E-Health Literacy and Its Associated Factors Among Adults: The Case of Türkiye

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Abstract

The aim of this study is to determine the e-health literacy levels of individuals aged 18–65 years living in Çorum province of Türkiye, and to examine whether this level differs according to demographic (gender, age, education, marital status, employment status, income level) and digital behavioral variables (preference for Ministry of Health application, duration of searching for health information on the internet, status of making an online appointment in the last 12 months). The research was conducted in a descriptive cross-sectional design and carried out with data obtained from 440 volunteer participants. As a data collection tool, a demographic information form and the 8-item, 5-point Likert-type E-Health Literacy Scale developed by Norman and Skinner were used. The data obtained were analyzed with the SPSS 22.0 program; descriptive statistics, independent sample t-test, and one-way ANOVA were applied, and the significance level was accepted as $p < 0.05$. The internal consistency of the scale was calculated as Cronbach's $\alpha = 0.946$, and a high level of reliability was achieved. According to the research findings, 50.7% of the participants are women and 49.3% are men. The mean e-health literacy score was found to be 3.45±0.92. The results obtained revealed that e-health literacy levels showed significant differences according to gender, age, marital status, education, employment, and income status, as well as digital health behaviors. In particular, it was determined that individuals who use the E-Nabız application and make an online appointment in the last 12 months have higher e-health literacy levels. In addition, it was observed that e-health literacy scores were significantly higher in young, more educated, and high-income individuals. As a result, the e-health literacy of the participants was generally found to be at a moderate level. However, it was determined that e-health literacy levels were lower in elderly, less educated, and low-income groups. These findings indicate that access to digital health services should be increased and digital health literacy training should be expanded. Policy recommendations include the development of targeted training programs, the simplification of digital health applications in a user-friendly manner, and the inclusion of e-health literacy indicators in national monitoring systems.

Keywords: *E-health literacy, demographic factors, digital health, health information seeking, health management*

Introduction

In today's world, where digitalization is progressing rapidly, the presentation of health services and the ways of accessing health information are undergoing a radical transformation. In particular, the widespread use of the internet and mobile technologies creates both new opportunities and significant challenges in the processes of individuals reaching, evaluating, and using health-related information. At the center of this transformation is the concept of "e-health literacy". E-health literacy refers to the skills of individuals to search for, find, understand, evaluate, and effectively use health information presented in digital environments (Norman & Skinner, 2006; Zhang et al., 2023).

E-health literacy is not only limited to individual health management but also plays an important role in improving public health outcomes. This concept enables individuals to better understand health risks, treatment options, and possible outcomes in the diagnosis, treatment, and recovery processes (Temür & Aksoy, 2022). Therefore, e-health literacy is of strategic importance not only for individuals but also for the health system and health professionals.

It is vital for individuals to have an effective health system in order to stay healthy and maintain their quality of life. The global health problems experienced recently have further highlighted the importance of health services (Wagh et al., 2024). After the COVID-19 pandemic, digital resources have become a fundamental tool in accessing information about health services. However, the widespread presence of false and misleading content as well as reliable health information on the internet poses a significant challenge, especially for elderly individuals, and reduces trust in online health information (Kummervold et al., 2008; Lange et al., 2019; Rathore & Farooq, 2020).

In recent years, with the increase in internet use in the field of health, e-health literacy, which is a sub-dimension of the concept of health literacy, has become increasingly important. The intensive use of the internet as a tool to access health information has brought the discussions about the accuracy and reliability of this information to the agenda. Low e-health literacy may cause individuals to not be able to access accurate information on the internet and to turn to incorrect or misleading information-based erroneous diagnoses, treatments, or health behaviors (Deniz, 2020). Individuals with a high level of health literacy can understand the terms used by health professionals more easily; they can accurately evaluate health content in media such as brochures, books, magazines, and the internet. In addition, they express information about their medical conditions appropriately, participate more actively in the treatment process, and comply with the recommended treatment plan (Tözün & Sözmen, 2015; Yalnız et al., 2025). In addition, it is stated that a high level of e-health literacy is associated with a lower probability of anxiety and depression (Tabak et al., 2025).

