

Health Literacy and Its Relationship with Self-Efficacy in Health Ambassadors

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ABSTRACT

Background and Objective: Health literacy is one of the major determinants of health. Demonstrates cognitive and social skills that determine individuals' motivation and ability to acquire, access, and understand ways to use information to maintain and promote health. This study aimed to examine health literacy and its relationship with self-efficacy in health ambassadors. Orumiyeh is done.

Materials and Methods: In this descriptive-analytical study, 200 health ambassadors of Urmia city were selected by cluster random sampling method. Data were collected using a demographic questionnaire, Health Literacy Questionnaire (HELIA) and General Self-efficacy Questionnaire (Sherer). Data were analyzed by SPSS 20 software using ANOVA and regression tests.

Results: The results of this study showed that 21.5% of health ambassadors had inadequate health literacy, 30% had insufficient health, 23% had insufficient health and 25.5% had excellent health. Also, health literacy with variables of age, gender, education level Jobs had a significant relationship. Results showed that there was a significant relationship between health literacy and self-efficacy of health ambassadors ($p < 0/001$). So that health literacy can explain 0.62 variance of self-efficacy of health ambassadors.

Conclusion: Given the importance of health literacy in health ambassadors and the effect that self-efficacy has on health literacy, the need for interventions by health care providers to increase self-efficacy and health literacy is essential for adopting health behaviors in health ambassadors.

Paper Type: Research Article

Keywords: health literacy, self-efficacy, health ambassadors

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Introduction

In the 21st century, if any person wants to have the desired function, he must have a wide range of abilities and competencies; these literacies have diversity, dynamicity, and flexibility which range from reading a newspaper to understanding the information provided by a health worker (1). Health literacy is defined as the capability and capacity of individuals to acquire, understand and interpret basic information related to health and services needed to make appropriate decisions related to health (2). Nowadays, health literacy is introduced as a global issue (3). World Health Organization at the Fifth Global Conference on Health Promotion in Mexico, defined health literacy as the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health (4). Inadequate health literacy is associated with poor individual report of health status, inadequate use of medicines and failure to follow physicians' instructions, poorer blood sugar control, and increased problems arising from poor control, lower health knowledge, less participation in decisions-making on treatment, less expressing of health concerns and worse communication with physicians; there is still the claim that people with poor health literacy skills are less aware of health, and receive fewer preventive services (5). Lack of information related to health can affect one's self-esteem or self-efficacy (6). Self-efficacy is the confidence a person feels about a specific activity and can thus enable him to adopt health-promoting behaviors and to quit harmful health behaviors, thereby maintaining and promoting effective health behaviors. On the other hand, self-efficacy influences individuals' motivation and helps the individual to attempt to implement and continue the recommended behaviors (7).

Indeed, self-efficacy is one of the important factors in the determination of health behavior whose positive role in promoting health literacy is proven in various studies (8). A health ambassador is a member of the family who has at least eight years of reading and writing classes and volunteers to take the responsibility of transferring the learnt content in the field of health and active care of the health of the self and family and community members (9). No study is conducted in this group in the field of health literacy, but in the study by Almasi et al. it was found that health communicators play a role in raising public awareness and can contribute in raising families' awareness and be effective in enhancing community health literacy and probably changing health behavior (9). Therefore, given that health ambassadors are at the forefront of receiving health education services, they should first, adjust the risk factors for the disease in themselves and take actions to promote the preference of prevention versus treatment for their families. This group is responsible not only for themselves but also for the families they cover, and by failing to do the aforementioned points, they lead to the reduction in the positive effectiveness of society and various propaganda in the field of promoting health behaviors such as promoting sports and not consuming drugs. Regarding the importance of health literacy in maintaining and promoting health and disease prevention and the role of health ambassadors as a model, and on the other hand, the fact that no study is yet conducted in the country regarding health literacy and its relationship with self-efficacy in this group, researchers decided to do some researches in this area. This study aimed to examine health literacy and its relationship with self-efficacy in health ambassadors in Urmia.

Methods

In this descriptive-analytical study, 200 ambassadors were selected using cluster random sampling. The study population consisted of all health ambassadors covered by Urmia Urban Health Centers in 2019.

Given the previous studies (10), the standard deviation of health literacy was obtained as 22 and the minimum difference score 3. Thus, based on the Cochran sample size, the sample size was estimated as 200 people. Inclusion criteria were being a health ambassador according to the national protocol (an individual of each household with at least 8 classes of reading and writing), having an ambassador health record at the health center and base, and consent to attend the study, and exclusion criteria were dissatisfaction with attending training sessions and lacking ambassador criteria.

The sampling method was in a way that 10 centers or clusters were selected from the whole available centers (35 centers) in different regions and then within each cluster, 20 health ambassadors, registered as health ambassadors in that center, were randomly selected. The questionnaire used is arranged in three main sections. The first part was about demographic information (age, education, occupation, ...), the second part was the health literacy questionnaire, the third part was the self-efficacy questionnaire. Economic status was measured based on people's perceptions of their economic status (good/average/poor).

