

## The Effects of Complementary Alternative Methods Used by Nursing Students on Coping with Stress

Hemşirelik Öğrencilerinin Kullandığı Tamamlayıcı Alternatif Yöntemlerin Stresle Baş Etmelerine Etkisi

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### ABSTRACT

This study was conducted to determine the effect of complementary and alternative therapies used by nursing students on coping with stress. The study was conducted with 184 students who agreed to participate in the nursing department of a university between November 1-30, 2020. Data were collected on the internet. Descriptive features data form, form containing complementary alternative therapy usage features, and visual analog scale were used. The average stress score of the students was  $3.04 \pm 0.88$ , 60.3% experienced stress, 34.8% had stress-related constipation, 66.3% used a complementary and alternative therapie methods to cope with stress and the most preferred complementary and alternative therapie method (67.2%) was found to be music therapy. It was found that 98.3% of the students were satisfied with the complementary and alternative therapie method they used. It has been concluded that the use of music therapy and herbal tea used by nursing students are effective in coping with stress, and the increasing internet use affects the use of complementary and alternative therapie method and the information source.

**Keywords:** Complementary Alternative Therapies, Internet, Music Therapy, Nursing Student, Stress,

### ÖZ

Bu araştırma, hemşirelik bölümü öğrencilerinin kullandığı tamamlayıcı ve alternatif terapi yöntemlerinin stresle baş etmelerine olan etkisini belirlemek amacıyla yapılmıştır. Araştırma 1-30 Kasım 2020 tarihleri arasında bir üniversitenin hemşirelik bölümünde araştırmaya katılmayı kabul eden 184 öğrenci ile yapılmıştır. Veriler internet ortamında toplanmıştır. Veri toplama için tanımlayıcı özellikler veri formu, tamamlayıcı alternatif terapi kullanım durumunu içeren form ve visual analog skala kullanılmıştır. Öğrencilerin stres puanı ortalamalarının  $3,04 \pm 0,88$  olduğu, % 60,3'ünün stres yaşadığı, % 34,8'inin strese bağlı kabızlık problemi yaşadığı, % 66,3'ünün stresle baş etmek için bir tamamlayıcı ve alternatif terapi yöntemi kullandığı ve en çok tercih edilen yöntemin (%67,2) müzik terapi olduğu bulunmuştur. Öğrencilerin % 98,3'ünün kullandığı tamamlayıcı ve alternatif terapi yönteminden memnun kaldığı tespit edilmiştir. Hemşirelik öğrencilerinin kullandığı müzik terapi ve bitki çayı tüketmenin stresle baş etmelerinde etkili olduğu ve artan internet kullanımının tamamlayıcı ve alternatif terapi yöntemi kullanımı ve bilgi kaynağını etkilediği sonucuna ulaşılmıştır.

**Anahtar Kelimeler:** Hemşirelik Öğrencisi, İnternet, Müzik Terapi, Stres, Tamamlayıcı Alternatif Terapiler

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## INTRODUCTION

Stress has been identified as an important problem experienced by nursing students during their education. Some studies have shown that the stress experienced by nursing students is higher than that of medical school students and students studying other health sciences.<sup>1,2</sup> School lessons, courses, clinical experiences, difficulty in adapting to the school environment and where they live, personal problems, dietary changes can be a source of stress for nursing students.<sup>3</sup> Continuous exposure of students to stress can also cause negative effects on learning, participation in classes, self-confidence, academic and clinical competence, and self-concept.<sup>4</sup> In addition, stress causes symptoms such as constipation, insomnia, fatigue, and loss of appetite in students that impair the quality of life.<sup>5,6</sup> The future effects of stress on nursing students may have a negative impact on the nursing workforce, as it may cause inadequate nurses to enter nursing practices.<sup>7</sup> Finding ways to reduce stress and promote healthy behaviors in this population can improve work and school performance, improve overall health, and contribute to creating and maintaining.<sup>8</sup>

Various complementary and alternative medicine (CAM) approaches for stress management have been proposed to nursing students. In a literature review, it was mentioned that the stress of nursing students should be reduced.<sup>9</sup> In coping with stress, awareness programs such as meditation and yoga, body-based methods such as massage, chiropractic and acupuncture, and energy therapies such as therapeutic touch are used as alternatives to drug therapy.<sup>10-12</sup>

Since most of the nursing students experience stress in their school life, it is important to explore the students' strategies to prevent stress in their educational environment. Relevant studies in the literature mostly measured nursing students' knowledge and attitudes towards complementary alternative methods. It is thought that there is a literature gap in examining complementary alternative methods used by nursing students to cope with stress. Therefore, this study was conducted to determine the effect of CAM methods used by nursing students on their coping with stress.

