

Assessment of women's awareness level about symptoms and complications of menopause and methods to their prevention

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ABSTRACT

Context: Since menopause age is constant, an increase in life expectancy has resulted in an increase of the menopause period in women.

Aims: This study was done to assess women's awareness level about symptoms and complications of menopause and methods of their prevention.

Settings and design: This cross-sectional research was conducted on 220 women, 40 years of age or older referrals in selected health care centers.

Methods and material: The research was conducted using a questionnaire with regular random sampling method.

Statistical analysis used: The analysis of obtained findings was done by SPSS statistical software and statistical tests.

Results: Based on their total score, 48.6% of women had good awareness, 24.1% of them had average awareness, and 27.3% of them had low awareness. Eighty-five percent of the participants had read or heard some topics about menopause from their relatives (26.8%), friends (25.5%), health care staffs (20%), books and journals (10.5%), and television or radio (8.6%). Women's awareness level had significant correlation with child number, job, education, income, hearing or reading text about menopause and their informational source, but awareness did not have significant correlation with age and being menopausal.

Conclusions: Based on the findings of this study, the rate of participants' correct answers was lower than 50%.

Key message: It is suggested to enhance women's awareness level through all sources including television, radio, journals, newspaper and medical staffs, since education is the most important tool in any prevention programs.

Keywords: menopause, awareness, symptoms, complications, prevention

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INTRODUCTION

Population structure is constantly changing; and for that matter, despite it having a young generation, the number of aging citizens in Iran is increasing. Based on the last available statistics, 2,810,927 people in Iran's population are older than 64. In Iran, life expectancy age is higher than its universal average value. Since menopause age is constant, an increase in life expectancy has resulted in an increase of the menopause period in women.¹ The majority of woman population passes about one third of their lives in the menopause period²; that is almost all women experience this period.³ The aging population of the United States of America is the largest society receiving care related to human illnesses and needs.⁴ It must be noted that menopause is the end of fertility period and occurs within the age of 40 to 60.⁵ Thinking about menopause should not cause any anxiety, since all periods of the life are beautiful and it is not wise to compare them with each other.⁶

Menopause symptoms are hot flush, night sweats, sudden perspiration, exhaustion, dizziness vaginal dryness and dyspareunia.^{3,7,8} Indeed, menopause, leads to several physiological changes in women. Hot flush is the most important symptom of menopause and most women complain of it. About 50% to 80% of women report hot flushes in the ages before and after menopause.⁹

Although menopause is not an illness, mortality and morbidity rates are enhanced in menopausal women. The effects of this physiological phenomenon include vaginal changes (drying up and thinning of the mucus, dyspareunia, and an increase the chance of vaginal infection), bones' thinning (decrease in length and density of the bones and osteoporosis), behavioral changes (perspiration, irritable, depression, and low concentration), urinary changes (feeling pain or soreness during urination, urine leakage with cough, sneeze, and laugh), increase of body fat content around the waist (weight increase), and low desire for sexual activity.⁷

Women's awareness of menopause is various based on multiple factors; their age; the number of births; social, economic, cultural, and education status; and geographical factors.¹⁰ Most of women reach menopause age without having adequate knowledge about the events of this period and the ways to deal with the phenomenon.¹¹ In the societies where women have high information about menopause, the consequences of the phenomenon are less obvious.¹² When women are well-versed in the symptoms and complications of menopause, they are able to tolerate its complications in a better manner and prevent occurrence of its serious and irreversible consequences through appropriate treatments. Midwives, who are in constant contact with most of women during different period of their lives, play a key role in transferring information and curing the effects of menopause.

Regarding the importance of women's awareness level about the menopause phenomenon in their mental, psychological, and physical health, as well as the low number studies in Iranian women, this research was conducted to assess women's awareness level of symptoms and complications of menopause and to prevent these complications.

