Original Article / Orijinal Araştırma

Health Literacy Level Of Individuals Who Apply to the Family Medicine Polyclinic

Aile Hekimliği Polikliniğine Başvuran Bireylerin Sağlık Okuryazarlığı Düzeyi

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Abstract

Aim: Health literacy includes the knowledge and competence of people to meet the health demands in society. This study aims to examine the level of health literacy in individuals who apply to the Family Medicine Polyclinic.

Material and Method: The study is a cross-sectional descriptive study containing 115 patients aged 18 years and older who applied to the Family Medicine Department of a University Hospital in Türkiye between 03.03.2025 and 07.03.2025. A survey form consisting of 9 questions and Türkiye Health Literacy-32 Scale (TSOY-32) were applied face-to-face.

Results: The average age of the participants was 36.78 ± 12.16, and 72.2 %were female. 32.2 %of the participants had sufficient health literacy. None of the participants with primary school levels had sufficient and excellent health literacy levels, and 18.8 %of the participants with university and higher levels of education had excellent health literacy level. There was no significant difference between the gender, marital status, work and income status of the participants and health literacy levels.

Conclusion: In our study, the proportion of participants with inadequate and problematic health literacy level was determined as 50.4 %. It was found that the level of health literacy in the participants with a high level of education was significantly higher. Increasing health literacy will increase patient access to appropriate health services, recommended treatments, and preventive health services. This may reduce costs in health services, increase the yield and increase the satisfaction rate in the health sector.

Keywords: Health literacy, family medicine, TSOY-32

Öz

Amaç: Sağlık okuryazarlığı, toplumdaki sağlık taleplerini karşılamak için kişilerin bilgi ve yeterliliklerini içerir. Bu çalışmanın amacı Aile Hekimliği Polikliniği'ne başvuran bireylerde sağlık okuryazarlığı düzeyinin incelenmesidir.

Gereç ve Yöntem: Çalışma, 03.03.2025 ve 07.03.2025 tarihleri arasında Türkiye'deki bir üniversite hastanesinin aile hekimliği bölümüne başvuran 18 yaş ve üzeri 115 hastayı içeren kesitsel tanımlayıcı tipte bir çalışmadır. 9 sorudan oluşan bir anket formu ve Türkiye Sağlık Okuryazarlığı-32 ölçeği (TSOY-32) yüz yüze uygulandı.

Bulgular: Katılımcıların yaş ortalaması 36,78±12,16 idi, %72,2'si kadındı. Katılımcılarım %32,2'si yeterli sağlık okuryazarlığı düzeyine sahipti. İlkokul düzeyinde eğitime sahip olan katılımcıların hiçbiri yeterli ve mükemmel seviyede sağlık okuryazarlığı düzeyine sahip değildi, üniversite ve üzeri düzeyde eğitime sahip katılımcıların ise %18,8'i mükemmel sağlık okuryazarlığı düzeyine sahipti. Katılımcıların cinsiyeti, medeni durumu, çalışma ve gelir durumu ile sağlık okuryazarlığı düzeyleri arasında anlamlı bir fark saptanmadı.

Sonuç: Çalışmamızda yetersiz ve sorunlu-sınırlı sağlık okuryazarlığı düzeyine sahip katılımcıların oranı %50,4 olarak tespit edildi. Eğitim düzeyi yüksek olan katılımcılarda sağlık okuryazarlığı düzeyinin anlamlı olarak daha yüksek olduğu saptandı. Sağlık okuryazarlığı düzeyinin artışı; hastaların uygun sağlık hizmetlerine ulaşması, önerilen tedavileri uygulayabilmesi, koruyucu sağlık hizmetlerine ulaşımını arttıracaktır. Bu durum sağlık hizmetlerinde maliyeti düşürebilir, verimi arttırabilir ve sağlık sektöründe memnuniyet oranının artmasını sağlayabilir.

