

Attitudes of first and sixth year medical faculty students towards sexual assault victims: a cross-sectional study

Birinci ve altıncı sınıf tıp fakültesi öğrencilerinin cinsel saldırı mağdurlarına karşı tutumları: kesitsel bir çalışma

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Abstract

Purpose: Sexual violence encompasses a range of coercive behaviors, from verbal harassment to forced penetration, and includes from social pressure and intimidation to the application of physical force. Sexual violence has numerous mental and physical health consequences on the individual. Although physicians recognize their crucial role in caring for sexual violence victims, various attitudes and behaviors hinder their fulfillment of these roles. In our study, the aim was to determine the attitudes of first and sixth year medical faculty students towards sexual assault victims and the socio-demographic factors influencing these attitudes.

Materials and methods: A total of 370 voluntary first- and sixth-year students enrolled in the 2021-2022 academic year at Manisa Celal Bayar University Faculty of Medicine were administered a questionnaire comprising socio-demographic characteristics, the "Social Attitudes Scale Towards Sexual Assault Victims", and questions assessing their knowledge of forensic medicine regarding sexual assault.

Results: In our study, it was found that 55.9% of the medical faculty students who participated were female, with an average age of 20.83±2.85 years. 56.5% were first-year students. 18.9% reported that they or someone close to them had been subjected to behavior considered as sexual assault. The average score of the participants in the Social Attitudes Scale towards Sexual Assault Victims was determined to be 95.29. It was statistically significant that women, those aged between 17-22, and those with a high monthly family income had higher average scores on the scale. It was found that 17.3% of the participants answered all six forensic medical questions correctly. The total scores of female students on the Social Attitudes Scale Towards Sexual Assault Victims and the scores of the behavior and thought sub-dimensions were found to be statistically significantly higher than those of male students.

Conclusion: It was determined that participants generally held a positive attitude towards sexual assault victims. Factors contributing to this positive attitude included higher levels of parental education, the influence of education received during medical school and preceding periods, and social environments.

Keywords: Sexual assault, medical faculty student, attitude, forensic medicine education.

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Öz

Amaç: Cinsel şiddet, sözlü tacizden zorla penetrasyona kadar değişen eylemleri ve sosyal baskı ile sindirmeden fiziksel güç uygulanmasına kadar bir dizi zorlama türünü kapsar. Cinsel şiddetin kişi üzerinde çok sayıda zihinsel ve fiziksel sağlık sekelleri vardır. Hekimler, cinsel şiddet mağdurlarını bakımında kilit rolleri olduğunu tanımlasa da çeşitli tutum ve davranışları bu rolleri yerine getirmelerini engellemektedir. Çalışmamızda, tıp fakültesi birinci ve altıncı sınıf öğrencilerinin cinsel saldırı mağdurlarına karşı tutumları ve bu tutumları etkileyen sosyodemografik etkenlerin belirlenmesi amaçlanmıştır.

Gereç ve yöntem: Manisa Celal Bayar Üniversitesi Tıp Fakültesi'nde 2021-2022 akademik yılında öğrenim gören 370 gönüllü dönem 1 ve dönem 6 öğrencisine, sosyo-demografik özellikleri ile "Cinsel Saldırı Mağdurlarına Karşı Toplumsal Tutum Ölçeği" ve cinsel saldırı hususunda adli-tıbbi bilgilerini değerlendirmek amacıyla hazırlanan soruları içeren toplam 38 maddelik bir anket formu uygulandı.

Bulgular: Çalışmamıza katılan tıp fakültesi öğrencilerinin %55,9'unun kadın olduğu, ortalama yaşın 20,83±2,85 bulunduğu, %56,5'inin birinci dönem öğrencisi olduğu, %18,9'unun kendisinin veya yakın çevresinin suç sayılan cinsel amaçlı davranışa maruz kaldığını belirttiği, çalışmaya katılan öğrencilerin Cinsel Saldırı Mağdurlarına Karşı Toplumsal Tutum Ölçeği'ndeki ortalama puanının 95,29 saptandığı, kadınların, 17-22 yaş aralığında olanların ve aylık aile gelir durumu yüksek bulunanların ölçek toplam puan ortalamalarının istatistiksel olarak anlamlı şekilde yüksek olduğu, katılımcıların %17,3'ünün kendilerine yöneltilen 6 adli-tıbbi sorunun tamamına doğru cevap verdiği belirlenmiştir. Kadın öğrencilerin Cinsel Saldırı Mağdurlarına Karşı Toplumsal Tutum Ölçeği toplam puan ortalamaları ile davranış ve düşünce alt boyutu puan ortalamaları erkeklere göre istatistiksel olarak anlamlı şekilde yüksek bulunmuştur.

