Original Article Health, Spirituality and Medical Ethics. 2020;7(1):16-24

Role of Religious Health, Sexual Knowledge, and Sexual Attitude in Predicting the Sexual Function of Postmenopausal Women

Received 22 Sep 2019; Accepted 14 Dec 2019
http://dx.doi.org/10.29252/jhsme.7.1.16

Niloofar Golzari[1], Ainaz Farahmand Parsa[1], Faegheh Golalizadeh Bibalan[1*], Somayeh Fallah[2]

1 Student Research Committee, Qazvin University of Medical Sciences, Qazvin, Iran.
2 School of Nursing and Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran.

Abstract

Background and Objectives: Menopause can lead to psychological and social consequences, amongwhich sexual function has received special attention. Therefore, the purpose of this study was to investigate the effect of sexual knowledge, sexual attitude, and religious health on predicting the sexual function of postmenopausal women.

Methods: This descriptive correlational study was performed on 258 postmenopausal women who referred to Qazvin comprehensive health care centers, Qazvin, Iranduring January 2019-June 2019. The samples were selected through multistage, cluster, and convenience sampling methods. Data collection tools included a demographic and sexual function questionnaire, the Female Sexual Function Index (FSFI) questionnaire, Sexual Knowledge and Attitudes Scale (SKAS), and Spiritual Well-Being Scale (SWBS) by Ellison. All the data were analyzed by descriptive statistics using SPSS software.

Results: The mean scores of sexual knowledge and sexual attitude in postmenopausal women were lower than half of the obtainable point. Moreover, the research participants had moderate religious health. The sexual function had a significant direct statistical relationship with sexual knowledge, sexual attitude, and religious health. In addition, the results of the regression analysis showed that the predictor variables can significantly explain the criterion variables.

Conclusion: According to our findings, postmenopausal women who had higher levels of religious health, knowledge, and attitudes demonstrated better sexual performance. Therefore, health care and counseling should be taken into consideration.

Keywords: Menopause, Religious health, Sexual attitude, Sexual function, Sexual knowledge.

***Correspondence:** Should be addressed to Ms. Faegheh Golalizadeh Bibalan. **Email:** golalizadeh2010@gmail.com

Please Cite This Article As: Golzari N, Farahmand Parsa A, Golalizadeh Bibalan F, Fallah S. Role of Religious Health, Sexual Knowledge, and Sexual Attitude in Predicting the Sexual Function of Postmenopausal Women. Health Spiritual Med Ethics. 2020;7(1):16-24.

Introduction

Women are 50% of the world population and approximately 90% of them live 65 years or more. Menopause is one of the periods of women's life and they pass about one-third of their lives in this period. Menopause is characterized by the cessation of the menstrual cycle following the discontinuation of ovarian function at the end of the fertility period (1).

Women confront various changes in the physical and hormonal conditions after menopause affecting their sexual function. Sexual function imposes an important impact on the quality of life, health, the self-confidence of postmenopausal women (1). Reduction in sexual attractiveness, desire, and sexual satisfaction are the most common complaints of postmenopausal women in terms of sexual function (2).

Diminished estrogen level in postmenopausal women leads to atrophy and dryness of vaginal epithelium, which is accompanied by decreased vaginal lubrication during sexual intercourse. As a result, sexual pain, reduced sexuality, diminished sexual satisfaction, and disturbed sexual intercourse might happen for a couple (3). In addition to hormonal factors, numerous studies have noted the role of

psychological, mental, and behavioral alterations or changes in lifestyle on the sexual function of postmenopausal women (4). When providing service for elderlies, health care providers should evaluate their quality of life, including the level of their knowledge, attitude, and sexual needs (5).

Some women consider the menopause period as the time of freedom from the responsibility of taking care of children are not worried about fertility, and experience more delightful sexual intercourse, compared to before menopause. However, some other women believe that this period is the beginning of anxieties due to the initiation of the aging process and termination of their charm. Some studies indicated that sexual knowledge and attitude play a key role in the sexual function of old people (6). On the other hand, some investigations found no significant relationship between sexual attitude and sexual function (7).

Religious health is among other variables, the effects of which on the sexual function of women have been discussed by the researchers in recent years. Religious health is defined as satisfaction with a relationship with a source of superior power (8).

