

# Childhood trauma experiences in Mersin University Faculty of Medicine students

## Mersin Üniversitesi Tıp Fakültesi öğrencilerinde çocukluk dönemi örselenme yaşantıları

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### SUMMARY




**Objective:** This study aimed to investigate whether the students studying at Mersin University Faculty of Medicine experienced neglect or abuse, and to examine the factors affecting this situation while investigating the relationship between the frequency of thoughts and attempts of suicide and the experience of abuse, and their knowledge level regarding the types of sexual abuse.

**Method:** The population of the cross-sectional research is 1458 students. A sample size of 616 participants was calculated with 50% prevalence, 95% confidence interval, and 3% margin of error. 650 students were targeted and reached. Childhood Trauma Questionnaire-Short Form was applied. Descriptive statistics, student's t-test, one-way ANOVA, Welch, Bonferroni post-hoc tests, Games Howell, and Pearson correlation tests were used. Statistical significance level was accepted as  $p \leq 0.05$ .

**Results:** Scale total scores were higher for males ( $p < 0.01$ ), for those living in an extended family ( $p < 0.01$ ), for those whose mother is not working ( $p = 0.03$ ), and for those who stated they have economic difficulties ( $p < 0.01$ ). Scale total score ( $p < 0.01$ ) and sexual abuse score ( $p < 0.01$ ) of those with suicidal thoughts were higher. Scale total scores of students who attempted suicide were higher than those who did not ( $p < 0.01$ ).

**Conclusions:** Considering that students with higher trauma and sexual abuse scores also have higher suicidal thoughts and attempts, it is important to carry out a qualified monitoring in child adolescent care as a primary health care service.

**Keywords:** Child maltreatment, sexual abuse, suicide, childhood trauma questionnaire.

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### ÖZET

**Amaç:** Çalışmamızda Mersin Üniversitesi Tıp Fakültesi öğrencilerinin çocukluk döneminde ihmal veya istismar yaşama durumu ve bunu etkileyen faktörler, intihar düşüncesi ve intihar girişimi sıklığı ile istismar yaşantısı arasındaki ilişki ve cinsel istismar türleri ile ilgili bilgi düzeylerinin araştırılması amaçlanmıştır.

**Yöntem:** Kesitsel tipteki araştırmanın evreni 1458 öğrencidir. Örneklem büyüklüğü; %50 prevalans, %95 güven aralığı ve %3 hata payı ile 616 kişi hesaplandı, 650 kişiye ulaşılması hedeflendi ve ulaşıldı. Öğrencilere Çocukluk Dönemi Örselenme Yaşantıları Ölçeği Kısa Formu uygulandı. Verilerin analizinde, tanımlayıcı istatistikler, Student t, One Way

ANOVA, Welch, Bonferroni, Games Howell, Pearson korelasyon testleri kullanıldı. İstatistiksel anlamlılık düzeyi  $p \leq 0.05$  kabul edildi.

**Bulgular:** Ölçek toplam puanları erkeklerde ( $p < 0.01$ ), geniş ailede yaşayanlarda ( $p < 0.01$ ), annesi çalışmayanlarda ( $p = 0.03$ ), ekonomik sıkıntı çektiğini söyleyenlerde ( $p < 0.01$ ) daha yüksekti. İntihar düşüncesi olanların, ölçek toplam ( $p < 0.01$ ) ve cinsel istismar puanları ( $p < 0.01$ ) daha yüksekti. İntihar girişimi olan öğrencilerin ölçek toplam puanları olmayanlardan daha yüksekti ( $p < 0.01$ ).

**Sonuç:** Örselenme ve cinsel istismar puanları yüksek öğrencilerin intihar düşüncesi ve girişimlerinin daha yüksek olduğu göz önünde bulundurularak bu konuda birinci basamak çocuk ergen izleminde nitelikli izlem yapılması önemlidir.

**Anahtar sözcükler:** Çocuk istismarı, cinsel istismar, intihar, çocukluk dönemi örselenme yaşantıları ölçeği.

## INTRODUCTION

According to the World Health Organization (WHO), individuals under the age of eighteen are defined as "children" <sup>1</sup>. Child abuse refers to negative behaviors in the form of emotional, physical, sexual abuse or neglect that hinders the development of the child. Emotional abuse is defined as not providing the necessary attention and love to the child, including the behaviors that may affect the child negatively. Rejecting, leaving, humiliating the child and giving the child roles not suitable for the child's age are forms of emotional abuse. Physical abuse refers to all kinds of injuries that are non-accidental or intentional. As for sexual abuse, it is the behavior of an adult towards a child for the purpose of receiving sexual pleasure. Showing sexual content materials to a child, exhibitionism, touching a child for sexual pleasure, having sexual intercourse with a child, and using a child in pornographic images are considered sexual abuse <sup>2</sup>.

