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Original Article

The Relationship Between eHealth Literacy and Digital Literacy in University Students: The Case of Northern Cyprus

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ABSTRACT

Objective: This study aims to identify the relationship between the levels of eHealth and digital literacy in university students.

Methods: This descriptive and correlational study was conducted on 469 students from non-health-related faculties in a university in Northern Cyprus during the spring semester of the 2020-2021 academic year. Descriptive information form, eHealth literacy scale, and digital literacy scale were used for data collection. Independent sample *t*-test, analysis of variance, Tukey, and Pearson's test were used for data analysis.

Results: There was a positive and statistically significant correlation between the eHealth Literacy Scale and Digital Literacy Scale total and sub-dimensions scores ($P < .05$). The mean score obtained from the eHealth Literacy Scale was 28.22 ± 7.86 (min. 8, max. 40). On the other hand, the mean score obtained from the Digital Literacy Scale was 58.87 ± 15.15 (min 17, max. 85). The eHealth Literacy Scale and Digital Literacy Scale scores of male students were significantly higher than female participants ($P < .05$). The eHealth and digital literacy levels of the participants, who believed that the internet is a valuable source of health information, were significantly higher than the other participants ($P < .05$).

Conclusion: The levels of eHealth and digital literacy of the participants were relatively high. Finally, the level of digital literacy was positively correlated with the level of eHealth literacy.

Keywords: Literacy, eHealth literary, digital literacy, university students

Introduction

It is vital to educate and train university students for the future of countries. As an island of universities, Northern Cyprus hosted 103 748 university students during the 2019-2010 academic year.[1] Since this number indicates the important share of youth population, it reminds that the skills and behaviors acquired during the university have an important role in the lives of individuals.[2,3] These skills and behaviors may not only influence the family and the individual's future life but also their health attitudes and behaviors. Due to this reason, younger generations should receive a high-quality education that provides adequate and up-to-date health information to maintain a healthy society in the future.[3] The concepts of digital and eHealth literacy come to the forefront for the youth, who are intertwined with technology. Advancements in information and communication technologies (ICT), the spread of mobile devices, and the increase in the use of internet have prioritized the concepts of digital and eHealth literacy in this population.[4]

The concept of digital literacy involves complex cognitive, sociological, and emotional capacities required to work effectively in a digital environment. On the other hand, the concept of digital health literacy refers to the ability to search, find, and understand health information available on electronic resources and use the obtained information to address a health problem.[5] Digital literacy refers to a comprehensive evaluation of the cognitive, social, and emotional dimensions of online or offline learning.[5] Advancements in digital technologies and the concept of technology, which are vital for our lives, also play an important role in health sector.[6] Consequently, the concept of digital literacy has come into prominence.

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Advancements in ICT and the widespread use of mobile devices have resulted in the increasing importance of not only the concepts of digital and digital health literacy but also the eHealth literacy.[4] The concept of eHealth literacy refers to the ability to search, locate, and evaluate health information from electronic resources to solve health problems.[7] One of the requirements of eHealth literacy is to gain knowledge on health using information technologies. Besides, the concept requires using computer, reading skills, and understanding the concept of health. The study by Güven et al[8] found that internet is the primary source of health information. Turkish Statistical Institute (TURKSTAT) reported that 69.3% of Turkish internet users used the internet to obtain health information in the last quarter of 2019.[9] However, as Can et al[10] found, most of the websites do not provide expert opinion or evidence-based and up-to-date information. Concerns about the reliability of health information on the internet, which is one of the primary sources of health information, reveal the importance of the concept of eHealth literacy. People with lower levels of eHealth literacy may not be able to access reliable information or may receive invalid health information, which, in turn, may result in wrong diagnosis, treatment, and health behaviors.[10]

The concepts of eHealth and digital literacy play an important role in the processes of receiving healthcare and health information and benefiting from health services.[10,11] People with inadequate levels of eHealth and digital literacy may receive incomplete information or may not understand medical terms and information.[12] They benefit less from the preventive health services and more from the treatment-oriented health services, which, in turn, may result with unnecessary hospital admission.[10] Besides, these people may experience communication problems with health professionals and may not adhere to medication regimens, thus, increasing health costs and the levels of morbidity and mortality. Consequently, the levels of eHealth and digital literacy have direct impacts on workloads of health professionals.[13]

University is a period during which the students achieve the skills to access the best information and its sources. Given the higher internet use among younger people, it becomes necessary to provide education on how to benefit from the internet.[14,15] Identifying the levels of eHealth and digital literacy in university students, who can rapidly access and comprehend information, understand the constant technological advancements in health sector, and implement these changes, is vital for both the development of health systems and the future of the society.[16,17] The review of the literature reveals that no study has been conducted on the relationship between eHealth and digital literacy in Northern Cyprus. Identifying this relationship in university students may fill the existing gap in the literature and have positive contributions to further studies on eHealth and digital literacy.

