

# Investigating the Relationship between Health Literacy and health-promoting lifestyle in Youth

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## Abstract

**Introduction:** Adopting a lifestyle that promotes health and achieves optimal and efficient health literacy are the determining sources for maintaining and promoting health and disease prevention. Due to the fact that a large part of the country's population is made up of young people and students, and due to the importance of young people's health in promoting public health, this study examines the relationship between health literacy and health-promoting lifestyle in young people. **Methods:** With the correlation method in research, Students' health-promoting lifestyles based on health literacy have been studied. The statistical population in the present study was 364 students in the academic year 1397-1398, which was randomly selected 364 people and to Walker et al.'s (1987) health-promoting lifestyle questionnaires, as well as Montazeri et al.'s (2013) literacy assessment, were answered. Then, the data were analyzed using multiple statistical tests. **Note:** The findings show that there is a significant relationship between health literacy and health-promoting lifestyle among young people. **Conclusion:** Based on the obtained statistical findings, it can be concluded that paying attention to the lifestyle that promotes students' health will be affected by the health literacy factor and can increase health and disease prevention and promote a healthy lifestyle. It should lead to the desired quality of life. Therefore, the country's planners should pay more attention to these variables in order to increase the positive practical measures.

**Keywords:** Lifestyle, Health Promoting Lifestyle, Health Literacy, Youth

## INTRODUCTION

Health-promoting behaviors include six dimensions: spiritual growth, health responsibility, interpersonal relationships, stress management, physical activity, and nutrition. They strengthen and maintain the level of health and self-sufficiency. Health-promoting lifestyles as a key element in the prevention and treatment of diseases, such behaviors can help young people to have a pleasant, healthy and long life. <sup>[1]</sup> Based on some evidence, one of the factors that It can be related to health-promoting behaviors, health literacy. Health literacy is defined as the capacity and ability to obtain, process, and understand health care information in order to make good health decisions. A healthy lifestyle depends on the early acceptance of healthy living habits; an unhealthy lifestyle among young people is strongly associated with unhealthy habits in adulthood <sup>[2]</sup>. Health-related behaviors in the early stages of life affect the risks of lifestyle-related illness in later life. <sup>[3]</sup> Although unhealthy habits that adults have recorded in their youth are difficult, it is important to know that many of the effects of health risk factors in adults can be identified and altered if these behaviors occur. Therefore, it is important to increase healthy lifestyle behaviors among young people, because a health-promoting lifestyle is the main determinant of a healthy and healthy lifestyle. <sup>[4]</sup>. Having behaviors and a lifestyle that promotes

health is one of the best ways. It is a means by which people can maintain and control their health. Health-promoting lifestyle is one of the basic and determining elements of health, which is known as a key factor in the absence of many diseases, and health promotion and disease prevention are directly related to these behaviors. Because a health-promoting lifestyle is part of a health-promoting lifestyle, it has six dimensions: "physical activity," "nutrition," "health responsibility," "mental development," "interpersonal relationships," and "stress management." Optimal lifestyle, in addition to maintaining and strengthening the level of health and well-being, causes a sense of satisfaction and self-fulfillment. <sup>[5]</sup> Because lifestyle is a normal daily activity that people can do in their lives. Acceptance is such that these

