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ORIGINAL RESEARCH

Investigation of the Relationship Between Health Literacy and Attitude Towards Traditional and Complementary Medicine Among Health Licensor Candidates

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Abstract

Objective: Traditional and complementary medicine has started to gain more place in health services in recent years. The increase in its use makes it necessary to have information about its use. In this study, the relationship between health literacy and attitudes towards traditional and complementary medicine of prospective health license candidates was examined.

Material-Method: In this cross-sectional study, health literacy levels of prospective health license candidates, their attitudes towards traditional and complementary medicine (TCM) and the relationship between them were examined. A questionnaire was administered to students who were selected by stratified sampling method from students studying in six different departments of Kirikkale University Faculty of Health Sciences. The questionnaires were analyzed.

Results: The study included 331 students. Most of the participating students were female (88.5%). The highest score on the health literacy scale was obtained by students from the Department of Social Work and the highest score on the TCM scale was obtained by nursing students. The students who participated in the study had a low level of education about TCM (5.7%), use of TCM products (19%) and a negative attitude towards TCM products (6.3%). There is a significant positive correlation between the scores obtained from the health literacy scale and the scores obtained from the attitude towards traditional and complementary medicine scale. However, this correlation is at a low level ($r=.110$, $p<.05$).

Conclusion: It was found that the number of health license candidates who received training related to TCM was low. It is thought that it would be beneficial to increase health literacy and knowledge about TCM in order for TCM products and methods, whose use has increased due to their inclusion in payment lists, to be beneficial for health.

Keywords: Health Education, Traditional Medicine, Complementary Medicine, Integrative Medicine

INTRODUCTION

Health services is an area where scientific studies are concentrated and new developments are constantly tried to be revealed, as its subject is to increase the quality of human life, improve health and most importantly, human life. Although new technology, drugs and treatment methods are the reason for people's preference, it has been observed that traditional and alternative medicine, which forms the basis of today's practices, has started to be used frequently in addition to modern methods[1]. Both the revival of traditional and complementary medicine (TCM) by the media and experts[2] and the difficulty and expensiveness of accessing health services have increased people's interest in TCM[3].

TCM is described as "a comprehensive body of knowledge, skills, and practices based on theories, beliefs, and experiences indigenous to different cultures, used to maintain health, as well as to diagnose, improve, or treat physical and mental illnesses"[4]. TCM, whose use has partially decreased with the spread of modern medicine, has come to the fore again due to the increase in population, long waiting lines in health institutions, financial obstacles and supply problems such as epidemic periods. In addition, it has become an area of increasing importance and attracting the attention of researchers due to reasons such as social marketing opportunities pioneered by social media, the trust provided by the inclusion of TCM services in the coverage packages, the belief that TCM is the basis of current treatments among the public[5].

TCM is used to strengthen the immune system,

reduce side effects of medications, prevent diseases, and manage illnesses[4,6]. Common TCM practices worldwide include herbal treatments, aromatherapy, acupuncture, cupping therapy, biofeedback, hypnosis, meditation, yoga, Reiki, hirudotherapy, bioenergy, ozone therapy, Ayurveda, balneology, chiropractic, and Tai Chi/QiGong[7]. The increased use of TCM has led to discussions on what these methods are used for and how they should be applied. Without sufficient knowledge, the use of these methods aimed at protecting and improving health may not achieve the desired outcomes and can even worsen health conditions[8]. Therefore, these methods should be applied under the supervision of experts, and individuals participating in these methods should have the competency to find and understand necessary information[9,10]. This is where the concept of health literacy comes into play.

Health literacy is defined as the ability of individuals to access, understand, interpret, and use health-related information to protect, improve, and treat their health and navigate healthcare services[11,12]. The level of this skill affects the decisions individuals make about their health and consequently their health outcomes. Individual differences among people influence their level of health literacy. Therefore, there are differences in how individuals access, understand, interpret, and effectively use health-related information[13-15]. While these differences mostly provide individual benefits, they can sometimes have societal benefits. For example, an individual with an infectious disease who has adequate information about the disease and recognizes the need for treatment can prevent the disease from posing a risk to others[16]. Studies in the literature indicate that individuals with low health literacy levels are less effective in using healthcare services, delay seeking healthcare, fail to adhere to healthcare professionals' recommendations and instructions, are inadequate in self-care, and make mistakes in medication use[17-19].

