

# Determination of Health Services Vocational School Students' Knowledge and Attitudes About Conventional and Complementary Medicine Practices: A Descriptive Study

## Sağlık Hizmetleri Meslek Yüksekokulu Öğrencilerinin Geleneksel ve Tamamlayıcı Tıp ile İlgili Tutum ve Bilgi Düzeylerinin Belirlenmesi: Tanımlayıcı Araştırma

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**ABSTRACT Objective:** The aim of this descriptive study is to determine the knowledge and attitudes of the health services vocational school students about conventional and complementary medicine practices (CCMP). **Material and Methods:** The study included students from Bolu Abant İzzet Baysal University Mehmet Tanrıkulu Vocational School of Health Services. The data were collected online between November-December 2021 through the socio-demographic data form, Complementary, Alternative, Conventional Medicine Attitude Scale (CACMAS), and the CCMP information form. **Results:** The mean CACMAS score of the students (111.60±13.77) was found to be high. In general, knowledge level of students about CCMP practices are insufficient. The most and the least known CCMP methods among students are hypnosis (76.9%) and prolotherapy (88.3%), respectively. The philosophical congruence with complementary and alternative medicine in female students were higher than male (p=0.019). Dissatisfaction of second grade students with conventional medicine was found to be more than first grade students (p=0.005). The mean scores of the scale (p=0.002), philosophical congruence with complementary and alternative medicine (p=0.026) and the holistic balance sub-scales (p=0.024) of the students who used CCMP were found to be higher than the others. A very weak positive correlation was found between the age of the students and the scale mean score (r=0.15; p<0.01). On the other hand, a weak positive correlation was found between the age of students and dissatisfaction with conventional medicine mean score (r=0.25; p<0.01). **Conclusion:** Health services vocational school students have positive attitudes towards CCMP, but their level of knowledge is insufficient.

**Keywords:** Traditional medicine; complementary medicine; health service; university students

**ÖZET Amaç:** Tanımlayıcı nitelikte olan bu çalışmanın amacı, sağlık hizmetleri meslek yüksekokulu öğrencilerinin geleneksel ve tamamlayıcı tıp (GETAT) uygulamaları ile ilgili bilgi ve tutumlarını belirlemektir. **Gereç ve Yöntemler:** Çalışma, Bolu Abant İzzet Baysal Üniversitesi Mehmet Tanrıkulu Sağlık Hizmetleri Meslek Yüksekokulundaki öğrencileri kapsamaktadır. Çalışmanın verileri sosyo-demografik veri formu, Geleneksel ve Tamamlayıcı Tıp Tutum Ölçeği ve GETAT bilgi formu aracılığıyla Kasım-Aralık 2021 tarihleri arasında çevrim içi ortamda toplanmıştır. **Bulgular:** Öğrencilerin Geleneksel ve Tamamlayıcı Tıp Tutum Ölçeği'nden aldıkları skor ortalaması (111,60±13,77) yüksek düzeyde bulunmuştur. Genel olarak öğrencilerin GETAT uygulamaları hakkındaki bilgi düzeyleri yetersizdir. Öğrenciler arasında en fazla ve en az bilinen GETAT uygulamaları sırasıyla hipnoz (%76,9) ve proloterapidir (%88,3). Kız öğrencilerin tamamlayıcı tıba düşünsel bakışları erkeklerle kıyasla yüksek düzeyde bulunmuştur (p=0,019). İkinci sınıftaki öğrencilerin modern tıba karşı memnuniyetsizlikleri 1. sınıftaki öğrencilere göre daha yüksek düzeyde bulunmuştur (p=0,005). GETAT uygulamalarını kullanan öğrencilerin ölçek ortalama skoru (p=0,002), tamamlayıcı tıba düşünsel bakış (p=0,026) ve sağlığa bütüncül bakış alt boyut ortalama skorları (p=0,024) diğerlerine kıyasla daha yüksek düzeyde bulunmuştur. Öğrencilerin yaşları ile ölçek ortalama skoru arasında pozitif yönde çok zayıf bir ilişki bulunmuştur (r=0,15; p<0,01). Öte yandan öğrencilerin yaşları ile geleneksel tıptan memnuniyetsizlik ortalama skoru arasında pozitif yönde zayıf bir ilişki bulunmuştur (r=0,25; p<0,01). **Sonuç:** Sağlık hizmetleri meslek yüksekokulu öğrencilerinin GETAT ile ilgili tutumları olumlu, bilgi düzeyleri ise yetersizdir.