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activities affect people's health. By choosing a lifestyle to maintain and promote one's health and prevent diseases, a person performs actions and activities that form this lifestyle set<sup>[5]</sup>. The importance of lifestyle is greater because it affects the quality of life and disease prevention. Therefore, having a healthy lifestyle and increasing awareness in the field of physical and mental health can prevent many health and psychological problems. Or at least postpone their occurrence. A healthy lifestyle is a valuable resource for reducing the prevalence and impact of health problems, promoting health, adapting to life's stressors, and improving quality of life. The World Health Organization (WHO) has also described healthy living as an attempt to achieve complete physical, mental, and social well-being. Therefore, health requires improving the quality and lifestyle of health and subsequently increasing health literacy. Health literacy is one of the most important factors in the quality of life and a healthy lifestyle. Health literacy is the amount of capacity and ability of people to obtain, analyze, and understand the basic health information and services they need to Be able to participate in health issues and make the right decisions. In fact, health literacy has five important components: access, reading skills, comprehension, evaluation and decision making, and the use of health information. More importantly, the person himself and his awareness of his health is a very close relationship with the quality of life Because a person has more awareness and literacy than his health and puts them into practice in his life, the quality of his healthy life is reciprocated. Health literacy is now a global issue in the century. Twenty-first is introduced.<sup>[6]</sup> Based on this, the World Health Organization has recently introduced health literacy as one of the largest determinants of health in a report.<sup>[7]</sup> Many reasons indicate that many unpleasant results are related. Health is therefore inadequate due to illiteracy, and various studies in different countries show a wide range of inadequate health literacy, and the near-low health literacy rate is more common than it seems. According to the World Health Organization's 2000 report, those who did not have adequate health literacy had poor health and lifestyle, did not follow health instructions, benefited little from preventive services, and were hospitalized to a greater extent. They have ways to improve their health and use preventative letters. Therefore, each of these components of health literacy has a decisive role in having good health, style and quality of life.

Health literacy is now considered an important component of public health and plays an important role in how people make decisions about health-related issues, improve community health and improve quality of life, and improve health care. Health care has been considered by policymakers. Given the importance of the level of health literacy of people in the community and the role they play in promoting their health and that of others, this issue has been addressed. Therefore, to maintain and promote health, correct and improve style. Health-enhancing life as well as increased health literacy are essential and have a high relationship and correlation<sup>[8]</sup>. In a study by Nafradie *et al.* (2018)<sup>[9]</sup> entitled "Study of the Relationship between Health Literacy and Lifestyle in Students", the results of regression analysis showed that 41%

of changes in health-promoting behaviors are explained by health literacy and health literacy and Health-promoting behaviors in students were lower than desirable. In a study by Pour-Omran and Arabi (2018) Health-Promoting Lifestyle and Environmental Behavior showed that between health literacy and lifestyle-enhancing lifestyle and There is a positive and significant relationship between environmental behavior and in a study conducted by Eftekhari *et al.* (2019)<sup>[10, 11]</sup>. Dand argues that there is a positive and significant correlation between health literacy levels, nutrition, spirituality, health responsibility, physical activity, interpersonal relationships, and stress management. They not only affect their own lives, but also the behaviors and lifestyles of other classes. Therefore, promoting health and lifestyle promotes health from valuable resources to reduce the incidence of diseases and their complications and a way to improve quality. Living and adapting to stress is also an effective strategy to control the cost of care Idols are hygienic. Health literacy and health-promoting behaviors are the main criteria for determining health, which is known as a underlying factor in the absence of many diseases, and health promotion and disease prevention are directly related to these behaviors. In this regard, the aim of the present study is to answer the research question of whether the lifestyle that promotes the health and literacy of young people have a significant statistical relationship with each other.

## METHODS:

The present descriptive-analytical study of the statistical population is all students of Payame Noor University of Shiraz in 1397, the total number of students of this university is 7700 students in three bachelor's, master's and doctoral degrees. A total of 364 people formed the statistical sample of this study and answered the following questionnaires:

**Health Promotion Lifestyle Questionnaire:** This 52-question questionnaire was designed and compiled by Walker *et al.*. This questionnaire was translated into Persian based on the approach of Jones *et al.* The Pender Health Promotion Model was presented to determine how well people perform health-promoting behaviors. Provides a multi-dimensional assessment of health promotion behaviors. It measures the frequency of health-promoting behaviors in six dimensions: health responsibility, physical activity, nutrition, spiritual growth, and stress management of interpersonal relationships. Alpha Cronbach's Index for both the whole scale and the subscales It has been calculated. The validity and reliability of this questionnaire in Iran by Mohammadi Zaidi and his colleagues in 2011 has been obtained by Cronbach's alpha method for the whole questionnaire equal to 0.82 and Cronbach's alpha under the branches of nutrition, physical activity, responsibility for Health, stress management, interpersonal relationships, spiritual growth and the whole questionnaire are equal / 81, 0.79, 0.86, 0.91, 0.75, and 0.64 and 0.82 is evaluated<sup>[12]</sup>.

