



(ISSN: 2587-0238)

Çetin Dağlı, S. (2023). Health literacy of women attending a municipality's sports center, *International Journal of Education Technology and Scientific Researches*, 8(23), 1966-1976.

DOI: <http://dx.doi.org/10.35826/ijetsar.643>

Article Type (Makale Türü): Research article

HEALTH LITERACY OF WOMEN ATTENDING A MUNICIPALITY'S SPORTS CENTER

Sinemis ÇETİN DAĞLI

Asst.Prof, Yuzuncu Yil University, Van, Turkey, sinemiscetindagli@yyu.edu.tr

ORCID:0000-0001-9419-4667

Received: 12.01.2023

Accepted: 19.08.2023

Published: 01.09.2023

ABSTRACT

The aim of this study is; to measure the health literacy level of women who come to a municipality's sports center and to increase health education and health literacy. This study was conducted with 26 women. In the study, a questionnaire with 12 questions about socio-demographic characteristics prepared by the researcher was applied by face-to-face interview technique. Turkish Health Literacy Scale-32 and health literacy scenario scale were also applied to the participants. Afterwards, 30 minutes of health-related education was given. 15 days after education, Turkish Health Literacy Scale-32 and Health literacy scenario scale were repeated. The mean age of women is 31.53 ± 6.43 . 50% of women are single and 50% are married. Considering their educational status, 12 people (46.2%) are high school graduates, 12 people (46.2%) are university graduates, and 2 people (7.6%) are primary school graduates. When asked about social security, 15 (57.7%) of them stated that they had SGK and 5 (19.2%) of them stated that they had a green card. 6 (23.1%) of them do not have social security. The participants' Turkish Health Literacy Scale-32 pre-test total score mean was 39.46 ± 7.84 . Turkish Health Literacy Scale-32 general index score of those with social security SGK is significantly higher than others ($p=0.05$). We compared Turkish Health Literacy Scale-32 scores before and after the education. Education did not change the scores of accessing and using information in treatment and service. However, the scores of understanding information and evaluating information increased significantly in post-education treatment and service. After the education, the score of accessing information increased significantly in the prevention of diseases and in the improvement of health. There was no significant change in other scores. Education significantly increased the Turkish Health Literacy Scale-32 total score. When the participants' pre- and post-education health literacy scenario scale scores are comparing education did not change knowledge, evaluation of knowledge, use of knowledge and total score. Access to health-related information and understanding information scores increased significantly after the education. In conclusion; This study showed that women's health literacy is low in our region and this can be increased with health education.

Keywords: Health literacy, woman, health education.

INTRODUCTION

Health is a state of complete physical, social and spiritual well-being and not merely the absence of disease or infirmity. (WHO, 20.06.2023). Literacy affects people's access to information. Research on education and adult literacy shows that literacy affects access to information, mobility in areas where writing is used, cognitive and linguistic abilities, and self-efficacy. A person's literacy level directly affects his ability to access health information, to learn information necessary for the prevention of diseases and to promote health, to use health-preserving methods, and to communicate health-related information to other people (WHO, 2023-3-27).

Health literacy was first defined by Scott Simonds (Tones, 2002). He mentions health literacy in his article titled "Health Education and Social Policy" in 1974. Simonds emphasized that literacy is taught only in fields such as history and physics in schools, but it is also important for children to be literate in the field of health. He states that health education should take place in schools (Tones, 2002). The American Medical Association (AMA) defined the concept of health literacy in 1999. This definition; It includes the ability to read simple information about health and to perform health-related tasks while benefiting from health services. If we count these skills; reading the medicine prescribed by the doctor, reading appointment slips and other health-related materials, and understanding what they read about health (JAMA, 1999). Health literacy is the ability to understand information about one's health, to follow recommendations, to integrate recommendations into their lives, to improve their health level, and to access information and services that will maintain their health. Using this information is an important part of health literacy in developing skills and acquiring a health culture (Ölmez and Barkan, 2015). Health literacy is also defined in the Health Promotion and Development Dictionary of the Ministry of Health, General Directorate of Primary Health Services. Accordingly, health literacy; Individuals have the necessary knowledge and skills to change their lifestyle and conditions in order to improve their own and community health. In addition, it is to have self-confidence in this regard and to reach this level of confidence (Turkey Health Ministry, 2011).