**Anahtar Kelimeler:** Geleneksel tıp; tamamlayıcı tıp; sağlık hizmetleri; üniversite öğrencileri

People have tried to find cures for the diseases that threaten their lives throughout history. During this process, practices, based on observation and ex-

perience, were transmitted orally from generation to generation and has led to the birth of folk medicine, which forms the basis of today's modern medicine.

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As a result of the fact that people in rural areas frequently use such practices in their daily lives and people in cities tend to natural life elements, folk medicine has survived.<sup>1</sup> Practices formerly known as folk medicine, are named as conventional and complementary medicine practices (CCMP) nowadays.<sup>2</sup> The reasons why CCMP applications are preferred by individuals can be listed as compatibility with social cultures, cheaper, faster and more accessible nature, not involving too many interventional procedures, being accepted as a hope against some diseases that cannot be cured completely in modern medicine and effectiveness in reaching individuals.<sup>3</sup>

CCMP practices are becoming widespread both in the world and in Türkiye day by day. “Traditional and Complementary Medicine Practices Regulation” was published by the Ministry of Health in 2014 to determine the traditional and complementary medicine practice methods for human health, to organize the training and authorization of the people who will apply these methods, and to regulate the working procedures and principles of the health institutions where these methods will be applied.<sup>4</sup>

Health professionals take an active role in guiding individuals in the use of CCMP practices. Therefore, it is extremely important for healthcare professionals to have sufficient information about the risks, benefits and limitations of CCMP methods and guide individuals by answering the questions.<sup>5</sup> Presence of accurate and sufficient knowledge about traditional and complementary medicine practices and a positive attitude in this regard for the students of vocational school of health services, who are candidates for health professionals of the future, will help them guide patients to whom they will provide health care services, use CCMP practices appropriately, identify and prevent practices that may adversely affect health, and increase social awareness. In this regard, it is of great importance to determine the attitudes, awareness and knowledge levels of health services vocational school students about CCMP and to support them during the education process if needed.

There are some studies in the literature about the attitudes and knowledge levels of university students

in the field of health in terms of CCMP practices. In the study of Sönmez et al., it has been determined that the level of knowledge of medical faculty students about CCMP practices is not high and they do not learn this information mostly from the medical faculty. However, it was also determined that the students wanted these subjects to be included in medical education and used in integration with modern medicine.<sup>6</sup> Köse et al., determined that the number of those who think that they have knowledge about complementary medicine practices among medical faculty students is low and they also emphasized that the information was not obtained from reliable sources about this subject.<sup>7</sup> Şahin et al., it was determined that nursing students’ attitudes towards complementary health practices were positive and at a moderate level. In the same study, it was reported that the knowledge about complementary health practices will strengthen these qualities of nursing students, who will be health professionals of the future, as they take part in holistic patient care.<sup>8</sup> It has been stated that nurses who have sufficient knowledge and awareness of CCMP practices will be able to provide accurate information and effective counseling to the patients and their relatives.<sup>9</sup> It can be understood from the studies that it is a requested and expected condition from individuals who are working in the field of health or students who will graduate from this field to have sufficient knowledge and experience about CCMP practices.

In this study, it is aimed to determine the level of knowledge and attitudes of health services vocational school students about CCMP and to reveal whether socio-demographic variables affect students’ attitudes towards CCMP.

## MATERIAL AND METHODS

### ETHICAL APPROVAL

Ethics committee approval for the study was obtained from the Human Research Ethics Committee of Bolu Abant İzzet Baysal University (date: November 4, 2021, no: 2021/416). The study was designed in accordance with the principles of the Declaration of Helsinki. Informed consent was obtained from all participants.