Issues related to healthcare systems, the accessibility of TCM methods and products, and the increase in service providers and treatment options have heightened the need for health literacy. Despite the scientific evidence supporting the benefits and side effects of many TCM methods and products being limited, they are frequently used by individuals. According to the Institute of Medicine (IOM), there is limited evidence on how knowledgeable individuals are about TCM methods and products, their information sources, and how they evaluate and use this information[20]. Therefore, making decisions about the use of TCM methods and products requires comprehensive health literacy[21].

Studies in Türkiye have examined the relationship between the use of TCM methods and products and health literacy in adults, students enrolled in specific programs, or specialized healthcare professionals[22-25]. However, there is a noticeable lack of studies examining the relationship between the attitudes of students from various health-related programs towards TCM and their levels of health literacy. It is thought that conducting this research on students who will be future health professionals will contribute to the literature. Therefore, this study aims to investigate the attitudes of health license candidates from different programs towards TCM, the relationship between these attitudes and health literacy levels, and personal characteristics.

MATERIALS AND METHODS

The study aims to examine the relationship between health literacy and attitudes towards TCM among health license candidates. The population of the study consists of students enrolled in the Faculty of Health Sciences at Kırıkkale University during the 2022-2023 academic year. A stratified sampling method, which allows for homogeneous selection related to the research problem within a defined population with sub-layers or subunit groups, was used to determine the study group. It was identified that 2219 students were enrolled in six different departments of the Faculty of Health Sciences at Kırıkkale University during the 2022-2023 academic year. According to Altunışık et al., 331 individuals need to be included in the sample to represent a population of 2400[26]. Based on this, 331 individuals determined through stratified sampling by department were included in the study.

The data collection tool used in the study consists of three parts. The first section includes the general information form prepared by the researchers. The second part includes the 47-item health literacy scale (SOYA-EU 47), which was developed by the European Union within the scope of the "European Health Literacy Project 2009-2012" project and whose Turkish validity and reliability study was conducted by Tanrıöver et al.[27]. The third section includes the TCM Attitude Scale, which consists of 27 items, developed by McFadden et al.[28] to

evaluate the attitude towards traditional and complementary medicine, and whose Turkish validity and reliability study was conducted by Köse, Ekerbiçer and Erkorkmaz[29]. The total score is used in the scales, one of which is a five-point Likert-type scale and the other a seven-point Likert-type scale. Necessary permissions were obtained for the use of the scales. In addition, institutional permission was obtained from Kırıkkale University Faculty of Health Sciences and ethical permission dated 11.10.2023-2023.10.12 from Kırıkkale University Non-Interventional Ethics Committee to conduct the study.

The data obtained through questionnaires were examined for normal distribution using skewness and kurtosis coefficients, which were found to be within ±1, indicating normal distribution[30]. Cronbach's α values were used to assess the reliability of the scales, and these values are provided in the findings. One-way ANOVA was used to determine differences in Health Literacy Scale and TCM Attitude Scale scores according to the department of study. Independent Samples t-Test was used to determine differences in scores based on age, gender, education in TCM, use of TCM, and negative experiences with TCM methods. Pearson Correlation Test was conducted to reveal the relationship between health literacy and attitudes towards TCM.

RESULTS

The descriptive characteristics of the participants included in the study are presented in Table 1. Among the participants, 57.4% are 21 years old or older, and 88.5% are women. Among the students selected stratified by department, 94.3% have not received any education on TCM, 81% do not use TCM products, and 93.7% have not experienced any negative situations related to TCM.

Table 1. Descriptive information about the participants

Variables		f	%
Age	20 and under	141	42.6
	21 and older	190	57.4
Sex	Woman	293	88.5
	Man	38	11.5
Educational Status	Nutrition and Dietetics	53	16.0
	Child Development	60	18.1
	Physical Therapy and Rehabilitation	63	19.0
	Nursing	68	20.5
	Social Service	40	12.1
	Healthcare Management	47	14.2
Status of receiving training on TCM	Yes	19	5.7
	No	312	94.3
Status of using TCM products	Yes	63	19.0
	No	268	81.0
A negative situation regarding TCM products	Yes	21	6.3
	No	310	93.7

The health literacy scale used in the study divides participants into four groups based on the score obtained from the scale. A score range of 0-25 is considered inadequate health literacy, 26-33 is considered problematic-limited health literacy, 34-42 is considered adequate health literacy, and 43-50 is considered excellent health literacy. The distribution of participants according to these groups is shown in Table 2. It is observed that 5.7% of the participants have inadequate health literacy, while 56.8% have adequate or excellent literacy levels.