Methods

Aim

This study aims to analyze the relationship between eHealth and digital literacy in university studies. With this aim, we intended to answer the following questions:

1. What is the level of eHealth literacy in university students?
2. What is the level of digital literacy in university students?
3. Is there a relationship between the levels of eHealth and digital literacy?

Sample

This study employed a descriptive-correlational design to identify the relationship between the levels of eHealth and digital literacy in university students. This study constituted 6724 students, who studied at a university in Northern Cyprus during the spring semester of the 2020-2021 academic year. Students were stratified according to their faculties. Using the formula for finite population, sample size was calculated to be minimum 363 students. After stratification, students were randomly selected. The study was finalized with 469 voluntary students from faculties and vocational schools other than health, who received education in Turkish, and could understand and respond to the instructions, were included in the study. Since the students of health might have higher level of health knowledge, the students from the faculties of medicine, health sciences, pharmacy, and dentistry and the vocational school of health services were excluded.

Data Collection Tools

Descriptive information form, eHealth literacy scale, and digital literacy scale were used for data collection.

Descriptive Information Form: This form was prepared in line with the literature by the researchers.[6,7] The form had 5 questions on age, gender, faculty, year of study, and opinions on using internet in health decision-making.

The eHealth Literacy Scale: The eHealth Literacy Scale (eHEALS) was developed by Norman and Skinner and adapted into Turkish by Gencer.[18,19] Reliability and validity of the scale were tested on participants aged 18-45 years. The scale had 8 items, which were responded to on a 5-point Likert scale, ranging from "strong disagree" (1) to "strongly agree" (5). Possible scores ranged from 8 to 40 points, with higher scores indicating a higher level of eHealth literacy. Cronbach's alpha of the original scale and the Turkish version were 0.915 and 0.863, respectively. Cronbach's alpha in our study was 0.977. Permission to use the scale was obtained via e-mail.

Digital Literacy Scale: The Digital Literacy Scale (DLS) was developed by Ng and adapted into Turkish by Hamutoğlu et al[5,20] The scale was developed to determine the digital literacy skills in university students and the validity and reliability study of the scale was tested on university students. The DSL had 17 items in 4 dimensions, namely attitude (items 1-7) (min = 5 max = 35), technical (items 8-13), cognitive (items 14-15), and social dimensions (items 16-17). The items were scored on a 5-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). No items were reverse-scored. Possible scores ranged from 7 to 35 points for the attitude dimension, 6 to 30 points for the technical dimension, and 2 to 10 points for the cognitive and social dimensions. Overall scores ranged from 17 to 85. Cronbach's alpha of the Turkish version of the scale and our study were 0.98 and 0.973, respectively. Cronbach's alpha of the attitude, technical, cognitive, and social dimensions of the Turkish version of the scale were 0.89, 0.90, 0.87, and 0.79, respectively. Permission to use the scale was obtained via e-mail.

Procedures

Written informed consent and the data collection tools were uploaded to Google Forms. Data collection process started after obtaining approval from ethical commission. Web addresses of the online surveys were shared in virtual classrooms in Microsoft Teams and the students were invited to participate. Collected survey data were transferred first to Microsoft Excel and then to the Statistical Package for Social Sciences for analysis. Each survey was completed in approximately 15 minutes. The option "Collect email addresses from each submission" was disabled to protect confidentiality of participants. While preparing the survey form and scale items from Google Forms, adjustments were made in such a way that one cannot go to the next without answering the question. With this setting, only fully completed questionnaires can be uploaded to the system. In the Google forms setting section, it has been adjusted to give only one-time responses for each participant. Thus, a participant cannot give more than one response.