## MATERIALS AND METHODS

### The Importance of Study

Nursing students can manage the stress they are exposed to during their education by using CAM consciously and effectively.

### Study Type

This study is planned in a descriptive type.

### Place And Time of The Study

It was held between 1-November 2020 - 30 November 2020 with students who continue their education in the Nursing Department of a University.

### Universe And Sample

All students (N=220) in the first, second, third and fourth grade who continue their education in the Undergraduate Nursing Department of a university have been formed.

No sample selection was made in the study. The study was carried out with 184 students who accepted to participate in the study on the data collection dates.

### Inclusion Criteria

Being a nursing student

### Data Collection Tools

In collecting the data, a questionnaire containing the descriptive characteristics of the students, a questionnaire containing information about complementary and alternative medicines and their use cases, and Visual Analogue Scale were used.

### Question Form Including The Descriptive Characteristics of The Students

A form containing questions such as the students' gender, age, type of high school they

graduated from, family structure, where their family lives was created.

### Question Form Containing Complementary And Alternative Medicines Information And Use Cases

It is a form prepared by the researcher using the literature. In this form, students' use of a CAM method to cope with stress, which CAM methods they used and their satisfaction with using CAM were questioned.

### Visual Analog Scale (VAS)

This form includes numbers and is used in the assessment of stress severity. Students mark their stress severity on a 5 cm ruler which is written no stress on one side and the most severe stress as possible on the other side. It has been stated that VAS is more sensitive and reliable in the measurement of stress severity than one sized scales. There are different studies in which VAS is used to measure students' stress levels.<sup>13,14</sup>

### Implementation of The Study

After obtaining approval from the students who accepted to participate in the study, they were asked to fill in the questionnaires. Surveys on the internet google docs. collected with the help of internet address. Meanwhile,

similar answers given by the students about CAM methods are grouped. Then the questionnaires were taken from the website and transferred to a statistics program. With this process, errors in data processing are prevented. Support was received from an expert for statistical analysis.

### Ethical Aspect of The Study

For the study, permission was obtained from the Non-Clinical Research Ethics Committee of a university with the number 2020/487 (21.10.2020). Throughout the study, all principles of the Helsinki Declaration were followed. In addition, the board's permission numbered 600/80649 was obtained from the school where we worked.

### Data Analysis

Data analysis was done with SPSS 25.0. Descriptive data are presented by number (n), mean and percentage (%). The Mann Whitney-U test Z table value was used to compare the VAS averages.

### Limitations

The research was conducted with the participation of only nursing students. The research is single centered. These research results should not be generalized.

## RESULTS AND DISCUSSION

It was determined that the average age of the students participating in the study was  $20.09 \pm 1.76$  and most of them were women 79.9%. In addition, it was determined that

37.5% of the students attended the 3rd grade and 73.9% of them graduated from a science-style high school (Table 1).

**Table 1. Distribution of Students' Socio-Demographic Characteristics (N = 184)**

		n	%
Gender	Female	147	79,9
	Male	37	20,1
Class	1	45	24,5
	2	69	37,5
	3	47	25,5
	4	23	12,5
High School Graduated	Anatolian high School	136	73,9
	Vocational high School	29	15,8
	Science high school	19	10,3
Family lives	Province	87	47,3
	District	69	37,5
	Town	28	15,2
Age		$\bar{X} \pm SD$	20.09±1.76

$\bar{X}\pm SD$ : Mean value and standard deviation

It was found that 60.3% of the students participating in the study experienced stress because they studied in the nursing department, their average stress level was  $3.04 \pm 0.88$  and 77.2% of the students could not cope with their stress. It was found that the students had constipation (34.8%), insomnia (31.5%) and anorexia (25.0%) problems due

to the stress they experienced. It was determined that 66.3% of the students used a CAM method to cope with stress, the most used CAM method was music therapy (67.2%), the students learned the method most from the internet (68.5%) and 98.3% benefited from the CAM method applied (Table 2).

