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ARTICLE

Examining the Health Literacy Level of Individuals Applying to the Ophthalmology Clinic

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Abstract

Introduction: To determine the health literacy (HL) level of the individuals who apply to the ophthalmology clinic.

Method: Data for our cross-sectional study were obtained through the Adult Health Literacy Scale (AHLS) and descriptive questionnaire. The data were evaluated with SPSS 22 statistical program. The conformity of the data to normal distribution was evaluated with the kolmogorov-simirnov test. It was determined that it fits the normal distribution. In the evaluation of the data, chi-square analysis was used for descriptive analysis and ANOVA was used to compare categorical variables. Values with $p < 0.05$ were considered statistically significant.

Results: In this study, the mean AHLS score of all participants was found 9.13. The average of female individuals is 7.89 and men are found 10.58 and there is a significant difference ($p<0.05$). When individuals are divided into age groups, when compared, those in the 20-29 and 30-39 age groups have higher and significant differences compared to those in the 40-49 and 50-65 age groups ($p<0.05$). Individuals with a profession and a high level of education (high school and university graduates) were found to have higher AHLS and there was a significant difference ($p<0.05$). The mean AHLS of individuals with chronic disease is 6.17. It was found 11.68 in those without chronic disease. There is a significant difference between the two groups ($p<0.05$).

Conclusion: Our study found that individuals who applied to the ophthalmology clinic, especially those with chronic illnesses, those who did not have any professions, those with a low level of education (illiterate or primary school graduates), and those who are older (≥40 years of age) had a low HL level compared to other individuals.

Keywords: Health literacy, ophthalmology, chronic diseases.

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INTRODUCTION

Health literacy (HL) is defined as the understanding and understanding of the knowledge gained when a person is given medical information, evaluating and developing appropriate behavior. Functional HL is divided into three groups as communicative HL and critical HL (1,2).

HL ensures that responsibilities are shared in a patient-physician relationship and that they communicate better. The time of mutual communication between the doctor and the patient is short. During this period, the information received from the physician must be understood, interpreted correctly and treated accordingly (3). HL is essential for individuals to manage their own health properly (4). All of these situations can only be achieved with high HL levels of individuals (3).

In this study, the examination of HL levels in individuals applying to the ophthalmology outpatient clinic, increasing the knowledge of the patients about the disease by raising the level of HL, raising awareness about the treatment, increasing the compliance of the physician following it and reducing the complications as a result, reducing unnecessary hospital admissions and reducing health costs, rational and correct we aimed to ensure drug use.

METHOD

Our cross-sectional, descriptive and analytical study was conducted on 156 individuals who applied to an ophthalmology outpatient clinic of a university hospital.

Only healthy individuals who have chronic disease (DM or HT) or who can communicate over the age of 20 were included in the study. Individuals with more than one chronic disease, non-contagious and under 20 are not included.

The data of the study was collected by Adult Health Literacy Scale (AHLS) and a sociodemographic questionnaire form consisting of 9 questions prepared by the researchers by searching the literature. The questionnaire included questions about some socio-demographic data of the individuals (age, gender, marital status, socioeconomic level, educational status, occupation), the presence of chronic disease.

AHLS is a scale of 23 questions, consisting of 22 questions related to health information and drug use, 1 question to locate and name the organs. The scale consists of 13 yes / no questions, 4 filling the gap, 4 multiple choice and 2 matching questions. Possible scores vary between 0-23. As the score obtained from the scale increases, HL level increases. It has been demonstrated that

AHLS is a valid-reliable scale in evaluating health literacy and can be used safely in adult individuals (5).

Prior to the study, approval and necessary permissions were obtained from the Ethics Committee of the Faculty of Medicine KSU (Decision Number: 04, Date: 04/03/2020).

Statisticial analysis:

The data were evaluated with SPSS 22 statistical program. The conformity of the data to normal distribution was evaluated with the kolmogorov-simirnov test. It was determined that it fits the normal distribution. In the evaluation of the data, chi-square analysis was used for descriptive analysis and ANOVA was used to compare categorical variables. Values with $p < 0.05$ were considered statistically significant.

RESULTS

The mean age of the individuals participating in the study is 41.37 ± 11.72 (20-63), 53.8% are women, 46.2% are men and 90.4% are married individuals. 32.6% of the respondents are illiterate or primary school graduates, 19.2% are secondary school graduates and 48% are high school or university graduates. Those whose income is higher than their expenses are 51.9% and those whose income is equal to or lower than their expenses are 48.1%. Individuals with chronic diseases are 46.2%. 50% of individuals with chronic disease are diabetes mellitus (DM) and 50% are hypertension (HT). 53.8% of the participants are not working, 46.2% are professionals (Table 1).

Table 1. Sociedemographic features (n=156)

Category	Group	n	%
Gender	Woman	84	53.8
	Man	72	46.2
Marital Status	Married	141	90.4
	Single	15	9.6
Education	Illiterate	6	3.8
	Primary Education	45	28.8
	Secondary Education	30	19.2
	High School	30	19.2
	Universty	45	28.8
Occupation	Unemployed	84	53.8
	Public Officer	36	23.1
	Worker	12	7.7
	Health Professional	15	9.6
	Other	9	5.8

The mean AHLS score of the participants by gender and age groups are shown in Table 2. The mean of AHLS score of the individuals in the male gender was found higher than those in the female gender and contains a significant difference ($p < 0.05$). According to age, postoc duncan test was used for group comparison of AHLS score mean. Accordingly, there is no significant

difference between the ages of 20-29 and 30-39 (p = 0.700). There is no significant difference between the ages of 40-49 and 50-65 (p = 0.256). There is a significant difference between other age groups (p <0.05) (Table 2).