The results of some studies showed that religion had a significant correlation with the sexual satisfaction of women and men. However, religion has not been observed to have a relationship with sexual function (9). According to the literature, religiosity was correlated with a negative attitude toward sexual function (10). Moreover, Muslim women with high sexual shame reported lower levels of sexual satisfaction (11).

Studies concerning the influence of religious health, sexual knowledge, and sexual attitude on the sexual problems of Iranian postmenopausal women are limited. Furthermore, sexual function disorders during the menopause period are prevalent. Therefore, considering the religious context of Iran, the application of statistical and organized scientific methods is of high importance for identifying and improving the problems of the menopause period. In this regard, the evaluation of diverse factors, such as religious health, sexual knowledge, and sexual attitude on the sexual function of postmenopausal women seems to be essential.

Methods

This descriptive correlational study was performed on 258 postmenopausal women who referred to Qazvin comprehensive health care centers, Qazvin, Iran during January 2019-June 2019. According to the study carried out by Nazarpour et al. (12), the sample size for the present study was obtained as 258 participants considering the minimum significant correlation, type I error, and power as 0.2 (r=0.2), 0.05, and 0.9, respectively. Sampling was performed through multistage, cluster, and convenience sampling methods.

The current research was approved by the Ethics Committee of Qazvin University of Medical Sciences on 15 August 2018 with the code of IR.QUMS.REC.1397.097. Afterwards, the researcher referred to the provincial health center by a letter of introduction from the Faculty of Nursery and Midwifery of Qazvin University of Medical Sciences for receiving a complete list of Qazvin comprehensive health care centers. A number of centers were randomly selected by balloting from all city regions as clusters that almost covered all parts of the city. The number of subjects selected from each center was proportional to the number of clients and the sample size.

In order to collect the data, the researcher passed the chosen centers on different days of the week and selected the postmenopausal women who referred for receiving midwifery and health services. The participants were selected based on the inclusion criteria through the convenience sampling method until reaching the sample size. The subjects were divided into two groups of individuals with and without sexual function disorder with 129 people in each.

The inclusion criteria entailed 1) being Muslim and Iranian, 2) reading and writing literacy, 3) having normal menopause at the age of 40-65 years, 4) having husband and sexual intercourse with him, 5) not being affected by acute cardiac diseases or any acute psychological disorder, 6) not having intense stress, such as the experience of accident or

losing family members during the previous three months, 7) husband not having sexual dysfunction, and 8) not using herbal medicine containing phytoestrogen or sexual hormone supplement as any type. In order to determine whether the subjects met the mentioned criteria, they passed an initial interview. The exclusion criterion was the dispensing of participants with continuing the study for any reason.

In terms of ethical considerations, first, the aims and context of the study were explained to the participants. Informed written consent was taken from all the subjects and all the questionnaires were completed by the individuals themselves as anonymous. Moreover, human dignity protection as the most important ethical principle and data confidentiality were followed in this study.

Afterwards, explanations were given to the subjects regarding how to complete the questionnaires. The demographic data questionnaire, Female Sexual Function Index (FSFI) survey, Spiritual Well-Being Scale (SWBS) by Ellison, and finally Sexual Knowledge and Attitudes Scale (SKAS) were completed by the participants in the presence of the researcher during 30 min.

Demographic and sexual condition questionnaire: This questionnaire included ten, five, and three questions addressing the demographic data, marriage and midwifery characteristics, and the information concerning sexual intercourse with husband, respectively.

Female Sexual Function Index (FSFI): This survey contains 19 items for assessing sexual function in the domains of desire, arousal, lubrication, orgasm, satisfaction, and sexual pain. This questionnaire has acceptable validity and reliability and has been used in numerous studies. Mohammadi et al. (2008) examined the reliability of this index by the internal consistency coefficient (13). Cronbach's alpha coefficient of all participants for each of the domains and the whole index was 0.7 and higher (10).

Al the questions in the domains of 1) desire, 2) arousal, 3) lubrication, 4) orgasm, 5) satisfaction, and 6) sexual pain were scored as 0-5. The cutoff points for the whole index and domains are 28, 3.3, 3.4, 3.4, 3.4, 3.8, and 3.8 for the whole index, desire, arousal, lubrication, orgasm, satisfaction, and sexual pain, respectively. In other words, scores higher than the mentioned cutoff points indicate a suitable function.