## STUDY UNIVERSE AND SAMPLE

The study was conducted with students studying at Bolu Abant İzzet Baysal University Mehmet Tanrıku Health Services Vocational School. Necessary permission was obtained from the institution in order to carry out the study. Data for the descriptive study were obtained between November-December 2021 by using online data collection tools. The universe of the study consisted of 655 students. 307 volunteer students were participated in the study. The sample of the study constituted 46.9% of the study universe. At the end of the study, post hoc power analysis was performed via the G-Power 3.1 program (Universität Kiel, Germany) taking into account the correlation analysis and independent groups t-test. Post-hoc power analyzes for different analyzes showed that the sample size was well representative of the universe.

## DATA COLLECTION TOOLS

The data of the study were collected through “socio-demographic data form”, “Complementary, Alternative, Conventional Medicine Attitude Scale (CACMAS)” and “Traditional (Conventional) and Complementary Medicine Information Form”. Necessary permissions were obtained from the authors for the use of the scales.

**Socio-Demographic Data Form:** The form prepared by the researcher in line with the literature review was used to obtain various socio-demographic data about the students.

**CACMAS:** In this study, CACMAS, which was developed by Mc Fadden et al. and whose Turkish validity and reliability were evaluated by Köse et al., was used.<sup>7,10</sup> The scale consists of 3 subscales (philosophical congruence with complementary and alternative medicine, dissatisfaction with conventional medicine and holistic balance) and 27 questions, and is a 7-point Likert type scale. The reliability coefficient (Cronbach’s alpha) value of the scale was found to be 0.80.<sup>7</sup> In this study, the reliability coefficient was found to be 0.70.

Since the scale does not have a cut-off point for evaluation, the median values of the scores that the students got from the scale were accepted as the cut-off point and the scores that were below the median value

of scale were categorized as low, and the scores above the median value of scale were categorized as high.

**Traditional (Conventional) and Complementary Medicine Information Form:** The form was prepared by the researcher in order to cover the CCMP methods included in the CCMP Practices Regulation issued by the Ministry of Health in 2014. The form measures the level of knowledge of students about traditional and complementary medicine practices.

## STATISTICAL ANALYSIS

Statistical analyzes of the study were carried out using the SPSS 22.0 package program (IBM Corp., Armonk, NY). Results are expressed as mean, standard deviation, numbers, and percentages. For the normality distribution of the data, skewness and kurtosis values were controlled and Kolmogorov-Smirnov test was used. Since the data show a normal distribution, independent sample t-test and one-way analysis of variance test were used. The relationship between the ages of the students and the scale and the subscales was calculated using the Pearson correlation coefficient. The relationship level of the correlation was interpreted according to the following criteria: “0.00-0.25: very weak relationship, 0.26-0.49: weak relationship, 0.50-0.69: moderate relationship, 0.70-0.89: strong relationship, 0.90-1.00: very strong relationship” and  $p < 0.05$  was considered statistically significant in the analyzes.<sup>11</sup>

## RESULTS

Descriptive statistics of students are given in Table 1. Of the students, 78 (25.4%) are male, 161 (52.4%) are 1<sup>st</sup> grade and 93 (30.3%) are health vocational high school graduates, and the average age of the students is  $19.77 \pm 1.61$ . 22.1% of the students live in metropolitan cities, 37.5% in provinces, 23.8% in districts and 16.6% in villages-towns. 52 (16.9%) students stated that they used CCMP applications. On the other hand, 255 (83.1%) students stated that they did not use them or could not remember whether they had used them or not (Table 1).

CCMP practices where students have sufficient or partial knowledge about are: hypnosis (76.9%), music therapy (71.3%) and leech application

**TABLE 1:** Descriptive statistics of students.

Variables	First grade (19.31±1.57)	Second grade (20.27±1.50)
Age		
$\bar{X}\pm SD$	19.77±1.61	
Median/minimum-maximum	20/17-29	
	n	%
Gender		
Female	229	74.6
Male	78	25.4
Grade		
1 <sup>st</sup> grade	161	52.4
2 <sup>nd</sup> grade	146	47.6
Living place		
Metropolitan city	68	22.1
Province	115	37.5
District	73	23.8
Village-town	51	16.6
Conventional and complementary medicine practices usage status		
Yes	52	16.9
No/not remember	255	83.1
Graduated high school		
Health vocational high school	93	30.3
Others	214	69.7

SD: Standard deviation.