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Sonuç: Katılımcılarda, cinsel saldırı mağdurlarına karşı tutum olarak olumlu bir bakış açısının hâkim olduğu saptanmıştır. Bu olumlu bakış açısının oluşmasında; aile eğitim düzeylerinin yüksek olması, tıp fakültesi ve öncesindeki dönemlerde almış oldukları eğitim ile buldukları sosyal ortamların etkilerinin olduğu anlaşılmıştır.

Anahtar kelimeler: Cinsel saldırı, tıp fakültesi öğrencisi, tutum, adli tıp eğitimi.

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Introduction

Sexual violence covers a spectrum of coercive behaviors, extending from verbal abuse to compelled intercourse, and includes various forms of coercion such as intimidation through social pressure and the application of physical force. The concept of sexual assault involves engaging in behavior with sexual content, aimed at sexual gratification, using coercive methods such as physical force, threats, fear, deceit, and manipulation against a person who does not consent or whose consent is not recognized [1]. Despite regional differences, most studies indicate the widespread occurrence of sexual assault [2].

Sexual assault leads to myriad psychological and physiological ramifications for the victim. Those who have endured sexual violence face increased susceptibility to conditions such as asthma, diabetes, irritable bowel syndrome, migraines, persistent discomfort, painful intercourse, sleep disturbances, and general deterioration in both mental and physical well-being [3]. Therefore, individuals who have experienced sexual violence are frequent users of various health services where primary care and specialist physicians, such as emergency departments, forensic medicine, urology, psychiatry, and gynecology clinics [4]. It is acknowledged that personal and societal barriers in physicians who has received education from a medical faculty that may hinder sexual violence victims from accessing necessary health services [5]. There is a range of myths and misunderstandings about sexual assault that can lead to inappropriate management. Increased awareness, early diagnosis, and appropriate management of sexual violence among all physicians from medical students to experienced physicians can be beneficial [6]. In Türkiye and many countries, there is limited coverage of sexual assault in medical school

curricula. Additionally, there are few specialized services available for sexual violence victims [7, 8]. Due to the widespread nature of sexual violence and inadequate healthcare infrastructure, the World Health Organization has developed a series of guidelines outlining the services needed for survivors of sexual assault [9]. Survivors of sexual assault necessitate comprehensive, gender-sensitive healthcare provisions to address the physical and psychological aftermath of their ordeal and facilitate their recuperation from an exceedingly distressing and traumatic incident. Besides immediate medical assistance, the healthcare sector can serve as a pivotal referral hub for ancillary services that survivors might require subsequently, such as social welfare and legal aid. Such substantiation frequently proves indispensable in prosecuting cases of sexual violence [1, 9].

Although physicians acknowledge their pivotal roles in caring for sexual violence victims, various attitudes and behaviors hinder their fulfillment of these roles. There is limited research investigating what prevents physicians from addressing sexual violence with their patients. Particularly, there is a scarcity of studies in the literature that specifically explore physicians' perceptions of providing care to sexual violence victims [10]. In our study, it was aimed to determine the attitudes of first and sixth-year medical students towards sexual assault victims and the socio-demographic factors influencing these attitudes. Literature review during the study did not reveal any previous research on the attitudes of medical students towards sexual assault victims in our country. The fact that there has been no previous study in a similar setting in our country and the importance of increasing the positive attitudes of physicians towards sexual assault victims in the long term and guiding interventions for sexual assault victims is significant.

