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REVIEW

# Social Determinants of Health in Menopause: An Integrative Review

This article was published in the following Dove Press journal:  
*International Journal of Women's Health*

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**Abstract:** Menopause is one of the most important reproductive health issues of women. Because of rising life expectancy, by the year 2030, the global population of menopausal women is expected to include 1.2 billion people. The purpose of the present study is to provide a comprehensive assessment of existing studies on the relationship between social determinants of health and menopause to attract the attention of researchers and health providers to this critical issue. In present integrative review, articles for menopause published from Jan 1990 to Jan 2019 in databases including MEDLINE, ISI Web of Knowledge, Scopus, Google Scholar, IranDoc, IranMedex, MagIran and SID in English and Persian languages were extracted. After the assessment of the inclusion and exclusion criteria, 40 articles were selected and reviewed. Some social determinants of health are related to the health of women in menopause. Cultural factors, lifestyles (nutrition, exercise, tobacco use, etc.), family support, educational level, employment, economic status, marital status, and the number of pregnancies and childbirth are among the social determinants of health that present research assessed them. The need for education, improving emotional and social support, planning for lifestyle enhancement, and improving socio-economic status is felt, which results in promoting women's health during menopause.

**Keywords:** menopause, lifestyle, cultural factor, socioeconomic status

## Introduction

According to the World Health Organization, health is defined as a state of complete physical, mental, and social welfare, and not merely the lack of disease or infirmity. Today, global health systems draw their plans based on family and women's health.<sup>1</sup> The aging period of women is associated with a natural occurrence called menopause; its principal characteristic is a disability to fertility and reproduction. Menopause, which means full stop of menstruation due to the lack of estrogen production from ovaries, is considered as a natural occurrence in women's lives.<sup>2</sup> Most women experience menopause at the age of 45 to 54 years old. Still, the average age of menopause is the age of 51. Researches have indicated the same results in Iran. Researchers estimate by the year 2030, 1.2 billion people will be around at the menopausal and postmenopausal age.<sup>3</sup> By the year 2022, about 5 million women will be at menopausal age in Iran.<sup>2</sup> Because of increasing life expectancy, women are expected to spend on average one third of their life in postmenopausal period.<sup>4</sup> Major issues of menopausal age are physical, psychological and sexual problems, including vasomotor symptoms (hot flashes and night sweats), vaginal dryness and dyspareunia, urogenital atrophy, depression, tensions, headache, insomnia, lack of energy, fluid retention, back pain, difficulty in

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concentration, confusion, and cognitive decline.<sup>5,6</sup> The main reason for menopausal symptoms is the reduction of estrogen in the ovaries.<sup>7</sup>

As stated by World Health Organization, SDH (social determinants of health) defined as “situations in which people are born, nurture, work, live, and the broader set of forces and systems determining the conditions of daily life.” These forces and systems include economic plans and policies, development programs, social standards, social strategies, and political structures.<sup>8</sup> Menopause is a complex phenomenon that involves physical, psychological, and social changes in life. On the other hand, the experience of menopause is influenced by cultural norms, social factors, and personal knowledge about menopause.<sup>9</sup> Although women experience similar symptoms in menopause due to hormonal changes, but additional factors include age at menopause, education, employment, individual and cultural differences, health status, type of menopause (natural or surgical), stress, environmental conditions and social communications effect on menopausal experiences.<sup>10</sup> Thus, the aim of present integrative review is to identify social determinants of health in menopause.

## Materials and Methods

An integrative review was conducted using the guide published by the University of York (Center for Reviews and Dissemination, University of York).<sup>11</sup> In the present Study; we managed to find social determinants of health in menopause using terms shown in Table 1.

The following databases were searched for relevant literature: MEDLINE, ISI Web of Knowledge, Scopus, Google Scholar, and the Iranian Info Net (IranDoc, IranMedex, MagIran, and SID) from January 1990 to Jan 2019. The following criteria were used to decide which articles to be included:

1. Document type: article;
2. Language: English and Persian;
3. Study design: quantitative and qualitative;
4. Existing essential keywords in title or abstract

Articles were excluded if they were not in English or Persian and if the full-text was not available.