(72.3%), respectively. CCMP practices that students have no knowledge of are listed as follows: pro-

lotherapy (88.3%), apitherapy (83.4%) and osteopathy (80.4%). The level of knowledge of the students about CCMP practices is given in Table 2.

The total mean score of the students from the traditional and complementary medicine scale is 111.60±13.77. The mean score of philosophical congruence with complementary and alternative medicine, dissatisfaction with conventional medicine and holistic balance subscales are 35.16±6.46, 29.95±9.92, and 46.49±7.67, respectively (Table 3).

There was no significant difference between the groups in the comparison of the scores of the students from the traditional and complementary medicine scale in terms of the variables of place of residence and graduated high school ( $p>0.05$ ). When the difference between genders in the philosophical congruence with complementary and alternative medicine sub-scale was examined, the mean score of female students was found to be higher ( $p=0.019$ ). The mean score of the second grade students in the dissatisfaction with modern medicine sub-scale was higher than the second grade students ( $p=0.005$ ). The mean score of the scale ( $p=0.002$ ), the mean scores of the philosophical congruence with complementary and alternative medicine ( $p=0.026$ ), and holistic balance ( $p=0.024$ ) subscales of the students using

**TABLE 2:** Students' knowledge levels about conventional and complementary medicine practices.

Conventional and complementary medicine practices	I have enough knowledge		I have some knowledge		I have no knowledge	
	n	%	n	%	n	%
Acupuncture	22	7.2	127	41.4	158	51.5
Apitherapy	11	3.6	40	13.0	256	83.4
Phytotherapy	17	5.5	56	18.2	234	76.2
Leech therapy	75	24.4	147	47.9	85	27.7
Hypnosis	81	26.4	155	50.5	71	23.1
Homeopathy	23	7.5	45	14.7	239	77.9
Chiropractic	23	7.5	54	17.6	230	74.9
Cupping therapy	46	15.0	98	31.9	163	53.1
Larval treatment	15	4.9	65	21.2	223	73.9
Mesotherapy	16	5.2	56	18.2	235	76.5
Prolotherapy	8	2.6	28	9.1	271	88.3
Osteopathy	17	5.5	43	14.0	247	80.5
Ozone application	21	6.8	78	25.4	208	67.8
Reflexology	25	8.1	76	24.8	206	67.1
Music therapy	80	26.1	139	45.3	88	28.7

**TABLE 3:** Distribution of scores obtained from Complementary, Alternative, Conventional Medicine Attitude Scale.

	$\bar{X}\pm SD$	Median/ minimum-maximum	Median/ minimum-maximum scores of the scale
Complementary, Alternative, Conventional Medicine Attitude Scale	111.60±13.77	111.00/64-157	108/27-189
Philosophical congruence with complementary and alternative medicine	35.16±6.46	35.00/8-55	32/8-56
Dissatisfaction with conventional medicine	29.95±9.92	29.00/10-61	40/10-70
Holistic balance	46.49±7.67	48.00/12-62	36/9-63

SD: Standard deviation.

**TABLE 4:** Comparison of students' socio-demographical characteristics and Conventional and Complementary Medicine Attitude Scale scores.

