

The Effects of Childhood Abuse and Neglect on Anxiety, Anxiety Sensitivity and Academic Success: A University Sample

Çocukluk Çağı İstismar ve İhmalinin Kaygı, Kaygı Duyarlılığı ve Akademik Başarı Üzerine Etkisi: Bir Üniversite Örneği

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Özet

Amaç: Tüm dünyada önde gelen sorunlardan olan çocuk istismarı ve ihmali, önemli fiziksel ve ruhsal etkilere neden olabilmektedir. Bu çalışma, çocukluk çağı istismar ve ihmalinin genç erişkinlerde kaygı belirtileri, kaygı duyarlılığı ve akademik başarıya etkisini araştırmak amacıyla yapıldı.

Gereç ve Yöntemler: Tanımlayıcı tipte olan bu araştırma, yaşları 17 ile 24 arasında değişen ve üniversite birinci sınıfta okuyan 301 gönüllü katılımcı ile yürütüldü. ISPCAN (The International Society for the Prevention of Child Abuse & Neglect) Çocuk İstismarı Tarama Araçları (ICAST-R), Beck Anksiyete Ölçeği ve Anksiyete Duyarlılık İndeksi-3 formları çalışmaya katılmayı kabul eden öğrenciler tarafından yanıtlandı ve öğrencilerden üniversite giriş sınavları puanlarını belirtmeleri istendi. Veriler SPSS 22.0 ile istatistiksel olarak değerlendirildi.

Bulgular: Araştırmaya katılan 301 öğrencinin %39.20'si 18 yaşından önce en az bir kez istismara maruz kalmıştı. En yaygın istismar türleri duygusal istismardı. Öğrencilerin Beck Anksiyete Ölçeğinden aldıkları toplam puan ortalaması 15.55±11.58 olup, kaygı düzeyleri ile istismar durumu arasında istatistiksel olarak anlamlı bir ilişki olduğu bulundu ($p<0.001$). İstismar ve kaygı duyarlılığı düzeyleri arasında da istatistiksel olarak anlamlı bir ilişki olduğu bulundu ($p<0.001$). Kötüye kullanım öyküsü ile üniversite giriş sınavı başarısı arasında istatistiksel olarak anlamlı bir ilişki vardı ($p<0.001$).

Sonuç: Çalışmamızda elde edilen bulgulara göre istismar ve ihmal edilmenin kaygı, kaygı duyarlılığı ve üniversite giriş sınavı puanları üzerinde güçlü etkileri vardır. Sonuçlar, genç yetişkinlerle yapılan diğer çalışmalarla oldukça paraleldir. Çocuk istismarı ve ihmalinin gelecekte yol açacağı psikiyatrik ve sosyolojik problemler multidisipliner bir yaklaşımla önenebilir ve gerekli rehabilitasyon sağlanabilir.

Anahtar kelimeler: Akademik başarı, Anksiyete, Çocuk ihmali, Çocuk istismarı, Sınav

Abstract

Objective: Child abuse and neglect which are the leading problems all over the world can cause major physical and mental effects. This study was conducted to investigate the effects of childhood abuse and neglect on anxiety symptoms, anxiety sensitivity and academic success in young adults.

Material and Methods: This descriptive study was conducted with 301 volunteer participants aged between 17 and 24 and studying in the first year of university. ISPCAN Child Abuse Screening Tools (ICAST-R), Beck Anxiety Scale and Anxiety Sensitivity Index-3 forms were answered by the students who agreed to participate in the study and the students were asked to indicate the University Entrance Exams score. The data were statistically evaluated in the SPSS 22.0 database.

Results: Of the 301 students 39.20% who participated in the study were exposed to abuse at least once before the age of 18 years. The most common types of exploitation was emotional abuse. The mean of the total score of the students taken from the Beck Anxiety Scale was 15.55±11.58 and it was found that there was a statistically significant relationship between anxiety levels and abuse status ($p<0.001$). It was found that there was a statistically significant relationship between exploitation and anxiety sensitivity levels also ($p<0.001$). There was a statistically significant relationship between a history of abuse and university entrance exams success ($p<0.001$).

Conclusion: According to findings in our study, being abused and neglected have strong influences on anxiety, anxiety sensitivity, and university entrance exams score. The results were highly parallel to other studies with young adults. The psychiatric and sociological consequences of child abuse and neglect in the future can be protected with a multidisciplinary approach and adequate rehabilitation can be provided.