Materials and methods

During the academic year 2021-2022, there were a total of 453 first- and sixth-year students enrolled in Manisa Celal Bayar University Faculty of Medicine. A questionnaire consisting of socio-demographic characteristics, the "Social Attitudes Scale Towards Sexual Assault Victims" developed by Bostancı and colleagues, and questions assessing their knowledge of forensic medicine regarding sexual assault, totaling 38 items, was administered. A collective of 370 students (comprising 81.7% of the total) filled out the questionnaire during in-person sessions, and their responses were incorporated into the analysis.

The Social Attitudes Scale Towards Sexual Assault Victims consists of a total of 22 items, with 12 of them reverse-coded, using a 5-point Likert scale. The scale comprises three sub-dimensions: emotion, thought, and behavior. The assessment of the scale relies on computing the total score, with a higher score reflecting a more favorable outlook towards sexual assault survivors. The Social Attitudes Scale Towards Sexual Assault Victims form is presented in Table 1. The Cronbach's Alpha coefficient for internal consistency of the scale is noted to be 0.87, with the behavior sub-dimension at 0.87, the thought sub-dimension at 0.84, and the emotion sub-dimension at 0.15 [11].

In this study, descriptive statistics were evaluated. The reliability of the scales was checked. Confirmatory Factor Analysis, one of the Structural Equation Modeling (SEM) analyses, was used to demonstrate the validity of the scales. The AMOS 23 program was used.

The initial stage of the statistical analysis involved assessing the assumption of normality using the Shapiro-Wilk test. For comparing the means of two groups lacking normal distribution, the Mann-Whitney U test was employed. The Kruskal-Wallis test was utilized for comparing the means of three or more groups without normal distribution. Post hoc Bonferroni test was applied to pinpoint any differing groups. Spearman correlation was employed to gauge the relationship between continuous variables lacking normal distribution. Fisher's Exact test analyzes were applied to examine the relationships between the responses of the participating students to the forensic medical

evaluation questions and the students' classes. The analyses were executed using IBM SPSS 25 software. $P < 0.05$ was considered significant. Findings were tabulated, graphed, and discussed accordingly.

The research received ethical clearance from the Manisa Celal Bayar University Faculty of Medicine Health Sciences Ethics Committee.

Results

Among the 370 students participating in the study, 209 (56.5%) were first-year students, and 161 (43.5%) were sixth-year students. Regarding gender distribution, 207 (55.9%) were female, and 163 (44.1%) were male. When examined by class level, it was found that among first-year students, 124 (59.3%) were female and 85 (40.7%) were male, while among sixth-year students, 83 (51.6%) were female and 78 (48.4%) were male. The mean age of the students was 20.83 ± 2.86 years (minimum 17, maximum 30).

Reliability analyses were conducted for the Sexual Assault Victims' Social Attitudes Scale (SAVSAS) and its sub-dimensions. It was established that the behavior sub-dimension exhibited a high level of reliability, demonstrating a Cronbach's Alpha coefficient of 0.857. The thought sub-dimension was sufficiently reliable with Cronbach's Alpha coefficients of 0.672, while the emotion sub-dimension had coefficients of 0.642. Overall, the SAVSAS exhibited a high level of reliability with a Cronbach's Alpha coefficient of 0.836.

According to the results of the SEM, SAVSAS was significant at $p = 0.000$ level, indicating its association with the 22-item scale structure. Improvements are being made in the model. During the refinement process, variables that compromised model fit were identified, and new covariances were introduced for those exhibiting high covariances among residual values (e12-e15; e10-e11; e9-e10; e5-e6; e1-e8). The initially calculated fit indices and the acceptable values for fit indices after refinement are outlined in Table 2. Upon scrutinizing the goodness-of-fit indices of the scale developed based on the results of the multi-factor confirmatory factor analysis, the fit indices were found to be as follows: RMSEA 0.058; GFI 0.897; AGFI 0.870; CFI 0.904; and a χ^2 value of 451.686 ($p = 0.000$), indicating an acceptable level of fit (Figure 1).