Variables		Philosophical congruence with complementary and alternative medicine		Dissatisfaction with conventional medicine		Holistic balance		Complementary, Alternative, Conventional Medicine Attitude Scale	
		$\bar{X}\pm SD$	p value	$\bar{X}\pm SD$	p value	$\bar{X}\pm SD$	p value	$\bar{X}\pm SD$	p value
Gender	Female	35.7±6.0	0.019*	29.4±9.8	0.084	47.0±7.2	0.102	112.0±13.1	0.388
	Male	33.7±7.4		31.6±10.3		45.1±8.9		110.4±14.8	
Grade	First	35.2±6.8	0.904	28.5±10.1	0.005*	46.± 7.44	0.757	110.3±13.6	0.076
	Second	35.1±6.1		31.6±9.4		46.4±8.0		113.1±13.9	
Living place	Metropolitan city	34.8±7.1	0.925	31.1±9.9	0.303	47.2±8.3	0.059	113.2±16.1	0.645
	Province	35.3±5.7		30.5±10.2		45.3±7.9		111.2±12.8	
	District	35.4±7.6		29.4±9.8		45.4±7.5		111.9±14.6	
	Village-town	34.8±5.4		28.0±9.6		45.4±6.5		110.1±11.3	
Conventional and complementary medicine practices usage status	Yes	37.3±7.7	0.026*	30.9±9.8	0.448	48.7±9.1	0.024*	116.9±15.7	0.002*
	No/not remember	34.7±6.1		29.8±9.8		46.1±7.3		110.5±13.1	
Graduated high school	Health vocational high school	35.0±6.2	0.722	28.8±10.1	0.167	46.6±7.4	0.830	110.4±13.0	0.297
	Others	35.2±6.6		30.5±9.8		46.4±7.8		112.1±14.1	

\*p<0.05; SD: Standard deviation

**TABLE 5:** Correlation analysis between students' ages and Conventional and Complementary Medicine Attitude Scale.

Pearson correlation	Philosophical congruence with complementary and alternative medicine	Dissatisfaction with conventional medicine	Holistic balance	Complementary, Alternative, Conventional Medicine Attitudes Scale
Age	0.03	0.25**	-0.07	0.15**

\*\*Correlation is significant at the 0.01 level (2-tailed).

CCMP practices were higher than that of students who don't use CCMP practices or do not remember (Table 4).

A very weak positive correlation was found between the ages of the students and the total scores of the CCMP scale (r=0.15; p<0.01) and the scores of

the dissatisfaction with modern medicine sub-scale (r=0.25; p<0.01) (Table 5).

## DISCUSSION

It has become an expectation of the present day that health professionals should have knowledge and an

idea about CCMP practices.<sup>12</sup> For this reason, it is extremely important to determine the knowledge and attitudes of the health service vocational school students, who are the future health professional candidates, about CCMP in their education processes and to increase their awareness on this subject when necessary. In this study, the knowledge and attitudes of health services vocational school students about CCMP practices were revealed.

There are various studies in the literature about the awareness of CCMP methods. In a study of Ege et al. with dentistry students, the best known CCMP methods are reported as leech, acupuncture and cupping therapy, while the least known are apitherapy, homeopathy and osteopathy.<sup>13</sup> Ayraler et al., reported that the CCMP practice, which is the most well-known among medical faculty students, is the cup application, and the least known ones are leech therapy, prolotherapy and chiropractic.<sup>12</sup> Karahan et al., listed the most widely known CCMP practices as hypnosis, acupuncture and cupping therapy, while the lesser known ones as prolotherapy, reflexology, leech therapy and apitherapy.<sup>14</sup> In this study, CCMP practices with the highest awareness are listed as hypnosis, music therapy and leech applications, respectively. On the other hand, practices with the lowest awareness are listed as prolotherapy, apitherapy and osteopathy according to the data. Although these results suggest that health services vocational school students have knowledge about common and popular CCMP practices, they do not have enough information about CCMP practices that are not common in social environments and heard from the media. It is noteworthy that the rate of students stating that they have no idea about CCMP practices is very high. At this point, in order to increase awareness of CCMP practices, the attention of students can be drawn in this direction by organizing necessary educational activities or making necessary additions to the course curriculum. Şahin et al., stated that the nursing students should have knowledge of complementary health approach methods that will strengthen these qualifications since they will be involved in holistic patient care in their professional lives.<sup>8</sup> In this direction, it is of great importance to increase the level of knowledge about CCMP practices of health services

vocational school students who have similar qualifications with nursing students.