The HELIA questionnaire was used to measure health literacy. This questionnaire consists of 5 dimensions of the main questionnaires (dimension of reading, dimension of accessibility, dimension of understanding and comprehension, dimension of evaluation and dimension of decision-making and health information use) that consisted of 33 questions and measures the above dimensions and its scoring method is in a way that the raw

scores of the five health literacy domains are calculated and then converted to standard scores between zero and 100, so that scores ranging from 0 to 50 are considered as inadequate health literacy, 50.1 to 66 as insufficient health literacy, 66.1 to 84 as adequate health literacy, and 84.1 to 100 as excellent health literacy. In a study, Montazeri et al. dealt with the design and psychometric of this tool and this questionnaire has acceptable validity and reliability (11).

The Sherer General Efficacy Scale was used for self-efficacy assessment (12). This scale consists of 17 questions, each of which is based on a Likert scale from completely disagree to strongly agree. Scale scoring is in a way that scores from 1 to 5 points are given to each item. Questions 1, 3, 8, 9, 13, and 15 are scored from right to left, and the rest of the questions are scored in reverse order, i.e. from left to right. So the maximum score a person can get from this scale is 85 and the minimum is 17. This scale has been translated and validated by Barati (1996). In the study by Saffari et al., the validity and reliability of this test was obtained using internal consistency assessment and test-retest, and Cronbach's alpha was obtained as 0.83 (13).

Questionnaires were completed after explaining the aims of the study and with the samples' consent and with the guidelines of the questioner and as self-report. The data were entered into SPSS 20 software and analyzed by descriptive statistics, ANOVA and regression. Data were collected after expressing the aims of the research and obtaining informed consent from the participants. The anonymity of the questionnaires and information confidential was emphasized as well.

Result

The results showed that the mean age of the studied health ambassadors was 37.35 ± 9.57 years. In terms of gender 46 individuals (24.5%)

were male and 145 individuals (75.5%) were female. The highest age group was attributed to the age group of 25 to 35 years (37.5%). Most of the subjects were married (86.5%) and had a moderate economic status (58.5%). The relationship between demographic variables and health literacy was investigated using one-

way ANOVA. The results showed that health literacy had a significant relationship with age, gender, level of education, and job ($p < 0.05$). Thus, the mean score of health literacy in the health ambassadors of low age and male and the level of education and staff was higher than others (Table 1).

Table 1: Demographic characteristics of health ambassadors studied and their relationship with health literacy

Demographic information		Frequency	Percentage	Mean of Health Literacy	P value *
Age	15-25	17	8.50	71.50 ± 12.02	0.02
	25-35	75	37.50	72.23 ± 22.57	
	35-45	66	33	65.72 ± 20.27	
	Higher than 45	42	21	69.21 ± 29.60	
Gender	Male	46	24.50	75.84 ± 23.03	0.04
	Female	145	75.50	67.31 ± 22.33	
Marital status	Single	24	12	73.04 ± 17.97	0.2
	Married	173	86.50	68.92 ± 23.44	
	Divorced/Widow	3	1.50	67.00 ± 15.58	
Level of education	Guidance school	83	41.50	65.36 ± 15.33	0.04
	Diploma	78	39	65.84 ± 20.25	
	Academic	39	19.50	74.94 ± 26.94	
Job	Housewife	84	42	67.20 ± 23.91	0.03
	Employee	109	54.50	72.93 ± 21.65	
	Self-employed	7	3.50	60.85 ± 6.98	
Economic situation	Good	33	16.50	67.09 ± 32.51	0.47
	Moderate	117	58.50	70.37 ± 20.16	
	Poor	50	25	68.53 ± 20.88	

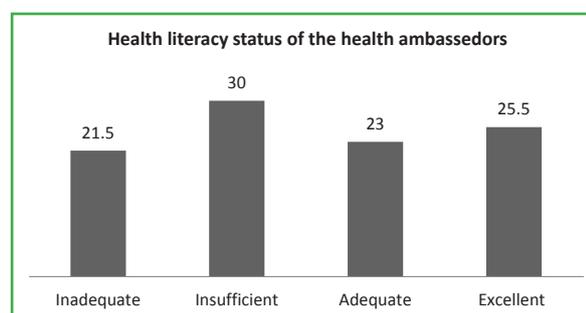
* Analysis of variance

Results showed that the mean score of health literacy was 69.37 ± 22.74 out of 165. In the division of health literacy, 21.5% of health ambassadors had inadequate health literacy, 30% had insufficient, 23% had adequate, and 25.5% had excellent health literacy (Table 2).