Keywords: Academic success, Anxiety, Child abuse, Child neglect, Examination

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INTRODUCTION

According to the definition of the World Health Organization (WHO) which was made in 1985 and accepted worldwide, child abuse is “all of the non-accident, preventable, deliberate behavior practices made by an adult, society, government or another child on children that negatively affect their physical or psychosocial development”, and child neglect is “the situation where a child’s physical, psychosocial or medical needs are not provided”(1).

The most important difference in distinguishing abuse and neglect from each other is that abuse appears as an active and negligence as a passive situation (2,3).

Boys and girls are at equal risk of physical and emotional abuse and neglect, and girls are at greater risk of sexual abuse. As children reach adolescence, peer violence and intimate partner violence, in addition to child maltreatment, become highly prevalent (4).

Due to WHO records: Nearly 3 in 4 children (300 million children) aged 2–4 years regularly suffer physical punishment and/or psychological violence from their parents and caregivers, one in 5 women and 1 in 13 men report having been sexually abused as a child aged 0-17 years and 120 million girls and young women under 20 years of age have suffered some form of forced sexual contact (5).

WHO published a technical report includes the recommendations for the WHO Guidelines for the Health Sector Response to Child Maltreatment that were approved by the WHO Guideline Review Committee in 2019 (6).

With the studies, it was reported that experiences of neglect and abuse encountered in the early period activate the hypothalamus-pituitary-adrenal (HPA) axis, create a negative effect on memory and emotion control mechanisms, and increase the susceptibility of the developing brain to psychiatric disorders such as depression, anxiety and dissociation (7-10).

It is known that a history of sexual abuse can lead to anxiety and depression later in life and in later generations (11-12).

Today, young people and their families think that university education as perhaps the only option for a successful life, and they have been involved in difficult processes for many years. It is known that experiencing anxiety prevents students from bringing the potential they have to life, leads to incompatibilities both in inter-

personal relationships and in learning status, and even sometimes causes them to stop their education therefore negatively affects the future goals and professional decisions of students (13-14).

Education process in a university is also a developmental transition period. For this reason, the consequences of childhood abuse experiences can become especially apparent for students starting university. At the same time, an individual who leaves his/her home for university education and gets away from family influence enters a period when he/she can safely question his/her past traumatic family experiences (15). The discovery of how these traumatic family lives affect his/her is also particularly important in this stage of an individual’s life in terms of adaptation to forward adult life.

The primary goal in our study is to draw attention to the future anxiety effects of childhood abuse experiences and how these effects affect future academic success of a child and also to increase the awareness of both family physicians and other physicians. In this study, it was thought that questioning anxiety together with anxiety sensitivity rather than questioning anxiety alone would help to reach stronger beliefs about the future effects of abuse experiences.

MATERIALS AND METHODS

This study was performed with the 1st year and accessible students in the university where the study was conducted in September 2017. A sociodemographic questionnaire developed by the research team and International Society for the Prevention of Child Abuse & Neglect (ISPCAN) Child Abuse Screening Tools (ICAST-R), Beck Anxiety Scale ve Anxiety Sensitivity Index-3 (ASI-3) forms were applied and the students were asked to indicate their University Entrance Exam score they got to be accepted in the department they are present.

Before the questionnaires were applied, general information about the purpose and the content of the questionnaires were explained to the participating students and the questions of the participants about the study were answered by the researcher during the implementations.

ICAST-R: This is a questionnaire that was developed by ISPCAN and aims to evaluate whether the participants experienced physical, emotional, or sexual abuse in their childhood before the age of 18. There are 26 questions to be answered in ICAST-R about the childhood period of the participants which they can remember.

The questions were asked about whether the participants were subjected to sexual, physical and emotional abuse in childhood before the age of 18 which they can remember, if yes, how, what degree and frequency and by whom they were exposed. In the first 6 questions, socio-demographic data such as gender, age, where childhood passed, whether they worked in a job or not, in the questions 7-11, it was questioned whether the person was physically abused or not, if yes, how, when, how often and by whom they were exposed. In the 12th question, they were asked about their thoughts about their experiences, and in the 13th question, they were asked to compare their own childhood with other children. Those who answered “yes” to any of the questions numbered 7-11 in the questionnaire were considered physically abused.