Neglect is defined as the failure of the family or caregivers of the child to meet the necessary needs for the child's development or to ignore these needs <sup>2</sup>. Delaying or not providing the healthcare the child needs, not providing enough food, a safe living space, and clean clothes is called physical neglect; not taking care of the child emotionally, not providing social support is called emotional neglect; not sending the child to school, not providing special education to a child in need of a special education is called educational neglect <sup>3</sup>.

According to WHO, one in four of all adults reported that they were physically abused in their childhood, while one in five women and one in thirteen men reported that they were sexually abused in their childhood. Many children are also exposed to emotional abuse or neglect <sup>4</sup>.

In a study that examined sexual abuse in childhood, which was conducted in 37 countries including the USA, Australia, UK, Brazil, India, and Turkey, it was reported that the frequency of sexual abuse ranges from 2% to 62%. This variability among the

frequencies in these studies is affected by age, the data collection tool used, the questions asked about sexual abuse, and which behavior (non-touching sexual abuse, touching for sexual pleasure or sexual intercourse) is considered as sexual abuse <sup>5</sup>. In a study conducted with university students in Egypt, the frequency of childhood sexual abuse was reported to be 29.8%, and higher in female students <sup>6</sup>. In a study conducted at seven universities in Turkey, the frequency of sexual abuse was reported to be 28.1% <sup>7</sup>.

In the study conducted in our country in 2008 with children between the ages of 7 and 18, it was reported that 45% of the children who participated in the "Child Abuse and Domestic Violence in Turkey" study experienced physical abuse, 51% experienced emotional abuse, 3% experienced sexual abuse, and 25% experienced neglect <sup>8</sup>. In the study conducted by Alikışifoglu and colleagues with female students in high school, the frequency of sexual abuse (touching and/or sexual intercourse) was reported to be 13.4% <sup>9</sup>. In the study, in which cases diagnosed as child abuse in Ege University Child Protection Unit were examined, the rates of sexual, physical, emotional abuse and neglect were reported to be 49.4, 24.7, 11.2, and 14.6 percent, respectively. While physical abuse is equally common in boys and girls, 56.8 percent of the sexual abuse cases were reported to be experienced by girls <sup>10</sup>.

While a portion of the children who have been subjected to violence do not have the capacity to explain what happened, some may conceal the incident due to threats or fear of punishment, or may not understand that the incident is not normal. Family members who witness the violence may also not report it so as to protect other family members or because they fear it will damage the dignity of the family. In some cases, violence is not considered abuse because it is considered a normal form of discipline. Due to these and similar reasons; only a small portion of child abuse can be detected <sup>1</sup>.

Children born as a result of unwanted pregnancies, who do not fulfill their parents' expectations, who need special care, who cry often, who have physical or mental disabilities are subject to abuse more often than other children. Young age of the parents, parents who have been subject to abuse as a child, parents who use alcohol or substance, the presence of violence in the family since the past, and economic difficulties increase the risk of child abuse <sup>4</sup>.

Exposure to childhood abuse cause stress in the child. Extreme stress can cause impairments in the immune system and early brain development. The risk of depression, obesity, risky sexual behavior, unwanted pregnancy, smoking, alcohol and substance addiction increases in abused individuals. These risks can lead to heart disease, cancer, suicide, and sexually transmitted diseases. These individuals may also inflict violence to themselves or become victims of violence in their adult life <sup>4</sup>. Studies have found that a history of sexual abuse increases the risk of suicidal thoughts and suicide attempts for both genders <sup>11-13</sup>.

In this study, it is aimed to investigate whether the students studying at Mersin University Faculty of Medicine experienced neglect or abuse at childhood, and to examine the factors that affect the occurrence of neglect or abuse, the relationship between suicidal thoughts and suicide attempts, and the experience of abuse, and the participants' knowledge level about the types of sexual abuse.

