Health literacy and Its relationship with general health of women referring to health care centers

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ABSTRACT

Background and Objective: Health literacy is an essential element of a woman's ability to understand, process, and act on health-related information and spans health promotion and disease prevention activities. The aim of this study was to determine the status of health literacy, general health and the relationship between them in women referring to health centers.

Materials and Methods: This cross-sectional study was performed on 100 women aged 18-65 years old referred to health centers. Samples were selected randomly from among those who had the criteria for entering the study. In this study, questionnaires of Health Literacy for Iranian Adults (HELIA) and general health (GHQ-28) were used.

Results: In this study, the mean (standard deviation) of the health literacy and public health scores were 68.42 (17.29) and 27.16 (11.74) respectively. Only 21.3% of people had adequate levels of health literacy. Also, based on the results, only 41.5% of the participants were healthy in terms of general health variables. According to Pearson correlation results, health literacy was significantly correlated with the social function disorder variable and did not show a significant correlation with other general health constructs.

Conclusion: Based on the results obtained in this study, most people have an inappropriate health literacy level and, the general health status of most of them is undesirable. According to the important role that women have in family and community, it is necessary to pay more attention to the health status of this group in the community and to design and implement appropriate training programs to increase their level of health literacy.

Paper Type: Research Article.

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Introduction

One of the basic rights of every individual in the society is health, and all governments must provide the necessary conditions for the health of people. Health is a multidimensional issue that includes psychological, physical, spiritual and social dimensions. A prerequisite for a dynamic and successful society is that the community has healthy people. Thus, it is imperative all the policies of each community are in line with the health of its people (1).

Women are one of the most important and influential groups in the progress of any society. On the other hand, women are one of the most sensitive and vulnerable groups in society due to the maternal physiology that threatens them with many risks and illnesses. Therefore, it is necessary to pay more attention to the health-care system of this population in society (2). One of the effective factors in increasing the health and reducing the disease and mortality of women is to increase their level of health literacy (3). According to the definition of the American Medical Association, "Health Literacy" is a set of skills, such as the ability to perform basic reading and numerical computing needed for proper functioning in health care environments (4).

Health literacy include different skills such as reading skills, accessibility, comprehension and perceiving, assessment, decision making, behavior, and most importantly, using these skills in a way of individual and social health (5, 6). The United Nations Educational, Scientific and Cultural Organization recognizes literacy as a human right; literacy skills can reinforce personal empowerment and social and human development, while limiting literacy prevents activities that can improve the quality of life and prevent deprivation and violence in society (7). On the other hand, those who have inadequate health literacy in the society, have a weaker health status (8).

Health literacy is an essential element of women's ability to perceive, process and carry out health-related information and expand disease prevention activities. Inappropriate health literacy affects women, children and their families. Without proper comprehension of health care information, it is difficult to make conscious decisions, which in turn affects the health of people (9).

According to the results of a study conducted by Zareban et al., in Iran, only 32.4% of women had an appropriate level of health literacy and the majority of them had insufficient health literacy levels (10). The results of a meta-analysis study that examined the health literacy status in Iranian society demonstrated that most Iranians do not have a proper health literacy level. The results also showed that only 27% of women had appropriate health literacy level (11). The results of a study by Jovic-Vranes indicated that 44 percent of women had inadequate health literacy level (12). With regard to the content and importance of health literacy in individuals' health, the present study was conducted to determine the status of health literacy and the its relationship with Iranian women's general health.

Materials and Methods

This is a cross-sectional study, which was conducted on the women aged 18-65 years old in 2017. This research was done in the health centers of Taibad urban areas, which is located in Khorasan Razavi province. The sample size was determined 100 people based on the previous study (10). For data collection, firstly, the list of health care centers (Vahdat, Imam Hos-

sein, Khoramshahr and Imam Khomeini) was determined and the samples were selected randomly among women aged 18-65 years old. Before completing the questionnaire, we explained necessary information regarding a questionnaire and study plan, and a written consent received from them. They were assured that their information would remain confidential to the research team. The criteria for entering the study were: women aged 18 to 65 years old, residents of the Taibad area, have no mental and perceptual disorders, have the ability to read and are willingness to attend the study. In order to identify and ensure that all individuals who enter the study are people with reading ability, they were first asked to read part of the questionnaire. In this study, measuring Adult Health Literacy and Public Health Standard questionnaires were used to collect information.

A: Health Literacy for Iranian Adults: HELIA: The characteristics of this indigenous instrument, is being short, ease of implementation, covering all aspects of health literacy (access, reading skills, comprehension, assessment, decision making), being general as the tool is not belongs to a cortex, occupation, education, age group or other specific area and can be used for different demographic groups and has the ability to measure the level of health literacy with acceptable accuracy (13). The Iranian Health Literacy Questionnaire consists of 33 questions and 6 sections as follow: access section (6 questions), reading skills (4 questions), comprehension (7 questions), assessment (4 questions) and decision-making and application of health information (12 questions). The validity and reliability of this questionnaire were evaluated by Montazeri et al., (Cronbach's alpha, from 0.72 to 0.89) (13), and Zarban et al., (Cronbach's alpha =

0.78 to 0.90) (14), and have acceptable level of reliability and validity.