**Health Literacy Assessment Questionnaire:** The Adult Health Literacy Assessment Questionnaire, located in Iranian cities,

is a native tool that fits cultural and social characteristics. It was designed by Montazeri *et al.* [13]. This questionnaire consists of 33 questions and 5 items, the components of which include: access, reading skills, comprehension, evaluation and decision making, and the use of health information. - The raw score of each person in the subscales from the algebraic sum of the scores to Is achieved. The validity and reliability of the literacy assessment questionnaire was performed in 2016 by Zareban *et al.* Appropriateness (Cronbach's alpha of 0.785 to 0.9.0) has been studied to measure health literacy in the sample Based on the results of confirmatory factor analysis (REMSA = 0.07, CFI = 0.97, X2 / df = 3.2, GFI = 0.81 NFI = 0.95, AGFI = 0.82), the above questionnaire has the validity of the desired structure, so this scale is able to measure health literacy in terms of access, reading, comprehension, evaluation and decision making. The findings of this study confirm the validity and reliability of the health literacy questionnaire in the population. [14].

Data Analysis Method: Data analysis is performed using SPSS statistical software, version 25 and using descriptive and analytical statistics such as correlation and regression and normality tests to achieve the objectives of research and variable use.

**FINDINGS:**

Of the 364 questionnaires distributed among students, 364 questionnaires were fully completed and analyzed.

Measured reliability: Therefore, for all questionnaires studied, Cronbach's alpha coefficient was calculated, the results of which are summarized in the following tables:

**Table 1:** Cronbach's alpha coefficient for the questionnaires studied

Cronbach's alpha coefficients	questionnaire
0/ 79	Healthy lifestyle enhancer
0/ 82	Health literacy

As can be seen, the Cronbach's alpha coefficient for the studied questionnaires is more than 70%, so the research questionnaires have acceptable reliability and there is no need to delete the question.

A study of descriptive findings showed that out of the total sample group, 364 people were pregnant, (74), 20.3% of men and (290) 79.7% of women, 28.8% in the age group of 17-20 years, 42.0% in the group. Age 25-21 years, 28.3% in the age group 26-30 years, 0.8% in the age group 40-31 years, and 70.6%, which is the average age group is 23.74. 7% in the master's degree group and 0.3% in the doctoral group, 100% in the student group, 72.3% in the single group and 27.8% in the married group, the percentage of students in the village and 94.8% in the city, 86.5% in Fars and 0 , 8% are Azeri, 1.9% are Kurdish, 6.6% are Lor, 4.1% are other, 94.5% are Shiite, 4.9% are Sunni and 0.6% are other. Kkndgan 56.6

percent of their health information from the Internet independently.

The average value of the daily growth variable is 3.18, which has the lowest average among health-promoting lifestyle variables. Then the average value for this variable is 3.20, which also has the least intermediate among health-promoting lifestyle variables. Also, the average value of the nutritional status variable is equal to 3.34, which has the highest average among health-promoting lifestyle variables. The standard deviation is also calculated for health-promoting lifestyle variables. It is observed that the variable of interpersonal relationships with a standard deviation of 0.67 has the lowest standard deviation or in other words, the scatter of data relative to the average compared to other light variables. Life promotes health and is a variable of spiritual growth The standard deviation of 0.87 has the highest standard deviation, or in other words, the scatter of data relative to the mean compared to other variables. The following is the value of skewness for existing lifestyle variables promoting health and it is observed that the variables whose skewness is positive They have a slope to the right, and variables that have a negative slope value have a slope to the left. The more positive and negative the variability of the variables, the greater their deviation to the right and left, respectively. Among the lifestyle modifiers that promote health, all of them have a shift to the right except for mental development. The ones that have a negative protrusion value are a downward slope, or in other words, their curve is wide. The higher the value of the variables, the more positive and the negative, the higher their prominence, respectively, and the lower and wider. Among health-promoting lifestyle variables, all variables have a low prominence.