Two authors were asked to read the title and abstract of the studies obtained and to read the full texts finally to decide which articles had met the criteria to be included in the present integrative review. The variables of interest were the first author's name, year, country, study design, and study results. The two authors negotiated any disagreements to achieve agreement.

**Table 1** Combination of Words Used to Search Articles

(“Culture”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Life Style”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Social Support”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
((“Education”[Mesh]) OR “Educational Status”[Mesh])) AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Employment”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Economics”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Marital Status”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))
(“Culture”[Mesh] OR “Life Style”[Mesh]) OR “Social Support”[Mesh] OR ((“Education”[Mesh]) OR “Educational Status”[Mesh])) OR “Employment”[Mesh] OR “Economics”[Mesh]) OR “Marital Status”[Mesh] AND ((“Menopause”[Mesh]) OR “Post menopause”[Mesh]))

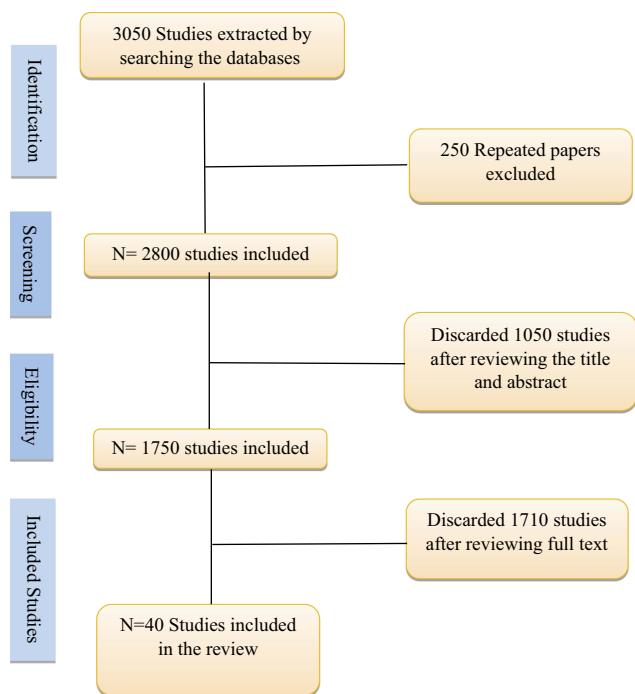
In order to evaluate articles, the STROBE tool (Strengthening the Reporting of Observation Studies in Epidemiology) and the COREQ tool (Consolidated Criteria for Reporting Qualitative Research) were used.

Overall, 3050 studies were extracted. After removing repeated studies (n=250), the remaining 2800 articles were assessed, and an additional 1050 irrelevant studies were excluded. Of the remaining 1750 papers, 1710 articles were also removed because they were not eligible, and eventually, 40 full-text articles were included in the analysis (Figure 1). Table 2 shows the articles we covered in the present study.

## Results

### Cultural Factors

The attitude toward menopause is influenced by the culture and beliefs of the community.<sup>12–14</sup> In Western culture, negative words like “fertility failure” or “ovarian failure” are used for menopause, which means that menopause is a condition that requires treatment, not a normal transition period in women's lives. Western countries that do not necessarily place high importance on fertility often place a high value on youthfulness. Consequently, in these societies, the menopause reflects age progression and loss of youth combined with the loss of sexual attractiveness and



**Figure 1** Flowchart of study selection progress.

can lead to negative attitudes towards menopause. In Arab culture, negative words are used for “menopause,” and this reflects the negative attitude of these communities towards the phenomenon of menopause. Women in Arab culture place a high priority on fertility, and when they experience the inability to fertile as a result of menopause, describe this period as “desperate age.” The severity of menopausal symptoms is related to the attitude toward this phenomenon. Japanese menopause women report the fewest complaints of menopausal symptoms and have the lowest incidence of breast cancer and menopausal complications. Apart from the genetic factor that certainly affects this phenomenon, the role of culture should not be ignored because, in their opinion, it is a positive phenomenon. Turkish women complain more about menopause, according to more than 90% of them, menopause is a negative phenomenon. Most of these women describe this period as “the end of youth, feeling old, losing femininity, hormonal changes, and the cessation of menstruation.” Consequently, this view leads to a negative attitude toward menopause.<sup>15</sup>