It was determined that the mean score of the students from the CACMAS (111.60±13.77) was high. There are studies in the literature which are conducted to determine the attitude and level of knowledge of health professionals about CCMP using a similar scale. In the study of Köse et al., the mean score for traditional and complementary medicine scale was reported as 104.72±16.46 and in the study of Dursun et al., the same score was found as 103.99±22.03.<sup>7,15</sup> It was determined that the mean score of traditional and complementary medicine attitude scale for pediatric nurses was 112.01±20.07.<sup>9</sup> Since the results obtained from this study (111.60±13.77) are above the median value of the scale, the attitudes of the health services vocational school students towards CCMP are evaluated as positive. Positive attitudes of health services vocational school students, who are health professional candidates, towards CCMP suggest that they adopt the holistic health care service. The positive attitudes of the students towards this subject is extremely important in terms of information and guidance about CCMP in patients to whom they gave care. However, it is understood from the results that although the students' attitudes towards CCMP are positive, they do not have sufficient knowledge about the practices. Since this situation may lead to negative consequences such as incorrect use and misinformation about CCMP practices, the knowledge level of the students should be increased by providing the necessary information. Özer et al. concluded that the vast majority of patients using CCMP methods hid the method they used because they were afraid of getting negative reactions from healthcare personnel.<sup>16</sup> The positive attitudes of the students towards CCMP are pleasing in terms of enabling patients to share these practices without any concern and providing a more effective service.

In this study, the mean score obtained by the students in the philosophical congruence with complementary and alternative medicine sub-scale was 35.16±6.46. Özer et al. and Porsuk and Cerit found the mean score of philosophical congruence with complementary and alternative medicine sub-scale as

35.54±8.81 and 30.0±10.5, respectively.<sup>16,17</sup> In this study, the mean score of the dissatisfaction with modern medicine sub-scale was 29.95±9.92. Similarly, Dursun et al. found the mean score of dissatisfaction with modern medicine sub-scale as 29.95±11.44 in their study.<sup>15</sup> In this study, the mean score of the holistic balance sub-scale was 46.49±7.67. Porsuk and Cerit and Köse et al., found the mean score of holistic balance sub-scale 46.3±4.1 and 45.08±7.37, respectively.<sup>7,17</sup> As a result, since the mean scores for philosophical congruence with complementary and alternative medicine subscale and holistic balance sub-scale were above the median values, these are positive. The existence of a philosophical (thoughtful) harmony and belief in the power of holistic balance with complementary medicine is associated with the increased use of CCMP practices.<sup>18</sup> Treatments in traditional folk medicine consider health in a holistic balance, trying to heal not only the body, but also the soul and have a perspective that are originated from Shamanism. In addition, the developments in modern medicine today emerged from the holistic treatment approaches of Hippocratic medicine, dating back centuries.<sup>19</sup> The positive attitudes of the students towards traditional and complementary medicine and their holistic view of health suggest that they have adopted CCMP practices as well as modern medicine with a holistic perception of health.

There was no difference between the groups in terms of gender variable for mean score of the scale, dissatisfaction with modern medicine and holistic balance sub-scales. It was found that only the mean scores of philosophical congruence with complementary and alternative medicine subscale were higher in female students. It has been stated in some studies that women generally have a more positive attitude towards CCMP than men. In a study of Noiesen et al. on patients who applied to the clinic, it was reported that women apply to these practices more frequently than men.<sup>20</sup> In the study of Erci, it has been reported that men exhibited more negative attitudes towards holistic, traditional and complementary medicine.<sup>21</sup> CCMP practices, which attract more attention of women, take their place as supportive and complementary in addition to modern medicine nowadays.<sup>22</sup> Besides, women's representa-

tive and carrier structure of the tradition, their good knowledge of plants and herbs and their healing properties and their responsibilities in raising children in combination with their maternity role makes women more dominant in terms of traditional knowledge and practices.<sup>19</sup> In this study, it is seen that female students have more positive philosophical views towards CCMP compared to male students, consistent with the information in the literature.