**Table 2:** Descriptive information of health lifestyle lifestyle questionnaire variables

Elongation	skewness	Standard deviation	Middle	Average	Variable
-0/24	-0/48	0/81	3/40	3/34	Nutritional status
-0/30	-0/26	0/82	3/25	3/20	responsibility
-0/20	0/21	0/87	3/20	3/18	Spiritual growth
-0/15	-0/21	0/68	3/40	3/31	Interpersonal relationships
-0/98	-0/18	0/65	3/28	3/25	stress management
-0/39	-0/98	0/98	3/35	3/30	Physical activity

In the following, the value for health literacy questionnaire is 3.15 on average, which has the lowest average among health literacy variables. is. Also, the average value of the understanding variable is equal to 3.34, which has the highest average among the variables of health literacy. The criterion is also calculated for health literacy variables. It is observed that the access variable with standard deviation of 0.56 has the lowest standard deviation or in other words, the scatter of

data compared to the average compared to other health literacy variables and the variable of understanding with standard deviation 87 0.0 has the highest standard deviation, or in other words, the scatter of data relative to the mean ratio b There are other variables. In the following, the amount of skewness for the available health literacy variables is given. Among the health literacy variables, all of them have left-handedness except for understanding. Then, the amount of prominence for the variables that can be implemented is the implementation of existing risk management. Variables have a downward prominence.

**Table 3:** Descriptive information of health literacy questionnaire variables

Elongation	skewness	Standard deviation	Middle	Average	Variable
-0/15	-0/34	0/56	3/25	3/23	Accessed
-0/19	-0/45	0/76	3/20	3/15	Read
-0/98	0/76	0/87	3/35	3/34	Understanding
-0/69	0/49	0/65	3/22	3/20	Evaluation
-0/91	0/29	0/40	3/30	3/27	Decision Making

**Table 4:** Test the normality of the available variable data

Condition	Sig	Kolmogorov-Smirnov	Variables
It's normal	0/176	1/102	Nutritional status
It's normal	0/205	1/067	responsibility

**Table 5:** Pearson correlation test between health promotion lifestyle dimensions and health literacy dimensions

to decide	evaluation	Understanding	Read	access	Physical activity	stress management	Interpersonal relationships	Spiritual growth	Responsibility	Nutritional status									
									1	.522**	The correlation coefficient	responsibility							
									1	.733**	.412**	The correlation coefficient	Spiritual growth						
							1	.776**	.687**	.426**		The correlation coefficient	Interpersonal relationships						
						1		.529**	.639**	.700**	.414**	The correlation coefficient	stress management						
					1				.671**	.456**	.532**	.624**	.406**	The correlation coefficient	Physical activity				
				1						-.293**	-.370**	-.404**	-.447**	-.399**	-.225**	The correlation coefficient	access		
			1								.550**	-.182**	-.273**	-.244**	-.297**	-.330**	-.182**	The correlation coefficient	Read

It's normal	0/305	0/969	Spiritual growth
It's normal	0/376	0/679	Interpersonal relationships
It's normal	0/504	1/747	stress management
It's normal	0/155	1/131	Physical activity
It's normal	0/433	0/872	access
It's normal	0/098	2/147	Read
It's normal	0/383	0/907	Understanding
It's normal	0/371	0/916	evaluation
It's normal	0/088	0/264	to decide