Data Analysis

Statistical Package for Social Sciences version 25.0 was used for data analysis. Frequency analysis was used to determine the distribution of descriptive characteristics and the eHEALS and DLS scores. Descriptive statistics on the eHEALS and DLS scores were presented. Since Kolmogorov–Smirnov test showed that collected data followed a normal distribution, parametric tests were used to test the research hypotheses. Independent sample *t*-test was used for the variables with 2 categories, whereas the analysis of variance (ANOVA) was used for the variables with 3 or more categories. Turkey test was used to determine the groups with significant differences in ANOVA test. The relationship between the eHEALS and DLS scores was analyzed using Pearson's test. Statistical significance was set at $P < .05$.

Ethical Approval

Ethic committee approval was obtained from the Eastern Mediterranean University Board of Scientific Research and Publications Ethics Committee (Date: December 17, 2020, No: ETK00-2020-0275). Besides, institutional permission was obtained from university administration and written informed consent was obtained from all students. The study was conducted in accordance with the principles of Helsinki Declaration. Finally, we obtained permission to use the eHEALS and the DLS via email.

Results

Table 1 presented the descriptive characteristics of the participants. Accordingly, 32.62% were aged 20-21 years and 54.16% were male. Besides, 24.9% studied at the faculty of engineering and architecture, 37.31% were second-year students, and 76.12% believed that internet was a useful source of information in health decision-making.

Table 1 also presented the comparison of the descriptive characteristics and the scores obtained from the eHEALS and DLS. There was no statistically significant relationship between the age group and the eHEALS score ($P > .05$). However, a statistically significant difference was observed between age groups and the scores obtained from the DLS and its 4 dimensions ($P < .05$). Accordingly, the scores obtained by the participants aged 18-19 years from the DLS and the 4 dimensions were significantly lower than the participants aged 22-23 years and 24 years and above. There was also a statistically significant difference between gender, eHEALS scores, and the scores obtained from the DLS and its 4 dimensions ($P < .05$). Accordingly, male scores obtained higher scores from the eHEALS, DLS, and the 4 dimensions.

The difference between age, the faculty of the participants, and the eHEALS scores was not statistically significant ($P > .05$). However, the difference between the faculty and the scores obtained from DLS and its 4 dimensions was statistically significant ($P < .05$). Accordingly, students that studied at the faculty of education obtained significantly higher scores from the DLS and its dimensions than students from other faculties. Although the difference between the eHEALS scores and the year of study was not statistically significant ($P > .05$), we found a statistically significant difference between the year of study and the scores obtained from the DLS and the technical and cognitive dimensions ($P < .05$). Accordingly, the scores obtained by the first-year students from the DLS and the technical and cognitive dimensions were significantly lower than the fourth-year students. Finally, there was a

Table 1. Comparison of the Descriptive Characteristics and the Scores Obtained from the eHEALS and DLS (n = 469)