Low e-health literacy is considered a serious threat to both individual and public health. The application of incorrect, misleading, or outdated health information on the internet can lead individuals to diagnose themselves, misdirect their treatment processes, or reject recommended medical interventions. Such behaviors can have negative consequences on both individual and public health. Therefore, increasing the e-health literacy level of the society is of great importance in terms of increasing the effectiveness of sustainable health services and reducing the burden on the health system. In the literature, it is stated that individuals with high e-health literacy are more likely to maintain healthy eating, regular exercise, and sleep habits (Norman & Skinner, 2006; Mitsutake et al., 2016). In addition, it is stated that these individuals develop a more critical perspective when evaluating online health information and have higher skills in accessing reliable information (Diviani et al., 2015). In this context, improving e-health literacy not only improves health behaviors at the individual level, but also contributes to the spread of positive health behaviors in the immediate environment of individuals, creating a positive externality at the societal level (Gül et al., 2022).

The aim of the current research conducted in this direction is to determine the e-health literacy levels of individuals aged 18–65 and to examine whether these levels differ according to demographic

variables. It is expected that the findings obtained from the research will contribute to the development of digital health education programs and the strengthening of health policies in the e-health dimension.

Literature Review

The literature shows that the factors determining e-health literacy are individual, socio-demographic, and technological variables. Education level, age, income status, gender, and internet access are among the strongest determinants (Kıral, 2022; Yıldırım, 2024). In particular, individuals who are young, highly educated, and have access to digital tools have higher levels of e-health literacy (Biçer & Altay, 2022; Kılınç İşleyen et al., 2024). In contrast, e-health literacy decreases as age increases and digital skills decrease (Gökmen et al., 2022; Zaimoğlu & Özer, 2023). Gender differences have also been frequently emphasized in the literature. Deniz (2020) stated that women have higher e-health literacy than men. This situation has been associated with social gender roles and health information-seeking behaviors. In addition, increasing the level of digital literacy is seen as a basic prerequisite for the development of e-health literacy (Durmuş & Dolu, 2023; Yıldırım, 2024).

E-health literacy is not only the ability to access information, but also an important variable that affects individuals' health behaviors. Çağatay (2024) determined that individuals with high e-health literacy tend to postpone seeking health care, and the abundance of information in the digital environment sometimes leads to delays in health behaviors. In contrast, Zaimoğlu and Özer (2023) found a positive relationship between e-health literacy and patient activation, revealing that the use of digital information supports patients in taking an active role in their own health management. Similarly, in the study conducted by Kılınç İşleyen et al. (2024) with individuals with type 2 diabetes, a strong correlation was found between obtaining and confirming health information from the digital environment and e-health literacy. These results show that e-health literacy strengthens both health awareness and self-management behaviors.

E-health literacy can also affect individuals' levels of anxiety and trust in digital health information. Mansur and Ciğerci (2022) and Deniz (2020) found a positive relationship between e-health literacy and cyberchondria, demonstrating that the frequency of searching for online health information can increase anxiety levels. This situation reveals that digital health information has the potential to increase both awareness and anxiety in individuals. Similar trends have been observed in international studies. Singh et al. (2021) evaluated e-health literacy in university students and stated that digital skills are a determinant of this level. In a study conducted by Palomino et al. (2025) in Peru, individuals with higher levels of education and internet usage frequency had significantly higher levels of e-health literacy. These findings indicate that e-health literacy depends not only on technological infrastructure but also on educational policies and cultural factors. Studies conducted in Türkiye (Durmuş & Dolu, 2023; Kılınç İşleyen et al., 2024; Kıral, 2022) show that e-health literacy is still at a moderate level and is an area open to development, especially in rural areas and among the elderly population. When compared with international literature, it is understood that digital infrastructure and education policies play an important role in this difference.

The literature shows that studies on e-health literacy are mostly cross-sectional and descriptive. However, the lack of longitudinal studies examining the long-term effects of digital health behaviors is remarkable. In addition, studies analyzing the effects of socio-cultural context, digital trust, and artificial intelligence-based health applications on e-health literacy need to be increased. In the context of Türkiye, it is seen that studies examining the regional differences in e-health literacy and the effects of the digital divide are limited.

Method and Materials

The aim of this research is to determine the e-health literacy levels of individuals aged 18–65 living in Çorum, one of the provinces of Türkiye, and to examine whether these levels show significant differences according to socio-demographic variables.

The research is designed as descriptive and cross-sectional. The sample size was determined as 384 people as a result of the calculation. However, the research was completed with the participation of 440 participants on a voluntary basis. A questionnaire form was used to collect the data. The first part of this two-part form includes questions about the demographic characteristics of the participants, and the second part includes statements about e-health literacy.

