_the_Stages_of_Reproductive_Aging_Wo+rkshop+10:_Addressing_the unfinished_agenda_of_staging_reproductive_aging.Menopause. 2016; 23(11):1222-7. [DOI:10.1097/GME.0000000000000685] [PMID] [PMCID]

[19] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referring to family counselling (Persian). Knowledge & Research in Applied Psychology. 2017; 18(1):38-45. http://jsr-p.khuisf.ac.ir/article_534049.summary_of_the_Stages_of_Reproductive_Aging_Wo+rkshop+10:_Addressing_the unfinished_agenda_of_staging_reproductive_aging.Menopause. 2016; 23(11):1222-7. [DOI:10.1097/GME.0000000000000685] [PMID] [PMCID]

[20] Carpenter JS, Schmidt KK, Jarvis LM, Lapum JL, Kesling MD. The effective psychoeducational intervention on the intimacy attitudes and divorce tendency of Women referring to family counselling (Persian). Knowledge & Research in Applied Psychology. 2017; 18(1):38-45. http://jsr-p.khuisf.ac.ir/article_534049.summary_of_the_Stages_of_Reproductive_Aging_Wo+rkshop+10:_Addressing_the unfinished_agenda_of_staging_reproductive_aging.Menopause. 2016; 23(11):1222-7. [DOI:10.1097/GME.0000000000000685] [PMID] [PMCID]
[21] Kwak EK, Park HS, Kang NM. Menopause knowledge, attitude, symptom and management among midlife employed women. Journal of Menopausal Medicine. 2014; 20(3):118-25. [DOI:10.6118/jmm.2014.20.3.118] [PMID] [PMCID]

[22] Hidiroglu S, Tanriover O, Ay P, Karavus M. A qualitative study on menopause described from the man’s perspective. Journal of the Pakistan Medical Association. 2014; 64(9):1031-6. [PMID]

[23] Hakimi S, Nazarpour S, Ramezani Tehrani F, Simbar M, Zaier F. [Women’s experiences about menopause and related factors (Persian)]. Iranian Journal of Endocrinology and Metabolism. 2017; 19(3):185-93. https://ijem.sbmu.ac.ir/article-1-2250-en.html

[24] Behnam-Moradi M, Ahadi H, Seirafi MR. [The effect of educational intervention based on pender’s health promotion model on self-actualization and interpersonal relations in menopausal women (Persian)]. Community Health Journal. 2019; 13(3):10-9. [DOI:10.22123/ChTh.2019.200148.1350]

[25] Caçapava Rodolpho JR, Cid Quirino B, Komura Hoga LA, Lima Ferreira Santa Rosa P. Men’s perceptions and attitudes toward their wives experiencing menopause. Journal of Women & Aging. 2016; 28(4):322-33. [DOI:10.1080/08952841.2015.1017430] [PMID]

[26] Mirzaei M, Sahaf R, Mirzaei S, Sepahvand E, Pakdel A, Shemshadi H. [Depression and its associated factors in elderly nursing home residents: A screening study in Khorramabad (Persian)]. Salmad: Iranian Journal of Ageing. 2015; 10(1):54-61. http://salmandj.uswr.ac.ir/article-1-761-fa.html

[27] Moatamedy A, Borjali A, Sadeqpur M. [Prediction of psychological well-being of the elderly based on the power of stress management and social support (Persian)]. Salmad: Iranian Journal of Ageing. 2018; 13(1):98-109. [DOI:10.21859/ijaj.13.1.98]

[28] Shariat Moghani S, Simbar M, Rashidi Fakari F, Ghasemi V, Dolatian M, Golmakan N, et al. [The relationship between stress, anxiety and depression with menopausal women experiences (Persian)]. Avicenna Journal of Nursing and Midwifery Care. 2018; 26(5):333-40. [DOI:10.30699/sjhnmc.26.a5.333]

[29] Borhaninejad VR, Naghibzadeh Tahami A, Nabavi H, Rashedi V, Yazdi-Feyzabadi V. [The utilization of health services and its influences among elderly people in Kerman-2014 (Persian)]. Journal of North Khorasan University of Medical Sciences. 2015; 7(2):229-40. [DOI:10.29252/jnkums.7.2.229]

[30] Bahari Jokandan S, Asadi Louyeh A, Majid Teimoori Z, Kazem Nezhad Leili E, Paryad E. Patients’ satisfaction of health care system reform plan in educational-medical centers of Rasht city in North of Iran, 2018. Journal of Holistic Nursing and Midwifery. 2020; 30(4):191-9. [DOI:10.32598/jhnm.30.4.2013]