Health literacy deals with preventive, improving and improving health issues. These issues are the ability to access, comment on, and understand basic health information and services. Health literacy has complex issues. It is within the scope of health literacy in reading, understanding, analyzing and ultimately making decisions (Tanrıöver et al., 2014).

The concept of health literacy; It is seen as reading, understanding and using the health information of the individual to improve his/her health. It is important that the society is responsible for its own health, actively participates in the treatment process, and exhibits appropriate behaviors to improve its health. In this respect, it is necessary to obtain information about health, to understand and apply this information, and to have awareness of health problems. This requirement is gained through health literacy (Gül and Dömbekçi, 2023).

Health literacy is associated with a number of factors. A person's socio-economic status, occupation, income, job, cultural level, language spoken, access to health services provided by the state, and use of mass media affect health literacy. Environmental factors are also effective in health literacy. He has an influence on his family. An

individual's age, gender, whether there is a chronic disease, cultural level, diseases of the sense organs, and mental status also affect health literacy. As the person's social and physical skills improve, health literacy is expected to increase. (Sorensen et al., 2012).

It is stated that many people may encounter difficulties in accessing information and services due to lack of health literacy. Health literacy can be very important for individuals to be directed to an increasingly complex health system and to better manage their own health. It is emphasized that the differences in individuals' reading and understanding of materials related to their health will contribute to the existing health inequalities in health systems. It is stated that individuals with low health literacy are more likely to have worse health, have an inability to understand their own health problems and treatments, and have a higher risk of hospitalization. It is stated that the annual average health care costs of people with very low literacy levels may be four times higher than the general population (Berman Association, 2004, Uğurlu and Akgün, 2019).

The conditions that negatively affect public health in low health literacy level are as follows; deterioration in general health level, decrease in the rate of use of preventive health and primary care services, inadequacy in terms of care and management of chronic conditions and skills necessary to reach the health care system, inadequacy of self-care, increase in medical errors, increase in health care costs, health care less use of health services, delay in health-seeking behavior and understanding of worsening of health status during the symptomatic period, inadequacy in adherence to medical advice and/or instructions, prolongation of hospitalization frequency and length of stay, increase in utilization rates from high-cost services such as emergency services, and increase in mortality (Tözün and Sözmen, 2015).

Health literacy is essential if people want to successfully manage their own health. It is the ability to find, understand, interpret and communicate health information, find the most appropriate care, and make the right choice. In order to have this skill, it is necessary to have sufficient knowledge on this subject. (Keleher and Hagger, 2007).

The main sources of access to information used to increase the level of health literacy are health personnel, medical literature, medicine and health books and journals, and communication tools. These means of communication are television, the Internet and the like (Tözün and Sözmen, 2015). Health professionals are the first and most reliable source on health-related issues. However, due to intense work, health personnel do not have time to conduct health education. For this reason, people access health-related information from unreliable sources such as the internet, television and newspapers. Information obtained from social media, television and newspapers is often wrong. This information is made by people who are not experts in their field. It can mislead people who market a certain product. The increase in the use of these unreliable sources may cause individuals to make incorrect decisions about their health (Ilgaz and Gözüm, 2016).

Providing health information to the person receiving health care and providing health education are among the duties of the health professional. It is a right of the individual / patient to request and receive health information from the health professional. Health professionals should allocate time to health education despite their

workload. Health professionals should gain the habit of informing patients about health institutions and using these institutions correctly (Tözün and Sözmen, 2015).

The skills of health professionals to communicate with patients need to be associated with the outcomes of health services. Oral language skills are of great importance in the service delivery of health care providers. In communication with the patient, it is necessary to ask appropriate questions, give verbal medical advice or explain the treatment. Making sure that the individual can read and understand, using simple and clear expressions, using sentences such as "please show me" or "repeat", to make sure that the information is received correctly, to ask for answers to the questions, to establish a close and warm communication with the patient, to focus on and repeat the key messages, It is necessary to make short explanations and talk about side effects in order to establish a healthy communication. Expressing it simply with words used in everyday language that everyone can understand will bring about being understandable (WHO, 2023-3-27, Sezgin, 2013, Parker et al., 2003).

Health education has a positive effect on health literacy. Health education affects the health literacy and activation of individuals. Health education, communication, personal characteristics, media preferences, frequency of encountering health information can be adapted by taking into account the skills or competencies of individuals. Some of the individuals may prefer personal meetings, some may use the telephone or video conference, while some may be content with a text message. This situation can be matched with an "aware" health system with health literacy and health information of individuals and families (Adams, 2010).