## MATERIAL AND METHODS

Our cross-sectional research was conducted with undergraduate students enrolled in Mersin University Faculty of Medicine during the 2017-2018 academic years. The required permissions for the study were obtained from Mersin University Clinical Research Ethics Committee and Mersin University Rectorate (2018/121). This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

The population of the research is 1458 students enrolled in the Faculty of Medicine. The minimum sample size was calculated as 616 people using the EPI info 6 program with 50% prevalence, 95% confidence interval, and 3% margin of error, and it was aimed to reach 650 people. The number of participants from each semester was determined by weighting according to the class size. The aim was that 133 students from semester 1, 120 from semester 2, 119 from semester 3, 108 from semester 4, 84 from semester 5, and 86 from semester 6, and instead of 8 students who did not agree to participate in the study, other students

from the same semester level were recruited, and a total of 650 students were included in the study. Exclusion criteria were determined as not volunteering to participate in the study, language barrier, and not being a Turkish citizen.

The participants were asked to fill out the survey containing questions about socio-demographic characteristics and sexual abuse and the Childhood Trauma Questionnaire -Short Form (CTQ-SF). In order to measure sexual abuse knowledge level, 8 questions were created after a literature review. These questions were asked as "Which of the following is/are sexual abuse?" and the answers marked by the students were evaluated as "Yes" and the answers they did not mark as "No."

CTQ-SF is a retrospective measurement tool for evaluating childhood abuse history. The reliability and validity study of CTQ-SF was conducted by Kaya S. and it was reported that it can be used in young adults. CTQ-SF is a five-point Likert type scale, consisting of 28 items, and 3 questions are not included in the scoring. The scale consists of five sub-dimensions. These are physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect. There are 5 questions for each sub-dimension, the lowest score that can be obtained from each sub-dimension is 5 points and the highest score is 25 points. The lowest score that can be obtained from the whole scale is 25 and the highest is 125. The increase in the total score obtained from the scale and the scores obtained from the sub-dimensions indicates higher level of trauma experienced in childhood <sup>14</sup>.

Before starting to collect data, a pilot study was conducted with 10 medical faculty students and the survey was revised; the data from this pilot study were not included in the study.

The data were collected by the research assistants who conducted the study between April 1 and May 30, 2018. Participants were reached by going to the classrooms, and the classrooms were visited again until sufficient numbers of participants were reached. Survey was given to the participants after their consent was obtained. Participants filled in the forms themselves anonymously, thus ensuring privacy. The surveys filled out by the participants were received in a closed envelope.

Independent variables: The independent variables of our study are gender, age, number of siblings, number of children, mother's education level, mother's occupation, father's education level, father's occupation, family type, parental status (together-separate-mother/father not alive), existence of stepmother, stepfather, economic

perception, the place most of the childhood is spent, and level of knowledge about abuse.

Dependent variables: Total score from CTQ-SF, sexual abuse score, suicide thoughts and attempt.

The question of the parents' occupation was open-ended; the answers given were grouped according to the "International Standard Classification of Occupations." The answers of mothers' "housewife or not working" to the question of mother's occupation were evaluated as "unemployed," and all the other occupations as "employed." In the question of father's occupation, the answers of "teacher, doctor, lawyer, engineer, civil servant, nurse, academician, undersecretary, manager," were evaluated as "professional occupation groups," the answers of "grocery store employee, worker, clerk, driver," were evaluated as "jobs that do not require qualification," and the answers of "soldier, police officer, agricultural worker, operator, technician, cook, painter" were evaluated as "other occupations."

Parental status was categorized as "parents are together" or "other." Separated parents, deceased mother or deceased father were included under the "other" category. Quality check was made after the data were entered into the computer.

Statistical analysis: Shapiro Wilk test was used to analyze the data for compliance with the normal distribution of continuous measurements. Student t test and analysis of variance were used to examine the relationship between socio-demographic characteristics and scale scores. Levene test was used to test the homogeneity of variances. One Way ANOVA was used for groups in which variances were homogeneous, and Welch test was used for non-homogeneous groups. For paired comparisons, Bonferroni test was used for homogenous ones, and Games Howell test was used for non-homogenous ones. Pearson's correlation test was used to examine the relationship between scale scores. Mean and standard deviation (SD) were used as descriptive statistics. Statistical significance was taken as  $p \leq 0.05$ .

## RESULTS

### Socio-demographic Characteristics of the Students

The mean age of the students in the sample was found to be  $21.7 \pm 2.2$  (min=18, max=29). 337 (51.8%) of the students were male and 404 (62.2%) of them were in the 21-25 age group. 430 (66.2%) of the students had 2 or less siblings and 254 (39.1%) were the first child. 233 (35.8%) of the students had a mother with an education level of primary school or below and 437 (67.6%) had an unemployed mother. 289 (44.5%) of the students had a father with a university degree and 242 (38.1%) had a father with a professional occupation. 578 (88.9%) of the students had a nuclear family (Table 1).