Table 1. The social attitudes scale towards sexual assault victims

Behavior-Emotion-Thought Evaluation		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I would help a person who has experienced sexual assault.					
2	I trust a person who has experienced sexual assault.					
3	I approach a person who has experienced sexual assault warmly.					
4	I would be friends with a person who has experienced sexual assault.					
5	I keep my distance from a person who has experienced sexual assault.					
6	I behave rudely towards a person who has experienced sexual assault.					
7	I don't hesitate to chat with a person who has experienced sexual assault.					
8	I share my secrets with a person who has experienced sexual assault.					
9	I advocate for the rights of a person who has experienced sexual assault.					
10	I treat a person who has experienced sexual assault kindly.					
11	I am compassionate towards a person who has experienced sexual assault.					
12	If a person who has experienced sexual assault was drunk when the assault happened, I consider this incident to be normal.					
13	The religious feelings of a person who has experienced sexual assault are weak.					
14	I think that the honor of a person who has experienced sexual assault has been tarnished.					
15	I consider it normal for a person who works in the sex industry to experience sexual assault.					
16	A person who has experienced sexual assault should not raise children.					
17	I believe that the individual who has been sexually assaulted deserved the assault.					
18	I consider it normal for a person who identifies as LGBT (lesbian, gay, bisexual, transgender, etc.) to experience sexual assault.					
19	I feel sorry for a person who has experienced sexual assault.					
20	I get stressed around a person who has experienced sexual assault.					
21	I believe that a person who has experienced sexual assault will be lacking in self-confidence.					
22	I feel depressed around a person who has experienced sexual assault.					

Table 2. Fit indices of the multi-factor confirmatory factor analysis for the SAVSAS

RMSEA	NFI	CFI	IFI	GFI	TLI	AGFI	CMIN	CMIN/df
0.084	0.739	0.794	0.796	0.842	0.769	0.806	744.788	3.612
RMSEA	NFI	CFI	IFI	GFI	TLI	AGFI	CMIN	CMIN/df
0.058	0.841	0.904	0.905	0.897	0.890	0.870	451.686	2.247