In this study, we aimed to measure the level of health literacy in women and to increase this level with education intervention.

METHOD

Research Design

This study was planned experimentally.

Population and Sampling of the Study

The population of this study is the women who regularly attend the women's sports center of the Ipekyolu municipality of Van. The sample of the study was selected by random sampling method from these women. 50 women were included in the study. However, 5 women were excluded from the study because they did not attend health education, 15 women did not complete the final test, and 4 women left some questions on the scale blank. The study was completed with the pre- and post-test of 26 women.

Data Collection Tools

In the study, a questionnaire with 12 questions about socio-demographic characteristics prepared by the researcher was applied by face-to-face interview technique. Turkish Health Literacy Scale-32 and health literacy scenario scale were also applied to the participants before and after health education. Turkish Health Literacy

Scale-32 is a self-report scale developed by Okyay et al. Abacigil in 2016 to evaluate the health literacy of literate people over the age of fifteen. Turkish Health Literacy Scale-32 is structured based on a 2X4 matrix, taking two basic dimensions, not three. Accordingly, the matrix consists of a total of eight components: two dimensions (treatment and service and prevention of diseases/health promotion) and four processes (accessing health-related information, understanding health-related information, evaluating health-related information, using/applying health-related information). Turkish Health Literacy Scale-32 is grouped according to the scores. There are 4 groups. 0-25 score is insufficient health literacy, >25-33 is limited health literacy, >33-42 is adequate health literacy, >42-50 is excellent health literacy (Okyay et al., 2016).

The health literacy scenario scale is a self-report scale developed to determine the health literacy level of individuals. It can be used by people over the age of 15 who are literate. There are some differences from the original scale. It includes scenarios that evaluate the adequacy of accessing information, understanding information, evaluating and applying information. There are 4 different scenarios in the scale. Each scenario is intended to evaluate a process. There are four questions in the scenarios. The first questions of the scenarios measure knowledge. The first scenario is about accessing information, the second scenario is about understanding information, the third scenario is about evaluating information, and the fourth scenario is about applying information. There are five statements for each question. One of these statements is correct and is rated "5". Two statements are partially true; that is, it contains incomplete information. These expressions are scored as "+2" and "+3". Two statements are completely wrong and score "-5". The highest score that can be obtained from each question is "+10"; the lowest score can be "-10". In this case, the highest score that can be obtained from each scenario is "+30"; the lowest score is "-30". The total score that can be obtained from the four scenarios can be "+120" and the lowest score can be "-120" (Okyay and et al., 2016).

Afterwards, 30 minutes of health-related education was given. 15 days after the education, Turkey Health Literacy Scale-32 and Health literacy scenario scale were repeated.

Data Analysis

Data entry and analyzes of the research were done with Van Yuzuncu Yil University licensed SPSS 22.0 statistical program. Descriptive statistics are given as a percentage, mean \pm standard deviation. Whether the measurement values fit the normal distribution was tested with Shapiro-Wilk. Since continuous variables did not meet the parametric test conditions, Mann-Whitney U test was used in binary groups. Kruskal Wallis test analysis of variance was applied in groups with more than two independent variables. After Kruskal Wallis test analyze, Mann-whitney Test used to compare groups. The scores before and after the health education were compared with the Wilcoxon Test. Significance level was accepted as $p < 0.05$. Ethics committee approval was obtained for his study from the Yan Yuzuncu Yil University Social and Humanities Sciences Local Ethics Commitee dated 13.05.2022 and numbered 2022/11-05.

FINDINGS

26 women participated in this study. The mean age of women is 31.53±6.43. The mean weight of the women was 61.46±8.33 kg, and the mean height was 157.61±49.52. 50% of women are single and 50% are married. Considering their educational status, 12 people (46.2%) are high school graduates, 12 people (46.2%) are university graduates, and 2 people (7.6%) are primary school graduates. When asked about social security, 15 (57.7%) of them stated that they had SGK and 5 (19.2%) of them stated that they had a green card. 6 (23.1%) of them do not have social security. 12 (46.2%) of the participants stated that their income is equal to their expenses, 7 (26.9%) of them stated that their income is more than their expenses, 7 (26.9%) of them stated that their income is less than their expenses. When asked about their health status, 15 (57.7%) people stated that they felt good, 6 (23.1%) people felt okay, 4 (15.4%) people stated that they felt quite good, and 1 (3.8%) felt excellent. 7 (26.9%) of the participants in the study stated that they had any chronic disease. When asked about smoking, 21 (80.8%) stated that they did not use it, 4 (15.4%) used it, and 1 (3.8%) smoked and quit.