Researchers found that Mayan women are considered to be respected as elderly when they enter menopause, taking care of their children is over. Their brides perform many of their routine tasks. In a culture where aging raises the status of a woman and menopause is considered as a

sign of experience, it is natural for women to consider menopause as a time of freedom.<sup>16</sup> Chinese women consider menopause as “rebirth,” and, in their view, they can save energy that was previously lost due to fertility and childbirth. Because of this positive attitude to menopause, the lowest amount of drugs are used for treating menopausal symptoms.<sup>17</sup> In a study by Hunter et al (2009), Greek women did not consider menopausal symptoms unlikely to receive medical treatment. According to this research, non-European women have a better attitude toward menopause and fewer hot flashes. Also, menopause is not considered as a medical problem in many developing countries, so women pay less attention to symptoms and accept menopause as a normal part of life.<sup>16</sup>

Research shows that religion has a positive impact on menopause. The prayer, which is a kind of Islam practice, is regarded as a type of meditation. Several studies have examined the role of prayers for the acceptance of life crises such as illness, discussed the abundant and important psychological roles of religion, and argued that religion helps individuals better understand and cope with life events. In this way, Iranian women consider menopause as a natural happening and God’s predetermination. So they can cope with this challenge well regarding their religious beliefs. Also, according to Islam, prayer and sexual intercourse are forbidden during the menstrual period. Consequently, Iranian women consider menopause as a time to relieve menstrual problems, which can pray and have a sexual relationship.<sup>18</sup>

The culture and attitude of individuals towards menopause can affect the severity of menopausal symptoms, with a negative attitude toward menopause exacerbates symptoms in this period.<sup>18–20</sup> Also positive attitude toward menopause improves the quality of life in this period.<sup>2</sup>

## Lifestyle

Studies indicate that there is a relationship between lifestyle (including nutrition and body mass index) and the severity of menopausal symptoms.<sup>5</sup> Sociocultural factors can affect people’s lifestyle and nutrition. In Japanese culture, the incidence of menopausal complications and cancers has declined noticeably due to increased consumption of soy and phytoestrogens, which contain isoflavones.<sup>13</sup> Due to the high content of phytoestrogens in the Asian diet, the severity of menopausal symptoms is low.<sup>15,21</sup> Exercise reduces the severity of menopausal symptoms.<sup>15,22–24</sup> According to studies, the prevalence of