Table 2: Mean standard deviation of health literacy and self-efficacy scores

Dimensions and total variables	Mean and standard deviation	Baseline score
Accessibility	13.63 ± 4.89	30
Reading skills	9.07 ± 3.84	20
Understanding and comprehension	13.86 ± 5.91	35

Assessment	9.78 ± 3.87	20
Decision making	23.61 ± 8.20	60
Total health literacy score	69.37 ± 22.74	165



The results of the regression test showed that health literacy significantly predicted self-

Table 3: Regression analysis indicators to predict self-efficacy in health ambassadors

Independent variables	r	r ²	F	Beta	t	p
Health literacy	0.77	0.62	33.41	0.78	16.11	p<0.001

efficacy in health ambassadors ($p<0.001$), so that increasing health literacy predicted 62% of variance in self-efficacy in health ambassadors. The correlation coefficient in this study showed that there is a relatively strong and significant relationship between health literacy and self-efficacy score (Table 3).

Discussion

The issue of health literacy and having a healthy and capable society is outlined in the realization of the 26-year vision in the Perspective of the Islamic Republic of Iran Health Plan up to 2025 (14). The results of this research showed that about half of the individuals (51.5%) had inadequate or insufficient health literacy.

The results of various studies in countries around the world have generally reported a wide range of inadequate health literacy. In a systematic review study by Paasche-Orlow et al (15) in North America on 85 studies, about 46% of people had borderline health literacy and inadequate (20). According to the results of Baker et al., 47% of Atlanta community have low health literacy (16). A systematic review of health literacy assessment conducted by the Agency for Research and Quality in Health Care in 2011 reported that inadequate health literacy is a major problem in the United States (17).

Also in the study by Tehrani Bani Hashim et al (18), who evaluated health literacy in people over 18 years in 5 provinces of Tehran, Mazandaran, Qazvin, Kermanshah and Bushehr, the results showed that 56.6% had inadequate health literacy. In the study by Sahrayi et al., 46.7% of adults reported inadequate or insufficient health literacy (1). All of the above are consistent

with the present study. In Panahi et al. study, the health literacy level of over one-third of the participating students (36.8) was inadequate and insufficient which was not consistent with our study (19).

The results of these studies showed that generally, the level of health literacy in both Iran and all over the world, whether in those who referred to healthcare centers, or those who referred to hospitals and research centers is not satisfactory. Despite the overwhelming evidence of the importance and consequences of health literacy, many healthcare workers were either unaware of the importance of the topic or lacked the skills and time to deal with clients with the literacy approach.

Health literacy can affect a person's cognitive assessments and beliefs about the disease. As health literacy increases with patients, the power and skill of coping with the disease also increases.

The results of the study by Alidosti et al. (20) showed that health literacy in young people was higher than in older people, which is in line with the present study that health literacy of young ambassadors was higher. However, no correlation between age and health literacy was reported in the study by Rafiezadeh et al. (21), which was not consistent with the present study. This finding can be attributed to increased health-related experiences with increased age. There was also a significant relationship between gender and health literacy in the present study, so that health literacy was higher in men compared to women. The results of Von et al. (22), and Afshari et al. (23) showed that health literacy was higher in women than in men. Also the study by Çaylan et al. (24) did not found any

relationship between health literacy of individuals in society and gender, which is inconsistent with our study. These differences can be attributed to the effect of cultural and social conditions on health literacy.

The results showed that there was a significant relationship between education level and health literacy, so that people with higher education had also higher health literacy. Education in various studies has been identified as an important factor in health literacy (16, 25, 26), so that through a 2011 report by the Agency for Research and Quality in Health Care it was declared that low levels of health literacy is a major problem in the United States and education years is a strong predictor of health literacy (17).

In this study, a significant relationship was found between health literacy and job, so that employees had more health literacy and self-employed persons had less health literacy. Khezerloo et al. in their study showed that there was a significant relationship between health literacy and employment in a way that employed people had higher health literacy. The results of Alidosti et al., Rafiezadeh et al. assessed poor health literacy in non-employees, which is consistent with the present study, therefore one of the reasons for the high level of health literacy among employees may be associated with their education.

Health literacy can empower individuals to play an active role in changing the environment to influence health, and self-efficacy will result in maintaining and promoting effective health behaviors (28). There have been few studies on the relationship between health literacy and self-efficacy. One study using structural equation modeling found that health literacy was directly and indirectly related to self-efficacy in heart failure patients (4). The study by Eftekhari et al. (14) found that inadequate health literacy affects

one's self-efficacy. In the study of Nourollah Taheri et al. also a positive and significant correlation was reported between self-efficacy and general health literacy and its components (8). In this study also there is a significant relationship between health level and self-efficacy. In the studies by Shida Rafizadeh et al. (21), Denison et al. (6), Ali Dousti et al. (20) a positive and significant relationship between self-efficacy and health literacy was observed in diabetic patients. The results of Chen's study (29) showed that there was no significant relationship between the level of health literacy of cardiac patients and their self-efficacy for adherence to self-care behaviors. Also, the results of Jones-Clearly Mc study (30) showed that diabetic patients with higher health literacy had lower self-efficacy to perform self-care behaviors associated with physical activity, diet adherence, and foot care which were inconsistent with the present study.

Conclusion

The findings of this study showed that health ambassadors have a level of health literacy at the borderline and, considering the significant relationship between health literacy and self-efficacy, there needs to be health care interventions to increase self-efficacy and health literacy for adopting health behaviors in health ambassadors.

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