Anahtar Kelimeler: Sağlık okuryazarlığı, aile hekimliği, TSOY-32

INTRODUCTION

Health is a state of well-being in individuals, both physically, mentally, and socially. To maintain this holistic well-being, individuals must possess the skills to access, understand, and use health-related information.[1] The World Health Organization (WHO) defines health literacy as "the development of the knowledge, skills, attitudes, motivation, and confidence necessary for lifelong health-related decision-making".[2]

There is a strong relationship between Health Literacy (HL) and access to healthcare services, adherence to treatment, and disease prevention and management.[3] Literature has shown that individuals with low HL attend health check-ups less frequently, utilize preventive healthcare services less frequently, and adhere less to medical treatments.[4] Furthermore, these individuals are known to have higher rates of emergency room visits, experience greater difficulties in managing chronic diseases, have longer hospitalization rates and length of stay, and even have a higher mortality rate.[5-7] HL is an important concept that closely concerns not only individual health but also public health. Inadequate HL is more common among individuals with a lower socioeconomic status. This leads to social health inequalities.[8]

Primary health services are the first area where individuals first contact the health system and where preventive and therapeutic health services are provided holistically. Therefore, family medicine practices are extremely important for assessing and improving individuals' HL and developing health behaviors. Family physicians are the first to assess individuals' health knowledge and understanding and provide the necessary guidance and counseling.[9] An individual's level of HL is directly related to the success of the service, especially in processes such as chronic disease monitoring, vaccination programs, and pregnancy follow-up.

The World Health Organization (WHO) has reported that health literacy remains low in both developed and developing countries.[2] Studies conducted in Türkiye reveal that the vast majority of individuals have low or limited HL levels. According to the 2014 Türkiye Health Literacy Survey, only 30% of individuals were reported to have adequate or excellent HL, but this rate increased to 46.1% by 2024.[10] HL levels worldwide vary from country to country, and in many regions, these levels fall below expectations. According to WHO data, HL can be limited even in developed countries. This situation leads to significant problems such as access to healthcare, health information, and health inequalities.[2] The literature frequently emphasizes that socioeconomic and demographic variables such as advanced age, low education, insufficient income, and the presence of chronic diseases negatively impact HL levels.[11] Low HL hinders individuals' effective participation in treatment processes, reduces their utilization of healthcare services, and ultimately creates negative impacts. Therefore, it is crucial to address interventions and strategies aimed at improving HL at both the individual and system levels. Studies show that individuals with high HL levels more frequently adopt healthy lifestyle behaviors, which has positive effects on both life expectancy and quality of life.[12-14] Therefore, health literacy should be considered a key determinant in the process of protecting and improving individuals' health.

In this context, determining the HL levels of individuals using primary health care services is crucial for formulating health policies and developing appropriate intervention strategies. Identifying the current status of individuals presenting to family medicine clinics will contribute to tailoring service delivery to individuals, effectively planning health education programs, and structuring the healthcare system around individuals.

This study aims to determine the HL levels of individuals presenting to a family medicine clinic and to investigate the relationship between this level and sociodemographic variables. This aims to structure education and awareness strategies related to the healthcare system in a more effective and targeted manner.

MATERIAL AND METHOD

The research protocol was approved by the Selçuk University Faculty of Medicine Ethics Committee (Date: 11.02.2025, Decision No: 2025/77). It was confirmed that all aims and instruments of the study were designed following the ethical standards of the institutional research committee and the Declaration of Helsinki and its later amendments.

Study Design

This is a cross-sectional, descriptive study conducted at the Family Medicine Outpatient Clinic of Selçuk University Faculty of Medicine between March 3, 2025, and March 7, 2025. The number of patients presenting to our outpatient clinic in one week was 356. Of these patients, 32.3% (n=115) met the inclusion criteria and agreed to participate. Inclusion criteria included being 18 years of age or older, agreeing to participate, and having at least a primary school education.

The researchers administered a nine-question survey to assess sociodemographic data to the participants, and the TSOY-32 scale to determine their HL levels face-to-face.

TSOY-32 Scale

The TSOY-32 is a self-report scale developed in 2016 by Okyay et al. to assess HL in individuals over the age of 15 who have at least a primary school education.[15] The scale is based on the conceptual framework developed by the European Health Literacy Research Consortium.[6] However, unlike the original scale, the TSOY-32 is structured based on a 2X4 matrix, using two, rather than three, main dimensions. Accordingly, the matrix consists of eight components: two dimensions (Treatment and service and Disease prevention/health promotion) and four processes (Accessing health-related information, understanding health-related information, evaluating health-related information, and using/applying health-related information).