In the questions numbered 14-18 they were asked whether they were emotionally abused, if yes, how often, when and by whom they were exposed. In the 19th question they were asked about the opinion of them about their experiences, and in the 20th question, they were asked to compare their own childhood with other children about this experiences. Those who answered “yes” to any of the questions numbered 14-18 in the questionnaire were considered emotionally abused.

In the questions numbered 21-25 they were asked whether they were sexually abused, if yes how, when, how often and by whom they were abused. Those who answered “yes” to any of the questions numbered 21-25 in the questionnaire were considered sexually abused. In the 26th question it is questioned whether the person shares his/her experiences with anyone. The questionnaire was developed using the Delphi method and field tests were performed in 7 countries. After these tests, researchers decided that the questionnaire proves effectiveness when translated and it can competently reflect the childhood abuse and neglect across many cultures (16).

The original questionnaire form was independently translated from English into Turkish by two translators. The resultant two translations were examined by a small group to work out differences between two versions and ended up with a first version of translated tool. This version was back-translated into English by one translator. Discrepancies between the original English and back-translated version were examined. All ambiguities were identified and clarified. The final translation was externally reviewed by two experts.

Beck Anxiety Scale: The study for the validity and reliability of Beck Anxiety Scale in Turkey country was conducted by M.Ulusoy et al. Beck Anxiety Scale is a four-point likert type scale (17). On Beck Anxiety Scale, 21 symptoms shown by people experiencing anxiety were given. According to the degree of discomfort for the last week, including the day of the study, for the symptom in each item; None (0), In a slight level, it did not affect me much (1), In a moderate level, it was not pleasant, but I was able to endure (2), In a serious level, I had a really hard time to endure (3), they were asked to mark one of the options. The total scores evaluated as 0-7: Minimal anxiety, 8-15: Mild anxiety, 16-25: Moderate anxiety, 26-63: Severe level of anxiety. The high scores of these scales indicate the severity of anxiety.

Anxiety Sensitivity Index-3: The validity and reliability study in our country consists of a total of 18 items with physical, social and cognitive sub-dimensions and six items in each sub-dimension, such as the scale-specific Anxiety Sensitivity Index (ASI), which was previously conducted by Mantar et. al (18). Five of these 18 items contain the items in the original ASI. The scale provides a five-point likert-type measurement. “0” means too low, while “4” means too high. The score that can be obtained from the scale is between 0-72. Practitioners were asked to state how much they agree with the relevant statement, taking into account their previous experience with the statements contained in each item, or by thinking about how they might feel if they experience the situation if they do not have experience about that item.

University Entrance Exam Score: Participants were asked to indicate their final university entrance exam scores they got to study in their department.

The approval for the study was taken from the Non-Interventional Clinical Research Ethics Committee of the Izmir Katip Celebi University where the research was conducted with the decision number 88 and date 19.04.2011 and from its rectorate the permission to conduct questionnaires on the university students with the number 90038189-100-E-1700039124 and date 06.06.2017 were obtained. The study was carried out appropriate to the latest version of the Declaration of Helsinki.

Statistical Analysis: SPSS 22.0 for Windows application was used for the statistical analysis. The data obtained in the study were given by using number, percentage, median (minimum, maximum) and arithmetic mean±standard deviation from descriptive criteria. The

data on the socio-demographic information obtained in the study were presented with crosstables and with the appropriate graphic methods when necessary. Continuous variables obtained in the study were evaluated with Kolmogorov-Smirnov or Shapiro-Wilks test, histogram, P-P and Q-Q plots for each comparison group in terms of suitability for normal distribution and Mann-Whitney U test was used according to the number of groups compared according to their normal distribution compatibility. Chi-square test was used to compare the variables specified by counting between the groups. $P < 0.05$ value was defined as statistically significant.

RESULTS

During the study, 315 first year students were reached; while answering the questions, the identity information of the participants was not requested. Participation in the study was completely voluntary. In the data collection process, after the participants read the volunteer participation form and agreed to participate in the research, the participants were provided to fill the questionnaires under observation. 4 students stated that they did not want to answer the questionnaire. 10 students did not complete the questionnaire. 301 1st grade university students who answered the questions fully were included in the study.