**Table 2. Distribution of Students' Characteristics About Stress Situations and CAM Use (N = 184)**

		n	%
Does being in the nursing department cause stress?	Yes	111	60,3
	No	73	39,7
What discomfort does stress cause you?	Constipation	64	34,8
	Insomnia	58	31,5
	Anorexia	46	25,0
	Distractibility	10	5,4
	Tiredness	6	3,3
Level of stress	$\bar{X}\pm SD$		3.04±0.88
Do you use CAM?	Yes	122	66,3
	No	62	33,7
Which CAM method do you use?	Music therapy	82	67,2
	Herbal teas	28	22,9
	Distraction	12	9,9
Where did you learn about your method?	From the Internet	89	72,9
	From my friends	21	17,2
	From TV	12	9,9
Did you see the benefit of the CAM method you applied?	Yes	120	98,3
	No	2	1,7

$\bar{X}\pm SD$ : Mean value and standard deviation

However, different results have been reported in the literature regarding CAM methods, which are mostly used among students. James et al. determined CAM methods used among health sciences students as prayer with 28.3%, herb with 23.8% and massage with 17.9%.<sup>15</sup> The most well-known CAM method among students is acupuncture in Singapore and Pakistan, while among American students it is massage, herbal medicine, and meditation.<sup>16</sup> In Turkey, in a survey of herbal teas medical students (80.8%), reiki (23.7%), aromatherapy (19.9%), spas (15.1%), acupuncture (2.4%) Top It has been identified as the CAM methods used. In our study, the fact that the most preferred CAM method by students is music therapy can be explained by the fact that students can access music easily and free of charge on the internet and that music has a positive effect on stress. In addition, it is known that students experience stress-induced constipation and constipation is associated with high levels of anxiety.<sup>17</sup> We think that

music therapy helps to relieve anxiety in students and thus also relieves constipation.

In this study, it was determined that the students learned the CAM method they used on the internet and were satisfied with the CAM method they used (Table 2). In one study, it was reported that the main sources of information about CAM were newspapers, and in another study, the main source of information on CAM use was the circle of friends.<sup>18,19</sup> Farooqui et al. (2016) reported that after friends and family members, media and internet are the third main sources of information as CAM sources.<sup>20</sup> In a study in which health sciences students' information sources related to CAM were investigated, it was determined that the students' primary information source was the internet.<sup>21</sup> Wode et al. (2019) reported that the main source of information on CAM is the internet.<sup>22</sup> We think that the reason for this change of CAM information source may be related to the

increasing use of the internet and social media.

In a study examining the use and satisfaction of the nursing students, it was reported that approximately two-thirds of the students were satisfied with a CAM method they used (Table 2).<sup>15</sup> Turkey was also detected to measure the concentrations of research about students' knowledge and attitudes of CAM.<sup>23-26</sup> In this study, it was determined that students using the CAM method experienced less stress than students who did not use the CAM method, and the majority of students using CAM were satisfied with the method they used. The findings of this study add new information to the literature.

A difference was found between the VAS scores of students who used the CAM method

to cope with stress and those who did not. The VAS mean scores of the students who used the CAM methods of music therapy ( $p= 0.002$ ), herbal teas ( $p= 0.000$ ) and distraction ( $p= 0.000$ ) were found to be lower than the students who did not (Table 3).

**Table 3. Analysis of VAS Changes According to The CAM Methods Used by Students (N = 184)**

	Mean±SD	Statistical evaluation
<b>Music therapy</b>		
Uses	2,32±0,946	Z: -3,041
Not using	3,13±1,015	<b>p: 0,002</b>
<b>Herbal teas</b>		
Uses	2,64±0,810	Z: - 4,553
Not using	3,31±1,082	<b>p: 0,000</b>
<b>Distraction</b>		
Uses	2,43±0,805	Z: - 7,256
Not using	3,53±0,937	<b>p: 0,000</b>

$\bar{X}\pm SD$ : Mean value and standard deviation  
Z: Mann Whitney U Test

## CONCLUSION

In this study, it was determined that the students mostly used the CAM methods to cope with stress, using music therapy, herbal tea consumption and distraction methods, and were satisfied with the CAM method used by the students. Students' preference of the internet as their primary learning resource for the CAM method has been associated with the increasing use of internet today. In this study, the stress levels of the students who used music therapy, herbal teas and distraction

methods to cope with stress were found to be lower than the students who did not use any method. This shows that the CAM method applied is effective on students. It is our suggestion that students are directed to reliable internet addresses for CAM information resources and that the cost of music therapy and herbal teas are recommended to nursing students to cope with stress.

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