Table 2. Distribution of participants according to their health literacy levels

Score Range	Number of People	Percentage	Cumulative Percentage
0-25 Points	19	5.7	5.7
26-33 Points	124	37.5	43.2
34-42 Points	145	43.8	87.0
43-50 Points	43	13.0	100.0
TOTAL	331	100	

Descriptive statistics for the health literacy and attitudes towards TCM scales used in the study are shown in Table 3. Participants obtained an average score of 143.32 ± 17.40 on the health literacy scale

and an average score of 120.92 ± 13.92 on the attitudes towards TCM scale. On the subdimensions of the health literacy scale, participants scored the lowest on applying health information (33.06 ± 4.31) and the highest on accessing health information (37.54 ± 4.95). On the subdimensions of the attitudes towards TCM scale, they scored the lowest on dissatisfaction with modern medicine (30.92 ± 10.40) and the highest on holistic view of health (48.77 ± 6.67). The reliability coefficients of the scales and subdimensions being above 0.60 indicate that the data are reliable.

Table 3. Statistics on scales and subdimensions.

	Minimum	Maximum	Mean	Standard Deviation	Cronbach alpha
Health Literacy Total	98	188	143.32	17.40	0.947
Access to health information	19	48	37.54	4.95	0.863
Understanding health information	20	44	33.90	4.36	0.821
Evaluating health information	21	48	35.63	5.36	0.851
Applying health information	22	44	33.06	4.31	0.773
TCM Total	80	160	120.92	13.92	0.770
Intellectual perspective on complementary medicine	10	55	34.41	7.41	0.817
Dissatisfaction with modern medicine	10	60	30.92	10.40	0.818
Holistic view of health	24	63	48.77	6.67	0.705

Table 4 presents the examination of scores obtained from the health literacy scale, the attitudes towards TCM scale, and the subdimensions of these scales in terms of the age groups variable. The analysis showed that both health literacy and attitudes towards TCM did not differ by age groups (p=0.117; p=0.224). However, it was determined that there was a statistically significant difference in the health information evaluation subdimension of the health literacy scale and the dissatisfaction with modern medicine subdimension of the attitudes towards TCM scale according to the age variable (p<0.05).

Table 4. Comparison of the scores obtained by the participants from the scales according to age groups

SUBDIMENSIONS	AGE				t	p
	20 and under		21 and older			
	x̄	S.S.	x̄	S.S.		
Health Literacy Total	145.11	19.21	141.99	15.85	1.571	0.117
Access to health information	37.76	5.41	37.37	4.58	.685	0.493
Understanding health information	34.36	4.70	33.56	4.07	1.620	0.106
Evaluating health information	36.45	5.82	35.03	4.92	2.344	**0.020**
Applying health information	33.36	4.70	32.84	4.00	1.087	0.278
TCM Total	122.00	15.03	120.12	13.02	1.219	0.224
Intellectual perspective on complementary medicine	34.68	7.48	34.22	7.42	.555	0.579
Dissatisfaction with modern medicine	32.60	10.58	29.67	10.11	2.549	**0.011**
Holistic view of health	48.36	6.18	49.07	7.01	-.950	0.343

Table 5 presents the examination of scores obtained from the health literacy scale, the attitudes towards TCM scale, and the subdimensions of these scales in terms of the sex variable. The analysis found that the scores from the scales and subdimensions did not differ by sex (p>0.05).

