

The Role of Family Physician in Health Literacy of Rural Population in Farsan District

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Received: 29 July 2017

Revised: 10 August 2017

Accepted: 20 September 2017

Abstract

Background: Health literacy is a stronger predictor of health as compared to variables such as age, income, employment status, education level and race. In this regard, the World Health Organization has reported health literacy as one of the greatest determinants of health. The main purpose of this study was to investigate the role of family physician in the health literacy of rural population in Farsan district.

Methods: This is a descriptive-analytic study conducted in 2017 in Farsan. The sample size was equal to 450. 205 males and 245 females were selected as the sample, using stratified random sampling. A questionnaire was used to conduct the study (response rate 85.3). The validity and reliability of the questionnaire were confirmed. Data were analyzed using descriptive indexes such as percentage, mean and standard deviation, along with Spearman correlation coefficient and regression analysis.

Results: The results of the study showed that 62.2% were female and 37.8% were male. 41.5% were in the age group of 20-29 years old and 7.3% were above 50 years old. Most participants in the study had a bachelor's degree (26.8%) with no history of disease (87.8%). There was a direct and significant relationship between family physician and health literacy ($r=0.355$, $P=0.01$). Emotional/informational support had a positive and significant effect on the increase in health literacy by 0.427 at a significant level of 0.05.

Conclusion: Social support family physician of a community plays a major role in improving the health literacy of the people. Strengthening the communication and human skills of physicians and forming a sincere relationship with people's trust and confidence in the success of health programs; in particular, increasing the level of health literacy plays a crucial role.

Please cite this article as: Heydari Gojani Z, Alimohammadzadeh K, Hosseini SM, Fadaei Dehcheshmeh N. The Role of Family Physician in Health Literacy of Rural Population in Farsan District. *J Health Sci Surveillance Sys.* 2017;5(4):153-157.

Keywords: Family physician, Health literacy, Social support

Introduction

New health systems have created new needs for their audience, and individuals must finally take new roles to make the right decisions about themselves and their family; health literacy is one of the most effective factors in this regard.¹ It is the capacity of the individuals to process and understand information and basic health services for appropriate health decision making; also, it

has given meaning to the capacity of individuals to obtain, process, and understand health information and basic services required for appropriate health care decisions. Health literacy plays an important role in promotion of self-care awareness of the community and determines the level of effectiveness of the association of individuals with the goals of the health care system.^{2,3} More than 1 in 3 adults in the United States have low health literacy, which can adversely affect the quality and cost of health

care. These individuals are less likely than those who are health literate to be knowledgeable about their chronic diseases and possess adequate self-management skills, and are more likely to make medication errors.⁴ Health literacy is a health information package that people in a community have for health promotion and prevention of diseases. However, 42% health literacy in Iranian population is inadequate. The average health literacy in Iran has significantly grown over the past years, but it is still far from the ideal situation.^{5,6} Studies show that Iranian female's health literacy is more than that of the males, and inadequate health literacy is more in older age groups over 55 years old. Unemployed people are inadequately educated among working groups; inadequate health literacy is also more in vulnerable and low income groups.⁷

Health literacy plays an important role in promotion of the people's skills for the prevention of diseases. In fact, decisions made without an adequate understanding of health information may not result in good health outcomes.⁸ People with poor health literacy have poor personal health status, use medications inappropriately, do not comply with physician's orders, are less involved in treatment decisions, and have poor communication with their physicians.⁹ Montazeri (2016) in a research conducted in Iran shows that the low level of health literacy is associated with an increase in physiological damage and complications from diseases and deaths. Paying attention to the role of health literacy in the community is a national priority for informing the health status of people; on the other hand, people's access to health status requires careful planning in this regard. Paying attention to the health literacy of people plays an important role in empowerment with the focus of self-care, prevention of disease and promotion of community health status.⁷ Lee et al. (2017) argue that improving health literacy of individuals leads to an increase in the ability of patients to make informed decisions, reduction of health risks, increase in prevention of disease, and increase in the quality of care of individuals and quality of life.¹⁰