METHODS AND MATERIALS

This cross-sectional study was conducted on 220 women, aged 40 years or higher, who were receiving services with selective health care centers. Using the sample size estimation formula in a limited society with a confidence level of 95%, 220 women were investigated in this research. First, three urban health care centers were selected using clustering sampling method and then the research was conducted using regular random sampling method during 6 months. The tool for gathering the needed data in this research was a questionnaire that was designed through study of several books and articles; also that validity and reliability of the questionnaire was determined before its application. The questionnaire included four sections; section 1, socio-individual characteristics (nine questions); section 2, questions about participants' awareness level of menopause symptoms and complications (thirteen questions); section 3, questions about the methods used to prevent menopausal complications (eighteen questions); and section 4, three questions including information about hormone replacement therapy, participants' information source about hormone replacement therapy, and their ideas about the best source of information for obtaining further information about menopause. The questionnaire, after passing approval from ethical committee of the university, was offered to eligible volunteer women to fill in a one-step process.

In this questionnaire, thirteen questions about symptoms and complications of menopause and eighteen questions about women's awareness level to prevent these complications were multiple choice questions in which one choice was correct, two choices were incorrect, and one choice was "I do not know". The "correct", "I do not know", and "incorrect" choices were assigned scores of 1, 0, and -1,

respectively. It is worth to mention that this scoring system was carried out based on methods used in some articles and as well as counseling with statistics experts.

Based on total achieved scores, participants were divided into three groups; women under the percentile of 25 were placed in the group of low awareness; women in percentiles between 25 to 50 were placed in the group of average awareness; and women in percentiles higher than 50 were placed in the group of good awareness.

In this research, awareness level was measured in three fields; awareness of symptoms and complications of menopause; awareness of methods for prevention of menopause complications; and overall awareness of the symptoms, complications, and the methods for prevention of menopausal complications. The findings of this study were analyzed through descriptive and inferential statistical methods. The results were arranged as absolute and partial frequency distribution tables and then were analyzed using SPSS software package.

RESULTS

The results of this study indicated that out of 220 studied women with the average age of 47.3, 47.7% was placed in age group of 40 to 44, 27.3% in the group of 45 to 49, 9.5% in the group of 50 to 54, and 15.5% in age group upper than 54. The majority of participants (51.8%) had 3 to 4 children, 82.7% of them were housewives, 39.5% of had high school education, 60.9% of had an average income, 91.8% were married, and finally 70% of them were non-menopause.

In this study, 85% of the participants had read or heard some topics about menopause from their relatives (26.8%), friends (25.5%), health care staffs (20%), books and journals (10%), and television or radio (8.6%). The findings of individuals' responses to questions about their awareness of symptoms, complications, and applied methods for prevention of menopausal complications were shown in Tables 1 and 2.

Based on total score of participants' correct answers, 44.1% of them had good awareness, 30.9% of them had average awareness, and 25% of them had low awareness of symptoms and complications of menopause. Besides, 45.9% of participants had good awareness, 26.8% of them had average awareness, and 27.3% of them had low awareness of the methods applied for prevention of

Table 1. Absolute and partial frequency distribution about awareness of studied samples of the symptoms and complications of menopause.

| | Response | | | | | |
|---|----------|------|-----------|------|---------------|------|
| | Correct | | Incorrect | | I do not know | |
| | N | (%) | N | (%) | N | (%) |
| Menopause symptoms and complications | | | | | | |
| Menopause is a natural phenomenon | 173 | 78.6 | 16 | 7.3 | 29 | 13.1 |
| Irregular menstruation is the sign of beginning of the menopause period | 158 | 71.8 | 26 | 11.8 | 36 | 16.4 |
| The average age of menopause period is 45 to 55 years | 162 | 73.6 | 23 | 10.5 | 35 | 15.9 |
| The most common symptom of menopause is hot flush | 44 | 20.7 | 66 | 30.0 | 105 | 49.3 |
| Backache is the main cause of vertebra bone fracture | 150 | 68.2 | 33 | 15.0 | 37 | 16.8 |
| Menopause women have sleep disorders | 129 | 58.6 | 8 | 3.6 | 83 | 37.6 |
| Smoking women are inclined to be menopause sooner | 95 | 43.2 | 70 | 31.8 | 55 | 25.0 |
| The skin of menopause women gets thick and wrinkled | 57 | 25.9 | 72 | 32.7 | 91 | 41.4 |
| Intercourse in menopause women is with pain | 50 | 22.7 | 48 | 21.8 | 120 | 54.4 |
| Menopause women are more inclined to have sore and frequency of urination | 35 | 15.9 | 96 | 43.6 | 80 | 36.5 |
| To bones are fragile and porous during the menopause period | 173 | 78.6 | 7 | 3.2 | 40 | 18.2 |
| Heart diseases are more common during menopause period | 64 | 29.1 | 84 | 38.2 | 72 | 32.7 |
| Diabetes is more common during menopause period | 67 | 30.5 | 64 | 29.1 | 89 | 40.4 |

menopausal complications. Finally, based on their total score, 48.6% of them had good awareness, 24.1% of them had average awareness, and 27.3% of them had low awareness.