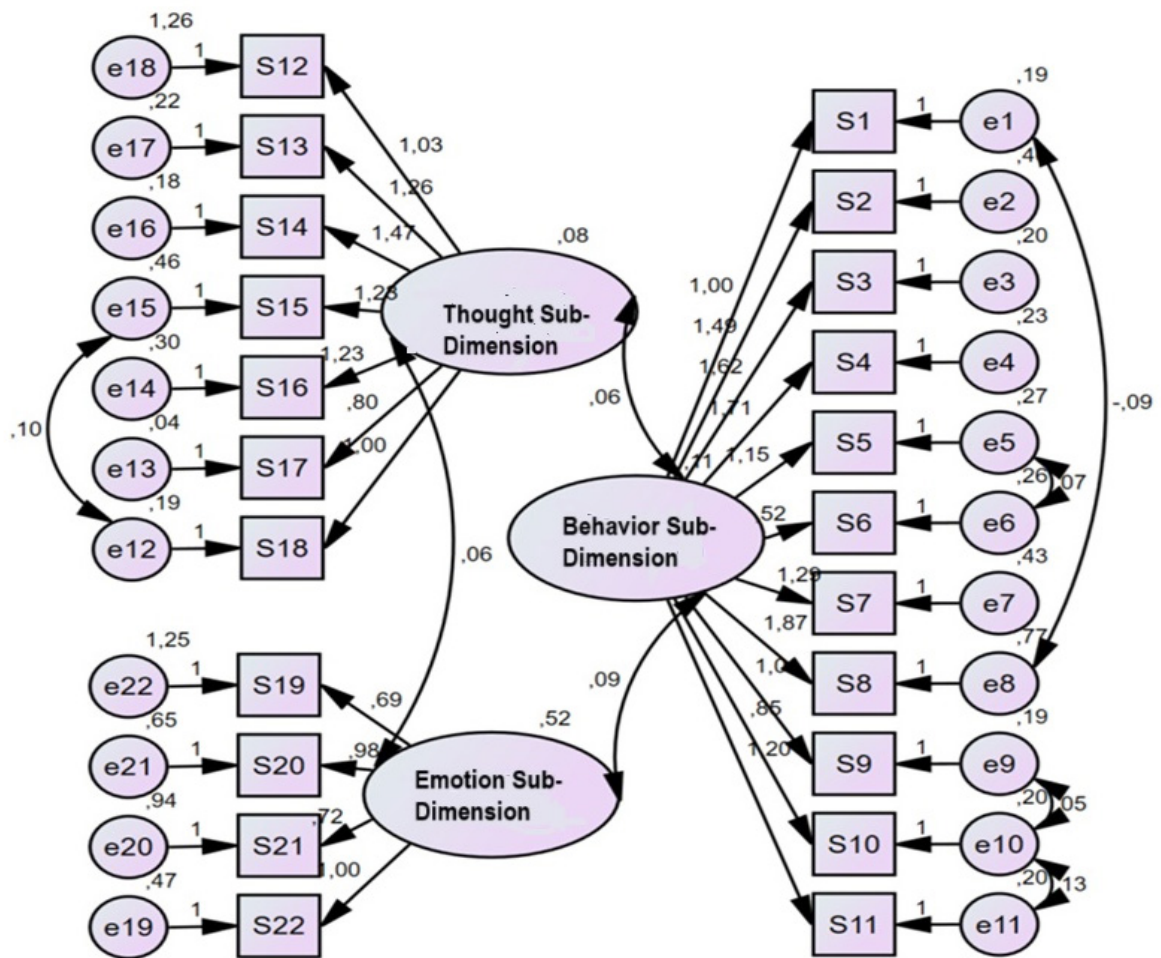


Figure 1. Multi-factor confirmatory analysis for the SAVSAS

The distribution of total scores obtained from the SAVSAS and its sub-dimensions by the participating students is examined in Table 3.

According to the analysis utilizing Spearman correlation, a statistically significant, positive, moderate-level relationship was uncovered between the behavior sub-dimension and the thought sub-dimension, yielding a correlation coefficient of 0.387. Likewise, a statistically significant, positive, moderate-level relationship was detected between the behavior sub-dimension and the emotion sub-dimension, producing a correlation coefficient of 0.323. Furthermore, a statistically significant, positive, high-level relationship was noted between the behavior sub-dimension and the total scale score, exhibiting a correlation coefficient of 0.861. The relationship between the SAVSAS and its sub-dimensions is examined in Table 4.

Upon testing the hypotheses to investigate the differences in total scores obtained from the SAVSAS according to the demographic characteristics of the participating students, there was a difference in the rank order means of scale total scores among age groups ($p < 0.05$). Specifically, individuals in the age group of 17-

22 had higher means compared to those in the age group of 23-30. And, there was a difference in the rank order means of scale total scores between genders ($p < 0.05$), with females having higher means than males. Furthermore, a difference was found in the rank order means of scale total scores based on monthly family income ($p < 0.05$). According to the Bonferroni test, statistically significant differences were found between the groups with a monthly family income of 9000 TL and above compared to those with incomes of 0-3000 TL and 3000-9000 TL ($p = 0.042$ and $p = 0.012$, respectively). It was determined that individuals with a monthly family income of 9000 TL and above had higher means compared to those with incomes of 0-3000 TL and 3000-9000 TL. Additionally, the group with a monthly family income of 9000 TL and above was found to be the differentiating segment (Table 5).

Assumptions were assessed for testing hypotheses regarding differences in total scores derived from the Behavior Sub-dimension of the SAVSAS across demographic characteristics of participating students. Specifically, females exhibited higher means compared to males.

Table 3. Descriptive statistics for the SAVSAS and its sub-dimensions

Scale and Sub-dimensions	n	Minimum	Maximum	Mean	Standard Deviation
Behavior Sub-dimension	370	27.00	55.00	48.98	4.98
Thought Sub-Dimension	370	20.00	35.00	32.83	2.82
Emotion Sub-Dimension	370	5.00	20.00	13.48	3.05
Scale Total	370	60.00	110.00	95.29	8.24

Table 4. The relationship between the SAVSAS and its sub-dimensions

		Thought Sub-Dimension	Emotion Sub-Dimension	Scale Total
Behavior Sub-Dimension	Rho	0.387	0.323	0.861
	p	0.000*	0.000*	0.000*
Thought Sub-Dimension	Rho		0.221	0.625
	p		0.000*	0.000*
Emotion Sub-Dimension	Rho			0.653
	p			0.000*