Sexual Knowledge and Attitudes Scale (SKAS): This scale has 20 questions categorized in the two items of sexual knowledge and sexual attitude. The method of responding in this questionnaire is the five-point Likert scale and the answers are scored as 5, 4, 3, 2, and 1 for completely agree, agree, partly agree, disagree, and completely disagree, respectively.

The scores of this survey have a range of 20-100 with higher scores showing higher levels of sexual knowledge and attitude. In Iran, SKAS was designed and evaluated in 2012 by Besharat et al. in research titled "Development and Validation of Sexual Knowledge and Attitude Scale". In the latter study, the reliability of SKAS was determined by Cronbach's alpha coefficient of 0.77 (14).

Spiritual Well-Being Scale (SWBS) by Ellison: This questionnaire consists of ten questions. The scores 10-20, 21-49, and 50-60 demonstrated low, moderate, and high spiritual health, respectively. Allahbakhshian et al. confirmed the content validity of this survey in their investigation (15). In the current study, the reliability of this questionnaire was obtained as Cronbach's alpha coefficient of 0.88.

In order to investigate the validity of the research tools, the questionnaires were delivered to ten of the scientific members of the Faculty of Nursery and Midwifery and their proposed ideas were implemented. In case of a lack of response to more than 10% of the questions that subject was excluded and replaced with another person.

All the data were analyzed by descriptive statistics, including mean and standard deviation for continuous quantitative variables and number (percent) for qualitative and nominal variables using IBM SPSS software version 22. The linear regression model was applied to assess the predicting factors of sexual function in postmenopausal women.

The standard and non-standard regression coefficients for the predicting factors were calculated in the model and their significance levels were reported. P<0.05 was considered significant for all the tests.

Result

Our findings showed that the age range of participants was 52.92±5.34 years and the age of their husbands had a range of 58.64±5.34 years. According to Table 1, more than two-third of the subjects were in the age range of 50-60 years. Most of the individuals had the education level of under high school diploma and did not exercise regularly. Approximately one-fourth of the subjects were satisfied with the economic condition of the family and more than half of them complained about vasomotor symptoms (Table 1).

Table 1. Qualitative/nominal data of the demographic variables (n=258)

Variables	Levels	Number	Percent
Age	40-45	25	9.7
	45-50	88	34.1
	50-55	88	34.1
	55-60	54	20.9
	60-65	1.2	9.7
Education level	High school and lower	125	48.4
	High school diploma	97	37.6
	Proficiency and bachelor	36	14
	Master and higher	0	0
Ethnicity	Fars	48	18.6
	Lor	47	18.2
	Kurd	56	21.7
	Gil	52	20.2
	Turk	55	21.3
Regular exercise five times per week	Yes	70	27.1
	No	188	72.9
Number of pregnancy	1-3	107	41.5
	4-6	133	51.6
	7 and more	18	6.9
Number of delivery	1-3	142	55
	4-6	108	41.9
	7 and more	8	3.1
Vasomotor symptoms	Yes	147	57
	No	111	43
Satisfaction with the economic condition of the family	Satisfied	72	27.9
	Unsatisfied	186	72.1

As shown in Table 2, the mean of sexual function total score among the subjects was a little higher than the cutoff point for suitable function. However, the mean sexual function score in the desire, arousal, orgasm, and satisfaction aspects was lower than the suitable function cutoff points of 3.3, 3.4, 3.4, and 3.8, respectively. On the other hand, the mean of sexual function score in the pain feature was more than the cutoff point defined as a suitable function (3.8).

Table 2. Mean±SD of sexual knowledge, sexual attitude, and sexual function of postmenopausal women in different aspects (n=258)

Variables		Mean±SD
Sexual function	Sexual desire	2.07±0.9
	Sexual arousal	2.25±1.89
	Vaginal lubrication	2.07±1.35
	Orgasm	2.01±1.55
	Sexual pain	3.09±1.19
	Sexual satisfaction	2.07±2.05
	Total score of sexual function	28.09±4.48
Sexual knowledge		35±2.09
Sexual attitude		28.52±2.65
Religious health		34±2.98

The mean scores of sexual knowledge and sexual attitude among the postmenopausal women were less than half of the obtainable scores (50 and 50). On average, the participants of the present study were found to be of moderate spiritual health.