The Cronbach's alpha coefficient for the scale was determined to be 0.927. The Cronbach's alpha coefficient for the first dimension, "Treatment and Service Sub-Dimension," is 0.880. The Cronbach's alpha coefficient for the second dimension, "Disease Prevention and Health Promotion Dimension," is 0.863. The conceptual framework includes two dimensions related to health (treatment, disease prevention, and health promotion) and four processes of obtaining information (accessing, understanding, evaluating, and using/applying) related to health-related decision-making and practices. Each item is rated on a scale of 1 to 4: 1=Very easy, 2=Easy, 3=Difficult, 4=Very difficult. Code 5 was used for the statement "I have no idea." Before moving on to score calculations, codes should be recoded to 1-4 and 4-1. For ease of calculation, the total score was standardized to take a value between 0 and 50. The index obtained by calculating the formula = Index = (arithmetic mean-1) x [50/3] was classified into four categories. HL level was evaluated in four categories according to the obtained score. 0-25 points; inadequate HL, >25-33 points; problematic-limited HL, >33-42 points; sufficient HL, >42-50 points; This score was considered to have excellent HL.

Statistical Analysis

All data were analyzed using SPSS (Statistical Package for Social Sciences) for Windows 22.0 statistical package. Numbers, percentages, means, and standard deviations were used to evaluate data. The chi-square test was used to compare categorical measurements between groups. Results were calculated at a 95% confidence interval, with a significance level of $p<0.05$.

RESULTS

The mean age of the participants was 36.8 ± 12.2 years, and 72.2% of the participants were female. Regarding educational background, 7% (n=8) of the participants had a primary education level, 23.5% (n=27) had a secondary education level, and 69.6% (n=80) had a university degree or higher. 81.7% (n=94) of the participants did not have any chronic diseases.

19.1% (n=22) of the participants had inadequate, 31.3% (n=36) had limited-problem, 32.2% (n=37) had adequate, and 17.4% (n=20) had excellent HL (**Table 1**).

Table 1. Evaluation of Participants' TSOY-32 Index Scores

TSOY-32 index evaluation	n	%
Insufficient HL	22	19.1
Problematic-limited HL	36	31.3
Sufficient HL	37	32.2
Perfect HL	20	17.4
Total	115	100

A negative correlation was found between the participants' age and HL level. HL level decreased with increasing age (r=-0.273, p=0.003).

None of the participants with a primary school education had an adequate or excellent HL level, while 75% had an inadequate HL level. Among participants with a university degree or higher, 18.8% had an excellent HL level. A positive correlation was found between HL level and education level. HL level increased with increasing education level (r=0.267, p=0.004) (**Table 2**).

Table 2. Relationship Between Participants' Educational Status and HL Level

Characteristic	TSOY-32				r	p
	Insufficient HL (%)	Problematic-limited HL (%)	Sufficient HL(%)	Perfect HL(%)		
Educational status						
Primary Education	75	25	0	0		
Secondary Education	18.5	29.6	33,3	18.5	0.267	0.004
University and above	13.8	32.5	35	18.8		

No significant difference was found between the participants' gender, employment status, income status, marital status, parenthood, reading liking, and chronic disease status and the HL level (p=0.088, p=0.139, p=0.361, p=0.597, p=0.187, p=0.140, and p=0.097, respectively) (**Table 3**).

Table 3. The Relationship Between Participants' Gender, Employment Status, Income Status, Marital Status, Parenting Status, Reading Literacy, Chronic Disease Status, and TSOY-32 Level

Characteristic	Insufficient HL (%)	Problematic-limited HL (%)	Sufficient HL(%)	Perfect HL(%)	p
Gender					
Female	19.3	32.5	32.5	15.7	0.088
Male	18.8	28.1	31.3	21.9	
Employment Status					
Employee	16.5	30.4	30.4	22.8	0.139
Unemployed	25.0	33.3	36.1	5.6	
Income Status					
Income<Expense	25.7	40.0	28.6	5.7	
Income=Expense	16.4	27.3	34.5	21.8	0.361
Income>Expense	16.0	28.0	32.0	24.0	
Marital Status					
Married	17.3	34.7	29.3	18.7	0.597
Single	22.5	25.0	37.5	15.0	
Parenting Status					
Yes	17.1	38.6	27.1	17.1	0.187
No	22.2	20.0	40.0	17.8	
Reading Literacy					
Yes	15.9	35.2	29.5	19.3	0.140
No	29.6	18.5	40.7	11.1	
Chronic Disease Status					
Yes	38.1	19.0	28.6	14.3	0.097
No	14.9	34.0	33.0	18.1	