B) General Health Questionnaire (GHQ-28): The questionnaire has 28 questions and it has examined four areas of physical symptoms (7 items), anxiety symptoms (7 items), depression symptoms (7 items), and social function (7 items). The reliability of this questionnaire in Iran was investigated by Taghavi and its Cronbach's alpha and the coefficients of reliability were 0.93, 0.70, respectively.

The collected data were entered into SPSS software version 20, and related tables and charts, number and percentage (for qualitative variables), mean and standard deviation (for quantitative variables) were used to describe the data. Data analysis was done through bivariate analysis (ANOVA, Independent Samples T-Test and Pearson correlation). The significance level for data analysis was considered 0.05.

Findings

The age and education mean (standard deviation) of participants in this study was 28.38 (6.18) and 10.47 (3.69) respectively. In this study, 90.4% (85 people) were married and the rest (n = 9) were single. 75.5% of individuals were housewife (71) and the rest (23 people) were employed. The mean (standard deviation) of the health literacy score and public health of the participants in this study were 68.42 (17.29) and 27.16 (11.74) respectively. Also, the majority of individuals (45.9%) reported that they received their health-related materials from health-care personnel (Figure 1).

Based on Independent Samples t-test, there was a significant relationship between occupation and health literacy (P <0.001) (Table 1). The results of ANOVA test showed that there was no significant relationship between mean

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of age and mean of health literacy (P = 0.749) and public health (P = 0.7278). The results also indicated that there is a significant statistical relationship between the mean of education level and health literacy (P> 0.05), but there is not a significant relationship between education level and general health (P = 0.434). In this study, only 21.3% of individuals with high levels of health literacy were found (Table 2). Also, based on the results, only 41.5% of the participants were healthy in terms of public health criteria (Table 3). According to Pearson correlation results, health literacy was significantly correlated with social disorder, but did not show significant correlation with other public health constructs (Table 4).

Table 1: The relationship between health literacy and general health with demographic variables

Variables		Health Literacy			General Health		
		Mean	Standard deviation	P-value*	Mean	Standard deviation	P-value*
Occupation	Housewife	65.12	16.34	0.001	27.13	10.89	0.973
	Employed	78.61	16.45		27.23	14.32	
Marital Status	Married	67.75	17.80	0.251	27	11.69	0.699
	Single	74.74	9.95		28.61	12.80	

* Independent Samples t-test

Table 2: Frequency distribution of health literacy sub-scales

Variables		N (%)			
		Inadequate	Not enough	Enough	Excellent
Health Literacy dimensions	Reading skills	17(18.1)	17(18.1)	35(37.2)	25(26.6)
	Access	25(26.6)	28(29.8)	28(29.8)	13(13.8)
	Understanding	10(10.6)	14(14.9)	34(36.2)	36(38.3)
	Assessment	28(29.8)	21(22.3)	27(28.7)	18(19.1)
	Decision-making and applying health information	20(21.3)	20(21.3)	30(31.9)	24(25.5)
Health Literacy		11(11.7)	30(31.9)	33(35.1)	20(21.3)

Table 3: Frequency distribution of general health sub-scales

Variables		N (%)	
		Healthy	Suspected of disorder
General Health dimensions	Physical symptoms	37(39.4)	57(60.6)
	Anxiety symptoms	27(28.7)	67(71.2)
	Symptoms of social performance dysfunction	39(41.5)	55(58.5)
	Depression symptoms	77(81.9)	17(18.1)
General Health		39(41.5)	55(58.5)

Table 4: Pearson correlation coefficient between health literacy and general health and its sub-scales

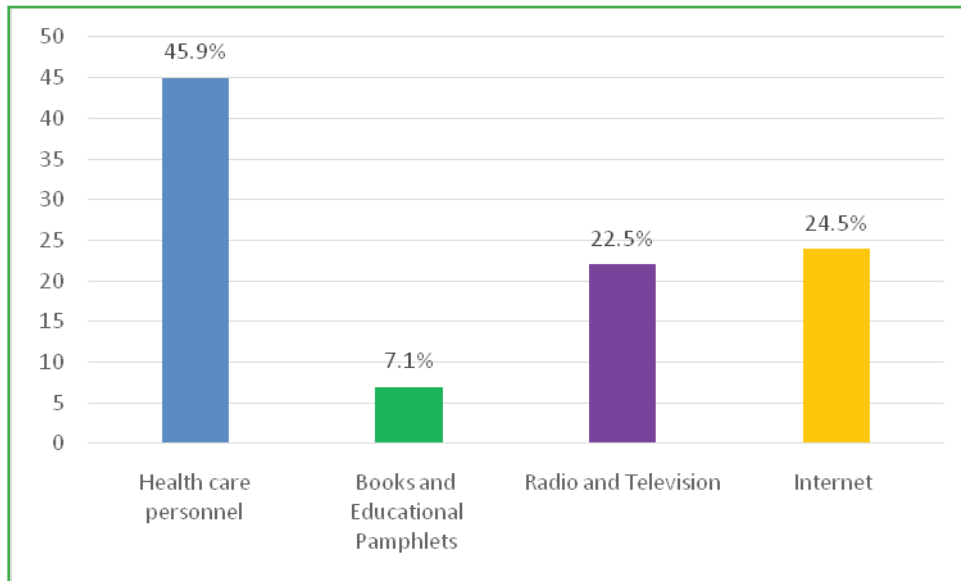|	Variables	1	2	3	4	5
1	Health Literacy	1				
2	General Health	-0.065	1			
3	Physical symptoms	0.012	0.773*	1		
4	Anxiety symptoms	-0.061	0.765*	0.605*	1	
5	Symptoms of social performance dysfunction	-0.209**	0.629*	0.284**	0.293**	1
6	Depression symptoms	0.053	0.683*	0.343*	0.259**	0.285**