Of the total 301 students participating in the study, 204 (68%) were female and 97 (32%) were male. In the distribution by age groups; There were 135 people (44.80%) at the age of 18 and below, 98 people at the age of 19 (32.60%), 68 people at the age of 20 and over (22.50%) ($n=301$). The mean age of the participants was 18.87 (SD:1.06). Fourteen (4.70%) of the students stated that they spent their childhoods in a farm or village, 119 (39.50%) in a town or small city, 167 (55.50%) in a metropolitan area, 1 (0.30%) in other places. 17 (5.60%) of the students stated that they work part-time and earn money, 5 (1.70%) work but do not earn money and 279 (92.70%) do not work.

ICAST Results: In the study, 84 (12.74%) of 204 female students and 34 (6.18%) of 97 male students stated that they were abused. No statistically significant difference was found between gender and abuse status ($p=0.31$).

Seven (50%) of 14 students who stated that they grew up in a farm or village, 46 (38.60%) of 119 students who stated that they grew up in a town or small city, 64 (38.30%) of 167 students who stated that they grew up in

a big city stated that they were abused in childhood. One (0.30%) student stated growing in somewhere "other". No statistically significant difference was found between students' childhood place and abuse status ($p=0.51$).

Thirty seven (12.29%) of the students participating in the study stated that they were physically abused. There was a statistically significant difference between physical abuse and gender. ($\chi^2=9.20$; $p=0.004$) Twenty point sixty one percent of the males and 8.33% of the females stated that they were exposed to physical abuse. 95 (31.56%) of the participants stated that they were emotionally and 32 (10.63%) of them were sexually abused. No statistically significant difference was found between emotional or sexual abuse and gender ($p=0.10$).

The most common type of physical abuse was hitting or punching at 62.20% ($n=23$), the most common type of emotional abuse was humiliation at 87.40% ($n=83$), the most common type of sexual abuse were exposing someone else's genitals at 46.90% ($n=15$) and genital touching against the victim's will 46.90% ($n=15$).

Beck Anxiety Scale Results: According to their answers to Beck Anxiety Scale questions, 164 (54.50%) of 301 students participating in the study had minimal anxiety, 64 (21.30%) mild anxiety, 48 (15.90%) moderate anxiety, and 25 (8.30 %) were found to have severe anxiety.

In the study, the mean score of female students on Beck Anxiety Scale was 11.49 (Standard deviation (SD):11.53), median value 8 (0-54); the mean score of male students on Beck Anxiety Scale was 7.03 (SD:8.42) and median value was calculated as 4 (0-45). There was a statistically significant difference between gender and anxiety level ($p=0.001$).

In the study, a statistically significant difference was found between being abused and anxiety level ($p < 0.001$). The mean of the total score of the individuals, who stated that they were abused, from Beck Anxiety Scale was 15.55 (SD:11.58), the median value was 14 (0-54); the mean score of the non-abused individuals on Beck Anxiety Scale was 6.50 (SD:8.63) and the median value was 4 (0-46). The relationship between being abused and anxiety level is shown in **Table 1**. The relationship between the Beck Anxiety Scale score's subclassification and abuse types is shown in **Tables 2, 3 and 4**.

A statistically significant difference was found between physical, emotional or sexual abuse and minimal, mild, moderate, or severe anxiety level ($p < 0.001$).

Table 1. The relationship between abuse and Beck Anxiety Scale total score

	Abuse Status				Statistical Analysis
	Non-present		Present		
	Mean±SD	Median (min-max)	Mean±SD	Median (min-max)	p*
Beck Anxiety Scale Total Score	6.50±8.63	4(0-46)	15.55±11.58	14(0-54)	<0.001

*Statistical analysis was done by using Mann-Whitney U test, SD: Standart Deviation

Table 2. The relationship between physical abuse and anxiety levels

Beck Anxiety Scale Subgroup	Physical Abuse Status			x ²	p
	Non-present	Present	Total		
Minimal anxiety	156 (59%)	8 (21.6%)	164 (54.5%)	18.58	<0.001
Mild anxiety	51 (19.3%)	13 (35.1%)	64 (21.2%)		
Moderate anxiety	37 (14%)	11 (29.7%)	48 (15.9%)		
Severe anxiety	20 (7.6%)	5 (13.5%)	25 (8.3%)		
Total	264	37	301		

Table 3. The relationship between emotional abuse and Beck Anxiety levels

Beck Anxiety Scale Subgroup	Emotional Abuse Status			x ²	p
	Non-present	Present	Total		
Minimal anxiety	141 (68.4%)	23 (24.2%)	164 (54.5%)	57.37	<0.001
Mild anxiety	37 (17.9%)	27 (28.4%)	64 (21.2%)		
Moderate anxiety	19 (9.22%)	29 (30.5%)	48 (15.9%)		
Severe anxiety	9 (4.3%)	16 (16.8%)	25 (8.3%)		
Total	206	95	301		