**Table 2** Studies on Social Determinants of Health in Menopause

<b>First Author</b>	<b>Year</b>	<b>Country</b>	<b>Title</b>	<b>Study Design</b>	<b>Results</b>
Gold <sup>30</sup>	2001	United States	Factors Associated with Age at Natural Menopause in a Multiethnic Sample of Midlife Women.	Cross-sectional	Smoking, lower educational level, being single, unemployment, and history of heart disease were all independently associated with earlier age at menopause, while parity, prior use of oral contraceptives, and Japanese race/ethnicity were associated with later age at menopause.
Lawlor <sup>40</sup>	2003	United Kingdom	The association of socioeconomic position across the life course and age at menopause: the British Women's Heart and Health Study.	Cross-sectional	Adverse socioeconomic conditions in childhood are associated with an earlier age at menopause.
Shiu-Yun Fu <sup>14</sup>	2003	Australia and Taiwan	Cross-Cultural Menopausal Experience: A Comparison Of Australian and Taiwanese Women.	Cross-sectional	There were no significant differences between areas of social functioning, mental health, and menopause status. The results suggest that cultural factors may affect the menopausal experience.
Melby <sup>13</sup>	2005	–	Culture and symptom reporting at menopause.	Systematic Review	Both biological variation and cultural differences contribute to the menopausal experience.
Hardy <sup>39</sup>	2005	England, Scotland, Wales.	Social and environmental conditions across the life course and age at menopause in a British birth cohort study.	Birth cohort study	There is a relationship between socio-economic circumstances in childhood, but not in adulthood and age at natural menopause.
Parvin <sup>4</sup>	2007	Iran	The effect of supportive care therapy on the mental health of postmenopausal women.	Quasi-experimental research	The supportive therapeutic group has an impact on the mental health of postmenopausal women.
Dratva <sup>42</sup>	2007	Switzerland	Variability of reproductive history across the Swiss SAPALDIA cohort—patterns and main determinants.	Birth cohort study	Smoking, parity and physical activity noticeably affect the age at menopause.
Parsons <sup>43</sup>	2007	Lebanon, Morocco, Spain, the United States	Women's midlife health across cultures: DAMES comparative analysis	Mixed method research	Menopausal symptoms may, in many cases, be affected by some health concerns of middle-aged women.
Schwarts <sup>5</sup>	2007	Pomerania	Menopause and determinants of quality of life in women at midlife and beyond: the study of health in Pomerania (SHIP).	Cross-sectional	Age, socioeconomic status, physical and sexual abuse, perceived social support, nutrition, BMI and chronic diseases affect QOL at menopause.
Hess <sup>44</sup>	2008	Pittsburgh	Pregnancy and birth history influence women's experience of menopause	Longitudinal cohort study	Nulliparous women expressed more negative attitudes toward menopause than multiparous women.
Dratva <sup>27</sup>	2009	9 European countries	Is age at menopause increasing across Europe? Results on age at menopause and determinants from two population-based studies.	Cohort study	Current smoking was the most critical determinant of age at menopause. Besides, obesity and low physical activity were dramatically associated with earlier age at menopause.

(Continued)

**Table 2** (Continued).

First Author	Year	Country	Title	Study Design	Results
Ansari <sup>35</sup>	2009	Iran	Evaluation of socio-economic factors related to the natural menopause age in Zahedan, southeastern Iran	Cross-sectional	The sociocultural factors that significantly related to the early age of menopause were: never married, low-income level, low social status, early married women, and illiterate women.
Delshad <sup>33</sup>	2009	Iran	Effect of husband's education on social support perceived by postmenopausal women	Clinical trial	Husband's education can affect the understanding of women's social support.
Jamshidi manesh <sup>12</sup>	2009	Iran	Women's experience of menopause: Qualitative study	Qualitative research	Women consider menopause as a natural occurrence, but concern about the complications affects their quality of life.
Goberna <sup>45</sup>	2009	Spain	Sexual experiences during the climacteric years: what do women think about it?	Qualitative research	Social, family, and structural factors had the most significant influence on the sexual relationship during menopause.
Lee <sup>19</sup>	2010	Korea	Factors Influencing the Severity of Menopause Symptoms in Korean Post-menopausal Women	Cross-sectional	Sociocultural factors, lifestyle, attitudes to menopause, and psychological status can be associated with the severity of menopause symptoms, specifically in Korean menopausal women.
Sheykhan <sup>38</sup>	2010	Iran	Sexual satisfaction and some factors are affecting it in postmenopausal women	Descriptive research	The overall level of sexual satisfaction was related to the age of menopause, female education, and husband's education.
Delavar <sup>21</sup>	2011	Iran	Factors affecting the age at menopause and frequency of menopausal symptoms in northern Iran	Cross-sectional	Low educational level, early age at menarche, and oral contraceptive use were Significantly related to menopausal symptoms.
Noroozi <sup>2</sup>	2012	Iran	Using the behavioral analysis model for assessing the quality of life in menopause women in Birjand	Cross-sectional	The quality of life of menopausal women was related to educational level, economic level, and health status.
Jones <sup>15</sup>	2012	–	Menopause and the influence of culture: another gap for Indigenous Australian women?	Systematic Review	Research shows a significant difference across cultures in the menopausal experience. Biological, psychological, social, and cultural factors are associated with either positive or negative attitudes of menopause in different cultures.
Giannuli <sup>25</sup>	2012	Greece	Determinants of quality of life in Greek middle-aged women: a population survey	Cross-sectional	Normal BMI, married status, higher education, employment, good financial status, physical activity, and a healthy diet were associated with higher QOL.

