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Original Article

Psychiatry/Mental Health Section

Health Literacy and its Relationship with Quality of Life in Postmenopausal Women

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ABSTRACT

Introduction: Menopause is considered as a unique event in women's life. Women spend more than one third of their lives in postmenopausal period. Accordingly, paying attention to quality of life of women in terms of public health during menopause is crucial. Moreover, health literacy is one of the factors influencing the health of women.

Aim: To evaluate the health literacy and its relationship with the quality of life of postmenopausal women.

Materials and Methods: This cross-sectional descriptive study was carried out on 194 postmenopausal women admitted to health centres of Jahrom, Iran, in 2017. Data were collected using health literacy and quality of life questionnaires. After data collection, they were analysed using descriptive statistics, regression analysis and Pearson correlation coefficient and SPSS software.

Results: The research results revealed that the mean age of the subjects was 59.67±6.57. The mean score of quality of life and health literacy in postmenopausal women was 47.46±19.48 and 81.29±26.99, respectively. A significant relationship was found between the quality of life and health literacy ($p<0.001$, $r=0.4$). In addition, demographic variables of age ($p<0.001$), education ($p<0.001$), job ($p<0.001$), and living place ($p=0.001$) showed significant relationship with health literacy.

Conclusion: Given the relationship between health literacy and the quality of life of postmenopausal women, paying more attention to health literacy in health promotion programs seems to be essential. Thus, health care providers should take interventions to improve the quality of life of these women.

Keywords: Cross-sectional study, General health, Iran, Menopause

INTRODUCTION

During menopausal period, the body experiences hormonal changes, reduced fertility and increased risk of sexual dysfunction and physical and mental changes [1,2]. In general, chronic diseases will result in many clinical, social and psychological problems, leading to restricted physical and mental activities of the elderly people and reduced quality of life [3]. Women spend more than one third of their lives in postmenopausal period [4]. Thus, paying attention to quality of life of women in terms of public health during the menopause period is crucial [5].

Quality of life is currently considered as one of the main challenges of health professionals and it is considered as an indicator for measuring health status in public health and medical studies [6]. With regard to the relationship between quality of life during menopause period, World Health Organisation (WHO) has recently introduced health literacy as one of the greatest determinants of the health. It is also recommended for countries to monitor and coordinate their strategic activities to promote health literacy levels in different communities [7]. While it is not still known that how health literacy affects health outcomes, many reasons suggest that most of the adverse health-related outcomes are due to lack of adequate health literacy [8]. Coping with complex health systems for humans, even with adequate level of literacy is difficult, but people with low health literacy experience more problems [9]. It is argued that inadequate health literacy is associated with individual reports of poor health status, inappropriate use of drugs, non-compliance of the physician guidelines and orders, poor control of blood glucose and blood pressure, increased prevalence of individual reports of problems caused by poor control, low health knowledge, low involvement in treatment decisions and poor communication between physician and patient [10].

Moreover, health care providers are not aware of the health literacy and reading ability of the patients and merely provide health-related information. In dealing with patients and their training, health professionals often use the terms, which are not often comprehensible for patients. Thus, the information between patients and health care providers is not completely transmitted [11]. It would result in adverse health outcomes. Thus, the first step in this regard is measuring the patient health literacy [12]. Previous research suggests that the health literacy is effective in health status and it also plays role in patients' involvement in decision making [13,14].

Despite the importance of this issue in Iran, only a few studies have been conducted in this regard. Given the increasing life expectancy of women and spending long time of life in postmenopausal period, evaluation of quality of life and health literacy of these women is essential. Hence, this research was conducted to evaluate the health literacy and its relationship with quality of life in menopause women.

MATERIALS AND METHODS

This cross-sectional study was carried out on 194 postmenopausal women admitted to health centres of Jahrom, Iran in 2017. This project was approved by the Ethics Committee of the Jahrom University of Medical Sciences (IR.JUMS.REC.1396.100).

Sampling was performed by observing all ethical issues and taking the verbal consent of subjects and ensuring them that their information would remain confidential. In this research, multi-stage sampling was used. First, Jahrom city was geographically divided into north, south, east and west regions. Then, one health centre was selected from each region and a total of four centres were finally elected to cover all of the geographical regions. Then, sampling was performed among the women who were referred to these health centres to receive the routine elderly cares and meet the inclusion criteria of study.