				eHEALS****	DLS*****	DLS Attitude	DLS Technical	DLS Social	DLS Cognitive
Variables		**n**	**%**	**x ± SD**	**x ± SD**	**x ± SD**	**x ± SD**	**x ± SD**	**x ± SD**
Age group*	18-19 years[1]	127	27.08	27.12 ± 7.54	14.39 ± 17	23.03 ± 6.19	18.67 ± 5.35	6.49 ± 2.04	6.01 ± 1.77
	20-21 years[2]	153	32.62	28.76 ± 8.16	15.09 ± 28	24.37 ± 6.38	20.29 ± 5.57	7.10 ± 1.96	6.67 ± 1.82
	22-23 years[3]	133	28.36	28.98 ± 7.74	14.47 ± 17	25.98 ± 6.05	21.81 ± 5.48	7.44 ± 1.94	7.23 ± 1.86
	24 years and above[4]	56	11.94	27.43 ± 7.88	15.94 ± 34	25.30 ± 6.71	22.13 ± 5.76	7.41 ± 2.03	7.30 ± 1.86
Statistical analysis		*P* = .169			*P* = .000*	*P* = .002*1-3,1-4	*P* = .000*1-3,1-4	*P* = .000*1-3,1-4	*P* = .000*1-3,1-4
Gender**	Female	215	45.84	25.86 ± 7.89	55.48 ± 15.08	23.25 ± 6.52	19.26 ± 5.58	6.70 ± 2.01	6.27 ± 1.86
	Male	254	54.16	30.22 ± 7.28	61.74 ± 14.64	25.70 ± 6.00	21.55 ± 5.50	7.38 ± 1.97	7.11 ± 1.85
Statistical analysis		*P* = .000*			*P* = .000*	*P* = .000*	*P* = .000*	*P* = .000*	*P* = .000*
Faculty*	Education[1]	82	17.48	29.67 ± 8.34	63.21 ± 12.75	26.37 ± 5.45	22.01 ± 4.75	7.76 ± 1.71	7.07 ± 1.59
	Science and literature[2]	82	17.48	27.01 ± 9.60	56.30 ± 17.66	23.45 ± 7.33	19.77 ± 6.49	6.68 ± 2.23	6,40 ± 2,10
	Law[3]	62	13.22	27.15 ± 8.68	57.10 ± 17.46	23.56 ± 7.49	20.03 ± 6.34	6.98 ± 2.26	6.52 ± 2.19
	Business and economics[4]	47	10.02	29.36 ± 6.20	60.43 ± 12.54	25.21 ± 5,29	20.96 ± 4.85	7.17 ± 1.75	7.09 ± 1.61
	Engineering and architecture[5]	113	24.09	29.10 ± 7.19	60.45 ± 14.93	25.31 ± 6.10	20.96 ± 5.81	7.19 ± 2.06	6.98 ± 1.94
	Others***[6]	83	17.70	26.94 ± 6.06	55.42 ± 13.32	23.33 ± 5.67	19.19 ± 4.87	6.60 ± 1.80	6.30 ± 1.71
Statistical analysis		*P* = .062			*P* = .007*	*P* = .007*1-2,1-3	*P* = .021*1-2,1-3	*P* = .003*1-2,1-3	*P* = .016*1-2,1-3
Year of study*	First-year[1]	101	21.54	28.58 ± 7.39	56.66 ± 13.97	24.13 ± 6.09	19.31 ± 5.17	7.00 ± 1.95	6.23
	Second-year[2]	175	37.31	28.37 ± 7.94	58.03 ± 15.47	24.30 ± 6.41	20.10 ± 5.76	6.95 ± 2.06	6.67
	Third-year[3]	112	23.88	27.57 ± 8.38	59.03 ± 15.30	24.58 ± 6.38	20.67 ± 5.67	6.98 ± 2.00	6.79
	Fourth-year[4]	81	17.27	28.35 ± 7.60	63.23 ± 15.06	25.73 ± 6.52	22.62 ± 5.46	7.52 ± 2.01	7.37
Statistical analysis		*P* = .000*			*P* = .000*1-4	*P* = .324	*P* = .001*1-4	*P* = .178	*P* = .001*1-4
Believes that internet is a useful source of information in health decision-making*	No[1]	72	15.35	21.13 ± 6.18	47.47 ± 14.94	19.43 ± 6.05	16.92 ± 5.93	5.51 ± 1.94	5.61 ± 1.71
	No opinion[2]	40	8.53	22.98 ± 5.26	49.50 ± 10.50	20.33 ± 4.71	17.60 ± 4.00	5.83 ± 1.68	5.75 ± 1.79
	Yes[3]	357	76.12	30.24 ± 7.30	62.22 ± 14.06	26.09 ± 5.81	21.55 ± 5.34	7.52 ± 1.85	7.06 ± 1.82
Statistical analysis		*P* = .000*1-2,1-3			*P* = .000*1-2,1-3	*P* = .000*1-2,1-3	*P* = .000*1-2,1-3	*P* = .000*1-2,1-3	*P* = .000*1-2,1-3

*Analysis of variance; **_t_-test; ***Faculties of tourism; **** eHealth literacy scale; *****Digital Literacy Scale.
DLS, Digital Literacy Scale; eHEALS, eHealth Literacy Scale; SD, standard deviation.

Table 2. eHEALS and DLS Scores (n = 469)

	n	x	s	Min	Max
eHEALS	469	28.22	7.86	8	40
Attitude	469	24.58	6.36	7	35
Technical	469	20.50	5.65	6	30
Social	469	7.07	2.02	2	10
Cognitive	469	6.72	1.90	2	10
DLS	469	58.87	15.15	17	85

DLS, Digital Literacy Scale; eHEALS, eHealth Literacy Scale.

statistically significant difference between the opinions on using internet in health decision-making, eHEALS scores, and the scores obtained from the DLS and its four dimensions ($P < .05$). Accordingly, the students, who believed that internet is a useful source of information in health-decision making, obtained significantly higher scores from the eHEALS, DLS, and the 4 dimensions than the rest of the participants.