(Continued)

**Table 2** (Continued).

First Author	Year	Country	Title	Study Design	Results
Abdollahi <sup>29</sup>	2013	Iran	The menopausal age and associated factors in Gorgan, Iran	Cross-sectional study	Menstrual and fertility factors affect menopausal age while socioeconomic factors are not effective
Wang <sup>20</sup>	2013	Taiwan	Depressive symptoms in Taiwanese women during the pre- and post-menopause years: Associations with demographic, health, and psychosocial characteristics	Cross-sectional	Depressive symptoms were related to lower-income, smoking, consuming alcohol, having chronic diseases, not exercising regularly, having more severe menopausal symptoms, and more negative attitudes toward menopause.
Shobeiri <sup>36</sup>	2013	Iran	The study of the relationship between some socioeconomic factors and menopause in Hamedan health centers	Cross-sectional	There is a significant relationship between the age of menopause and physical activity, income level, smoking in the family, and education.
Barat <sup>37</sup>	2013	Iran	Factors affecting the life process of menopause women.	Cross-sectional	There is a significant relationship between educational level, economic status, and age with two dimensions of psychosocial and physical quality of life
Makvandi <sup>7</sup>	2013	Iran	Frequency and severity of menopausal symptoms and their relation with individual factors in women before and after menopause in Ahvaz city	Cross-sectional	Female athletes, non-smokers with higher incomes, and higher education had higher scores.
Jalili <sup>24</sup>	2014	Iran	The relationship between physical activity and the severity of menopausal symptoms in postmenopausal women in Ahvaz	Cross-sectional	Exercise plays an essential role in stabilizing the natural circulation and other physiological activities of the body during menopause.
Shariat <sup>18</sup>	2014	Iran	Relationship of perceived social support with women's experiences in menopause	Descriptive research	Perceived social support has a positive effect on the experiences of menopause, and supporting is the best predictor of experiences in menopause.
Ghorbani <sup>3</sup>	2014	Iran	Attitudes toward menopause among middle-aged women in Semnan, Iran.	Cross-sectional	Menopausal status, educational level, marital status, place of residence, and employment were not related to women's attitude.
Bahri <sup>16</sup>	2015	Iran	A look at menopausal studies over time: from a biomedical approach to comprehensive approaches	Systematic Review	The psychosocial approaches affecting menopause were evaluated.
Alizadeh <sup>10</sup>	2015	Iran	Social determinants and reproductive factors of the menopausal symptoms among women in Tabriz-Iran	Cross-sectional	The quality of life of the women during menopause has a negative relationship with age and number of children, whereas it improves with higher educational levels and employment.

(Continued)

**Table 2** (Continued).

First Author	Year	Country	Title	Study Design	Results
Sehati <sup>1</sup>	2015	Iran	Individual-social predictors of public health in postmenopausal women in Langrud: a population-based study	Cross-sectional	Marital status variables, chronic diseases, economic status, and education are the main predictors of general health in postmenopausal women.
Ghorbani <sup>28</sup>	2015	Iran	Association between the quality of life, menopausal status, and sociodemographic factors among middle-aged women in Iran	Cross-sectional	Sociodemographic characteristics including age, number of children, household income, and BMI were related to QOL.
Mirhaghjou <sup>23</sup>	2016	Iran	Quality of life and its determinants in postmenopausal women: a population-based study	Cross-sectional	Age, husband education, and BMI were related to QOL in menopause.
Golmakani <sup>6</sup>	2016	Iran	Body mass index and its relationship with quality of life in postmenopausal women	Descriptive research	Body mass index did not affect the quality of life of postmenopausal women. Athletic women were more likely to have a better quality of life.
Ahuja <sup>26</sup>	2016	India	Age of menopause and determinants of menopause age: A PAN India survey by IMS	Cross-sectional	There was a correlation between the age of menopause and socio-economic situation, married status and number of childbirth.
Bahri <sup>34</sup>	2016	Iran	The effects of menopausal health training for spouses on women's quality of life during menopause transitional period	Clinical trial	The husband's training improves the quality of life in women during the menopausal transition.
Aparicio <sup>22</sup>	2017	Spain	Association of objectively measured physical activity and physical fitness with menopause symptoms. The Flamenco Project	Cross-sectional	There is a weak association between physical activity and menopausal symptoms.
Asghari <sup>46</sup>	2017	Iran	Effect of aerobic exercise and nutrition education on quality of life and early menopause symptoms: A randomized controlled trial	Randomized controlled trial	Nutrition education and exercise can improve quality of life in menopause period.
Shin <sup>41</sup>	2017	Korea	Relationship between age at last delivery and age at menopause: The Korea National Health and Nutrition Examination Survey	Cross-sectional	Research indicates that an increased number of pregnancies are related to older age at menopause.