The E-Health Literacy Scale used in the study was developed by Norman and Skinner (2006). The scale consists of a total of 10 items, including 2 items regarding internet use and 8 items measuring internet attitude. A high score obtained from the scale indicates that the individual's e-health literacy level is high. The Turkish adaptation of the scale was made by Gencer (2017), and Cronbach's α coefficient was reported as 0.886 in this study. In this study, Cronbach's α coefficient of the scale was calculated as 0.946. The scale has a 5-point Likert-type evaluation system. The data obtained from the research were analyzed using SPSS (Statistical Package for the Social Sciences) v.22 statistical program. Descriptive statistics (frequency, percentage, mean, standard deviation) were used in the analysis of the obtained data, as well as independent groups t-test to examine the differences between two groups, and one-way analysis of variance (ANOVA) to examine the differences between more than two groups. The statistical significance level was accepted as $p<0.05$. The necessary ethics committee approval for the execution of the research was obtained with the decision of Hitit University Non-Interventional Research Ethics Committee dated 2023-03-30 and numbered 2023/94.

Findings

A total of 440 participants were included in the study. 50.7% of the participants are women (n=223) and 49.3% are men (n=217). In terms of marital status, 57.5% of the participants are married and 42.5% are single. When the age distribution is examined, the highest rate is 22.5% in the 35-44 age range, and the lowest rate is 15.9% in the 55 years and older group.

In terms of education level, 26.4% of the participants are undergraduate, 24.5% are associate degree, 23.9% are high school, 10.7% are primary school, 9.1% are secondary school, and 5.5% are graduate degree holders. This result indicates that the research group largely consists of individuals with higher education levels.

When the distribution by employment status is examined, 20.7% of the participants are civil servants, 17.3% are students, 16.6% are self-employed, 15.5% are workers, 15.5% are housewives, and 14.5% are private sector employees. This distribution indicates that the sample includes individuals from different segments of working life.

According to income level, 39.8% of the participants are in the middle, 29.1% are in the low, 22.5% are in the high, 4.8% are in the very low, and 3.9% are in the very high income group. This situation reveals that the majority of the participants are in the middle income level.

When the time spent by the participants searching for health information on the internet is examined, it has been determined that 43.9% spend less than one hour, 34.8% spend between 1–2 hours, and 21.4% spend more than two hours. This finding suggests that while a significant portion of individuals engage in health-related information seeking behavior, this period is generally limited to short time intervals.

In the preference of Ministry of Health applications, it has been determined that 69.5% of the participants use MHRS more frequently, and 30.5% use the E-Nabız system more frequently. In addition, 78% of the participants stated that they had made a doctor's appointment online in the last 12 months, while 22% stated that they had not benefited from this service.

When evaluated in general, it can be said that the demographic characteristics of the participants are distributed in a balanced manner, the age group is mostly concentrated in the 25–44 range, the education level is high, and a large part of the participants actively use digital health applications.

Table 1. Demographic Characteristics of Participants (n=440)

Variable	Group	Frequency (f)	Percentage (%)
Gender	Female	223	50.7
	Male	217	49.3
Marital Status	Married	253	57.5
	Single	187	42.5
Age	Younger than 25	84	19.1
	25–34	97	22.0
	35–44	99	22.5
	45–54	90	20.5
	55 and over	70	15.9
Education Level	Primary school	47	10.7
	Secondary school	40	9.1
	High school	105	23.9
	Associate degree	108	24.5
	Bachelor's degree	116	26.4
	Postgraduate	24	5.5
Employment Status	Student	76	17.3
	Public Official	91	20.7
	Housewife	68	15.5
	Self-Employed	73	16.6
	Private Sector	64	14.5
	Worker	68	15.5
Income Level	Very low	21	4.8
	Low	128	29.1
	Medium	175	39.8
	High	99	22.5
	Very high	17	3.9

Time spent searching for health information on the internet	Less than 1 hour	193	43.9
	1–2 hours	153	34.8
	More than 2 hours	94	21.4
Most frequently preferred Ministry of Health applications	E-Nabız	134	30.5
	MHRS	306	69.5
Status of making a doctor's appointment online in the last 12 months	Yes	343	78.0
	No	97	22.0

When the descriptive statistics for the E-Health Literacy Scale are examined, the average score obtained from the scale is observed to be 3.45. This finding indicates that the e-health literacy levels of the participants are at a moderate level. In addition, the standard deviation value of the scale is 0.92, indicating that there is a moderate variation among the participants' scores. The Cronbach's Alpha value, which is the internal consistency coefficient of the scale, has been calculated as 0.946. This value reveals that the scale is highly reliable and the items exhibit a highly consistent structure with each other. The skewness (-0.851) and kurtosis (-0.053) values, which were examined to evaluate the normality of the distribution, indicate that the data are approximately normally distributed (Table 2).