Table 4. The relationship between sexual abuse and Beck Anxiety levels

Beck Anxiety Scale Subgroup	Sexual Abuse Status			x ²	p
	Non-present	Present	Total		
Minimal anxiety	158(58.7%)	6(18.7%)	164(54.5%)	27.96	<0.001
Mild anxiety	55(20.4%)	9(28.1%)	64(21.2%)		
Moderate anxiety	40(14.8%)	8(25%)	48(15.9%)		
Severe anxiety	16(5.9%)	9(28.1%)	25(8.3%)		
Total	269	32	301		

ASI-3 Results: In the previous studies conducted with anxiety sensibility index-3, limit values that determine the levels of anxiety sensitivity were not specified, instead they were evaluated with cognitive, physical and social subgroups. Therefore, in this study, while the anxiety sensitivity level was grouped, the mean value of the total anxiety level scores of 301 students (13.80) was accepted as the limit; the group below 13.80 was accepted as “Low Anxiety Sensitivity” and the group equal to 13.8 and above was accepted as “High Anxiety Sensitivity”. In addition, physical, cognitive and social

subgroups of anxiety sensitivity were used in the study. In the light of these data it was concluded that while 168 (55.80%) of 301 students had low anxiety sensitivity 133 (44.20%) of them had high anxiety sensitivity. In our study, no statistically significant difference was found between anxiety sensitivity and gender.

The comparison of gender and ASI-3 is shown in **Table 5**. No statistically significant difference was found between physical score, cognitive score, social score and gender (p=0.128; p=0.199; p=0.198).

Anxiety sensitivity was found high in 81 (68.60%) of 118 students who stated that they were abused and 52 (28.40%) of 183 students who were not abused. There was a statistically significant difference between abuse and anxiety sensitivity levels ($p < 0.001$). The relationship between abuse and anxiety sensitivity is shown in **Table 6**.

A statistically significant difference was found between the history of abuse and the subgroup scores of the Anxiety Sensitivity Index-3 ($p < 0.001$). The relationship between the history of abuse and the ASI-3 subgroup scores is shown in **Table 7**.

When the relationship between anxiety sensitivity and abuse types is analyzed, it was seen that, among the 133 students who were found to have high anxiety sensitivity; 26 (19.54%) of students were subjected to physical abuse, 69 (51.88%) of them to emotional abuse, 25 (18.80%) of them to sexual abuse.

Among 168 students with low anxiety sensitivity; 11 (6.54%) students stated that they were subjected to physical abuse, 26 (15.47%) people to emotional abuse and 7 (4.16%) to sexual abuse. A statistically significant relationship was found between anxiety sensitivity and abuse types ($p = 0.001$; $p < 0.001$; $p < 0.001$).

Results About University Entrance Exams (UEE) Scores: In our study, the mean of latest UEE scores of 301 students who participated in the study was found to be 355, and the group with UEE score below 355 classified as “Low Success”, and the group with 355 and above as “High Success”. According to this, 145 (48.17%) of 301 students were evaluated as with low success and 156 (51.83%) as with high success.

When the relationship between the history of abuse and UEE success level was examined, it was found that 44 (28.20%) of 156 students who had high success and 74 (51%) of 145 students who had low success in the

Table 5. The relationship between gender and anxiety sensitivity subgroup scores

Anxiety Sensitivity Index-3 Subgroup	Gender				Statistical Analysis
	Female		Male		P*
	Mean±SS	Median (min-max)	Mean±SS	Median (min-max)	
Physical Score	5.68±5.53	5(0-21)	4.67±5.14	3(0-19)	0.128
Cognitive Score	3.14±4.26	1(0-22)	2.75±4.13	0(0-19)	0.199
Social Score	5.72±5.25	5(0-20)	4.97±5.03	3(0-19)	0.198
Total Score	14.55±13.32	12.5(0-57)	12.4±13.06	8(0-53)	0.108

* Statistical analysis was done by using Mann-Whitney U test, SD: Standart Deviation