### Sexual abuse knowledge level of the students

All questions measuring sexual abuse knowledge levels were correctly answered by 566 (87.1%) students. The question that was answered correctly the most with 635 people (97.7%) was about whether touching the child for sexual pleasure is sexual abuse. The question that was answered correctly the least with 595 people (91.5%) was about whether having sexually explicit talk with a child is sexual abuse. (Table 2)

The sexual abuse knowledge level was higher for female participants ( $7.81 \pm 0.94$ ) compared to male participants ( $7.42 \pm 1.78$ ) ( $p < 0.01$ ). It was higher for those living in a nuclear family ( $7.69 \pm 1.13$ ) compared to those living in an extended family ( $6.94 \pm 2.29$ ) ( $p < 0.01$ ). It was lower for those living with a stepmother or stepfather, but this difference is not statistically significant ( $p = 0.26$ ,  $p = 0.53$ ).

There was a negative correlation between the sexual abuse knowledge level and the CTQ-SF total score and the sexual abuse score, and those with low knowledge levels had higher total and sexual abuse scores ( $p < 0.01$ ,  $p < 0.01$ ).

### Evaluation of CTQ-SF Scores

The students' average scores from CTQ-SF were  $37.12 \pm 9.07$ , and the average scores from sexual abuse was  $7.12 \pm 2.85$  (Table 3).

**Table 1:** Socio-demographic Characteristics of the Students

	n	%
Gender		
Male	337	51.8
Female	313	48.2
Age groups		
≤20	213	32.8
21-25	404	62.2
26	33	5.0
Number of siblings		
≤2	430	66.2
≥3	220	33.8
Birth order		
1	254	39.1
2	212	32.6
3 and above	184	28.3
Mother's education level		
Primary school and below	233	35.8
Middle school- high school	227	34.9
University	190	29.3
Father's education level (n=649)		
Primary school and below	123	19.0
Middle school- high school	237	36.5
University	289	44.5
Mother's job		
Unemployed	437	67.6
Employed	209	32.4
Father's job (n=636)		
Unemployed	12	1.9
Retired	118	18.5
Professional Occupation groups	242	38.1
Jobs that do not require qualification	171	26.9
Other occupations	93	14.6
Family type		
Nuclear family	578	88.9
Extended family	72	11.1
Parental status		
Parents are together	588	90.5
Other	62	9.5
Stepmother		
Yes	21	3.2
No	629	96.8
Stepfather (n=648)		
Yes	4	0.6
No	644	99.4
Economic perception(n=649)		
Generally, we had economic difficulties	86	13.3
Sometimes we had economic difficulties	328	50.5
We never had economic difficulties	235	36.2
Place where he/she lived most of childhood (n=649)		
Village/town	77	11.9
District center	183	28.2
City center	389	59.9
<b>Total</b>	<b>650</b>	<b>100.0</b>

**Table 2:** Sexual abuse knowledge level of the students

Which of following statements is child sexual abuse?	Yes		No	
	n	%	n	%
Touching the child for sexual pleasure	635	97.7	15	2.3
Forcing the child to touch to another person for sexual pleasure	629	96.8	21	3.2
Sexual intercourse with a child	626	96.3	24	3.7
Penetration with an object to child's genitals	623	95.8	27	4.2
Sexual relationship without intercourse with a child	622	95.7	28	4.3
Viewing a sexual image to a child	611	94.0	39	6.0
Exhibitionism	604	92.9	46	7.1
Sexually explicit talk with a child	595	91.5	55	8.5

**Table 3:** Students' scores of CTQ-SF and sub-dimensions

	Minimum	Maximum	Mean±SD
CTQ-SF total score	25	89	37.12±9.07
Physical abuse score	5	25	5.81±2.47
Emotional abuse score	5	23	5.84±2.0
Sexual abuse score	5	23	7.12±2.85
Physical neglect score	5	20	7.56±2.6
Emotional neglect score	5	20	10.80±2.40

