

Investigating The Relationship Between Midwifery Students' View on Traditional/ Complementary Medicine and Health Perception: A Descriptive Study

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ABSTRACT

Complementary and alternative medicine (CAM) services are used more and more by people in Türkiye day by day. Although it is used so much, there are no schools that provide CAM training in midwifery departments at undergraduate level. This study aimed to investigate the relationship between the view of midwifery students on CAM practices and their health perception. This cross-sectional study was conducted in the midwifery department of the Faculty of Health Sciences of a university in the Black Sea Region between October 4th and November 22nd, 2021 (n=304). Descriptive information form, Complementary, Alternative and Conventional Medicine Attitude Scale (CACMAS), and Health Perception Scale were used to collect the data. SPSS 23.0 statistical program was used for conducting data analysis and the data were presented using mean, standard deviation, number, and percentage values. Correlation analysis was performed to investigate the relationship between the variables. A total of 304 female students participated in this study with a mean age of 20.98±2.18 years. Among them, 68.4% of the students had a family income below the minimum wage, 77.6% had a nuclear family, and 50.3% lived in the city center. Cupping (blood letting 83.8%) was the most frequent CAM practice, and acupuncture (55.9%) was the most common practice for women's health. Mean score of the students was 111.5±19.1 of 189 points on the CACMAS and 52.7±7.08 points on the Health Perception Scale. No significant correlation was found between the scores of the CACMAS and Health Perception Scale (p>0.05). The results of the study showed that there was no significant relationship between CAM Attitude Scale scores and HPS. Students' views on traditional complementary medicine and health perceptions were found to be high. It is necessary to increase the awareness of students on these topics.



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Keywords: traditional medicine; complementary therapies; health perception; midwifery; students

INTRODUCTION

Complementary and alternative medicine (CAM) is recognized by the World Health Organization (WHO) as an important component of the global health system and also ensures its safe, effective, and appropriate use within health systems by forming the necessary regulations and thus contributing to modern medicine (WHO, 2013). CAM is performed in many countries around the world for various purposes, such as preventing diseases, maintaining and improving health, and supporting existing medical treatment. Recently, the use of CAM has become increasingly common. According to the literature, the rates of CAM usage vary by country. CAM is more widely used in the Asian countries, such as China, Korea, Japan, Indonesia and >40% of the population in countries with high socioeconomic levels, such as the United States, Germany, and Switzerland use CAM. Moreover, this rate can reach up to 90% in low-socioeconomic countries, such as Uganda, Tanzania, India, and Ethiopia (Biçer & Balçık, 2019; Kurniati, Carolin, & Lail, 2022; McCreath & Delgoda, 2017; Park et al., 2016; Rohmawati & Saadah, 2021). In Türkiye, based on the different professional groups, the rate of CAM usage varies and is reported to be 18.4%–95.0% (Özcebe & Sevcen, 2009). CAM is used in all patient groups that receive care by midwives, from newborns to pregnant women, children to adults, and from individuals with cancer to menopausal women (Koç & Başgöl, 2016).

In 2014, "Regulation on Traditional and Complementary Medicine Practices" was published in Türkiye. This regulation includes 15 different complementary and therapeutic applications as follows: acupuncture, apitherapy, phytotherapy, hypnosis, leech application, homeopathy, chiropractic, cupping, larval application, mesotherapy, prolotherapy, osteopathy, ozone application, reflexology, and music therapy (TCSağlık Bakanlığı, 2014). This regulation legally allows these practices to be carried out in health institutions. As of July 2021, there are 46 Traditional and Complementary Medicine centers affiliated to the Ministry of Health and 31 centers affiliated to universities and other institutions in Türkiye (<http://getatportal.saglik.gov.tr/TR>, 2021). Despite the extensive use of Traditional and Complementary Medicine services, there are no schools offering CAM education in midwifery departments at the undergraduate level.

Health perception is a concept that covers all the thoughts, feelings, prejudices, and expectations of individuals regarding their health (Klein Velderman, Crone, Wiefferink, & Reijneveld, 2010). Positive health perception helps people to manage their health during future health problems and makes them adopt a healthy lifestyle. However, presently, many people obtain health-related information through easily accessible and often unreliable channels, such as the internet, social media, and television.

Midwives provide education and care for pregnant women, mothers, healthy individuals, and patients, and for the future midwives who will frequently use CAM methods, it is necessary to start collecting such information at the undergraduate level. The midwifery students' understanding of CAM is essential in promoting and improving health as well as in preventing diseases. Midwives/nurses working in any part of the healthcare system play an important role in evaluating the use of CAM by patients, answering questions about CAM methods, and accurately explaining the purposes, effects, application, and risks of these methods (Çamurdan & Gül, 2013).