Table 2 presented the scores obtained from the eHEALS and DLS. The mean score obtained from the eHEALS was 28.22 ± 7.86 (min. 8, max. 40 points). On the other hand, the mean score obtained from the DLS was 58.87 ± 15.15 (min 17, max. 85 points). Finally, the mean scores obtained from the attitude, technical, social, and cognitive dimensions of the DLS were 24.58 ± 6.36, 20.50 ± 5.65, 7.07 ± 2.02, and 6.72 ± 1.90, respectively.

Table 3 presented the relationship between the eHEALS and DLS scores. Accordingly, there was a positive and statistically significant correlation between the eHEALS and DLS scores, indicating that an increase in DLS scores brought an increase in eHEALS scores ($P < .05$). Besides, we found a positive and statistically significant correlation between the scores obtained from the eHEALS and the four dimensions ($P > .05$). Accordingly, eHEALS scores of the participants increased parallel to the increase in the scores obtained from the DLS and its attitude, technical, cognitive, and social dimensions.

Discussion

The increase in digital and health literacy in contemporary world resulted in a parallel increase in the participation of individuals in the control and management of their own health.[21] In today's modernizing world, people are required to be able to effectively use digital resources in order to process, understand, and communicate information. Determining the digital and eHealth literacy levels of university students, who can rapidly reach sources of information and understand collected information, is vital for the future of society.

The mean eHEALS score in our study, which was 28.22 ± 7.86 points, indicated a relatively high level of eHealth literacy. The study by Runk et al[22] found low eHEALS scores in Laotian university students from faculties other than health sciences. Similarly, the systematic review of Kühn et al[23] reported low eHEALS scores in university students. The study by İnkaya et al[24] found that the students of health sciences had higher levels of health literacy than social sciences. Britt et al[25] analyzed the eHealth literacy levels of 422 college students and found that the participants had high levels of eHealth literacy. Another study on 556 Taiwanese college students found that the eHealth levels of the students were generally high and higher among the students of health sciences.[26] Park et al[27] analyzed the eHealth literacy levels of second and fourth-year pharmacy students in Canada and found that the levels of eHealth literacy were less than expected. Higher eHEALS scores in our study may be related to the ease of access to information and health services in university students.

The mean DLS score of the participants of our study was 58.87 ± 15.15, indicating a relatively high level of digital literacy. Besides, the scores obtained from the attitude (24.58 ± 6.36), technical (20.50 ± 5.65), social (7.07 ± 2.02), and cognitive (6.72 ± 1.90) dimensions of the DLS were relatively high. Göldağ[28] reported a moderate level of digital literacy in Turkish university students. Semerci et al[29] also found moderate levels of digital literacy in the students of faculty of education. On the other hand, Holt et al[30] compared the Danish undergraduate and graduate students and found that the level of digital literacy in graduate students was higher than the undergraduate students. High level of digital literacy in our study may be explained with reference to the domination of digital technology in every aspects of today's world and utilization of this technology in daily life of the participants.[31]

Comparison of the descriptive characteristics and the scores obtained from the DLS revealed that the participants aged 18-19 years obtained significantly lower scores. Contrary to our findings, Witten et al[32] found

Table 3. Correlation Between the eHEALS and DLS Scores (n = 469)

		E-HEALS	Attitude	Technical	Social	Cognitive	DLS
eHEALS	*r***	1	0.819	0.724	0.767	0.654	0.797
	P		.000*	.000*	.000*	.000*	.000*
	N		469	469	469	469	469
Attitude	*r*		1	0.883	0.853	0.809	0.963
	P			.000*	.000*	.000*	.000*
	N			469	469	469	469
Technical	*r*			1	0.853	0.901	0.969
	P				.000*	.000*	.000*
	N				469	469	469
Social	*r*				1	0.806	0.909
	P					.000*	.000*
	N					469	469
Cognitive	*r*					1	0.907
	P						.000*
	N						469
DLS	*r*						1
	P						
	N						

*$P < .05$, **Pearson test.
DLS, Digital Literacy Scale; eHEALS, eHealth Literacy Scale.

that the digital literacy levels decreased as the age of the participants increased. On the other hand, the study by Ergün et al[33] found that the level of digital literacy was higher in adolescents aged 16 years and above. The increase in age and experience may have helped the students to better utilize digital resources and information technology. Besides, increasing age may have increased the awareness and the use of digital resources.