Table 5. Comparison of the scores obtained by the participants from the scales according to sex

SUBDIMENSIONS	SEX				t	p
	Woman		Man			
	x̄	S.S.	x̄	S.S.		
Health Literacy Total	143.00	17.18	145.81	19.08	-.938	0.349
Access to health information	37.51	4.92	37.78	5.21	-.324	0.746
Understanding health information	33.85	4.32	34.34	4.69	-.649	0.517
Evaluating health information	35.53	5.34	36.39	5.55	-.925	0.356
Applying health information	32.92	4.20	34.15	5.00	-1.657	0.099
TCM Total	121.41	13.50	117.10	16.56	1.803	0.072
Intellectual perspective on complementary medicine	34.60	7.22	33.00	8.95	1.249	0.213
Dissatisfaction with modern medicine	30.95	10.51	30.65	9.65	.168	0.867
Holistic view of health	49.01	6.61	46.92	6.95	1.825	0.069

Table 6 presents the examination of scores obtained from the health literacy scale, the attitudes towards TCM scale, and the subdimensions of these scales in terms of the field of study. The analysis found that the total health literacy score did not vary by field of study (p>0.05), while the health information application subdimension did vary (p<0.05). It was also observed that the scores from the subdimensions of intellectual view of complementary medicine and holistic view of health in the attitudes towards TCM scale varied by field of study (p<0.05). The groups causing these differences are specified under the post-hoc section.

Table 6. Comparison of the scores obtained by the participants from the scales according to the departments in which they were educated

SUBDIMENSIONS	DEPARMENT														
	ND		CD		PTR		NUR		SS		HM		F	p	Post-Hoc
	x̄	S	x̄	S	x̄	S	x̄	S	x̄	S	x̄	S			
Health Literacy Total	137.62	14.91	144.23	17.24	145.66	16.38	141.94	17.25	147.55	18.71	143.85	19.58	1.994	0.079	
Access to health information	36.26	4.63	37.30	4.75	17.47	5.27	37.33	4.27	38.97	5.59	38.46	5.24	1.777	0117	
Understanding health information	32.52	4.13	34.30	4.26	34.39	4.24	33.73	4.25	34.87	4.40	33.74	4.82	1.762	0.120	
Evaluating health information	34.28	4.42	36.11	5.23	36.65	4.71	35.07	5.46	36.22	5.81	35.51	6.51	1.484	0.195	
Applying health information	31.43	3.59	33.46	4.35	33.88	4.02	32.69	4.36	34.22	4.36	32.87	4.83	2.853	**0.015**	ND-FTR ND-SS p<0.05
TCM Total	120.07	13.17	115.88	14.15	121.31	12.18	125.02	11.72	122.17	13.60	120.78	17.90	2.953	**0.013**	CD-NUR p=0.003
Intellectual perspective on complementary medicine	33.77	5.57	31.78	8.02	35.19	6.86	36.04	7.10	34.72	7.63	34.85	8.86	2.468	**0.033**	CD-NUR p=0.015
Dissatisfaction with modern medicine	30.41	10.66	30.46	10.15	32.60	10.70	30.23	10.01	31.32	11.49	30.48	9.87	.461	0.805	
Holistic view of health	48.00	7.54	46.80	5.81	48.95	6.98	51.27	5.54	49.02	6.53	48.08	7.03	3.343	**0.006**	CD-NUR p=0.002

Table 7 shows the health literacy scale, the attitude scale towards traditional and complementary medicine, and the examination of the scores obtained from the sub-dimensions of the scales in terms of receiving training on traditional and complementary medicine. As a result of the analysis, it was determined that the total score obtained from the health literacy scale and the scores obtained from the sub-dimensions of access to health information and application of health information differed (p <0.05) according to the status of receiving training on traditional and complementary medicine. In addition, it was determined that those who received training in TCM had higher health literacy scores. It was determined that the score obtained from the attitude scale towards TCM did not change according to the education level regarding traditional and complementary medicine, but the dissatisfaction towards modern medicine sub-dimension varied according to the education level regarding TCM (p <0.05). It has been determined that those who received education achieved higher scores in this dimension.

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Table 7. Comparison of the scores obtained by the participants from the scales according to their training status on TCM

SUBDIMENSIONS	RECEIVING TRAINING RELATED TO TCM				t	p
	Yes		No			
	x̄	S.S.	x̄	S.S.		
Health Literacy Total	155.10	23.46	142.60	16.75	2.287	**0.034**
Access to health information	40.42	5.97	37.36	4.84	2.630	**0.009**
Understanding health information	35.73	5.90	33.79	4.23	1.409	0.175
Evaluating health information	38.78	6.90	35.44	5.20	2.074	0.052
Applying health information	36.73	5.66	32.84	4.12	3.896	**0.000**
TCM Total	120.57	18.36	120.94	13.64	-.086	0.933
Intellectual perspective on complementary medicine	34.73	8.98	34.39	7.35	.193	0.847
Dissatisfaction with modern medicine	35.57	12.57	30.64	10.21	2.018	**0.044**
Holistic view of health	47.31	8.18	48.86	6.57	-.980	0.328

Table 8 shows the health literacy scale, the attitude scale towards TCM, and the examination of the scores obtained from the sub-dimensions of the scales in terms of usage of TCM products. As a result of the analysis, it was determined that the scores obtained in both scales and their subscales did not vary according to the use of TCM products ($p>0.05$).