Hypothesis: There is a positive and significant relationship between health promotion lifestyle (nutrition status, responsibility, mental development, interpersonal relationships, stress management, physical activity) and literacy (access, reading, comprehension, evaluation and decision making). \* In this case, we want to examine the significant relationship between the dimensions of a healthy lifestyle and the dimensions of literacy. Either way they affect each other. For this purpose, we use the Pearson correlation coefficient value. The real Pearson correlation coefficient between the dimensions of the health-promoting lifestyle and the dimensions of literacy in the statistical population discussed according to the variables. The study is small, so we need to test the following assumptions through the Pearson correlation test.

	1	.586**	.620**	-.163**	-.223**	-.309**	-.358**	-.336**	-.250**	The correlation coefficient	<b>Understanding to decide</b>
1	.543**	.445**	.589**	-.182**	-.264**	-.281**	-.331**	-.295**	-.187**	The correlation coefficient	
1	.423**	.446**	.383**	.492**	-.487**	-.437**	-.298**	-.428**	-.532**	-.312**	

As can be seen from the table above, the Pearson correlation coefficient between the dimensions of health-promoting lifestyle and dimensions of literacy in the total sample studied at the level of 0.05 and 0.01 has been studied. Their significance at the level of 0.05 is less than this value and also the correlation between the relationships that are less than this value at the level of their significance at the level of 0.01 is significant. Among the dimensions of health literacy and health-promoting lifestyle, the dimension of decision making has a negative relationship with mental development and then access with the dimension of interpersonal relationships has a positive and significant relationship.

## DISCUSSION

In general, the average score of health-promoting behaviors in young people was not good enough to indicate the need to pay more attention to health-promoting behaviors. In a study conducted by Jalili and Absolute, the average score of health-promoting behaviors was higher than our study. According to the results of the present study, the average score of most of the questionnaire dimensions was more than 65, and then physical activity had the highest average and then stress management had the lowest. This suggests that a high-activity and busy lifestyle is associated with lower stress management, which requires more programs and training in this regard. The results of the present study showed that there is a difference between young men and women and between married and single men. There is no significant improvement in health-promoting lifestyles. Decisive higher education (Masters and PhD) and in the 30-26 age group there were significant differences in health-promoting lifestyle.

The average health literacy among the young people in the study was relatively low. In a study conducted by Izadi Rad (2016) [14], Nekouei Moghadam (2013) [15] and Ghanbari (2012) [16], participants had borderline and inadequate health literacy, which was consistent with the present study. Also, the findings of the present study showed that there is no significant difference between the level of health literacy and gender, but there is a significant difference between health literacy and marital status, age and level of education, so that in the age group of 25-21 years, higher education (Senior, PhD), in the group of married people, there is a higher level of health literacy.

In Afshari's (2017) [17] Panahi 's [18] (2016) study, health literacy was higher in women than in men, which was not consistent with the present study. One of the possible reasons for this difference is the difference in cultural and social contexts of the studied populations. The results of the study showed that two of the components of health literacy,

including access and decision making, and the use of health information play a more important role in predicting health-promoting behaviors. The results of a study by Lee et al. (2003) examined the relationship between health literacy and disease prevention behaviors and showed that the relationship between health literacy and general health status and health promotion behaviors such as referring to a physician and performing preventive behaviors. There is a direct and significant effect, and people with higher health literacy were more likely to see a doctor for a checkup and be more aware of screening tests and the need to do so, but instead emergency visits were reduced as health literacy levels increased. It is worthwhile for young people to have access to knowledge. They form a part of the country to provide health information and by using different ways of information, health information is provided to them in its most appropriate and most social form. Also, the advantages and disadvantages of health-promoting behaviors should be made clear to young people so that they can properly assess health and disease issues and make reasonable decisions based on their proper use. This necessitates an increase in health literacy based on areas of health-promoting behavior.

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