The results of the Kolmogorov-Smirnov test revealed that the scores of main variables, namely sexual knowledge, sexual attitude, spiritual health, and sexual function had a normal distribution. Pearson correlation coefficient (Table 3) demonstrated that the total score of sexual function and some of its components (orgasm and sexual satisfaction) were significantly correlated with the mean score of sexual knowledge in postmenopausal women (P<0.05).

Table 3: Pearson correlation coefficient

Variables		Sexual knowledge		Sexual attitude		Religious health	
		r	P	r	P	r	P
Sexual Function	Total score Sexual function	0.43	0.006	0.15	0.003	0.31	0.001
	Sexual desire	0.16	0.55	0.21	0.004	0.43	0.001
	Sexual arousal	0.07	0.24	0.29	0.003	0.24	0.07
	Vaginal lubrication	0.08	0.1	0.18	0.003	0.34	0.3
	Orgasm	0.14	0.02	0.15	0.01	0.42	0.2
	Sexual pain	-0.3	0.1	-0.08	0.17	0.12	0.1
	Sexual satisfaction	0.26	0.002	0.24	0.007	0.52	0.01

In addition, the mean total score of sexual function and some of its components, including sexual desire, arousal, vaginal lubrication, orgasm, and sexual satisfaction had a significant direct correlation with the mean sexual attitude score. The mean score of sexual function and some components (sexual desire and sexual satisfaction) were significantly and directly correlated with the mean score of spiritual health.

According to Table 4, the results of multiple regression show that the variables sexual knowledge, sexual attitude, and spiritual health can predict the changes in sexual function (P<0.001). Sexual knowledge variable was not revealed to have a significant role in predicting the sexual function of postmenopausal women and was excluded from the sexual desire model.

On the other hand, sexual attitude can predict the alterations in the sexual arousal of postmenopausal women (P<0.001). Moreover, the variables of sexual knowledge and spiritual health did not have a significant role in predicting sexual arousal in postmenopausal women and were omitted from the sexual arousal model.

Our results indicated that sexual attitude has the potency for predicting changes in vaginal lubrication (P<0.001). However, sexual knowledge and spiritual health did not play a significant role in predicting vaginal lubrication and were excluded from the model for vaginal lubrication. In addition, the variables of sexual knowledge, sexual attitude, and spiritual health can predict the changes in sexual satisfaction (P<0.001).

Discussion

Diverse factors affect the sexual function of women after menopause. Studies regarding sexual attitude and sexual behavior are among the most comprehensive investigations that evaluate common sexual problems in old women and men throughout the world. The results of these studies showed that sexual problems in these people are of high prevalence in all parts of the world and have a direct relationship with different factors, such as physical diseases and taking medications (16).

Kaiser demonstrated that nationality, culture, ethnics, religion, and psychological, social, and economic factors all affect the sexual beliefs, attitudes, and behavior of elderlies. The findings of investigations emphasize that the maintenance of sexual activities in postmenopausal women positively influences their well-being.

Despite the key role of sexual function in the quality of life of postmenopausal women, rare studies addressed this subject and the effective factors during menopause. Therefore, the present study aimed to determine the role of

Table 4. Results of multiple regression for the components of sexual function, sexual knowledge, sexual attitude, and religious health

Model	Predictive variable	Non-standard coefficient		Standard coefficient	R	t	Significance level
		Line slope	Standard error	Beta			
Sexual function	Constant value	35.45	0.667			53.13	0.05<
	Sexual knowledge	1.64	0.04	1.61	0.79	-23.24	<0.001
	Sexual attitude	1.51	0.03	1.33	0.76	-50.9	<0.001
	Religious health	1.08	0.05	0.6	0.6	-19.21	<0.001
Sexual desire	Constant value	34.6	2.8			25.2	0.03
	Sexual attitude	-2.53	0.02	1.52	0.77	-38.24	<0.001
	Religious health	-0.75	0.09	0.7	0.7	-7.81	<0.001
Sexual arousal	Constant value	-0.39	0.04	0.19	0.19	-9.96	<0.001
	Sexual attitude	-1.51	0.03	1.33	0.73	-50.9	<0.001
Vaginal lubrication	Constant value	35.45	0.66			13.53	0.02
	Sexual attitude	-2.04	0.03	-1.22	0.72	-38.24	<0.001
Orgasm	Constant value						
	Sexual knowledge	-1.08	0.05	-0.6	0.6	-19.21	<0.001
	Sexual attitude	-1.51	0.03	-1.33	0.73	-50.9	<0.001
Sexual satisfaction	Constant value						
	Sexual knowledge	-0.29	0.031	-0.16	0.16	-9.58	<0.001
	Sexual attitude	-0.29	0.16	-0.17	0.17	-1.74	<0.001
	Religious health	-0.29	0.03	-0.16	0.16	-9.58	<0.001

sexual knowledge, sexual attitude, and spiritual health in predicting the sexual function of postmenopausal women.