Table 8. Comparison of the scores obtained by the participants from the scales according to their usage of TCM products

SUBDIMENSIONS	TCM PRODUCTS USE STATUS				t	p
	Yes		No			
	x̄	S.S.	x̄	S.S.		
Health Literacy Total	147.22	21.04	142.40	16.34	1.700	0.093
Access to health information	38.73	6.09	37.26	4.61	1.791	0.077
Understanding health information	34.84	5.02	33.69	4.17	1.685	0.096
Evaluating health information	36.47	6.44	35.44	5.07	1.193	0.236
Applying health information	33.84	4.98	32.88	4.13	1.408	0.163
TCM Total	121.58	14.41	120.76	13.58	.419	0.675
Intellectual perspective on complementary medicine	35.82	7.79	34.08	7.33	1.674	0.095
Dissatisfaction with modern medicine	31.38	10.33	30.81	10.43	.387	0.699
Holistic view of health	48.25	8.12	48.89	6.29	-.586	0.559

Table 9 shows the analysis of the scores obtained from the health literacy scale, the attitudes towards TCM scale and the sub-dimensions of the scales in terms of whether there is a negative experience with traditional and complementary medicine. As a result of the analysis, it was determined that only the dimension of holistic view towards holistic medicine, which is a sub-dimension of the attitude towards TCM scale, varied according to whether there was a negative experience with TCM ($p<0.05$) and those who had no negative experience obtained higher scores.

Table 9. Comparison of the scores obtained by the participants from the scales according to negative experiences related to their use of TCM products

SUBDIMENSIONS	A NEGATIVE EXPERIENCE WITH TCM				t	p
	Yes		No			
	x̄	S.S.	x̄	S.S.		
Health Literacy Total	139.23	20.37	143.60	17.19	-1.112	0.267
Access to health information	36.47	6.70	37.61	4.81	-1.020	0.308
Understanding health information	33.52	5.16	33.93	4.31	-.418	0.676
Evaluating health information	33.95	6.18	35.75	5.29	-1.490	0.137
Applying health information	32.09	4.36	33.13	4.31	-1.069	0.286
TCM Total	118.85	14.86	121.06	13.87	-.702	0.483
Intellectual perspective on complementary medicine	35.42	6.42	34.34	7.51	.643	0.521
Dissatisfaction with modern medicine	31.14	8.14	30.97	10.54	.099	0.921
Holistic view of health	45.04	9.23	49.02	6.40	-2.667	**0.008**

Table 10 presents the findings regarding the correlation between health literacy, attitude towards TCM scale and its sub-dimensions. There is a significant positive correlation between the scores

obtained from the health literacy scale and the scores obtained from the attitude towards TCM scale. However, this correlation is at a low level (r=.110, p<.05). There is also a low level of significant correlation between the score obtained from the attitude towards TCM scale and the sub-dimensions of the health literacy scale, namely understanding health information (r=.124, p<.05) and evaluating health information (r=.138, p<.05). There is a low level negative correlation between dissatisfaction with modern medicine, which is a sub-dimension of the attitude towards TCM scale, and both the total score of health literacy (r=-.113, p<.05) and the sub-dimensions of access to health information (r=-.177, p<.01) and understanding health information (r=-.134, p<.05). Another sub-dimension of the attitude towards TCM scale, holistic view of health, has a low level negative correlation with both the total score of health literacy (r=.178, p<.01) and the sub-dimensions of access to health information (r=.182, p<.01), understanding health information (r=.232, p<.01) and evaluation of health information (r=.131, p<.05).