Table 2. Mean, Standard Deviation, Reliability Coefficient, Skewness and Kurtosis Values for the Scale

Scale	Average	St. Deviation	Cronbachs' Alpha	Skewness	Kurtosis
E-Health Literacy Scale	3.45	0.92	0.946	-0.851	-0.053

The results of the independent samples t-test and one-way analysis of variance (ANOVA) analysis, which were conducted to determine whether the level of e-health literacy differs according to demographic variables, are presented in Table 3.

As a result of the t-test conducted according to the gender variable, it was found that the level of e-health literacy differed significantly ($t=-2.253$, $p=0.025$). The e-health literacy average of male participants ($\bar{x}=3.57$) was found to be significantly higher than that of female participants ($\bar{x}=3.34$). A significant difference was also detected in the analysis performed according to the marital status variable ($t=-6.787$, $p<0.001$). The average of single individuals ($\bar{x}=3.83$) is significantly higher than the average of married individuals ($\bar{x}=3.17$). This finding indicates that the digital health literacy level of single individuals is higher.

According to the result of the t-test conducted in terms of the Ministry of Health application preference, the e-health literacy level of individuals using the E-Nabız application ($\bar{x}=3.91$) is significantly higher than that of MHRS users ($\bar{x}=3.25$) ($t=6.286$, $p<0.001$). This situation suggests that the E-Nabız system, which allows individual data tracking, increases digital health awareness. A significant difference was also detected in the analysis performed according to the status of making a doctor's appointment online in the last 12 months ($t=-4.651$, $p<0.001$). The e-health literacy average of individuals who made an appointment ($\bar{x}=3.89$) is higher compared to those who did not ($\bar{x}=3.33$).

As a result of the ANOVA test conducted according to the age variable, it was observed that the e-health literacy level differed significantly according to age groups ($F=12.547$, $p<0.001$). The average

of participants under 25 years of age ($\bar{x}$=3.77) is the highest, and the average of participants aged 55 and over ($\bar{x}$=2.73) is the lowest. This result shows that e-health literacy decreases as age increases. As a result of the ANOVA test conducted according to the education level variable, a significant difference was also found (F=99.809, p<0.001). The level of e-health literacy increases as the level of education increases. The average of graduate graduates ($\bar{x}$=4.34) is significantly higher than that of primary school graduates ($\bar{x}$=1.61).

A significant difference was also found in the analysis according to employment status (F=48.832, p<0.001). Public officials ($\bar{x}$=4.33) have the highest average, while workers ($\bar{x}$=2.50) and housewives ($\bar{x}$=2.71) have the lowest average. As a result of the ANOVA test conducted according to income level, a significant difference was determined between e-health literacy levels (F=45.216, p<0.001). The average scores of individuals in the very low income group ($\bar{x}$=2.71) are significantly lower than those in the high ($\bar{x}$=3.89) and very high income groups ($\bar{x}$=4.48). Finally, a significant difference was also detected in the analysis according to the variable of time spent searching for health information on the internet (F=17.840, p<0.001). The e-health literacy average of participants who use the internet for more than two hours ($\bar{x}$=3.96) is significantly higher than those who use the internet for less than one hour ($\bar{x}$=3.18) and between one and two hours ($\bar{x}$=3.47).

According to the findings obtained, e-health literacy levels differ significantly according to gender, marital status, age, education level, employment status, income level, preference of the Ministry of Health application, and internet usage time. This situation shows that e-health literacy is closely related to individual, socioeconomic, and digital behavioral variables.