* $p < 0.05$

Table 5. Comparison of the total scores of the SAVSAS according to the demographic characteristics of the participating students

		n	Mean	Standard Deviation	Min	Max	Test Values	p
Age	17-22	216	95.90	8.52	60.00	110.00	U:14370.5	0.026*
	23-30	154	94.44	7.77	62.00	110.00		
Gender	Female	207	97.32	6.62	78.00	110.00	U: 11963.0	0.000*
	Male	163	92.71	9.32	60.00	108.00		
Class	First-Year	209	95.72	8.52	60.00	110.00	U:15175.5	0.106
	Sixth-Year	161	94.74	7.85	62.00	110.00		
Mother's education level	Illiterate	4	92.25	12.97	77.00	104.00	kw: 6.728	0.242
	Primary school graduate	65	93.47	8.64	62.00	108.00		
	Secondary school graduate	27	94.29	7.67	79.00	106.00		
	High school graduate	87	95.01	7.71	68.00	110.00		
	Bachelor's degree	160	96.44	8.10	60.00	110.00		
	Master's degree	27	95.25	9.15	79.00	109.00		
Father's education level	Primary school graduate	33	93.54	8.66	76.00	108.00	kw: 6.060	0.300
	Secondary school graduate	22	93.77	10.34	60.00	104.00		
	High school graduate	74	95.13	7.89	68.00	110.00		
	Bachelor's degree	196	95.29	7.92	62.00	110.00		
	Master's degree	44	97.45	8.56	75.00	109.00		
Number of siblings	Only child	50	95.30	8.05	78.00	110.00	kw: 1.052	0.591
	2 siblings	204	95.82	7.80	68.00	110.00		
	3 siblings and more	116	94.36	9.01	60.00	108.00		
Where you lived until you went to university	Urban	348	95.35	8.18	60.00	110.00	U: 3709.5	0.807
	Rural	22	94.40	9.17	76.00	108.00		
Income status	0-3000 TL	41	91.97	11.29	60.00	105.00	kw:10.645	0.005*
	3000-9000 TL	181	94.62	7.50	75.00	110.00		
	Above 9000 TL	148	97.03	7.75	75.00	110.00		
Where you live	With family	76	94.92	7.83	76.00	110.00	U: 3430.5	0.450
	Dormitory/Apartment/ Student House etc.	294	95.39	8.35	60.00	110.00		
Have you or anyone close to you ever been subjected to criminal sexual conduct?	Yes	70	97.47	7.76	60.00	110.00	U:10487.0	0.409
	No	300	94.79	8.27	62.00	110.00		

*p<0.05, U: Mann Whitney U test or, kw: kruskal Wallis variance analysis

A statistically significant difference was found in the rank order means of the thought sub-dimension total scores according to the father's education level ($p < 0.05$). According to the Bonferroni test, differences were found between the groups of primary school graduates and graduates of middle school, high school, undergraduate, and graduate school ($p = 0.006$, $p = 0.047$, $p = 0.009$, and $p = 0.004$, respectively). The means of graduates of middle school, high school, undergraduate, and graduate school were higher than the mean of primary school graduates. Moreover, it was determined that the group of primary school graduates was the differentiating segment.

After verifying the assumptions for testing hypotheses regarding differences in total scores derived from the Emotion sub-dimension of the SAVSAS across demographic characteristics of participating students, several significant findings emerged. Firstly, a difference in the rank order means of the emotion sub-dimension total scores was detected based on

age groups ($p < 0.05$). Specifically, individuals aged 17-22 exhibited higher means compared to those aged 23-30. Secondly, a statistically significant difference in the rank order means of the emotion sub-dimension total scores was observed concerning the academic terms of the students ($p < 0.05$). Notably, the mean of students in term 1 surpassed that of students in term 6. Additionally, difference was found in the rank order means of the emotion sub-dimension total scores based on income level ($p < 0.05$). Differences were seen between the groups with an income of 9000 TL and above and those with incomes of 0-3000 TL and 3000-9000 TL ($p = 0.035$ and $p = 0.005$, respectively). It was established that the mean of individuals with an income of 9000 TL and above surpassed the means of those with incomes of 0-3000 TL and 3000-9000 TL, with the group earning 9000 TL and above being the distinguishing segment. The relationships between the classes of the participating students and their responses to the forensic medical evaluation questions are shown in Table 6.