### CTQ-SF Total Score

CTQ-SF scores were higher for male students (38.27±9.66) compared to female students (35.89±8.24) participating in the study ( $p<0.01$ ). The CTQ-SF scores of the students living in an extended family (40.78±10.12) were found to be higher than those living in a nuclear family (36.67±8.84) ( $p<0.01$ ). The total scores of the students living with a stepmother (44.76±13.97) were found to be higher than those who did not have a stepmother (36.87±8.77) ( $p=0.02$ ). As the mother's education level increased, the total scores decreased ( $p=0.01$ ). The total scores of the children whose mother had an education level of primary school or below were found to be higher than those whose mother had an education level of middle school-high school or university ( $p=0.04$ ,  $p=0.02$ ). As the education level of the father increased, the total scores decreased ( $p<0.01$ ). The total scores of the students whose father had an education level of primary school or below were found to be higher than those whose father had an education level at undergraduate level ( $p<0.01$ ). The total scores of the students with an unemployed mother (37.58±8.91) were found to be higher than those with an employed mother (35.97±8.98) ( $p=0.03$ ).

There was a correlation between the father's occupation of the students and total scores ( $p<0.01$ ). Paired comparisons were made to identify the occupational groups that lead to this difference, and according to this, the total score of the students whose father worked in jobs that did not require qualification (38.87±9.71) was higher than the students whose father was retired (35.66±8.23) or had a professional occupation (36.11±8.81) ( $p=0.02$ ,  $p=0.03$ ). There was also a relationship between the place where childhood was spent and the total score ( $p<0.01$ ). The total scores of those who spent most of their childhood in villages or towns were found to be higher than those who lived in the district center or city center ( $p=0.04$ ,  $p<0.01$ ). Total scores were of those whose parents lived together were found to be higher, but this difference was not statistically significant ( $p=0.93$ ). There was a relationship between the students' perception of their economic situation and their total score ( $p<0.01$ ), the total scores of the students who said they "generally had economic difficulties" were found to be higher than those who said "sometimes had economic difficulties" and "never had economic difficulties" ( $p<0.01$ ,  $p<0.01$ ) (Table 4).

**Table 4:** Distribution of abuse scores by socio-demographic characteristics

	<b>CTQ-SF total scores</b> (Mean±SD)	<b>Sexual abuse scores</b> (Mean±SD)
<b>Gender</b>		
Male	38.27±9.66	5.91±2.72
Female	35.89±8.24	5.70±2.15
	<b>p&lt;0.01</b>	p=0.29
<b>Family type</b>		
Extended family	40.78±10.12	6.04±2.86
Nuclear family	36.67±8.84	5.78±2.41
	<b>p&lt;0.01</b>	p=0.39
<b>Stepmother</b>		
Yes	44.76±13.97	7.05±4.97
No	36.87±8.77	5.77±2.33
	<b>p=0.02</b>	p=0.25
<b>Stepfather</b>		
Yes	45.00±13.95	8.50±5.74
No	37.05±9.03	5.79±2.43
	p=0.81	p=0.41
<b>Mother's education level</b>		
Primary school and below	38.52±8.31	5.76±2.06
Middle school- high school	36.45±9.01	5.77±2.50
University	36.21±9.79	5.91±2.85
	<b>p=0.01</b>	p=0.79
<b>Father's education level (n=649)</b>		
Primary school and below	39.20±7.75	5.63±1.80
Middle school- high school	37.52±9.57	6.00±2.71
University	35.92±9.04	5.73±2.50
	<b>p&lt;0.01</b>	p=0.31
<b>Mother's job</b>		
Unemployed	37.58±8.91	5.79±2.36
Employed	35.97±8.98	5.80±2.52
	<b>p=0.03</b>	p=0.95
<b>Father's job (n=636)</b>		
Unemployed	41.75±10.64	7.08±4.54
Retired	35.66±8.23	5.40±1.75
Professional Occupation groups	36.11±8.81	5.78±2.41
Jobs that do not require qualification	38.87±9.71	6.06±2.70
Other occupations	36.99±8.22	5.63±2.20
	<b>p&lt;0.01</b>	p=0.06
<b>Place where he/she lived most of childhood</b>		
Village/town	40.42±7.94	6.05±2.76
District center	37.38±9.02	5.81±2.33
City center	36.36±9.19	5.76±2.47
	<b>p&lt;0.01</b>	p=0.64
<b>Economic perception</b>		
Generally, we had economic difficulties	44.84±11.97	6.53±3.55
Sometimes we had economic difficulties	36.56±7.95	5.70±2.10
We never had economic difficulties	35.08±7.86	5.69±2.43
	<b>p&lt;0.01</b>	p=0.10

The total score increased significantly as the number of siblings increased and the birth order increased ( $p<0.01$ ,  $p<0.01$ ).