menopausal depression among athlete women is less than others. Therefore, doing an exercise can play a useful role in decreasing depression.<sup>20</sup> Physical activity improves the quality of life by reducing the severity of vasomotor symptoms and enhancing self- imagine.<sup>6,25</sup>

Studies show that reducing BMI (Body Mass Index) leads to early menopause. According to these studies,

women with high BMI are more likely to produce endogenous estradiol and estrogen, which also causes a delay in menopause.<sup>26</sup> Although other studies report conflicting results, which show that obesity and decreased physical activity can lead to early menopause.<sup>27</sup> Obesity and overweight also reduce the quality of life at menopause, which is due to the increased prevalence of chronic diseases,

negative self-image, and decreased physical activity in obese women.<sup>23,25,28</sup>

Smoking can influence the age of menopause, in which smokers experience menopause at an earlier age. Some studies illustrate that smoking is the most important cause of early menopause.<sup>27,29–31</sup> Table 3 shows studies on the relationship between menopausal age and lifestyle/norms.

## Social Support

Challenges in the life of postmenopausal women make changes in their family demands. So they need more support from their families. If they do not receive support, negative attitudes include loneliness, malaise, and family problems would be developed.<sup>18,32</sup> Social support through emotional and informational assistant increases the ability of individuals to cope with stress and reduces

**Table 3** Studies on the Relationship Between Menopausal Age and Lifestyle/Norms

The First Author (Year)	Country	Study Design	Sample Size	Median Age of Menopause	Results
Gold <sup>30</sup> (2001)	United States	Cross-sectional	14,620	51.4	Smoking, lower educational level, being single, unemployment, and history of heart disease were all independently associated with earlier age at menopause, while parity, prior use of oral contraceptives, and Japanese race/ethnicity were associated with later age at menopause.
Dratva <sup>42</sup> (2007)	Switzerland	Cohort study	3119	52	Physical activity, smoking, and high BMI were independently associated with earlier age at menopause.
Ansari <sup>35</sup> (2009)	Iran	Cross-sectional	500	48	Lower educational level, being single, unemployment, low social status, and early marriage were all associated with earlier age at menopause.
Dratva <sup>27</sup> (2009)	Nine European countries	Cohort study	5288	54	Current smoking was the most determinant of age at menopause. Besides, obesity and low physical activity were dramatically associated with earlier age at menopause.
Delavar <sup>21</sup> (2011)	Iran	Cross-sectional	1620	46.6	No significant difference was observed for age in menopause, marital status, and body mass index. The nulliparous women had a significantly earlier age of menopause compared with women with at least one child.
Abdollahi <sup>29</sup> (2013)	Iran	Cross-sectional	804	48	The menopausal age in women with first pregnancy before 30 years, without pregnancy, and without delivery was lower than others.
Shobeiri <sup>36</sup> (2013)	Iran	Cross-sectional	400	50	Low physical activity, Low-income level, smoking in the family, and low level of education were associated with later age at menopause.
Schoenaker <sup>31</sup> (2014)	Australia	Systematic review	–	48.8	Smoking and low education were associated with earlier age at menopause. Being overweight and moderate/high physical activity were associated with later age at menopause.
Ahuja <sup>26</sup> (2016)	India	Cross-sectional	2,184	46.2	Lower educational level and being single were all independently associated with earlier age at menopause, while the increase in weight and BMI was associated with a later age at menopause.