CAM is a topic of increasing prevalence among humans. It is an important point in shaping the perception of health that midwifery students learn about CAM. Therefore, the aim of this study was to determine the relationship between the views of midwifery students on CAM practices and health perception.

For this purpose, the relationship between the view of midwifery students studying at the Faculty of Health Sciences of a university in the Black Sea Region on CAM and their health perception was examined.

METHOD

Purpose and Type of Research: This research was designed as a cross-sectional descriptive study to determine the relationship between CAM practices and health perception of midwifery students. Data were obtained from the surveys conducted between October 4th and November 22nd, 2021, in the Midwifery Department of the Faculty of Health Sciences of a university in the Black Sea Region.

Research Hypotheses:

H0: There is no relationship between CAM practices and health perception of midwifery students.

H1: There is a relationship between CAM practices and health perception of midwifery students.

Research Population and Sample: A total of 360 students studying in the 2021–2022 academic year constituted the research population. Minimum sample size was calculated as 234 students with 5% acceptable error and 99% confidence level.

Data Collection: All the survey data were collected online through Google Forms in which a questionnaire was prepared, and the necessary ethics committee approval was obtained. Students were then informed about the questionnaire that was shared through social media groups. Informed consent form was included on the first page of the questionnaire and students answered the questionnaire after providing informed consent. The forms were anonymously filled for maintaining confidentiality, and the answers were only seen by the researchers.

Data Collection Tools: "Descriptive Information Form," "Traditional and Complementary Medicine Attitude Scale" and "Health Perception Scale" were used to collect the data.

Descriptive Information Form: This form consisted of 18 questions on sociodemographic characteristics (age, class, marital status, etc.) and students' knowledge and views on CAM practices.

Complementary, Alternative, and Conventional Medicine Attitude Scale (CACMAS) CACMAS was developed by McFadden et al. (2010), and it consists of 25 items and 3 subscales (McFadden, Hernández, & Ito, 2010). Validity and reliability study of the Turkish form was conducted by Köse, Ekerbiçer and Erkorkmaz (2016). Turkish form is a 7-point Likert type scale (from 1 = Strongly Disagree to 7 = Strongly Agree) and consists of 27 items (22 positive, 5 negative) (Köse, Ekerbiçer, & Erkorkmaz, 2018). The scale has no cut-off point and higher scores indicate an increase in positive attitude toward CAM. The minimum score that can be obtained in this scale is 7 points and the maximum score is 189 points. The Cronbach alpha value of the scale is 0.80 and that of the subscales are 0.86, 0.80, and 0.68. In the present study, the Cronbach alpha value of the scale was found to be 0.82 and that of the subscales were 0.86, 0.83, and 0.66.

Health Perception Scale (HPS): HPS was developed by Diamond et al. (2007) and was adapted to Turkish by Kadioglu and Yildiz (2010). It has four subscales and consists of 15 items (6 positive, 9 negative) (Kadioğlu & Yıldız, 2012). It is a 5-point Likert type scale with no cut-off point, and higher scores indicate higher level of health perception. The minimum score that can be obtained in the scale is 15 points and the maximum score is 75 points. The Cronbach alpha coefficient of the scale was found to be 0.77 in the original study. In the present study, the Cronbach alpha coefficient was found to be 0.73.

Evaluation of Data: IBM SPSS v23.0 (Statistical Package for the Social Sciences) package program was used to evaluate the data. Data were presented using mean, standard deviation, number, and percentage values. Parametric tests and correlation analysis were used to evaluate the data. $p < 0.05$ was accepted as statistically significant in all analyses.

Ethical Considerations: Ethical approval was obtained from Ondokuz Mayıs University Social Sciences and Humanities Research Ethics Committee (Decision no: 2021/531). Written consent was obtained from all the students. This research was conducted in accordance with the principles of the Helsinki Declaration.

Limitations of The Study: This research was conducted in a single center. Therefore, the results cannot be generalized to the entire population.

RESULT

Table 1. Descriptive Characteristics

Demographics	Number (n)	Percentage (%)
Class		
First year	82	27.0
Second year	70	23.0
Third year	72	23.7
Fourth year	80	26.3
Economic Status		
Below the minimum wage	208	68.4
Between the minimum wage and the poverty level	90	29.6
Above the poverty level	6	2.0
Family Type		
Nuclear	236	77.6
Extended	49	16.1
Fragmented	19	6.3
Place of Residence		
Village	53	17.4
District	98	32.2
Province	153	50.3
Presence of Chronic Disease		
Yes	26	8.6
No	278	91.4
Smoking		
Yes	34	11.1
No	270	88.9

A total of 304 female students participated in the research with a mean age of 20.98 ± 2.18 years. Among them, 68.4% of the students had family income below the minimum wage and 77.6% of the students had a nuclear family. It was found that half of them live in the city center, they do not have chronic diseases (91.4%) and the rate of smokers is 11.1%. The descriptive characteristics of the students are shown in Table 1.