Table 10. Correlation between scales

		Health Literacy Total	Access to health information	Understanding health information	Evaluating health information	Applying health information
TCM Total	r	.110*	.059	.124*	.138*	.070
	p	.046	.282	.024	.012	.206
	n	331	331	331	331	331
Intellectual perspective on complementary medicine	r	.034	.006	.017	.056	.038
	p	.543	.909	.754	.307	.492
	n	331	331	331	331	331
Dissatisfaction with modern medicine	r	-.113*	-.177**	-.134*	-.038	-.073
	p	.040	.001	.014	.494	.185
	n	331	331	331	331	331
Holistic view of health	r	.178**	.182**	.232**	.131*	.102
	p	.001	.001	.000	.017	.065
	n	331	331	331	331	331

DISCUSSION

TCM has recently become one of the concepts on the agenda due to reasons such as the increase in the number of health personnel adopting its use, the inclusion of some practices within the scope of reimbursement, and the declaration of opinions of those who have experienced it both on social media and in society. Although there are applications with scientific validity, some applications may lead to undesirable results due to the lack of a scientific basis or the wrong dose, application method or application area of the users or practitioners. For this reason, the use, application or recommendation of TCM methods that protect, improve or treat health requires a certain level of health literacy. In this regard, the level of knowledge and attitude of healthcare professionals, who have an important position in informing and guiding the society, about TCM becomes important. For this reason, this study aimed to determine the health literacy levels, attitudes towards TCM, the relationship between them and the factors affecting them of health license candidates who will be the health professionals of the future.

Participants obtained an average score of 143.32±23.46 from the health literacy scale. Additionally, 56.8% of the participants were found to have adequate or excellent health literacy levels. Participants obtained an average score of 120.92±18.36 from the TCM scale. It was observed that 94.3% of the participants did not receive any training on TCM, 81% did not use TCM products, and 93.7% did not have a negative experience with TCM products. According to studies, the rate of using traditional/complementary medicine treatment methods at least once is 48% in Australia, 31% in Belgium, 70% in Canada, 49% in France and 42% in the USA[31]. In studies conducted at different times in Turkey, results varying between 12.6% and 76%

were obtained[22, 32-34].

Factors affecting the participants' scores obtained from the health literacy and TCM scales were examined. It was observed that the total score obtained from the health literacy scale did not show a statistically significant difference according to age groups. However, it was observed that participants under the age of 20 obtained higher scores in the "evaluating health information" dimension, which is one of the sub-dimensions of the health literacy scale, and that age constituted a statistically significant difference in this dimension. Contrary to expectations, this result shows that those under the age of 20, that is, those who are in the lower grades of health license education, evaluate health-related information better. It was also observed that the total score obtained by the participants from the TCM scale did not show a statistically significant difference according to age groups. In the dimension of "dissatisfaction with modern medicine", which is one of the sub-dimensions of the TCM scale, it was observed that participants under the age of 20 obtained higher scores and that age constituted a statistically significant difference in this dimension. This result shows that those under the age of 20, that is, those who are in the lower grades of health license education, have more dissatisfaction with modern medicine.

The relationship between the department of education and health literacy and TCM was also examined. It was observed that the department of education had a statistically significant effect only on the health knowledge sub-dimension of the health literacy scale. In this dimension, the low score of nutrition and dietetics department students and the high scores of physical therapy and rehabilitation and social work departments caused the difference to emerge. In the score obtained from the TCM scale, it was seen that there were multiple departments affecting the score. A statistically significant difference was found between the TCM total score and the department of education. The groups that formed this difference were the students of child development department who scored low on this dimension and nursing students who scored high. Statistically significant differences were also found in the sub-dimensions of TCM, namely "intellectual view of complementary medicine" and "holistic view of health". The groups that made up this difference in both dimensions were the students of the department of child development who scored low on this dimension and the nursing students who scored high on this dimension. The fact that nursing students were informed about TCM applications within the scope of their curriculum may have positively affected their attitudes. This result can be considered as an indication that it would be beneficial to include content on basic health information, developing diagnosis and treatment methods in all health-related departments that deal with the health and development of individuals.

The comparison criterion was whether the scores obtained from the health literacy and TCM scales differed according to the status of receiving a training on TCM. As a result of this comparison, it was seen that those who received training obtained higher scores in the total scores of health literacy and the sub-dimensions of access to health information and application of health information, and this difference was statistically significant. It was seen that those who received a TCM-related training obtained higher scores in the sub-dimension of the TCM scale, "dissatisfaction with modern medicine", and this difference was statistically significant. In line with these results, it can be said that TCM-related training increases health literacy in general and decreases the satisfaction of the trainees against modern medicine.