Table 3. Comparison of the E-Health Literacy Scale According to Demographic Variables

Variable	Group	$\bar{X} \pm SD$	t-test / F-test	p value
Gender	Male	3.34±1.19	-2.253	0.025
	Female	3.57±0.91		
Marital Status	Married	3.17±1.19	-6.787	0.000
	Single	3.83±0.71		
Most frequently preferred Ministry of Health applications	E-Nabız	3.92±0.74	6.286	0.000
	MHRS	3.25±1.12		
Status of making a doctor's appointment online in the last 12 months	Yes	3.33±1.12	-4.651	0.000
	No	3.89±0.69		
Age	Younger than 25	3.77±0.68	12.547	0.000
	25-34	3.54±1.02		
	35-44	3.69±0.96		
	45-54	3.35±0.81		
	55 and over	2.73±1.54		
Education Level	Primary school	1.61±0.94	99.809	0.000
	Secondary school	2.70±0.98		
	High school	3.23±0.76		
	Associate degree	3.91±0.61		
	Bachelor's degree	4.03±0.59		
	Postgraduate	4.34±0.78		
Employment Status	Student	3.78±0.71	48.832	0.000
	Public Official	4.33±0.49		
	Housewife	2.71±1.32		
	Freelancer	3.40±0.74		
	Private Sector	3.65±0.78		
	Worker	2.50±0.99		

Income Level	Very low	2.71±0.85	45.216	0.000
	Low	3.04±1.07		
	Medium	3.76±0.74		
	High	3.89±0.76		
	Very high	4.47±0.73		
Time spent searching for health information on the internet	Less than 1 hour	3.18±1.05	17.840	0.000
	Between 1–2 hours	3.47±0.77		
	More than 2 hours	3.95±0.76		

Discussion

This research examined the e-health literacy levels of adult individuals living in Çorum and the relationship of these levels with demographic variables. The findings show that e-health literacy differs significantly with variables such as age, education, income, gender, marital status, employment status, and interaction with digital health applications.

It is observed that the average scores that the participants received from the e-health literacy scale are at a moderate level. This finding is in line with some research results in the literature (Bardus et al., 2022; Mansur & Ciğerci, 2022; Neter & Brainin, 2012; Taştan Gürkan et al., 2023). However, in some other studies (Al-Ruzzieh et al., 2024; Burçaklı & Kılıç, 2023; Del Giudice et al., 2018; Genç et al., 2024; Kaya & Eke, 2023; Tümer & Sümen, 2022), it was determined that the e-health literacy levels of the participants were high. It is thought that these differences between the findings stem from the demographic characteristics of the sample groups included in the studies, cultural context differences, or the language and application methods used in the scale.

In the research, it was determined that e-health literacy decreased as age increased. This result is consistent with the findings in the studies of Gökmen et al. (2022) and Zaimoğlu and Özer (2023). The decrease in familiarity with digital tools with age limits the ability of elderly individuals to evaluate and use online health information. This situation shows that the structural difference defined as the "digital divide" in the literature continues in the field of e-health (Deniz, 2020; Kummervold et al., 2008).

Education level findings are also in line with the literature. It has been determined that the level of e-health literacy increases as the education level increases. This situation has been reported similarly in the studies of Biçer and Altay (2022), Kılınç İşleyen et al. (2024), Kıral (2022) and Palomino et al. (2025). Education is a fundamental factor that strengthens both individuals' access to digital technologies and their ability to analyze online information. For this reason, it is important that digital health policies are designed to include groups with low education levels.

The study found that income level significantly affects e-health literacy. The average scores of individuals in the high-income group are significantly higher than those in the very low-income group. This finding indicates that socioeconomic inequalities highlighted in the literature are also reflected in the digital health field (Durmuş & Dolu, 2023; Yıldırım, 2024). Income level is a variable that directly affects internet access, device ownership, and opportunities to benefit from digital services.

The finding regarding the gender variable differs partially from the literature. In this study, the e-health literacy scores of men were higher than those of women. However, Deniz (2020) stated that women have a higher level of e-health literacy. This difference may be due to the sample structure, occupational distribution, and digital application experiences. The more intensive use of digital platforms by male participants for transactional purposes may have contributed to this result.

In terms of marital status, it was observed that the e-health literacy of single individuals was significantly higher than that of married individuals. This finding can be explained by the tendency of young and digitally more active individuals to be mostly single. In addition, it is also stated in the

literature that single individuals act more autonomously in health information seeking behavior and resort to digital resources more frequently (Çağatay, 2024).

According to the employment status variable, it was found that public officials and students have high e-health literacy, while the levels of workers and housewives are lower. This result indicates that the use of digital tools and the necessity of accessing information in the professional environment support the literacy level. On the other hand, limited digital access and education level of housewives and low-income workers reveal that e-health literacy should be improved in these groups.

In terms of digital behavior variables, it has been determined that the e-health literacy of individuals using the E-Nabız application and those who make appointments via the internet is significantly higher. This result indicates that the frequency of interaction with digital health platforms increases individuals' digital health awareness. Kılınç İşleyen et al. (2024) similarly reported that digital information verification behaviors are positively related to e-health literacy.