In the current study, the mean total score of sexual function in postmenopausal women was a little higher than the cutoff point showing a suitable function. In the study performed by Rezaei et al. (18) the mean total score of sexual function in postmenopausal women was higher than half of the obtainable score, which is consistent with our results. Moreover, the scores obtained for the various features of sexual function indicated an unsuitable function.

Kaboudi et al. (19) observed that the prevalence of disorders in sexual desire and arousal is about 70% among the Iranian postmenopausal women showing the weak function of these women concerning the mentioned aspects. Sexual pain had the highest score among the features of sexual function, which demonstrates that Iranian postmenopausal women have a more prominent problem in terms of sexual pain. Ponholzer et al. (20) reported sexual pain as the most prevalent sexual function disorder.

During the menopause period, women experience major changes in the endocrine system, as well as physiologic and psychologic alterations due to reduced hormonal levels, especially estrogen causing considerable distress and disability. One of these changes is vaginal atrophy that leads to sexual pain.

On the other hand, the high prevalence of these problems might result from the feeling of shame for expressing sexual problems by these women, which causes these problems to remain unsolved. It seems that the latter subject should be taken into consideration by the health care providers.

According to the results of the present study, the mean total score of sexual function was significantly higher in individuals with higher sexual knowledge. The latter result is in line with the study completed by Garsia et al. (21) that reported the lack of awareness and sexual knowledge leads to elevated sexual function disorder in postmenopausal women. Furthermore, Jamali et al. demonstrated that 60.5% of the Iranian postmenopausal women did not have any information regarding the influence of menopause on women's sexual function (22).

Steinke (23) indicated that the lack of correct available information and lack of tendency to discuss sexual activity leads to diminished sexual function and reduced quality of life in postmenopausal elder women. The role of sexual activity is important in the physical and psychological health of women after menopause. Consequently, it is needed that sexual knowledge gets improved in these women through holding educational programs.

Moreover, sexual knowledge predicts sexual function. As a result, it can be concluded from the findings of White, Wiley and Bortz, Holzapfel (24) that comprehensive health evaluation in postmenopausal women should be a combination of assessing sexual knowledge, sexual attitude, and the needs of these women. Health care providers are required to have sufficient knowledge about the changes in sexual function. In addition, they should pay enough attention and respond to the questions, doubts, and needs of postmenopausal women in terms of patient-based care.

According to the results of the present study, the mean total score of sexual function was significantly higher in individuals with higher sexual attitude. The latter finding is consistent with the previous investigations showing that the negative attitude of women toward menopause and sexual relationships during menopause may affect the incidence of sexual function disorder (25). Hashemi et al. (26) demonstrated that the attitude of women toward sexual activity grossly affects the prevalence of sexual function disorders.

Jamali et al. (21) revealed that in addition to biological, cultural, and social conditions, women’s attitude toward sexual desire influences their sexual function. The mentioned authors (21) indicated that one-third of Iranian postmenopausal women believed that sexual intercourse is shameful after menopause. Furthermore, 30% of these women stated that sexual intercourse in menopause period is contrary to Iranian culture and 18%

considered sexual intercourse in these ages as a sin.

According to the literature, cultural, social, and ethnical factors affect the differences in the attitude of postmenopausal women toward sexual intercourse. Some investigations demonstrated that in patriarchal societies, talking about the sexual desire or sexual satisfaction of women is regarded as a taboo and sexual needs of women are neglected in these societies. Therefore, the dominant culture of society and family forms the sexual attitude of women in diverse societies (27). Furthermore, considering that sexual attitude predicts sexual function in postmenopausal women, it could be inferred that an enhanced attitude toward sexual intercourse in postmenopausal women can promote sexual function.

Our findings showed that the scores of sexual function and some of its features, including sexual desire and satisfaction, were significantly higher in people with improved religious health. On the other hand, the results of this study did not reveal a relationship between religious health and other components, namely sexual arousal, vaginal lubrication, orgasm, and sexual pain.