psychological and physical symptoms. Studies indicate that social support has reverse and meaningful correlation with the experiences of women in menopause so that by increasing social support from different sources, physical and emotional symptoms decrease.<sup>18</sup> Husband is the most important and closest person who can support a woman in this challenge by a correct understanding of his wife's situation and problems.<sup>2,33</sup> According to the studies, emotional support of the spouses can reduce depression and anxiety and improve social relationships in menopause. Educated men are continuously looking for ways to improve their knowledge and performance about menopause, and their wives experience a higher quality of life during menopause. During menopause, men can help their wives by doing exercise with them, emotional support, teaching relaxation techniques, and spending more time with them. Therefore, improving the quality of life of women in menopause more than anything else depends on educating women and their husbands.<sup>34</sup>

According to research, after implementing an educational program for husbands, the average score of social support perceived by women was higher than before, so that the difference was meaningful. In other words, when the husband has more information about her wife's mental and physical conditions, he will be able to understand more and support her. Social support has beneficial effects on physical and mental health and prevents depression in women.<sup>33</sup>

## Education

According to research, there is a negative relationship between the level of knowledge and the severity of menopausal symptoms. That is, women with less education experience more severe symptoms, and women with higher education are more aware of menopausal symptoms and strategies to deal with it and are more likely to seek treatment for their symptoms.<sup>2,7,10,19,23,24,31</sup> Also, the average age of menopause in educated women is higher than that of uneducated ones.<sup>30,35,36</sup> In comparison to others, educated women have better health conditions and lower morbidity. The probable reason is adopting a healthy lifestyle and making informed decisions about reproductive health by them.<sup>26</sup> Studies have indicated that educated women have a higher quality of life<sup>37</sup> and fewer sexual dysfunctions during menopause. Knowing about menopause can increase orgasm in sexual intercourse, which results in sexual satisfaction.<sup>38</sup>

Husband's education also affects the quality of life of postmenopausal women, especially in the psychosocial

dimension, which may be due to a better understanding and supporting his wife.<sup>23</sup>

## Employment and Economic Situation

A growing body of research supports the notion that home-makers experience a lower quality of life and higher menopausal symptoms in compare to employed women.<sup>19,23</sup> Improving the financial position of women improves the quality of life in menopause, which can be due to increased access to health care services and receiving counseling to manage menopausal symptoms.<sup>2,23,24,28,37</sup> Sexual satisfaction is higher in employed women, which is due to increased self-esteem because of financial independence.<sup>38</sup>

It is believed that lower socio-economic condition leads to early menopause.<sup>29,35,36</sup> Also, people who had an unfortunate economic situation in childhood experience earlier age at menopause, which is probably due to an increase in smoking in adulthood.<sup>39,40</sup>

## Marital Status and Number of Pregnancy and Childbirth

Married women have a better general health status than single ones.<sup>1,41</sup> According to research, unmarried women experience more severe symptoms in menopause compared to married ones.<sup>15,19,42</sup> The probable reason for this is that married women have better social relationships and family supports.<sup>23,37</sup> Also, single women experience menopause at an earlier age compared to married and divorced women, which exposes them to complications such as the increased risk of osteoporosis and cardiovascular disease.<sup>26,30,35</sup> Research indicate that married women have a higher quality of life at menopause than single women and widows. Post-menopausal women with a higher quality of life are more likely to learn, do exercise and physical activity, and have healthy nutrition and behaviors.<sup>25,43</sup> Also, the increase in the age of the last pregnancy causes an increase in the age of menopause. Increasing the number of pregnancies and childbirth also raises the age of menopause, which may be due to increased estrogen and progesterone secretion due to increased uterine and ovarian activity and breastfeeding.<sup>29,30,44–46</sup>

## Conclusion

Regarding the broad impact of social determinants of health on menopause, the need for education and counseling for improving attitudes of women and their husbands

toward menopause is felt. Besides, improving emotional and social support, planning for lifestyle enhancement, and improving socio-economic status is needed, which results in promoting women's health during this period.

## Disclosure

The authors report no conflicts of interest in this work.

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