Inclusion criteria of study were: postmenopausal women aged 50 years and higher and having Iranian nationality. Exclusion criteria were: postmenopausal women with hearing and vision problems, women with severe disabling diseases such as neurological defects (stroke, parkinson's disease), cardiovascular disorders, chronic unstable diseases (diabetes and malignancy), severe congenital defects and restricting musculoskeletal disorders (the presence or absence of these diseases were measured by asking question to the subjects). The study by Geboers was utilised for calculation of the sample size [12] considering a power of 90%, OR=1.52 and α=0.05. According to the formula, the sample size was 200, and, by adding 20% for drop-outs, the sample size was increased to 248. Out of the 248 cases, 194 completed the questionnaire, and 54 were excluded because they didn't fill out the questionnaires completely.

Iranian Health Literacy Questionnaire (IHLQ)

Iranian Health Literacy Questionnaire (IHLQ) of Haghdoost A et al., was used to measure the health literacy levels. It consists of 33 items and 5 components. The components include: access (items 6), reading skill (items 4), understanding (items 7), evaluation (items 4) and decision-making and applying health information (items 12). All the items are scored directly, as follows: always (score 1), most times (score 2), sometimes (score 3), rarely (score 4) and never (score 5) and it finally gives an overall score-Cronbach's alpha correlation coefficients in all domains exceeding 70% of which indicates its desirable reliability [15].

36-item Short-Form Health Survey Questionnaire

This self-reporting questionnaire, used to evaluate the quality of life and health, was developed by Ware & Sherbourne [16]. It includes 36 items measuring eight domains of physical function, Role limitations due to physical health problems, bodily pain, social functioning, general mental health, covering psychological distress and well-being, role limitations due to emotional problems, (vitality, energy or fatigue), general health perceptions [16]. This questionnaire was translated by Montazeri A et al., and it was culturally adjusted to Iranian population. Its validity and reliability were also approved by Montazeri A et al., [17]. It is scored based on the number of options for each item. The maximum score would be 100 and the minimum score would be zero and the higher score would indicate better quality of life.

STATISTICAL ANALYSIS

Descriptive statistics including mean and standard deviation, and frequency distribution were used to analyse the data. Linear regression test was used to predict the percentage of variables affecting the health literacy. Pearson correlation coefficient was used to examine the correlation between health literacy and quality of life and p<0.05 was considered significant. The data were analysed using SPSS software Version 16.

RESULTS

The mean age and standard deviation of the research subjects were 59.67±0.47, 89.7% of menopausal women were married and 72.7% of them were housewives [Table/Fig-1].

Characteristics	Mean±SD
Age	59.67±0.47
Income Status (Tuman)	1,148453.60±22.03
Categories of variables	**n (%)**
Educational level	
Primary school	49 (25.3)
Secondary school	20 (10.3)
College or university	125 (64.4)
Employment status	
Housewife	141 (72.7)
Employed	17 (8.8)
Retired	36 (18.6)
Marital status	
Single	20 (10.3)
Married	174 (89.7)
Place of residence	
Rural	50 (25.8)
Urban	144 (74.2)

[Table/Fig-1]: Demographic characteristics of the participants (n=194).
$1=15000 Tuman in Iran

Based on the results of regression analysis of variables presented in [Table/Fig-2], with confidence level of 95%, it can be stated that about 0.6 percent of the level of education variable, 0.3 percent of the age variable, 0.02 percent of the job variable, and 0.22 percent of the living place variable are associated with health literacy.

	B	Std. Error	Beta	T	p-value
Age	-1.47	0.27	-0.367	-5.462	p<0.001
Education level	3.144	0.28	0.63	11.25	p<0.001
Income	8.34	0.00	0.01	0.13	0.89
Residence	13.79	4.24	0.22	3.24	0.001
Job	-7.31	1.95	-0.026	-3.73	p<0.001
Marital status	-3.34	6.27	-0.03	-0.53	0.59

[Table/Fig-2]: Correlation between Demographic characters with Health Literacy in the postmenopouse women.
p-value: Regression between demographic variables and health literacy

The [Table/Fig-3] shows the relationship between the domains of health literacy and domains of quality of life. Based on this, there is a significant relationship between the majority of health literacy domains and quality of life domains, meaning that quality of life decreases as health literacy decreases.