Suicide thought and attempts of the students

170 of the students (26.2%) stated that they had thought of committing suicide at least once in their

lifetime, and 22 (3.4%) had attempted suicide at least once. Suicide thoughts and attempts increased as the students' CTQ-SF total scores increased ( $p<0.01$ ,  $p<0.01$ ). In addition, the increase in sexual abuse scores increased suicidal thoughts and attempts (Table 5).

**Table 5:** The relationship between suicidal ideation, attempt and CTQ-SF scale scores (Mean±SD)

	Suicidal thoughts		p	Suicide attempt		p
	No (n=479)	Yes (n=170)		No (n=627)	Yes (n=22)	
<b>CTQ-SF total scores</b>	35.43±9.61	41.85±12.19	<b>p&lt;0.01</b>	36.75±8.63	47.45±14.45	<b>p&lt;0.01</b>
<b>Sexual abuse scores</b>	5.48±1.74	6.74±3.69	<b>p&lt;0.01</b>	5.73±2.28	8.05±5.27	p=0.05

## DISCUSSION

Studies examining the sexual abuse knowledge level of medical faculty students were reviewed, but it was found that there are a limited number of similar studies in the literature. In a study conducted with teachers, university students, and healthcare professionals in Gaziantep, questions were asked about the level of knowledge of child abuse. 89.5% of the students and 92.9% of the healthcare workers answered "touching the child sexually" as child abuse<sup>15</sup>. In a study conducted to evaluate the sexual abuse awareness of university students in Istanbul, the types of sexual abuse were asked and 83.7% of the students reported sexual abuse types that do not involve contact with children (voyeurism, exhibitionism, sexually explicit talk), 96.5% sexual touch, 85.4% oral-genital intercourse, 87.7% vaginal intercourse, 86.4% anal intercourse, 94.5% sexual exploitation (child pornography) as sexual child abuse<sup>16</sup>. In our study, 97.7% of the participants evaluated touching for sexual pleasure and 92.9% of the exhibitionism as sexual abuse. In addition, 87.1% of the participants answered the sexual abuse knowledge level questions correctly. The level of knowledge about sexual abuse among medical students is higher compared to students from other faculties. The reason for this may be professional awareness. However, this level of knowledge should be higher in an occupational group that needs to diagnose and report child abuse.

Studies in which CTQ-SF was used were scanned, but no study conducted with medical school students was found. Other studies have measured CTQ-SF scores for university students as 38.30±14.48 from a foundation university in Mersin, 34.93±10.32 from a general university in İstanbul, 34.86±9.22 from a foundation university in Istanbul, and 31.4±7.4 from university students in Sivas, and 38.32±9.4 from a study that was conducted in China<sup>17-21</sup>. In our study, the CTQ-SF

score was found to be 37.12±9.07. Compared to other studies, it can be said that the scores of the students in our study are at a medium level.

There are different findings in the literature when the total scores of CTQ-SF are evaluated according to the gender of the students. In a research conducted in the Vocational School of Health Services in Hatay, it was reported that the scores of female students were higher, while there was no significant difference between the total scores and gender in the studies conducted among university students in Istanbul and Aydın<sup>19,22,23</sup>. In the report of WHO's study on child abuse among university students in Turkey, child abuse was reported to be higher in male students<sup>24</sup>. In studies conducted in China, Istanbul, Sivas, Mersin, and Amasya, the total scores of male students were found to be higher, as in our study<sup>17, 18, 20, 21, 25</sup>.

When the relationship between the family types of students and the total scores of CTQ-SF was evaluated, it was reported that there is no difference in the study conducted in Aydın<sup>23</sup>. In the WHO's Turkey report, it has been stated that individuals living in an extended family have a higher risk of having negative experiences in their childhood compared to those living in a nuclear family<sup>24</sup>. In studies conducted in the Nursing Department in Eskişehir and university students in Istanbul, the scores of students living in an extended family were reported to be higher<sup>26, 27</sup>. In our study, the scores of those living in an extended family were found to be higher, in accordance with these studies. It can be argued that, in large families, some people in the family living together may need care and this may create a risk of trauma by reducing the time and interest allocated to children.

In the literature, having a stepmother or a stepfather has been reported as a risk factor for childhood trauma<sup>28</sup>. However, no study was found that examined its relationship with CTQ-SF total score. In our study, it was found that living with a



stepmother increases the scores, and living with a stepfather does not affect the scores.