Table 6. The relationship and cross-table between the responses of the participating students to the forensic medical evaluation questions and the students' classes

		Class			Test Values	p
		First-Year	Sixth-Year			
1. It is necessary for individuals who have been subjected to sexual assault to be reported to the judicial authorities by the healthcare institution they have applied to after the incident.	Right	n	184	161	24.660**	0.000*
		%	53.3	46.7		
		%S	88.0	100.0		
	Wrong	n	4	0		
		%	100.0	0.0		
		%S	1.9	0.0		
	No idea	n	21	0		
		%	100.0	0.0		
		%S	10.1	0.0		
2. Individuals who have suffered sexual assault must present a letter of authorization from the judiciary for examination purposes.	Right	n	67	114	60.499**	0.000*
		%	37.0	63.0		
		%S	32.1	70.8		
	Wrong	n	31	20		
		%	60.8	39.2		
		%S	14.8	12.4		
	No idea	n	111	27		
		%	80.4	19.6		
		%S	53.1	16.8		

Table 6. The relationship and cross-table between the responses of the participating students to the forensic medical evaluation questions and the students' classes (continued)

		Class		Test Values	p	
		First-Year	Sixth-Year			
3. Only a Forensic Medicine Specialist conducts the examination of individuals who have been subjected to sexual assault.	Right	n	30	11	115.072**	0.000*
		%	73.2	26.8		
		%S	14.3	6.8		
	Wrong	n	58	134		
		%	30.2	69.8		
		%S	27.8	83.2		
	No idea	n	121	16		
		%	88.3	11.7		
		%S	57.9	10		
4. Even if individuals who have been sexually assaulted do not give consent for the examination, necessary examinations are conducted.	Right	n	28	14	15.322**	0.000*
		%	66.7	33.3		
		%S	13.4	8.7		
	Wrong	n	106	114		
		%	48.2	51.8		
		%S	50.7	70.8		
	No idea	n	75	33		
		%	69.4	30.6		
		%S	35.9	20.5		
5. Individuals who have been sexually assaulted undergo genital examination initially.	Right	n	23	11	105.255**	0.000*
		%	67.6	32.4		
		%S	11.0	6.8		
	Wrong	n	53	126		
		%	29.6	70.4		
		%S	25.4	78.3		
	No idea	n	133	24		
		%	84.7	15.3		
		%S	63.6	14.9		
6. The Turkish Penal Code contains separate articles regarding harassment, indecent assault, sexual abuse, and sexual assault.	Right	n	96	130	47.429**	0.000*
		%	42.5	57.5		
		%S	45.9	80.7		
	Wrong	n	7	4		
		%	63.6	36.4		
		%S	3.3	2.5		
	No idea	n	106	27		
		%	79.7	20.3		
		%S	50.8	16.8		

*p<0.05, **S: Percentage of the class itself, **Fisher's Exact test

The hypotheses testing the differences in total scores of the Social Attitudes Scale towards Sexual Assault Victims and its subscales, based on the number of correct responses to the forensic medical evaluation questions provided by the participating students, were examined after checking the assumptions. Following the analysis, a statistically noteworthy variance was evident in the mean total scores of the thought subscale in relation to the number of correct responses ($p < 0.05$). Subsequent Bonferroni examination delineated a statistically significant contrast between the mean scores of students without any correct answers and those with five correct responses ($p = 0.042$).

Discussion

When looking at the total scores obtained by the participating students based on their responses to the Social Attitudes Scale towards Sexual Assault Victims, it is observed that the lowest score obtained was 60, while the highest score was 110. The mean score was determined to be 95.29. Given that the scale ranges from a minimum of 22 to a maximum of 110, where higher scores reflect a more favorable attitude, it is evident that the participating students attained a notably high average score. This underscores a prevailing positive disposition towards sexual assault victims among the study's participants. Other studies examining the attitudes of medical students and physicians working in emergency departments towards sexual assault victims have also generally shown positive attitudes [12-14].