	Limitations in physical activities because of health problems	Limitations in usual role activities because of physical health problems	Limitations in usual role activities because of emotional problems	Vitality (energy and fatigue)	General mental health (psychological distress and well-being)	Limitations in social activities because of physical or emotional problems	Bodily pain	General health perceptions	Total quality of life
Access	-0.41**	-0.35**	-0.31**	-0.29**	-0.07	-0.35**	-0.45**	-0.31*	-0.51**
Reading skill	-0.20**	-0.15*	-0.22**	-0.24**	0.01	-0.27**	-0.26**	-0.11	-0.30**
Understanding	-0.47**	-0.36**	-0.24**	-0.32**	-0.006	-0.34**	-0.37**	-0.33**	-0.48**
Evaluation	-0.44**	-0.31**	-0.23**	-0.23**	0.06	-0.34**	-0.36**	-0.29**	-0.44**
Decision-making	-0.16*	-0.21**	-0.21**	-0.24**	0.01	-0.29**	-0.30**	-0.21**	-0.31**
Health Literacy	-0.39**	-0.35**	-0.28**	-0.32**	-0.001	-0.38**	-0.43**	-0.31**	-0.49**

[Table/Fig-3]: Correlation of health literacy with domains of quality of life in menopause women.
**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

DISCUSSION

The research results showed that health literacy has a significant relationship with all domains of quality of life. It means that quality of life decreases as health literacy decreases. Macabasco-O'Connell A et al., also reported a significant relationship between health literacy and quality of life in older patients. Patients with higher level of literacy had better quality of life [18]. Song L et al., also concluded that an adequate level of health literacy was significantly associated with increased physical and mental health scores of the quality of life in research subjects [19]. However, these results are not consistent with the results of study conducted by Zhang XH et al., [20]. The cause of this difference might be due to the different tools used to measure health literacy and quality of life. In addition, the culture and ethnicity of the subjects are among the factors affecting the health and health literacy of subjects [21,22]. Family, cultural and social impacts are also crucial in forming the people's attitudes and beliefs and they influence people interaction with the health system [23]. Thus, one of the important causes of these differences might be cultural difference.

The results showed a significant and reverse relationship between age and level of health literacy and health literacy decreases by increasing age, because reading comprehension of the elderly gets reduced. Lower health literacy in women and older age groups was related to lower education levels in these groups. These results are in line with the results of other studies [23-25].

As the age increases, there are increasing physical, emotional and self-care constraints in the elderly, some of which may be due to low health literacy. As a result, lack of significant relationship in this regard might be related to tools used in this study, since rate of correct and complete response to questionnaire was reduced in older people. So we removed the questionnaires that were incomplete and analysis was conducted on 194 people. As some similar studies, no significant relationship was found between health literacy and marital status [13,26]. The results showed a significant relationship between the level of education and health literacy. The level of health literacy in people with higher education confirms the role of education in increasing the level of health literacy, since general literacy is a basic for the level of health literacy. People with higher education also have a higher level of health literacy. Other studies have also reported similar results [25,27-31]. Low level of education, inability to write, and having limited knowledge on medical terms are factors, that affects a person's ability in successful interaction with heath care system [32]. In this research, the relationship between health literacy and job was significant. It seems that physical and mental abilities, environmental conditions and the economic and social status of people depend on their job. As a result, due to creation of more opportunities to establish social relations, having a suitable job can affect the health literacy of people.

LIMITATION

Skills such as reading, listening, and having cultural knowledge of people should also be considered. The questionnaire emphasises on reading and computation aspects, while these aspects are only one part of health literacy skills and such as understanding, assessment, judgement, decision-making, and performance is also involved in the level of health literacy.

CONCLUSION

Health literacy in postmenopausal women has an impact on the various aspects of their quality of life. Since most postmenopausal women have a good access to health care facilities, it seems the most appropriate and affordable way to improve their quality of life and it can be brought to attention of health care providers so that they hold educational and counselling meetings on issues related to menopause with a health promotion approach.

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