In the study conducted in Hatay, no relationship was found between the total score of CTQ-SF and the education level of parents<sup>22</sup>. In a study conducted in Amasya, the scores of students whose parents are literate were reported to be higher than other education levels, while the scores of students whose parents have an education level of primary school or below were reported to be higher than those of high school and university graduates in the study conducted in Mersin[18], [25][18]<sup>18</sup>(Barak, 2018)<sup>18</sup>. WHO report on Turkey and a study conducted in Diyarbakır with college students found that lower education level of parents increases trauma scores, in accordance with our findings<sup>24,29</sup>. Higher education level of parents may make them more knowledgeable and sensitive about negative behaviors towards the child. Increasing the education level of the society will be an important factor in protecting the mental health of children.

It was reported in a study conducted with university students in Istanbul that there is no relationship between the occupation of the parents and the CTQ-SF score<sup>27</sup>. In our study, it was found that having an unemployed mother and a father that works at a job that does not require qualification increases the risk of trauma. Having an employed mother and a father who works at a job that requires qualification may increase the socio-economic status of the family, allowing the children to grow up in a more positive environment.

When the place where most of childhood was spent was evaluated with the CTQ-SF score, no significant difference was found between the scores of the students who spent their childhood in rural areas and those who spent their childhood in the city in the study conducted in China<sup>17</sup>. In our study, on the other hand, the scores of the students who spent most of their childhood in villages/towns were found to be higher compared to the other students. In our country, people living in rural areas tend to have a lower education level and live with extended families compared to those living in other places. These situations may have caused the trauma scores to be higher.

When the relationship between income and CTQ-SF total score was evaluated, in a study conducted at a private university in Mersin, no relationship was found between family income and abuse<sup>18</sup>. In the studies conducted in Aydın and Amasya, it was reported that the scores of students whose family income was 1000 TL or below are higher<sup>23, 25</sup>. In the studies conducted in Eskişehir and Diyarbakır,

scores were reported to be higher in students with low income<sup>26,29</sup>. In our study, scores of students who reported having economic difficulties were higher. The risk of trauma is considered to be higher in children growing up in a low-income family. Having economic difficulties in the family may cause the child's basic needs to be ignored and not met and the child to become more vulnerable to abuse. In addition, parents can project the stress, anxiety, and even anger caused by their economic troubles to their children.

When the relationship between the number of siblings and the CTQ-SF total score was evaluated, in a study conducted in China, it was reported that there was no difference between the scores of students that are only child in the family and the students with siblings<sup>17</sup>. In the studies conducted in Hatay and Istanbul, it has been reported that there is no significant relationship between the number of siblings and traumatic experiences<sup>22,27</sup>. In a WHO report on Turkey and in studies conducted in Istanbul and Diyarbakır, it was reported that trauma scores increase when the number of sibling increase<sup>24, 27, 29</sup>. In our study, the total scores of the students increased as the number of siblings and the order of birth increased. The increase in the number of siblings increases the number of individuals that parents need to provide care, decreases per capita income, and reduces the time and attention to be devoted to children. Children with a higher birth order may be those who were born as a result of an unwanted pregnancy. This situation and possible conflicts between siblings may also increase traumatic experiences.

Sexual abuse scores were  $5.96 \pm 2.57$  in the study conducted in China,  $5.90 \pm 2.59$  in the study conducted with university students in Germany,  $7.74 \pm 4.05$  in a private university in Mersin,  $6.38 \pm 3.60$ [20] and  $6.00 \pm 2.67$  in studies conducted in Istanbul, and  $5.5 \pm 1.7$  in the study conducted in Sivas<sup>17-21, 30</sup>. In our study, it was found to be  $7.12 \pm 2.85$ . The highest scores were found in our study and in a study conducted at a private university in Mersin.

Different results have been reported in the literature on the relationship of sexual abuse with gender. In studies conducted in China, Istanbul and Sivas, sexual abuse scores were higher for male students<sup>17, 20, 21</sup>. In a study conducted with medical faculty students, it was reported that the frequency of childhood sexual abuse was higher in males<sup>31</sup>. In studies conducted with university students in Canada, Istanbul and Hatay, sexual abuse scale scores were reported to be higher in women<sup>19,22,32</sup>. In the childhood abuse study in university students

conducted by WHO in Romania and in the study conducted with medical faculty students in China, the frequency of sexual abuse in women was reported to be higher<sup>33,34</sup>. In a study conducted with university students in Ghana, the WHO report on Turkey, in some studies conducted in Turkey it has been reported that there is no difference between gender and sexual abuse<sup>18,22, 24,35, 36</sup>. In our study, there was no significant difference between sexual abuse scores according to gender.