In terms of grade variable, no difference was found between the groups in the mean score of scale mean, and the scores of philosophical congruence with complementary and alternative medicine and holistic balance sub-scales. Similarly, Çöl Araz et al., stated that there is no statistically significant difference between groups in terms of using CCMP practices according to their grades.<sup>23</sup> It was found that only second grade students had higher mean scores of dissatisfaction with modern medicine sub-scale. However, in the correlation analysis, it is seen that dissatisfaction with modern medicine increases with increasing age (Table 5). It can be seen in Table 1 that the mean age of the first grade and second grade students is 19.31±1.57 and 20.27±1.50, respectively and it is seen that their age increases in direct proportion with grade. Concerns about modern medicine have been reported to be positively associated with age.<sup>24</sup> Besides Cinar et al., found in their study that the attitudes of the second grade nursing students towards complementary health approach was significantly higher the first grade students.<sup>25</sup> The results obtained from the study, in line with the literature, support the increase in dissatisfaction with modern medicine due to increasing age. In addition, second grade students have higher positive attitude towards traditional and complementary medicine although there is no statistically significant difference. Dissatisfaction with modern medicine has been noted to lead people back to traditional medical practices.<sup>26</sup> These results support the relationship between dissatisfaction with modern medicine and tendency towards traditional practices.

The basis of traditional medicine is formed by the practices of people living in the countryside and integrated with the land, intertwined with nature and it is reported that people in rural areas use such prac-

tices more widely.<sup>27</sup> Çetin reported that the place of residence did not have a significant effect on the use of CCMP.<sup>28</sup> On the contrary, Aktaş emphasized that those who lived in the village for a long time displayed a positive attitude towards the use of CCMP.<sup>29</sup> In this study, no significant difference was found between the groups for mean score of scale and sub-scales in terms of place of residence. Health services have been tried to be delivered to rural areas with the socialization of health services and access to health services has been facilitated.<sup>30</sup> The reason for the difference in the results can be explained when understanding the fact that the facilitation of access to modern medicine causes a decrease in the use of folk medicine and traditional practices.<sup>31</sup>

It has been reported that having a philosophical orientation compatible with CCMP practices is positively associated with the use of such practices. It has also been reported that the individuals, who have beliefs consistent with the CCMP, are more likely to have used, currently use, or will use CCMP practices.<sup>18</sup> Chowdhuri and Kundu stated that intellectual orientation compatible with CCMP is an important cognitive component in the preference of traditional methods in both acute and chronic disease states.<sup>32</sup> Kahraman and Kırkan suggested that they can reduce the concern of nurses about CCMP and improve their intellectual perspectives on CCMP practices by increasing the level of knowledge of nurses professionally.<sup>9</sup> In this study, mean scores from CACMAS, philosophical congruence with complementary and alternative medicine sub-scale and holistic balance sub-scale of students, who use CCMP, were found to be higher than students who did not use CCMP or do not remember whether they used. These results, which are in line with the literature, support the relationship between the use of CCMP and philosophical congruence with complementary and alternative medicine, and a holistic balance sub-scales.

No significant difference was found in the mean score of scale and sub-scales in terms of graduated high school variable between the students who were graduated from health vocational high schools and those who were graduated from other high schools. It is thought that the reason for the difference in the results is that the students included in the study did not

have any training on CCMP practices in their previous education curriculum.

## CONCLUSION

As a result of the study, it was seen that the health services vocational school students had a high level of attitude towards CCMP, but their level of knowledge about CCMP were not sufficient. While the CCMP practice with the highest awareness among the students was hypnosis, the practice with the lowest awareness was prolotherapy. The intellectual point of view about complementary medicine was more positive in female students. It was observed that the level of dissatisfaction with modern medicine was higher in the second grade students. Attitudes towards CCMP, philosophical congruence with complementary and alternative medicine, and holistic balance of individuals who have used CCMP were more positive than individuals who did not use CCMP or do not remember whether they used. The high school students graduated from and the place they lived in had no effect on their attitudes towards CCMP. It has been found that the age of students has a very weak but positive effect on attitudes towards CCMP and a weak and positive effect on their dissatisfaction with modern medicine.

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### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

*This study is entirely author's own work and no other author contribution.*



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