The participants' Turkey Health Literacy Scale-32 pre-test total score mean was 39.46±7.84. The comparison of Turkey Health Literacy Scale-32 general index scores of the participants of the study with their socio-demographic characteristics is given in Table-1. Accordingly, marital status, income status, education level, presence of chronic disease do not affect the Turkey Health Literacy Scale-32 general index score. Turkey Health Literacy Scale-32 general index score of those with social security SGK is significantly higher than others.

Table-1. Comparison of the Socio-demographic Characteristics of the Participants and the General Index Scores of Turkey Health Literacy Scale-32

		N	Mean±sd	Z, x ²	p
Marital status	Single	13	40.30±8.21	Z=-0.668	0.53
	Married	13	38.62±7.69		
Income status	Income is lower than expences	7	37.35±7.84	x ² =2.26	0.32
	Income is equal to expences	12	42.18±7.37		
	Income is more than expences	7	36.90±7.56		
Education status	Primary	2	32.29±1.47	x ² =2.55	0.27
	High school	12	40.58±5.89		
	University	12	39.53±9.70		
Chronic disease state	Yes	7	38.76±7.91	Z=-0.203	0.83
	No	19	39.72±8.01		
Social security	SGK	15	42.56±7.84	x ² =5.98	0.05
	Green card	5	35.10±6.16		
	No social security	6	35.32±6.02		

*Mann-Whitney U and Kruskal Wallis test used

The comparison of the participants' Turkey Health Literacy Scale-32 scores before and after the education is given in Table-2. Education did not change the scores of accessing and using information in treatment and service. However, the scores of understanding information and evaluating information increased significantly in post-education treatment and service. After the education, the score of accessing information increased

significantly in the prevention of diseases and in the improvement of health. There was no significant change in other scores. Education significantly increased the Turkey Health Literacy Scale-32 total score.

Table-2. Comparison of the Participants' Turkey Health Literacy Scale-32 Scores Before and After the Education

		Pre-education mean±sd	Post-education mean±sd	Z	p
General		39.46±7.84	42.56±7.86	-3.242	0.01
Treatment and service	Access to health-related information	42.46±7.36	43.75±8.27	-0.764	0.44
	Information understanding	39.58±7.19	44.71±7.41	-3.306	0.01
	Information evaluation	35.89±10.27	40.86±11.60	-2.554	0.01
	Information use/application	40.70±10.02	42.78±8.37	-1.515	0.13
Protection from diseases/improvement of health	Access to health-related information	41.02±8.47	42.78±8.46	-1.639	0.10
	Information understanding	40.54±9.24	45.19±15.16	-1.517	0.12
	Information evaluation	37.17±11.29	40.38±9.55	-1.794	0.73
	Information use/application	38.30±11.36	40.06±10.14	-1.191	0.23

*Wilcoxon test used

The grouping of health literacy status before and after education according to the Turkish Health Literacy Scale-32 scores of the researchers is given in Table-3.

Table-3. Grouping of Health Literacy Statuses Before and After Education

	Pre-test		Post-test	
	N	%	N	%
Insufficient Health literacy	1	3.8	1	3.8
Limited Health Literacy	3	11.5	2	7.7
Adequate Health Literacy	10	38.5	6	23.1
Excellent Health Literacy	12	46.2	17	65.4

The comparison of the socio-demographic characteristics of the participants with the health literacy scenario scale scores is given in Table-4. Accordingly, marital status, income status, education level, presence of chronic disease, social security status do not affect the total score of the health literacy scenario scale.

Table-4. Comparison of Participants' Socio-demographic Characteristics and Health Literacy Scenario Scale Score

		N	Mean±sd	Z, x ²	p
Marital status	Single	13	27.07±14.34	Z=-1.001	0.31
	Married	13	33.46±12.59		
Income status	Income is lower than expences	7	28.57±15.19	x ² =3.42	0.18
	Income is equal to expences	12	35.25±9.65		
	Income is more than expences	7	23.42±16.23		
Education status	Primary	2	24.00±18.38	x ² =0.634	0.72
	High school	12	32.41±12.39		
	University	12	29.16±14.95		
Chronic disease state	Yes	7	32.42±15.58	Z=-0.637	0.52
	No	19	29.47±13.20		
Social security	SGK	15	32.60±14.57	x ² =1.64	0.43
	Green card	5	27.20±13.62		
	No social security	6	27.00±12.06		

*Mann Whitney U and Kruskal Wallis used

The comparison of the participants' pre- and post-education health literacy scenario scale scores is given in Table-5. Accordingly, education did not change knowledge, evaluation of knowledge, use of knowledge and total score. Access to information and understanding information scores increased significantly after the education.