When the family type and sexual abuse scores were evaluated, the sexual abuse scores of the students living in an extended family in Eskişehir were reported to be higher than those living in a nuclear family<sup>26</sup>. In our study, it was found that there is no relationship between family type and sexual abuse scores.

In our study, it was found that there was no relationship between living in rural or urban areas and living with someone other than parents during childhood and sexual abuse score. Our result is in accordance with the study conducted in Ghana<sup>35</sup>.

In our study, it was found that there was no relationship between education level of the parents and sexual abuse scores. In a study conducted with medical faculty students, it was reported that there was no relationship between the education level of the mother and sexual abuse, but it was reported that there was a relationship with the education level of the father<sup>31</sup>. The study conducted in Mersin is in accordance with our results<sup>18</sup>.

When the relationship between sexual abuse score and income was evaluated, the scores of students in Eskişehir who evaluated their family's income as low were reported to be higher than those who evaluated their income as normal and high<sup>26</sup>. In a study conducted with medical faculty students, in Mersin and in our study, no relationship was found between family income level and sexual abuse scores<sup>18,31</sup>.

In our study, suicide thoughts were found to be 26.2% and suicide attempt 3.4%. When studies on suicide thoughts were evaluated, in a study conducted with medical students in Norway, the frequency of suicide thoughts throughout life was reported to be 43.1% and suicide attempt frequency as 1.4%<sup>37</sup>. In a study conducted with university students from six countries in Southeast Asia, it was reported that the frequency of suicide thoughts in students was between 10-15% and the frequency of suicide attempts was between 2-3%<sup>38</sup>. According to the WHO Romania report, 4.2% of the students attempted suicide<sup>33</sup>. In a study conducted at seven universities in Turkey, it was reported that 41.3% of the students had suicidal

thoughts at least once in their lifetime and 6.8% attempted suicide<sup>7</sup>. In a study conducted in Çanakkale, the frequency of suicide thoughts of university students was found to be 15.1%<sup>39</sup>. In a study conducted in Gazi University Faculty of Medicine and Faculty of Health Sciences Department of Nursing, it was reported that 13.1% of the students had suicide thoughts and 2.3% had attempted suicide<sup>40</sup>.

When the relationship between suicide attempt and traumatic experiences was examined, it was reported that students who experienced trauma in their childhood had a higher rate of suicide attempts, according to the WHO Romania study<sup>33</sup>. In a study conducted in Aydın, the childhood trauma scores of students who attempted suicide were reported to be significantly higher<sup>23</sup>. Consistent with these, it was found in our study that the frequency of suicide thoughts and attempts increased with the increase in CTQ-SF scores. It can be said that negative experiences in childhood also affect individuals psychologically in adult life and consequently increase suicidal thoughts and attempts.

## CONCLUSION and RECOMMENDATIONS

The knowledge level about child abuse was found to be low in Mersin University Faculty of Medicine students. Lack of information prevents the physician from detecting and reporting abuse. It was thought that the curriculum should be strengthened in order to close the knowledge gap of these physician candidates and to increase awareness. It was found that being male, living in a large family, living with a stepmother, low education level of parents, unemployed mother, unemployed father or father who works at a job that does not require qualifications, spending childhood in a village/town, and suffering from economic difficulties can increase the risk of trauma. Prevention of childhood trauma should be considered as a whole. Comprehensive and qualified monitoring should be done in child-adolescent follow-up. Preventive studies and early diagnosis are valuable. Education levels of parents should be increased and employment should be provided. Thus, the economic level of the distressed group should be improved. Awareness and knowledge level about child abuse and neglect should be increased by providing education to those living in villages and towns. Strengthening family planning services to prevent excessive pregnancies will contribute to preventing child abuse.

The sexual abuse scores of the students were also found to be high. In this regard, the groups under risk should be identified and protective work should be carried out.

Suicide thoughts and attempts of the students with high trauma scores and sexual abuse scores were also found to be high. Young people in the group under risk should be identified, protective activities should be carried out in primary healthcare, youth centers should work more actively in universities, and guidance and social services provided to students should be strengthened. In addition, political and legal regulations should be made in order to carry out protective and preventive activities in this regard.

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