In the literature, gender is considered as an important variable affecting the utilization of digital resources and access to communication and information technologies.[34,35] In our study, male participants had significantly higher levels of eHealth and digital literacy. Similarly, Göldağ[28] found higher levels of digital literacy in male university students. Contrary to our findings, Ergün[33] reported that the levels of eHealth literacy in female students of vocational health school were higher than their male counterparts. Another study in South Korea also found higher levels of eHealth literacy in females. The study by Madigan et al35 found that female students in the USA had similar skills to their male counterparts in utilizing information technologies but did not perceive themselves as competent users of technology. According to the TURKSTAT, the percentage of Turkish men using internet technologies was higher than that of women.[10] Possible reasons for this difference may include the interest of males in computer games and mobile applications and their tendency to study or work in the fields related to computer engineering or information technology.[36]

Although the difference between the faculty of the participants and the levels of eHealth was not statistically significant, the levels of digital literacy of the students from the faculty of education were significantly higher than the rest of the participants. The study by Shiferaw et al[37] on 236 undergraduate nursing students in Ethiopia found that the first-year nursing students had limited access to internet and lower levels of eHealth literacy. Based on these findings, we may conclude that the faculties, departments, and years of study may have an impact on digital and eHealth literacy levels of university students. Students of faculties of education are required to have the necessary skills to implement and demonstrate their skills in digital technologies.[38] During their education, teacher candidates are expected to learn digital technologies, manage digital learning environments, and develop their skills in digital learning.[39,40] Due to this reason, it is plausible to propose that the students of the faculties of education obtained higher scores from the DLS.[39,41]

In our study, the scores obtained by the first-year students from the DLS and its technical and cognitive dimensions were significantly lower than the fourth-year students. The study by Yeşildal and Kaya[42] found a positive association between the year of study and the level of digital literacy. Other studies in the literature also reported higher levels of digital literacy in participants with higher level of education.[4,39] The study by Shiferaw et al[37] (2020) on 236 nursing students in Ethiopia found that the first-year students ranked lower in e-Health literary and access to internet.

The eHealth and digital literacy levels of the participants, who believed that internet is a valuable source of health information, were higher than the other participants. Similarly, Ergün et al[43] found that eHealth literacy levels of adolescents, who believed that internet is helpful in deciding about health, were higher. The study by Park et al[27] on Canadian pharmacy students reported that the levels of digital health literacy were lower among the participants, who knew what (87%) and how to find (77%) health resources on the internet. The same study also found that 77% of the students had the skills to evaluate the health resources on internet but only 53% felt confident in using this information to make health decisions. Existing studies in the literature reported that self-perception on the use of online information had an impact on health status and the quality of healthcare and the lack of skills in digital technologies resulted in negative outcomes. Based on these findings, we may suggest that the difference among the students may be a consequence of the difference in the use of technologies.

Digital skills of internet users are crucial to improve health. The level of digital literacy in our study was positively correlated with the level of eHealth literacy. Kaya and Uludağ[45] reported a positive relationship between health and media literacy. Deniz[46] found a positive relationship between the levels of eHealth literacy and cyberchondria. Van der Vaart and Drossaert[47] found a positive relationship between the use of web-based health services and actual health status. Another study emphasized the mediating role of digital literacy on health behaviors.[48] Therefore, we may suggest that the efficient use of information technology may have positive contributions to access to and using health information.

Study Limitations

Due to the COVİD-19 pandemic, this study was conducted online at a single university. Therefore, the findings of this study may not be generalizable to other universities.

This descriptive-correlational study was conducted to determine the relationship between eHealth and digital literacy in university students in Northern Cyprus. The levels of eHealth and digital literacy were relatively high. The participants, who were male, aged 22-23 years and studied at the faculty of education, obtained higher scores from the eHEALS and DLS. Besides, the DLS scores of the first-year students were lower. Based on these findings, we may suggest that new courses to improve the digital and eHealth literacy may be added to curriculum. Besides, the websites of health institutions may include information on eHealth and digital literacy. Furthermore, progressive education, seminars, and other professional activities may be planned and implemented to improve levels of eHealth and digital literacy. Finally, further randomized-controlled studies that evaluate the levels of eHealth and digital literacy in different universities may be conducted.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Eastern Mediterranean University (Date: December 17, 2020, Number: ETK00-2020-0275).

Informed Consent: Written informed consent was obtained from students who participated in this study.

Peer-review: Externally peer-reviewed.

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