The family physician program is considered as one of the most important sources for promoting the health literacy of the community.¹¹ Family physician, as the first contact with the people and the patient,¹² should have the necessary skills in screening, diagnosis and treatment of patients, communicational skills, and the ability to analyze the psychological economic and social dimensions effective on health and is able to manage the patients, especially chronic ones in need of long-term care. A family physician must have complete information about the health history and physical, psychological and social diseases of family members under their cover for proper interventions.^{11,13} Low level of people's health literacy necessitates proper policy-making through family

physician to improve the people's health literacy. The family physician provides people with the necessary knowledge through proper training. In the third stage, people should be trained about the referral system and find out where to go for any particular disease, to be trained, because sometimes people who do not know which physician or health network is good to visit for their disease; this leads to a delay in diagnosing their disease and is one of the problems we have in the field of diseases.¹⁴

Considering the importance of health literacy and the key role of family physicians in improving the health status of the community, it seems that there is a need for a better understanding of the relationship between these two categories. Therefore, there is a need for more research in order to obtain comprehensive information in this area which we have tried to evaluate in this study. In this research, the role of family physician program components in health literacy of rural population of Farsan district in Chaharmahal Bakhtiari province has been studied.

Methods

This research was a descriptive-analytic study which was conducted in 2017 in Farsan district in the province of Chaharmahal Bakhtiari. About 42,000 people inhabited in that area, of which 450 people were obtained using Morgan and Krejcy table. Regarding the gender ratio of rural population in the district, 205 males and 245 females were selected randomly using stratified random sampling method. There were 7 comprehensive rural health centers in the district, as determined according to the population and gender ratio of each center. A questionnaire was then provided to eligible individuals referring to the centers.

The inclusion criteria of the study were people over 18 years old and living in rural areas of Farsan. A questionnaire was used to collect the data. At the beginning, a demographic information questionnaire was used including information on gender, age, education level, and history of disease.

Montazeri et al.'s (2014) questionnaire was used to measure the health literacy variable. It includes 5 dimensions and 33 questions (access to health information (questions 1 up to 6), information reading skills (questions 7 up to 10), understanding the information (questions 11 up to 17), analyzing the information (questions 18 up to 20) and decision-making based on the information (questions 21 up to 33). The social support questionnaire of Sherborne and Stewart (1991) was the study tool in order to measure the variable of family physician. It consists of 4 dimensions and 18 questions (emotional/informational support (questions 1 up to 8), tangible support (questions 9 up to 12), affectionate (questions

13 up to 15), and social interaction (questions 16 up to 18). These questionnaires were selected considering the fact that they were consistent with the goals and conceptual framework of this study. Measurement scale of both questionnaires, 5-option Likert scale, included (quite agree (5), agree (4), no idea (3), disagree (2), and quite disagree (1). The score less than 2.5 shows the bad condition, 2.5 to 3.5 average, and scores greater than 3.5 were considered as good.

In order to confirm the validity of the questionnaire, the views of two professors and experts faculty members of the Islamic Azad University of North Tehran Branch and 3 experts of the health network system were obtained and necessary amendments were made. Reliability of the tool was measured, using Cronbach's alpha coefficient. A total of 20 questionnaires were distributed by referring to one of the rural health centers in Farsan. Cronbach's alpha coefficient for both family physician and health literacy questionnaires was equal to 0.92 and 0.96, respectively. After issuing a license to conduct the study and coordinate with the Farsan district health network, the researcher applied for permission for the distribution of questionnaires. The study objectives were described for all the participants and their satisfaction was provided for participation in the study. It should be noted that 384 questionnaires were completed and returned (response rate of 85.3). Data were analyzed using descriptive indexes such as percentage, mean and standard deviation, and inferential statistics, Spearman correlation coefficient and regression analysis. SPSS software version 16 was used for data analysis. Also, the significance level of inferential tests was determined equal to 0.05.

Results

384 people were studied in this study. The results of the study showed that 62.2% were female and 37.8% were male. 41.5% were in the age group of 20-29 years old and 7.3% were above 50 years old. Most of the participants in the study had a bachelor's degree (26.8%) and had no history of disease (87.8%) (Table 1).

The mean score of the family physician was obtained equal to 3.63. The mean scores of individuals in the component of emotional/informational support were higher than the rest of the family physician components (3.83). This score was also reported for Health Literacy by 3.83, which also indicates the average status of the study variables.

The results of Spearman correlation test showed that there was a direct and significant relationship between family physician and health literacy. Table 2 shows that only emotional / informational support had a direct and significant relationship with health literacy among family physician dimensions (P=0.01).