DISCUSSION

This study aimed to determine the health literacy (HL) levels of individuals presenting to the Family Medicine Outpatient Clinic of a university hospital and to examine its relationship with sociodemographic factors. Findings showed that nearly half of the participants (50.4%) had inadequate or problematic-limited levels of HL. Only 32.2% of the participants were found to be adequate, and 17.4% had excellent HL. These rates are below the national average (46.1%), and the low levels, particularly at the initial stage of healthcare utilization, are concerning.[10] Our study found a positive correlation between education level and HL. A significant portion of individuals with a university degree or higher were found to have adequate or excellent HL levels. Similar to our results, a nationwide study conducted in Türkiye reported significantly higher HL levels in individuals with higher education levels.[16] Similarly, the HLS-EU study conducted in Europe showed that individuals with higher education levels had significantly better HL levels.[6] Our results revealed a negative correlation between age and HL level. Similarly, a study conducted in Türkiye reported that HL decreases with age.[17] Limited access to digital technologies by older individuals, age-related declines in cognitive functions, and difficulties accessing new information negatively impact the understanding and application of health-related information.[18] This situation highlights the importance of using more simplified materials in health communication, particularly for the elderly. The study found no statistically significant relationship between HL levels and variables such as gender, income level, marital status, employment status, parenthood, and chronic disease status. However, some literature suggests that these variables may influence HL levels. For example, a study by Koduah et al. found a significant relationship between income level and HL.[19] This difference may be due to the sample in our study consisting of similar socioeconomic groups and the relatively limited number of participants. Low HL leads not only to individual consequences but also to societal and broader consequences. For example, some studies report increased emergency room use, more hospitalizations, and longer hospital stays in individuals with inadequate HL.[20] This can lead to both increased costs and decreased efficiency in the healthcare system. Recent reports published by the Ministry of Health in 2024 also highlight this issue and emphasize the need to increase HL levels to improve public health.[10] According to the results of our study, family physicians working in primary healthcare have important responsibilities. When communicating with patients, family physicians should consider their HL levels and provide explanatory and simplified information, which can increase treatment adherence and utilization of healthcare services. Furthermore, preparing short, easy-to-understand brochures, posters, and visuals for patients can also strengthen communication. Some studies indicate that training improves healthcare professionals' ability to accurately assess HL levels, resulting in positive effects on patient communication.

[21] This study has some limitations. The study sample was limited to individuals presenting at a single hospital outpatient clinic, limiting the generalizability of the results to the entire population. Furthermore, the cross-sectional nature of the study precludes establishing cause-and-effect relationships. Participants' responses were self-reported and may have been influenced by their tendency to respond by social expectations. Therefore, it is important to support the findings with future multicenter, longitudinal, and qualitative studies.

CONCLUSION

The results of this study indicate that a significant portion of individuals presenting to the Family Medicine Outpatient Clinic have inadequate or problematic/limited health literacy. Significant correlations were found between health literacy levels and, in particular, education level and age. These findings suggest the need to develop communication strategies tailored to individuals' health literacy levels in the delivery of primary health care services.

When family physicians working in primary health care assess individuals' health literacy levels and provide appropriate counseling, it is possible to improve health behaviors, increase treatment adherence, and increase satisfaction with the healthcare system. The Ministry of Health and local health authorities should encourage policies and practices that increase the level of health literacy at the community level. In this context, expanding health literacy education programs in community health centers and schools, planning media campaigns, and simplifying e-health applications are crucial.

In summary, health literacy directly impacts not only individuals' health-related decision-making capacity but also the effectiveness and sustainability of the healthcare system. Therefore, holistic interventions at individual, institutional and political levels to increase the level of health literacy are important for strengthening the health system.

ETHICAL DECLARATIONS

Ethics Committee Approval: The research protocol was approved by the Selçuk University Faculty of Medicine Ethics Committee (Date: 11.02.2025, Decision No: 2025/77).

Informed Consent: All patients signed the free and informed consent form.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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