Table- 5. Comparison of the Pre and Post-education Health Literacy Scenario Scale scores of the Participants in the Study

	Pre-education mean±sd	Post-education mean±sd	Z	p
Information	9.57±4.24	10.53±6.54	-0.206	0.83
Access to information	6.80±4.26	11.50±5.33	-3.504	<0,001
Information understanding	9.00±4.40	11.23±2.56	-1.899	0.05
Information evaluation	8.38±6.00	9.57±4.24	-0.502	0.61
Information use/application	6.07±5.44	9.15±5.02	-1.723	0.08
Total	30.26±13.62	31.65±11.37	-0.659	0.51

*Wilcoxon test used

CONCLUSION and DISCUSSION

In the study conducted by Berberoğlu et al. in 2018 on individuals between the ages of 18-65, 51.7% of them were in the category of insufficient health literacy. 17.2% of them have adequate and excellent level of health literacy. This may be due to the younger average age of our study group.

In the study conducted by Ulusoy et al. in 2020, it was found that 13.01% of parents were excellent, 33.33% sufficient, 37.81% problematic and 15.85% insufficient health literacy. In this study, it was found that 3.8% of women had inadequate, 11.5% problematic, 38.5% sufficient, 46.2% excellent literacy levels before education. This may be due to the high education level of this study group.

In the study conducted by Berberoğlu et al. in 2018, the health literacy index score of women was found to be 25.00±9.3. In the study of Ertem et al. in 2021 on individuals over the age of 65, the health literacy index score was found to be 27.92±7.53. In the study conducted by Deniz and Oğuzöncül in 2016 on 375 people, the index score was found to be 27.5±7.41. In this study, the health literacy index score of women was found to be 39.46±7.84 before education.

In a study conducted by Furuya et al. in Japan in 2013, it was found that health literacy was low in people with low education levels. In the study conducted by the Bakan and Yıldız in 2019, they found that health literacy is higher in high school and university graduates. In the study of Chen et al. in 2021, health literacy increases as the level of education increases. In this study, the health literacy index score is higher in high school and university graduates than in primary school graduates. However, the difference is not statistically significant.

In the study carried out by Ergün in 2017 with Health School students, the health literacy index score of those with a high income level was found to be higher than the other groups. In the study conducted by Ulusoy et al. in 2020, the index score of those with a good income level was found to be high. In the study of Chen et al. in 2021, it was determined that as the income status increased, health literacy increased. In the study conducted by Okur et al. in 2021 on Health Vocational School students, the effect of income status on health literacy was

not determined. In this study, income status did not affect the health literacy index score. The fact that our study group consisted of 26 people may have affected the result.

In the study of the Bakan and Yıldız in 2019, having social security does not affect health literacy. In this study, health literacy was found to be better in those with social security. Having health insurance facilitates access to health services. Those who reach health services can have more accurate information about health.

In the study of Aral et al. in 2021, health literacy was found to be higher in those with two or more chronic diseases. In the study conducted by İkişik et al. in a university hospital in 2020, the health literacy level of those with chronic diseases was found to be lower than those of healthy individuals. In the study of Bakan and Yıldız in 2019, the presence of chronic disease does not affect the health literacy index score. In this study, the presence of chronic disease did not affect the index score.

In the study carried out by the Bakan and Yıldız in 2019, the health literacy score of those who received health education increased. In this study, the health literacy index score increased from 39.46 ± 7.84 to 42.56 ± 7.86 with health education. The difference is statistically significant. Health education is one of the most important indicators in raising the level of health.

In the study conducted by Şimşek in 2019, the health literacy scenario scale scores of high school students were evaluated. Access to information score was found 27.13, information understanding score was found 28.29, information evaluation score was found 32.57, information use/application score was found 28.44. In our study access to information score is 6.80 ± 4.26 , information understanding score is 9.00 ± 4.40 , information understanding score is 8.38 ± 6.00 , information use/application score is 6.07 ± 5.44 . In this study, although there was more than one answer for each question in the scenario scale, the participants selected only one option. Therefore, the scores obtained were found to be lower than other studies. This is one of the limitations of our study.