The statistical analyses showed that the level of women's awareness of menopausal symptoms and complications was significantly correlated with their number of children, job, education level, income level, marital status, hearing or reading articles about menopause, and their information source. In addition, the awareness level of women about methods used for prevention of menopausal

Table 2. Absolute and partial frequency distribution about awareness of studied samples about applied methods for prevention of menopausal complications.

| The methods used to prevent of menopausal complications | Response | | | | | |
|--|----------|------|-----------|------|---------------|------|
| | Correct | | Incorrect | | I do not know | |
| | N | (%) | N | (%) | N | (%) |
| a. For reducing hot flush | | | | | | |
| 1. Avoid eating hot and spicy meals | 64 | 29.1 | 79 | 35.9 | 77 | 25.0 |
| 2. Avoid hot and crowded places | 97 | 44.1 | 58 | 26.4 | 65 | 29.5 |
| 3. Giving up smoking | 109 | 49.5 | 32 | 14.6 | 79 | 35.9 |
| 4. Wearing several thin shirts in winter (instead of thick and warm clothes) | 32 | 14.5 | 166 | 75.5 | 13 | 5.9 |
| 5. Avoid drinking coffee | 92 | 41.6 | 74 | 33.6 | 50 | 22.7 |
| 6. Having deep breathes during hot flushes | 73 | 33.2 | 102 | 46.4 | 37 | 16.8 |
| b. Reducing the other complications | | | | | | |
| 1. Drinking one glass of milk or yogurt before going to bed (to have a sound sleep) | 156 | 70.9 | 19 | 8.6 | 39 | 17.7 |
| 2. Adequate sleep and daily activities (for elimination of fatigue and irritability) | 137 | 62.1 | 51 | 23.2 | 28 | 12.7 |
| 3. Study and mediation (improving the memory) | 130 | 59.1 | 46 | 20.9 | 40 | 18.2 |
| 4. Applying lubricating creams during intercourse (to reduce dyspareunia) | 89 | 40.5 | 22 | 10.0 | 100 | 45.5 |
| 5. Consuming milk, yogurt, and cheese (for bones health) | 185 | 84.1 | 4 | 1.8 | 31 | 14.1 |
| 6. Regular exercising (for bones health) | 177 | 80.4 | 18 | 8.2 | 25 | 11.4 |
| 7. Taking calcium tablet or syrup (for bones health) | 74 | 33.6 | 67 | 30.5 | 71 | 32.4 |
| 8. Quit smoking and keeping a suitable weight (to decrease heart disease rate) | 124 | 56.4 | 64 | 29.1 | 28 | 12.7 |
| c. Routine checkups | | | | | | |
| 1. Annual mammography (the early recognizing of breast cancer) | 173 | 78.6 | 24 | 10.9 | 23 | 10.5 |
| 2. General medical examination (every 5 years) | 4 | 1.8 | 181 | 82.3 | 35 | 15.9 |
| 3. Pap smear and pelvis examination | 149 | 67.7 | 19 | 8.6 | 52 | 23.7 |
| 4. Visiting doctors in the case of having bleeding | 193 | 87.7 | 13 | 5.9 | 14 | 6.4 |

complications was significantly correlated with their job, education level, hearing or reading about menopause, and their information source, while there was no significant relationship between this factor and the other parameters.