The systematic review carried out by Shahhosseini et al. indicated that religion is among the factors that affect sexual satisfaction in couples (2). In addition, Seddighi et al. showed that religiosity may enhance the satisfaction of couples (29). These similar results could be attributed to the more prominent impact of cultural, social, and religious aspects on sexual desire and satisfaction.

In addition, applying the religious instructions, religious people try harder for the satisfaction of their spouses, strengthening the bases of family, and improving the relationship and sexual intercourse. Considering that religious health predicts sexual function in postmenopausal women, we can infer that religious health assists old women, after menopause to act more successfully in their sexual tasks.

Subsequently, the enhancement of religious beliefs can probably be further investigated as a method for promoting sexual intercourse of postmenopausal women followed by an improved relationship with their husbands. However, Tangney and Dearing (30) reported that some religious individuals experience the feeling of shame and sin due to sexual function and regard sexual intercourse as a shameful act. Therefore, a significant inverse relationship was reported between religion and sexual function. These differences might result from diversity in the studied populations in terms of religious instructions, religions, and cultural factors in societies.

The present study, similar to all investigations, has some limitations, which are recommended to be taken into consideration in future studies and be solved if possible. The cross-sectional design, individual differences, not assessing the sexual function of spouses, limited study environment, and the impact of the psychological condition of the participants on responding to the questionnaires were among the limitations. As a result, it is difficult to generalize the findings to all postmenopausal women.

The researcher in this study tried to control the limitations by proving a calm environment, attracting the trust of subjects, and excluding the individuals who had obvious stress or anxiety. It is recommended to further investigate sexual function disorder as holism paradigm.

The present study was completed in Qazvin, Iran and on the study population of Muslim Shiite postmenopausal women. Considering that religious and cultural issues influence sexual function in postmenopausal women, it is suggested that this research be repeated in other cities, ethnics, and cultures.

Conclusion

The results of this study demonstrated that the three variables of sexual knowledge, sexual attitude, and religious health in postmenopausal women are correlated with their sexual function. Reduced sexual knowledge, sexual attitude, and religious health can be accompanied by various problems, dissatisfaction, and unfavorable sexual function. Therefore, health care

providers and counselors in the domains related to the health of old and postmenopausal women should take into consideration the spiritual and religious aspects of postmenopausal women and the improvement of their sexual knowledge and attitude.

Conflict of interest

The authors of this study declare no conflict of interest for this research.

Acknowledgements

This article is related to student research approved by the Ethics Committee of Qazvin University of Medical Sciences on 15 August 2018 with the code of IR.QUMS.REC.1397.097. The authors of the present study would like to extend their gratitude to all the women and individuals who assisted in conducting this research.