In our study, the total score averages of female students participating in the study on the Social Attitudes Scale towards Sexual Assault Victims, as well as the scores for the behavior and thought sub-dimensions, were found higher compared to males. Similar studies conducted in Türkiye and other countries have also indicated that women tend to exhibit more positive attitudes in this regard [13, 15, 16].

In a research endeavor conducted in Spain, it was noted that participants demonstrated increasingly less favorable attitudes towards sexual assault victims with advancing age [17]. Another study suggested that as age increases, negative attitudes towards sexual assault victims may arise due to traditional gender roles [18]. In our study, the data we obtained showed

that the 17-22 age group had a more positive outlook compared to the 23-30 age group, which is consistent with the literature. It was concluded that as age increases, there may be a decrease in tolerance towards attitudes that could be considered towards sexual assault victims.

In a study conducted by Yalçın, it was noted that a positive attitude towards sexual assault victims became increasingly predominant as the level of education increased [19]. Similarly, other studies in the literature have indicated a decrease in blaming attitudes as the level of education increases [17, 20]. In our study, as the family education levels of the participating students increased, a positive outlook towards sexual assault victims was observed. This result corresponds with the existing body of literature, which suggests that the positive attitudes increasing in parallel with education levels also occur when there is an increase in participants' family education levels. Hence, it can be deduced that there is a connection between the increase in students' academic achievements and the advancement of their attitudes towards a more optimistic outlook.

A study on gender attitudes conducted in Edirne revealed that students native to urban locales had the most egalitarian attitudes towards gender, while those born and raised in rural areas tended to have more traditional attitudes [21]. Similarly, in other studies involving medical students, it was found who spent the longest time in rural areas had more traditional gender attitudes, whereas those who lived in metropolitan areas had more egalitarian attitudes [22, 23]. While no analogous studies are available in the existing literature, the outcomes concerning gender attitudes in our study resonate with the findings. They indicate that students hailing from urban locales harbor more favorable attitudes towards sexual assault victims, aligning with the egalitarian viewpoint prevalent in the literature. This is probably due to the easier access to education and social opportunities in urban areas, which fosters a more diverse and inclusive environment.

In a study by Yalçın, it was found that individuals with lower income levels tended to exhibit higher levels of victim blaming towards sexual assault victims compared to those with higher incomes [19]. This finding is supported

by another study as well [24]. The proportional increase in positive attitudes towards sexual assault victims among students in our study according to their income levels is consistent with the literature. Nevertheless, it is concluded that besides an individual's own income status, family income status also contributes to similar outcomes.

Pre-graduation forensic medicine training has been reported to make medical students feel more competent in evaluating cases of sexual abuse/assault, writing forensic reports, and conducting autopsies [25, 26]. According to the right answers to the forensic medical assessment questions, it was observed that sixth-year students statistically significantly outperformed first-year students. Furthermore, a statistically significant disparity was observed in the total scores of the thought dimension based on the number of correct answers. It is believed that there is a mutual interaction in the emergence of this situation, and that a positive attitude towards the attitude and the curiosity and ongoing education level that will arise will increase the extent of knowledge.

Of the participating students, 70 (18.9%) answered 'Yes' to the question 'Have you or someone close to you experienced any action considered as a sexual offense?' These personal experience rates remind us not only to prepare our students effectively to work with those who have experienced sexual violence but also to be aware that there are many individuals among our student population who have experienced sexual violence.

In conclusion, it is believed that the formation of a positive attitude towards sexual assault victims is influenced by the high level of family education, the education received during medical school and prior periods, as well as the social environments in which individuals are situated. Overall, the ongoing problem arises from the negative attitudes experienced by sexual assault victims following their trauma. It is believed that by instilling a positive outlook towards sexual assault victims among medical students, coupled with an increase in their forensic medical knowledge, they will be better equipped to achieve more knowledgeable and accurate results in their careers.

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Author contribution

This study is a part of the first author's medical dissertation. F.T. developed the theory and arranged/ edited the material and method section, has done the evaluation of the data in the results and discussion sections. V.Z. constructed the main idea and hypothesis of the study, provided editorial advice. All authors reviewed, corrected and approved. In addition, all authors discussed the entire study and approved the final version.