DISCUSSION

Based on the results of this study, 44.1% of participants had good awareness, 30.9% of them had average awareness, and 25% of them had low awareness of complications and symptoms of menopause. Moreover, 45.9% of women had good awareness of methods used for prevention of menopausal complications while 26.8% and 27.3% of them had average and low awareness of that, respectively. In a research conducted in Taiwan, it was found that 53% of women had good information about menopause.¹² Another study, conducted in Tehran, reported that 27.6% of participants had good awareness of menopause. Furthermore, a study conducted in Qazvin on women revealed that 14% of them have adequate awareness, 35.1% of them had average awareness, and 36.1% had a low level of information about menopause.⁷

The information source for the majority of participants in this study, by the order of importance, was their relatives, friends, and health care staffs; while in some other studies, the most important information source was papers and journals.¹²⁻¹⁴ In other studies conducted in Mexico,¹⁵ USA,¹⁶ and Canada,¹⁷ the women mentioned mass communications, medical doctors, and relatives as the most important information source, respectively.

Women's good awareness of symptoms, complications, and prevention of menopausal complications in age group of 45 to 49 was more considerable than the other groups. However, the overall awareness in menopause women older than 54 (55%) was more than that of the other groups but there was seen no significant statistical difference. Also, in some other studies there any significant relationship between age and awareness level was not seen.⁷

Regarding the number of children, the awareness level of the symptoms, complications, and prevention methods for menopausal complications in women with one or two children was higher than those with more than four children; and this was a significant difference about awareness level about

menopausal complications, symptoms, and preventions methods ($p = 0.006$). Awareness level also was significantly correlated with the number of children and number of pregnancy^{18,19}; however another study implied lack of such correlation.²⁰

Based on the collected data, awareness level in women with higher education levels was significantly higher than those with low education (illiterate, primary school, and secondary school), as 100% of women with college education had sufficient knowledge about applied methods for prevention of menopausal complications ($p = 0.01$, $p = 0.000$, $p = 0.000$). Also, it was found in other studies that education offers such knowledge to the women.^{10,18–20}

Regarding income level, awareness level about symptoms and complications of menopause in the women with good income level was significantly higher than that of those with average or low income ($p = 0.001$). However, for methods that were used for prevention of menopausal complications and the general awareness, there was not seen any significant difference in term of income level. Families' economic level was significantly correlated with their awareness level; as for those with low incomes, awareness level was lower.^{10,21} Nevertheless, it must be mentioned that another study reported lack of such a significant relationship.²⁰

The majority of women with good awareness of symptoms and complications of menopause (46.5%) were those who have read or heard about menopause which was not assumed as a significant difference; while most of them with good awareness (49.7%) and adequate general information (52.9%) about the methods used for prevention of menopause effects were those who have read or heard some articles about it ($p = 0.000$, $p = 0.000$), which was assumed as a significant difference. Considering participants' information sources, most of women whose information source was health care staffs, radio or television, and reading books or journals had good awareness, and this difference was statistically significant ($p = 0.000$) for all three fields (symptoms, complications, applied preventing methods, and general information). Also, other studies have reported a significant relationship between awareness level about symptoms, complications, and prevention methods of menopausal complications and obtaining information through hearing and reading articles.^{1,21}

The obtained data also indicated that awareness level in menopause and non-menopause women had no significant difference. In a research conducted in Taiwanese woman, it was also reported that there was no significant difference between these two groups and in some cases non-menopause women awareness was higher than menopause women.¹²

In this research, 60.5% of studied women had no information about hormone replacement therapy (HRT) during menopause period and most important information source in this area was health care staffs. In Qazvin, 33.2% of women were aware of HRT⁷; however, in general, women have low level of information about HRT.²²

The majority of women participated in this study (< 35%) were inclined to achieve information through educational courses or television while a low share of them chose radio as their information sources.

The majority of studies mentioned the relationship between high awareness level and low rate of symptoms and complications of menopause, promotion of health status, and quality of life.^{12,21} It must be noted that it is highly recommended to encourage schools, other educational centers, medical care staffs, and public health sector to woman education about menopause, since education enhances general awareness and health programming.¹⁰

Based on the findings of this study, which was conducted on women with the age of 40 or higher (ages around menopause or after it) in Iran, the rate of participants' correct answers about symptoms, complications, and prevention methods of menopausal complications was lower than 50%. As a result, an educational program which is the most important approach for empowering woman, is strongly needed. Regarding the fact that women who read or heard information from health care staffs, journals, television, and books had higher awareness level about menopause, it is suggested to enhance women awareness level through all information sources including television, radio, journals, newspaper, medical doctors, and medical staffs – since education is one of the most important tools in any prevention program.

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