In the study conducted by Tunalı Çokluk in 2018, the health literacy scenario scale score increased significantly in all sub-dimensions after the health education. In our study, education health literacy increased the scenario scale score in all sub-dimensions. However, there is statistical significance only in the scenario scores of accessing and understanding information. This may be due to the fact that women selected only one option in our study.

SUGGESTIONS

Our study was conducted on 26 women. Health literacy was found to be better in those with higher education levels. This shows the positive effect of education on health literacy. In addition, the scale scores increased as a result of the health education we provided. However, our health education time is limited. There is a need for regular and inclusive educations on this subject for all segments of the society. Our study was conducted in a small group. The effects of education may therefore not be fully determined. This is one of the limitations of our study. Studies in which the educational intervention is performed in larger groups are needed. Health literacy is one of the current public health issues. Because as health literacy increases, preventive health services are

positively affected and diseases can be caught in the asymptomatic period. Limb loss and mortality rates are significantly reduced. It is important that public health studies on this subject are included in the literature.

ETHICAL TEXT

In this article, journal writing rules, publication principles, research and publication ethics rules, journal ethics rules were followed. Responsibilities for any violations that may arise regarding the article, belong to the author. Ethical approval was obtained for the study with the decision of Van Yuzuncu Yil University Social and Humanities Sciences Local Ethics Committee dated 13.05.2022 and numbered 2022/11-05.

Conflict of Interest: Author declared no conflict of interest.

Financial Support: There is no financial support from any institution or organization in this study.

Author Contribution Rate: In this study, the contribution rate of author was %100.

REFERENCES

- Adams, R.J. Improving health outcomes with better patient understanding and education. *Risk Management and Healthcare Policy*. 2010;3:61-72.
- Aral, N., Aysu, B., Aydođdu, F., & Gürsoy, F. (2021). Annelerin sađlık okuryazarlık düzeylerinin incelenmesi: çocuk gelişimci perspektifi ile disiplinlerarası bir çalışma. *Gevher Nesibe Journal Of Medical & Health Sciences*, 6(14), 35-44.
- Bakan, B.A. & Yıldız, M. (2019). 21-64 yaş grubundaki bireylerin sađlık okuryazarlık düzeylerinin belirlenmesine ilişkin bir çalışma. *Sađlık ve Toplum*, 29(3), 33-40.
- Berberođlu, U., Öztürk, O., İnci, M. B., & Ekerbiçer, H. Ç. (2018). Bir aile sađlığı merkezine kayıtlı 18-65 yaş grubu bireylerdeki sađlık okuryazarlığı durumunun değerlendirilmesi. *Sakarya Tıp Dergisi*, 8(3), 575-581.
- Gül, N. & Dömbekci, H. A. (2023). Sađlık okuryazarlığının sađlık iletişimi sorunlarına etkisi: Manisa ili için değerlendirme. *Visionary E-Journal/Vizyoner Dergisi*, 14(38), 649-665.
- Chen, W., Ren, H., Wang, N., Xiong, Y., & Xu, F. (2021). The relationship between socioeconomic position and health literacy among urban and rural adults in regional China. *BMC Public Health*, 21, 1-10.
- Deniz, S. & Ođuzöncül, A.F. (2020). Assesment of health literacy level in Akcadag, Malatya, Turkey. *Firat Tıp Dergisi*, 25(1). 05-013.
- Ergün, S. (2017). Sađlık yüksekokulu öđrencilerinde sađlık okuryazarlığı. *Kocaeli Medical Journal*, 6(3), 1-6.
- Ertem, U., İrdesel, J., Göktaş, N. (2021). Evaluation of health literacy level and related factors in older adult patients. *Turkish Journal Of Geriatrics-Türk Geriatri Dergisi*, 24(4), 490-498.
- Furuya, Y., Kondo, N., Yamagata, Z., & Hashimoto, H. (2015). Health literacy, socioeconomic status and self-rated health in Japan. *Health promotion international*, 30(3), 505-513.
- Hoc, A. Committee on Health Literacy for the American Council on Scientific Affairs, American Medical Association (1999). *Health literacy: Report of the council on scientific affairs*. 281(6):552-7.
- İlgaz, A. & Gözüm, S. (2016). Tamamlayıcı sađlık yaklaşımlarının güvenilir kullanımı için sađlık okuryazarlığının önemi. *Dokuz Eylül Üniversitesi Hemşirelik Fakültesi Elektronik Dergisi*. 9(2), 67-77.