Table 1: Demographic data of the subjects under the study

Variables		Number	Percentage
Gender	Female	51	62.2
	Male	31	37.8
Age (year)	29-20	34	41.5
	39-30	27	32.9
	49-40	15	18.3
	50 >	6	7.3
Level of Education	Illiterate	1	1.2
	Reading and writing	5	6.1
	Low literate	16	19.4
	Diploma	20	24.4
	Associate Degree	11	13.4
	Bachelor	22	26.8
history of disease	Master's degree	5	6.1
	Ph.D	2	2.4
	No history	72	87.8
	5<	6	7.3
	9-5	1	1.2
	14-10	1	1.2
	19-15	0	0
20 >	2	2.4	

Table 2: Correlation between the components of the family physician and health literacy

Components of family physician	Health literacy
Emotional/informational support	r=0.379 P=0.01
Tangible support	r=0.125 P=0.1
Kindness	r=0.353 P=0.25
Social interaction	r=0.215 P=0.23

Although the relationship is not very strong, the health literacy also increases by increasing emotional/informational support of individuals.

The results of multivariate regression showed that the family physician determines the health literacy. Indeed, about 18.2% of the health literacy variance was explained and justified, and the rest belonged to other variables that were not included in this study (R=0.427, R²=0.182 and P<0.001).

The results of final regression model showed that emotional/informational support had a positive and significant effect on the increase in health literacy by 0.427 at a significance level of 0.05 (t=4.21 and P<0.001).

Regarding the results, the following regression equation was used:

Emotional/informational support × (0.427)=Health literacy

The above equation shows that only emotional/informational support has effects on the health

literacy in comparison with other dimensions of family physician.

Discussion

To determine the role of family physician in the health literacy of rural population in Farsan district was the main objective of this study. The findings of this study showed that the rural population of this city was in a moderate situation in terms of both the family physician and health literacy variables. The results of the study showed that the emotional/informational support family physician had a direct and significant relationship with health literacy. Walker et al. (2015) have evaluated the level of people's health literacy and their relationship with family physicians.¹⁵ The results of their study indicated a direct relationship between health literacy and family physician, which is consistent with the findings of this study. It seems that the health literacy level of individuals can be increased by strengthening the relationship between the physician and the population covered.

It was also found that there was no significant relationship between the dimensions of tangible support, kindness and social interaction with health literacy. This finding is different from the results of other studies.¹⁶⁻¹⁸ The reason for this can be the diversity of the research community in terms of cultural and social perspectives and the number of subjects under the study (sample size).

In general, this study showed that family physician had a role to play in the health literacy of the community. Phalsaphi Nejad et al. (2015) investigated the relationship between family physician and health literacy in male patients with type 2 diabetes in Harsin district. The results showed that the level of health literacy and its dimensions were better and more appropriate for patients with quality of life.¹⁹ Based on the findings of Husseinpour's study (2013), increased level of health literacy enhances receiving health care among the rural married females covered by family physician program.¹¹ Paasche Orlow (2013) found in a case study that the overall low level of health literacy had a direct and significant relationship with family physician.²⁰ The results of these studies showed the effect of the family physician program on the level of health literacy in society, which is consistent with the results of this study, indicating the necessity and importance of the issue for the society and health system. Therefore, special attention should be paid to this issue.

This research had some limitations such as the lack of control of some variables including the type of occupation and amount of access to the family physician. We recommend that studies should be conducted on the effects of the implementation of family physician program in different regions.

Conclusion

This research can contribute to the reinforcement and promotion of the community's health literacy by managers, policymakers and health system planners. According to the results of this study, social support family physician is a major contributor to improving the health literacy of the population. In this regard, the evaluation of the status of promoting health behaviors and the recognition of effective factors can have a great importance. Therefore, these behaviors should be more involved in health policy. Implementing the family physician program in different areas, strengthening the communication and human skills of physicians, forming a sincere relationship with people with trust and confidence in the success of health programs, and increasing the level of health literacy play a significant role. It is suggested that in the future studies should be conducted to address the strategies and abilities necessary to achieve the health literacy and identify the knowledge and skills needed to understand and use the information on health issues and provide empirical evidence on the efficacy and role of family physician in promoting community health literacy. According to the results of this research, it is suggested that the researchers use the results of this research and provide the areas of implementation of this approach at the level of health centers of the country, especially rural centers and hold training courses for rural population.

Acknowledgment

This article is the result of a Master's thesis dissertation on the health services management in the number 15721213952028 approved by The Islamic Azad University of North Tehran Branch in the year of 2017. We would like to express our gratitude for the cooperation and partnership of the Farsan district health network.

Conflict of Interest: None declared.

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