Another comparison criterion was whether the scores obtained from the health literacy and TCM scales differed according to whether they had a negative experience with TCM. In this comparison, it was observed that having or not having a negative experience created a statistically significant difference only in the dimension of holistic view of modern medicine. Those who did not have a negative experience with TCM obtained higher scores in this dimension. The relationship between gender and use of TCM products and the scores obtained from the Health literacy and TCM scales was also examined in the study and it was seen that these variables did not cause any difference.

Finally, the correlation between health literacy, attitude towards TCM scale and its sub-dimensions was examined. It was observed that the correlation between the scores obtained from the health literacy scale and the scores obtained from the attitude towards TCM scale was positively significant but at a low level.

In the study examining the relationship between TCM and health literacy in medical faculty students using the same TCM scale, it was concluded that

students obtained an average score of 104.72±16.46 from the scale and that there was no significant correlation between health literacy and TCM. In addition, it was concluded that the necessity and scope of health literacy is important, considering that the number of students who think they have knowledge about complementary medicine practices is low, they do not receive information from reliable sources of information on this subject, and even medical faculty students have problems in accessing healthy information about complementary medicine[24].

In the study examining the relationship between health literacy and TCM in nursing students and using the same TCM scale, it was found that nursing students obtained a mean score of 110.29±20.13 from the TCM scale. It was stated that there was a significant positive correlation between health literacy and TCM at a moderate level, and as the health literacy level of the students increased, the level of traditional and complementary medicine knowledge also increased. It was also concluded that there was a statistically significant correlation between having subjects related to TCM in the courses and being interested in TCM and the score obtained from the TCM scale[35].

In the study examining the relationship between health literacy and TCM in adults using the same TCM scale, it was concluded that the participants obtained 103.99±22.03 points from the TCM scale and that there was a weak negative relationship between health literacy and TCM scale scores ($r = -19$; $p < .01$)[22].

Some studies conducted in different periods and regions in the literature show that the use of TCM practices increases as the level of health literacy increases[21, 36, 37].

It was observed that there was no common result in the studies analyzed. In addition, there is limited information on how much information the users of TCM practices in the society have about these products and treatment methods, the source of the information they have, the evaluation of the information and when they use it. Users of TCM products and treatment methods may have difficulties in accessing the right information in a diversifying and increasing amount of information. This situation may result in harm while expecting benefit from products and methods. For this reason, users should have comprehensive and critical health literacy[21, 38].

CONCLUSION

Health license candidates are health professionals who will work in health-related fields and guide the society in the future. During their duties, they will not always encounter service recipients who act in line with scientific knowledge, but they will also encounter people who use TCM products and treatment methods that do not yet have scientific validity. In order to protect and improve the health of the society, it is important for these people to guide the society correctly about practices that have a scientific basis and practices that are not yet based on a scientific basis. For this reason, they should have a certain level of health literacy in both practices. In this study, a weak positive relationship was found between health literacy and TCM. Since the participants were health license candidates, it was predicted that this relationship would be higher when the research was planned. However, as a result of the research, it was concluded that this relationship was a weak relationship contrary to expectations. There is no complete unity in the studies examined in the literature and the studies are divided into two as those that find a statistically significant relationship between health literacy and TCM and those that do not. In studies conducted on students studying in health-related departments in Turkey, it was seen that there were opinions that it would be beneficial to add TCM to the curriculum as a stand-alone course. While TCM has been practiced by non-professionals in Turkey for years, it has been practiced by health professionals in the last few years and has been included in the scope of payment. The use of TCM by health authorities will make TCM more widely known and increase its use by professionals and nonprofessionals alike. Considering the studies in the literature, the results of this study and the expected increase in the use of TCM;

-Providing trainings on TCM applications in health education departments,

-To examine health literacy and attitude towards TCM in larger groups of health education students and health professionals,

-Sharing information about scientifically beneficial TCM products and practices and methods applied by health professionals with the public,

-The Ministry of Health should organize a TCM training program for health professionals,

-It is thought and recommended that taking measures against the application of TCM products

and practices by non-professionals may be beneficial in increasing the use of beneficial practices and preventing the damages that may occur as a result of unconscious use.

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