Table 2. CAM Awareness in Students and Opinions on CAM in Women's Healthcare

Periods of CAM Practices in Women's Health*	n	%
Labor	228	75.0
Pregnancy	221	72.6
Menstrual Period	213	70.1
Maternity	198	65.1
Infertility	140	46.1
Menopause	18	5.9
Dysmenorrhea	14	4.6
Gynecological Cancer	11	3.6

	CAM Awareness		CAM Practices in Women's Healthcare	
	n	%	n	%
Cupping (blood letting)	255	83.8	81	26.6
Acupuncture	253	83.2	170	55.9
Hypnosis	250	83.1	-	-
Music Therapy	240	78.9	13	4.2
Cupping	143	47.1	35	11.5
Ozone application	126	41.4	-	-
Reflexology	118	38.8	80	26.3
Mesotherapy	79	25.9	37	12.1
Homeopathy	63	20.7	52	17.1
Larval Application	59	19.4	-	-
Osteopathy	48	15.7	-	-
Chiropractic	44	14.4	-	-
Hirudotherapy	9	2.9	12	3.9

The students mentioned that cupping (blood letting; 83.8%) was the most frequent CAM practice and acupuncture (55.9%) was the most common practice in women's healthcare. The least known method was hirudotherapy. The students stated that CAM practices are used in women's healthcare during childbirth (75%), pregnancy complaints (72.6%), and menstrual problems (70%) (Table 2).

Based on the students' sources on CAM information, media (65.1%) and lessons (64.4%) were found to be the most common information source, whereas the least common information source was families and relatives (3.2%). Of the total participants, 68.1% stated that the effect of the information in the media was positive, whereas 8.9% stated that the effect was negative. Participants stated that they used CAM to relieve pain (24%) and stress (21.7%), to deal with fatigue (19.7%) and to sleep comfortably (18.8%). When we asked 'who are CAM practitioners', 67.4% of them answered that 'they are doctors'. Moreover, 74.6% of the participants knew about the presence of CAM centers, 76.7% of the participants thought that CAM was useful, whereas 3.5% thought that CAM was not useful. Of the total participants, 48.7% stated that CAM practices affected academic success, whereas 10.9% stated that CAM practices had no effect on academic success (Table 3).

Table 3. Views on CAM and CAM Practices Used

Views on CAM and CAM practices used	n	%
Source of CAM information*		
Media	198	65.1
Lessons	196	64.4
Friend	92	30.2
Health care provider	76	25
Family, relatives	10	3.2
Who are CAM practitioners*		
<i>Doctor</i>	205	67.4
Midwife/Nurse	196	64.4
Everyone who receives training	191	62.8
Health officer	68	22.3
<i>Dentist</i>	65	21.3
CAM practices used		
No	218	71.7
Once	42	13.8
Multiple times	44	14.5
Usefulness of CAM practices		
Useful	66	76.7
Not useful	3	3.5
Undecided	17	19.8
View of CAM		
Positive	223	73.4
Negative	3	1.0
Undecided	78	25.6
Reasons for CAM Use*		
Reducing pain	73	24
Reducing stress	66	21.7
Fatigue	60	19.7
Sleeping well	57	18.8
Providing physical care	44	14.5
Wonder	33	10.9
Strengthening muscles	18	5.9
Losing weight	14	4.6
Prevention of diseases	14	4.6
Fighting diseases	11	3.6
Dissatisfaction with medical treatment	11	3.6
Reducing drug side effect	12	3.9
Combined use of CAM with classical medicine		
Classical medicine alone is sufficient	5	1.6
CAM and classical medicine complement each other	270	88.8
I have no idea	29	9.5
Recommending CAM to individuals		
Recommend CAM frequently	92	30.3
Recommend CAM rarely	135	44.4
Do not recommend CAM	72	23.7
Never	5	1.6
Should CAM be included in the midwifery curriculum		
Yes	17	5.6
No	59	19.4
Undecided	228	75.0
How do you see CAM in the media		
Positive	207	68.1
Negative	27	8.9
I do not see CAM in the media	70	23.0

*Multiple options were selected. Italics refer to the correct answers.