Table 2. Comparison of mean AHLS scores according to the gender and age groups of the participants (n=156)

	n	M	SD	M-M	p*
Gender					
Woman	84	7.8	5.7	0-18	0.001
Man	72	10.5	4.0	0-17	
Ages (year)					
20-29	36	11.4	4.7	2-18	0.001
30-39	42	11.0	4.7	3-18	
40-49	39	7.6	5.4	1-17	
50-65	39	6.4	4.1	0-11	

M: Mean, SD: Standart Deviation, M-M: Min,mum-Maximum

AHLS score mean according to the educational status of the individuals participating in our research are shown in Table 3. According to the postoc duncan test results for the comparison between groups, there is no significant difference between high school and university graduates (p = 0.338). As the education level increases, the AHLS score averages also increase. There is a significant difference when all other groups are compared (p <0.05).

The mean scores of AHLS according to the occupational status and chronic disease status of the individuals participating in our study are shown in Table 4. The mean AHLS scores of individuals with profession and people without chronic disease has been found to be high and contains significant difference (p <0.05) (Table 4). Among the participants (46.2%) who have a profession, the mean AHLS scores of the healthcare workers was the highest (17.00), and the mean score of the workers was the lowest (9.75).

Table 3. Comparison of mean AHLS scores individuals according to their educational status (n=156)

	n	M	SD	p*
Illiterate	6	1	0	0.001
Primary Education	45	5.1	4.2	
Secondary Education	30	8.3	4.5	
High School	30	11.8	3.9	
Unıversty	45	13	2.4	
Total	156	9.13	5.1	

M: Mean, SD: Standart Deviation

Table 4. Comparison of mean AHLS scores according to the occupational status and chronic diseases of individuals (n=156

	n	M	SD	p*
Professional	72	12.50	3.73	0.001
Unemployed	84	6.25	4.43	
Chronic Diseases	72	6.17	4.49	0.001
Healthly	84	9.24	4.29	

M: Mean, SD: Standart Deviation, *ANOVA

DISCUSSION

Awareness and consciousness level of HL is an important public health problem affecting the whole segment of the society (6). In the literature, it is seen that the level

of HL is not at an adequate level in our country as in the world. Looking at the studies conducted, it is seen that the individuals with chronic diseases have HL levels below the national mean (6,7).

Chajaee et al. in his study on patients with HT in Iran in 2018, he found that the HL levels of men were higher (8). Temel et al. ın their study on HL and related factors in patients with chronic disease in Izmir in 2017, he showed of the female sex had a higher HL level than men (9). In our study, the HL level of men was found to be higher than those of the female gender and included a significant difference. This may be due to the sociocultural differences of the researched areas.

Wang et al. research on the relationship between level of HL and quality of life in China in 2017, he looked at age groups. Young individuals were found to be higher level of HL than older individuals and show a significant difference (10). Jovanıc et al. In his study in Serbia in 2018, no significant difference was found in comparing the HL level of three groups as <50 years, 50-65 years and> 65 years (p = 0.361) (11). In our study, the participants were divided into 4 age groups and as the age increased, we found that the level of HL decreased gradually and showed a significant difference. The relationship between age groups and HL level in the literature has different results, and this may be due to the fact that the studies carried out included differences in terms of education level, cultural structure and level of awareness.

In Dilli's study on the relationship between the knowledge level of cervical cancer and level of HL in married women in 2016, the relationship between the level of education and the level of HL was examined. Among the participants, university graduates received the highest level of HL knowledge and mean score (12). Again, in the study of Temel et al. in Izmir in 2018, as the education level increased, the HL levels of the individuals who participated in the study increased and included significant differences (9). In our study, as the level of education increases, the mean score of AHLS increases gradually and a significant difference was found between the groups. This may be due to the increase in patient-doctor compliance as the level of education in individuals increases, the ability to understand what he reads and to apply it towards his life. It may also result from wanting to take an interactive role in health decisions and planning.

Chajaee et al. in his study on patients with HT in Iran in 2018, included significant differences in the level of HL of individuals who did not work in any job and that of professionals (8). Aslantekin et al. in the research on the evaluation of the HL level

of DM participants in Ankara in 2013, HL level differed significantly between professionals and others (13). In our study, findings and data similar to the literature are available. HL level of individuals with profession was higher than those without profession. There is a significant difference between the two groups. This may be due to the fact that the education level of professional individuals is higher than those who do not work in any job.

Jovanic et al. In Serbia in 2018, Wong et al. In studies carried out in the USA in 2018, the level of HL in individuals with chronic disease was found to be insufficient (64% - 26%), and in studies conducted in our country, the level of HL of individuals with chronic disease was low (64.6%) (11,14,15). Similar to the literature, in our study, the level of HL was found to be lower in individuals with chronic disease compared to those without. There is a significant difference between the two groups. This may be due to the fact that individuals with chronic diseases are older and their educational status is lower.

CONCLUSION

As a result; This study grouped the individuals who applied to a university hospital outpatient clinic according to their characteristics and looked at the HL level and revealed it. In order to raise the HL levels of all members of the society to a higher level, it may be recommended to expand the projects based on society, to provide trainings on this issue and to prepare awareness raising presentations. In addition, it will be beneficial to distribute HL booklets including simple illustrations to outpatient clinics in hospitals, which are especially visited by chronic patients, to generalise public spots consisting of short, clear and simple information in order to easily reach every segment of the public, under the leadership of our Ministry of Health, and to create scales suitable for the cultural structure of our country for the exact determination of HL. Even if there has been an increase in our country in recent years, it is necessary to conduct current studies on HL, since sufficient levels have not been reached yet.

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