The study also found that individuals who spend more time searching for health information on the internet have higher levels of e-health literacy. However, Mansur and Ciğerci (2022) and Deniz (2020)'s studies stated that intensive online health information seeking may increase anxiety levels. This situation shows that digital health information has the potential to create both awareness and concern in individuals.

Overall, this study shows that e-health literacy in Türkiye is strongly influenced by demographic and socioeconomic factors and that digital health services should be restructured within the framework of the principle of equal access. The findings emphasize the necessity of e-health literacy development programs specifically targeting elderly, married, less educated, and low-income individuals.

As a result, e-health literacy is a combination of not only individual digital skills but also structural factors such as education, income, age, and social status. Therefore, holistic strategies should be developed in national health policies to strengthen digital health literacy.

Conclusion and Recommendations

This research examined the phenomenon of e-health literacy, which is one of the reflections of digitalization in the health field, in the context of demographic variables, and revealed that the level of e-health literacy in the Türkiye sample is significantly related to different socioeconomic and individual factors. The findings show that e-health literacy is not only an individual skill but also a multidimensional structure that reflects social inequalities. In this aspect, the study points out that the current inequalities in the digital health field should be addressed in a more comprehensive manner.

According to the research results, it has been determined that e-health literacy level decreases as age increases; however, e-health literacy significantly increases with increasing education and income levels. These findings indicate that the "digital divide" defined in the literature continues to exist significantly in the field of health (Deniz, 2020; Kummervold et al., 2008). In other words, access to digital resources and the capacity to use these resources effectively are not equally distributed in all segments of society. This result reveals that especially young, educated individuals with high access to digital tools have more developed skills in evaluating and using online health information.

On the other hand, the study determined that socio-demographic variables such as marital status, employment status, and digital platform usage also significantly affect e-health literacy. E-health literacy levels of single individuals, public employees, and students are significantly higher than other groups. This situation shows that digital literacy and access to online information opportunities are closely related to working life and education level. In particular, the fact that individuals who actively use the E-Nabız system have high e-health literacy supports the potential of digital health platforms to raise

awareness. Therefore, it can be said that as the frequency of individuals using digital health services increases, their e-health literacy levels also increase in parallel.

In light of these findings, the results of the study reveal that the development of e-health literacy cannot be explained only by individual digital competencies, but is also closely related to socioeconomic equality of opportunity, public policies, and social digital inclusion. In order for e-health services to be used effectively, it is of great importance to strengthen the digital access infrastructure, expand user training, and simplify health communication processes. In this way, digital health systems will become more accessible and functional for all segments of society.

Accordingly, healthcare managers and policymakers should consider e-health literacy as a community-based health indicator; and create special action plans for this concept in national digital health strategies. In addition, the Ministry of Health and local governments should develop digital health education modules targeting elderly, low-income and low-education level individuals; these programs should be disseminated through public education centers, family health centers and municipal digital living centers. In addition, digital health applications (e.g., E-Nabız, MHRS) should be redesigned in terms of user experience; and made compatible with simplified interfaces, multiple language options, and accessibility standards. Likewise, healthcare professionals should play a guiding role for patients not only in providing information but also in verifying online information and digital security. Finally, digital health literacy indicators should be integrated into national health monitoring systems and monitored regularly at the regional and demographic level.

Since this study is cross-sectional, future longitudinal studies should be conducted to examine the dynamics of e-health literacy over time and responses to policy interventions. In addition, mixed-methods research will contribute to an in-depth understanding of individuals' digital health experiences, trust perceptions, and cognitive processes in addition to quantitative data. In addition, comparative studies that take into account regional and cultural differences can help map e-health literacy levels in Türkiye's different socio-cultural contexts. On the other hand, by analyzing the effects of artificial intelligence-based health technologies and tele-health services on user literacy, the ethical and cognitive dimensions of the digital transformation process can be evaluated more comprehensively. Finally, by developing models related to health outcomes, the effects of e-health literacy on patient compliance, self-care behaviors, and health service utilization efficiency should be tested empirically.

In light of all these evaluations, this study positions e-health literacy as a critical determinant in the digital age's health equality agenda. The findings clearly demonstrate that digital health policies should include not only technological access but also the principles of digital justice, inclusive education, and cultural adaptation. Strengthening e-health literacy in all segments of society will both enable individuals to take a more informed and active role in their health management and provide long-term contributions to the sustainability of the healthcare system.

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