Table 4. Complementary, Alternative, and Conventional Medicine Attitude Scale (CACMAS) and Health Perception Scale (HPS) Scores

Scale	Mean±SD	Min-Max
Complementary, Alternative, and Conventional Medicine Attitude Scale (CACMAS)	111.5±19.1	57–169
Intellectual View of Complementary Medicine	35.4±8.75	11–56
Dissatisfaction with Modern Medicine	28.9±10.11	9–59
Holistic View of Health	47.15±9.8	9–63
Health Perception Scale	52.7±7.08	33–74
Control	18.5±3.2	7–25
Precision	12.0±3.4	4–20
Importance of health	11.4±2.1	3–15
Self-awareness	11.1±2.1	3–15

Mean score of the students was 111.5±19.1 of 189 points on the CAM Attitude Scale and 52.7±7.08 points on the HPS (Table 4). No significant correlation was found between the scores of the CAM Attitude Scale and HPS ($p>0.05$).

DISCUSSION

The use of complementary medicine is steadily increasing among patients worldwide (WHO, 2019). According to the data obtained in this research, cupping (blood letting) was the most well-known method among midwifery students, and acupuncture was the most well-known method in women's healthcare (Table 2). Ayraller et al. (2020) reported that the most well-known method was cup application (Ayraller, Öztürk, Oruç, & Yavuz, 2020), whereas the CAM methods mostly used by nurses were massage, herbal medicine, and mind–body therapies (Balouchi et al., 2018). Students are probably familiar with these practices as they are included in the curriculum of labor and delivery courses as part of non-pharmacological methods used to relieve pain.

Majority of the participants stated that they were undecided regarding whether CAM should be included in midwifery curriculum (Table 3). Recently, in Australia (McCabe, 2005) and the US (Booth-LaForce et al., 2010), CAM practices have been included in the curriculum to integrate knowledge in nursing education. For midwifery students who will provide healthcare to patients across the world, we suggest that it is essential to gain knowledge on CAM practices and methods.

While receiving healthcare services from traditional medicine, dissatisfaction seems to be a widely influential factor for learning and practicing CAM. However, the reasons for seeking or using CAM as specified by the participants in this study included various statements, such as reducing pain and stress, fatigue, and sleeping comfortably (Table 3). Consistent with the results obtained in the present research, a systematic review of nurses' knowledge, attitude, and the use of complementary and alternative medicine reported that the most crucial reasons for using CAM were reducing stress and anxiety along with improving health (Balouchi et al., 2018). Few studies in the literature report that CAM is used for lower back pain, headaches (Johnson, Kozhimannil, Jou, Ghildayal, & Rockwood, 2016), and neck pain (Kemppainen, Kemppainen, Reippainen, Salmenniemi, & Vuolanto, 2018), whereas other studies report that it is used for dysmenorrhea (Andriani, Carolin, & Lail, 2022; Midilli, Yasar, & Baysal, 2015). In another study, van Rensburg et al. (2021) concluded that participants resorted to CAM methods because complementary medicine was easily accessible (van Rensburg, Razlog, & Pellow, 2020). This could be because in most African countries, the public has to spend a significant amount of money to access and use the healthcare services. Furthermore, according to a study conducted in Switzerland, where complementary medicine has been integrated into the national healthcare system, most nurses stated that the use of complementary medicine would reduce the total healthcare expenditures (Jong, Lundqvist, & Jong, 2015).

According to the results obtained in the present study, the most common sources of information on CAM were media and lessons (Table 3). Consistent with this finding, a 2020 study in China concluded that medical students preferred media (39.3%) over teachers (32.1%) for obtaining information on CAM. Similar results were reported in other studies conducted in Türkiye (Ayraller et al., 2020) and in other countries (Hua, Fan, Dong, & Sherer, 2017). Presently, media is a major access point to information, and this leads to a situation where the accuracy of the information on the media should be questioned. In fact, it is obvious that the information is not always correctly presented in the media.

In the present research, the mean health perception score of the participants was 52.7 ± 7.08 (Table 4). Health perception score of the students was moderate, and the subscale with the highest score was the control center

subscale. Furthermore, other studies also reported similar results (Özdelikara, Alkan, & Mumcu, 2018; Yıldırım, Korkmaz, & Avci, 2021).

In the present research, Complementary, Alternative, and Conventional Medicine Attitude Scale (CACMAS) mean score obtained by the students was above the average value of the scale and it was concluded that midwifery students had a positive attitude. Other studies in the literature have also reported that midwives and nurses have a positive attitude toward complementary and alternative medicine (Aveni et al., 2016; Balouchi et al., 2018; Baltacı & Koç, 2018; Dursun et al., 2019; Kahraman & Kırkan, 2020). The positive attitudes of midwifery students will be influential on the care and guidance that they will provide to individuals when they begin their professional career.

No correlation was found between health perception and attitude toward CAM practices. Dursun et al. also reported similar results (Dursun et al., 2019).

CONCLUSION

Given the status of CAM and the role of midwives in the current healthcare system, it would be beneficial to increase students' awareness of CAM and their health perception.

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