- İkişik, H., Turan, G., Kutay, F., Sever, F., Keskin, S. N., Güdek, H., ... & Maral, I. (2020). Üçüncü basamak sağlık kuruluşuna başvuran hastaların sağlık okuryazarlığı düzeyinin incelenmesi. *Ankara Üniversitesi Tıp Fakültesi Mecmuası*, 73(3), 247-252.
- Keleher, H. & Hagger, V. (2007). Health literacy in primary health care. *Australian Journal of Primary Health*, 13(2), 24-30.
- http://www.euro.who.int/__data/assets/pdf_file/0008/190655/e96854.pdf [accessed 2023-3-27][WebCite Cache]. 2023.
- Okyay, P., Abacıgil, F. & Harlak, H. (2016). Türkiye sağlık okuryazarlığı ölçeği-32 (TSOY-32). Okyay, P. & Abacıgil, F., (Eds.) *Türkiye sağlık okuryazarlığı ölçekleri güvenilirlik ve geçerlilik çalışması*, Sağlık Bakanlığı Yayını, 1025(1).
- Ölmez, E. H. & Barkan, O. B. (2015). Sağlık okuryazarlık düzeylerinin belirlenmesi ve hasta hekim ilişkisinin değerlendirilmesi, *BJSS Balkan Journal of Social Sciences*, 4(8), 121-127.
- Parker, R. M., Ratzan S.C., Lurie, N. (2003). Health literacy: a policy challenge for advancing high-quality health care. *Health Affairs*. 22(4):147-153.
- Sezgin, D. (2013). Sağlık okuryazarlığını anlamak. *İleti-ş-im*. 3; 73-91.
- Sorensen, K., Van den Broucke, S., Fullam, J., Doyle, G, Pelikan, J., Slonska, Z., Brand, H. (2012). Health literacy and public health: a systematic review and integration of definitions and models. *BMC Public Health*. 12(1):80, 2-13.
- Services H. *Healthy people 2010: Understanding and improving health*: Berman Associates; 2000.
- Şimşek, T. (2019). Kayseri ilindeki lise öğrencilerinin sağlık okuryazarlık düzeylerinin belirlenmesi ve etkileyen faktörlerin saptanması. *Sağlık Bilimlerinde Eğitim Dergisi*, 2(1), 43-52.
- Tanrıöver, M.D., Yıldırım, H.H., Demiray, Ready, F.N., Çakır, B., Akalın, E. (2014).Türkiye sağlık okuryazarlığı araştırması. *Sağlık-Sen Yayınları*, Birinci baskı.
- Tones, K. (2002). *Health literacy: new wine in old bottles?* Oxford University Press. Volume 17, issue 3, page:287-290.
- Tözün, M. & Sözmen M.K. (2015). Halk Sağlığı Bakışı ile Sağlık Okuryazarlığı Health Literacy with Perspective of Public Health. *Smyrna Tıp Dergisi*, 48-54.
- Tunali, Çokluk, S. (2018). *Sağlık okur-yazarlığı müdahale çalışması: eczacılık ve eğitim fakültesi örneği*. [Yayınlanmamış doktora tezi]. Van Yüzüncü Yıl Üniversitesi.
- Sağlık Bakanlığı Yayınları, (2011). *Sağlığın teşviki ve geliştirilmesi sözlüğü*, Anıl Matbaacılık, Ankara.
- Uğurlu, Z. & Akgün, H.S. (2019). Sağlık kurumlarına başvuran hastaların sağlık okuryazarlığının ve kullanılan eğitim materyallerinin sağlık okuryazarlığına uygunluğunun değerlendirilmesi. *Mersin Üniversitesi Sağlık Bilim Dergisi*, 12(1), 96-106.
- Ulusoy, E., Yılmaz, T. E., Çifci, A., Yılmaz, T., Kasım, İ., & Özkara, A. (2020). Sağlam çocuk takibinde ebeveynlerin rolü ve sağlık okuryazarlığı. *Ankara Medical Journal*, 20(3), 588-604.
- <https://www.who.int/about/governance/constitution>, 20.06.2023.