*P<0.001, ** P<0.05

Figure 1: Health information sources

Discussion and Conclusion

The aim of this study was to evaluate the status of health literacy and public health of women referred to health care centers. Based on the results of data analysis, there was a significant relationship between occupation and health literacy skills, meaning that those who were employed had better health literacy than housewives. The results of a study has been done specifically on women demonstrated that housewives had lower health literacy level than other women who were employed (10). The results of a study on pregnant women showed that employed women had a higher level of health literacy than housewives (15). The Eniko study was in line with the results of this study and the employed women were in a more favorable position regarding the level of health literacy than others women (16). It seems that employed people are more likely to have a better level of health literacy than housewives because generally they are academically educated and have more social networking support than housewives.

Based on the results of this study, level of health literacy in almost half of women were not adequate. The results of Zarban et al showed that the level of health literacy in the majority of women were not adequate (10). A study by Saatchi et al., in 2015 showed that most of the participants in the study had an inadequate health literacy (5). The research of Morad Abadi et al., on pregnant women in 2015 demonstrated that half of the women in the study had inadequate and borderline in terms of health literacy level and need to carry out relevant interventions for increasing their literacy rate, especially in relation to pregnancy (15).

In this study, the results of individuals' public health showed that more than half of people are suspected of having a disorder and illness. The results of the study, carried out by Gholami et al., on the employed individuals, indicated that the majority of individuals had an unhealthy condition in terms of public health (17). The results of a study done by Zarei et al., in 2018 on the elderly in Sabzevar showed that the majority of elderly did not have an appropriate public health(18). The results of a Dashti study on female students demonstrated that most of students did not

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have a proper public health level (19). Based on the results obtained in this study and other studies, public health status is not desirable. Therefore, it is necessary to consider the physical symptoms as well as other health symptoms such as anxiety symptoms, social function and depression symptoms for increasing public health level.

In this study, the majority of people confirmed that they have received health information from their health care providers. In a study conducted by Zarban et al., the majority of women reported that they receive most of information from their health providers (10). A study conducted on the public population showed that most of people refer to health care center for getting required information (20) because they do not trust on other source of information such as Internet, friend or family. On the other hand, individuals in this study were women who referring to health care centers to receive information related personal self-care behaviors.

There was a significant relationship between education level and health literacy, suggesting increasing the education level could be a key factor to increase the level of women's health literacy. Similar studies showed that those with higher levels of education had better levels of health literacy (10) and high education levels play an important role in increasing the level of health literacy (5). The results of Moradabadi study on pregnant women in Bandar Abbas demonstrated that with increasing level of education, individuals' literacy rate significantly increased (15). Raising the level of education is one of the important and predictive factors in increasing the level of health literacy among community members, and those with a higher level of education can easily obtain their required information related to health issues (21, 22).

There was no significant relationship between age, health literacy and public health. The results of this study were not consistent with the similar study conducted in Iran, which showed a significant relationship between health literacy and public health (10). Sayyed al-Shohadayi reported a significant relationship between health literacy and public health among diabetic patients (20). The reason for this inconsistency could be due to the selection of different target groups.

In this study, there was no significant relationship between the level of public health and age, occupation and marital status. The results of Ghasemi et al., showed that there is no significant relationship between public health status of women and demographic variables such as age, occupation and marital status (23). The results of Gholami and colleagues in 2013 indicated that there is not a significant relationship between age and public health, which is in line with the outcome of the more studies (17). The results of the study, which were conducted on female teachers, demonstrated that there was a significant correlation between the anxiety score and disorder of social function.

Conclusion

Based on the results obtained in this study, most of the participants have an inappropriate health literacy level and the public health status of majority of them is undesirable. Given the important role that women have in the family and society, it is necessary to pay more attention to the health status of this group in the society, and an appropriate training program should be designed and implemented to increase their level of health literacy.

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