References

1. Omidvar S, Bakouie F, Amiri FN. Sexual function among married menopausal women in Amol (Iran). J Midlife Health. 2011;2(2):77. link
2. Modelska K, Litwack S, Ewing SK, Yaffe K. Endogenous estrogen levels affect sexual function in elderly post-menopausal women. Maturitas. 2004;49(2):124-33. link
3. Avis NE, Brockwell S, Randolph Jr JF, Shen S, Cain VS, Ory M, et al. Longitudinal changes in sexual functioning as women transition through menopause: Results from the Study of Women's Health Across the Nation (SWAN). Menopause. 2009;16(3):442-52. link
4. Huang AJ, Subak LL, Thom DH, Van Den Eeden SK, Ragins AI, Kuppermann M, et al. Sexual function and aging in racially and ethnically diverse women. J Am Geriatr Soc. 2009;57(8):1362-8. link
5. Hwang H-F, Liang W-M, Chiu Y-N, Lin M-R. Suitability of the WHOQOL-BREF for community-dwelling older people in Taiwan. Age Ageing. 2003;32(6):593-600. link
6. Wang TF, Lu CH, Chen IJ, Yu S. Sexual knowledge, attitudes and activity of older people in Taipei, Taiwan. J Clin Nurs. 2008;17(4):443-50. link
7. Kaplan HS. Sex, intimacy, and the aging process. J Am Acad Psychoanal. 1990;18(2):185-205. link
8. Rahnama M, Khoshknab MF, Maddah SS, Ahmadi F. Iranian cancer patients' perception of spirituality: a qualitative content analysis study. BMC Nurs. 2012;11(1):19. link
9. Au TY, Zauszniewski JA, King TM. Health-seeking behaviors and sexuality in rectal cancer survivors in Taiwan: associations with spirituality and resourcefulness. Oncol Nurs Forum. 2012; 39(5):E390-7 link
10. Davidson JK, Moore NB, Ullstrup KM. Religiosity and sexual responsibility: relationships of choice. Am J Health Behav. 2004;28(4):335-46. link
11. Abdolsalehi–Najafi E, Beckman LJ. Sex guilt and life satisfaction in Iranian-american women. Arch Sex Behav. 2013;42(6):1063-71. link
12. Nazarpour S, Simbar M, Ramezani Tehrani F, Alavi Majd H. Sexual Function and Exercise in Postmenopausal Women Residing in Chalous and Nowshahr, Northern Iran. Iran Red Crescent Med J. 2016;18(5):e30120. link
13. Mohammadi K, Heydari M, Faghihzadeh S. The female sexual function index (FSFI): validation of the Iranian version. J Sex Med. 2012;9(2):514-23. link
14. Mohammadi K, Heidari M, Faqihzadeh S. The validation of female sexual function index (FSFI) in the women: Persian Version. Payesh. 2008;7(2):270-8. link
15. Allahbakhshian M, Jaffarpour M, Parvizy S. Spiritual well-being of patients with multiple sclerosis. Iran J Nurs Midwifery Res. 2011;16(3):202-6. link
16. Besharat MA, Ranjbar KE. Development and validation of sexual knowledge and attitude scale. Psychology. 2013;8(1):21-32. [Persion] link
17. Kaiser FE. Sexuality in the elderly. Urol Clin North Am. 1996;23(1):99-109. link
18. Sakineh Mohammad Alizadeh Charandabi, Nazanin Rezaei, Sevil Hakimi, Ali Montazeri, Shiva Khatami, Parviz Karimi. Sexual Function of Postmenopausal Women and its Predictive Factors: A Community Based Study in Ilam, Iran, 2011. Iran J Obst Gynecol Infertility. 2012;15(23):1-9. link
19. Beigi M, Fahami F. A Comparative study on sexual dysfunctions before and after menopause. Iran J Nurs Midwifery Res. 2012;17(2 Suppl1):S72. link
20. Ponholzer A, Roehlich M, Racz U, Temml C, Madersbacher S. Female sexual dysfunction in a healthy Austrian cohort: prevalence and risk factors. Eur Urol. 2005;47(3):366-75. link
21. García FP, López VS, Toronjo AG, Toscano TM, Contreras AM. Evaluation of knowledge about climacteric in Andalusian women. Aten Primaria. 2000;26(7):476-81. link
22. Jamali S, Javadpour S, Mosalanejad L, Parnian R. Attitudes about sexual activity among postmenopausal women in different ethnic groups: a cross-sectional study in Jahrom, Iran. J Reprod Infertil. 2016;17(1):47. link
23. Steinke EE. Knowledge and attitudes of older adults about sexuality in ageing: a comparison of two studies. J Adv Nurs. 1994;19(3):477-85. link
24. Holzapfel S. Aging and sexuality. Can Fam Physician. 1994;40:748-50. link
25. Ryan KJ. Kistner's gynecology and women's health: Mosby Incorporated; 1999. link
26. Hashemi S, Tehrani FR, Simbar M, Abedini M, Bahreinian H, Gholami R. Evaluation of sexual attitude and sexual function in menopausal age; a population based cross-sectional study. Iran J Reprod Med. 2013;11(8):631-6. link

27. Ahmadvand M. Impact of education on changing the structure of sex discrimination schemata. Daneshvar Raftar. 2004;11(4):15-24. link
28. Shahhosseini Z, Gardeshi ZH, Pourasghar M, Salehi F. A review of affecting factors on sexual satisfaction in women. Mater Sociomed. 2014;26(6):378-381. link
29. Akram Seddighi, Ahmad Massoumi, Marzieh shahsiah. An Evaluation of the Relationship between Religious Orientation and Marital Satisfaction among Couples of Qom City. J Sabzevar Univ Med Sci. 2016;22(6):965-71. [Persian] link
30. Tangney J, Dearing R. Emotions and social behavior Shame and guilt. New York, NY, US. Guilford Press; 2002. link