Table 6. The relationship between abuse status and anxiety sensitivity levels

Anxiety Sensitivity	Abuse Status			χ^2	p
	Non-present	Present	Total		
Low	131 (71.6%)	37 (31.4%)	168 (55.8%)	47.07	<0.001
High	52 (28.4%)	81 (68.6%)	133 (44.2%)		

Table 7. The relationship between abuse status and anxiety sensitivity subgroup scores

Anxiety Sensitivity Index-3 Subgroup	Abuse Status				Statistical Analysis
	Non-present		Present		P*
	Mean±SD	Median (min-max)	Mean±SD	Median (min-max)	
Physical Score	3.66±4.62	1(0-18)	7.98±5.54	7.5(0-21)	<0.001
Cognitive Score	2.04±3.64	0(0-19)	4.53±4.60	4(0-22)	<0.001
Social Score	3.95±4.58	3(0-20)	7.86±5.19	7(0-20)	<0.001
Total Score	9.65±11.55	6(0-57)	20.38±13.12	19.5(0-56)	<0.001

* Statistical analysis was done by using Mann-Whitney U test, SD: Standart Deviation

exam had an abuse history. According to the data obtained in the study, there was a statistically significant relationship between a history of abuse and UEE success ($p < 0.001$). The relationship between UEE success and abuse types is shown in **Table 8**.

While the mean score of the students with high success in UEE on Beck Anxiety Scale was 6.97 (SS:7.46) and the median value was 5 (0-37); the mean of Beck Anxiety Scale total scores of the students who achieved low success in UEE was 13.36 (SD:12.75) and the median value was 10 (0-54). A statistically significant relationship was found between anxiety level and UEE success ($p < 0.001$). The relationships between UEE success and anxiety level and anxiety sensitivity are shown in **Table 9**.

DISCUSSION

Strengths: Our study was on a subject that can not be asked easily. The number of participants is 301 and

this number is higher than more studies in the literature.

Limitations: The study was conducted only in one university. Answering questions was voluntary but participants may not be answered correctly because of the sensitivity of questions. Only the university exam scores can not show academic success.

Although the information about child abuse has been found in the various sources since the old times, it was not possible to treat child abuse and neglect as a serious health problem until the late 19th century (19). With the increasing number of studies about the problem of child abuse and neglect has started to be emphasized in Turkey too. However, the studies are usually in the form of frequency determination.

Since the sensory and perceptual experiences of children who are exposed to abuse and neglect in critical developmental processes such as childhood and adolescence generally develop as deprivation, threat, fear or inhibition, their neuropsychological structures can also

Table 8. The relationship between types of abuse and UEE success level

Abuse Type		University Entrance Exam Success Status			Statistical Analysis	
		Low Success	High Success	Total	χ^2	p
		n (%)	n (%)	n (%)		
Physical Abuse	Present	28(19.31)	9(5.77)	37(12.29)	12.78	<0.001***
	Non-Present	117(80.69)	147(94.23)	264(87.71)		
Emotional Abuse	Present	62(42.75)	33(21.15)	95(31.56)	16.23	<0.001***
	Non-Present	83(57.25)	123(78.85)	206(68.44)		
Sexual Abuse	Present	21(14.48)	11(7.05)	32(10.63)	4.36	0.041*
	Non-Present	124(85.52)	145(92.95)	269(89.37)		

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$
 UEE: University entrance exam

Table 9. The relationship between UEE success level and anxiety level/anxiety sensitivity level

Beck Anxiety Scale Total Score		University Entrance Exam Success Status				Statistical Analysis
		Low Success		High Success		p
		Mean±SD	Median (min-max)	Mean±SD	Median (min-max)	
		13.36±12.75	10(0-54)	6.97±7.46	5(0-37)	
ASI-3 Subgroup	Physical Score	7.19±6.13	7(0-21)	3.64±3.98	2(0-16)	<0.001***
	Cognitive Score	4.52±5.08	3(0-22)	1.62±2.52	0(0-12)	<0.001***
	Social Score	7.08±5.86	6(0-20)	3.99±3.93	3(0-18)	<0.001***
ASI-3 Total Score		18.8±15.31	18(0-57)	9.26±8.83	7(0-43)	<0.001***

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$
 UEE: University entrance exam, SD: Standart Deviation

be a reflection of these experiences, and the stimulation systems that play a role in stress responses can come to an extremely active status in these children (20). For these reasons, addressing social consequences of early stress with its psychological effects will enable the problem of child abuse and neglect to be examined in a more holistic framework.

The ICAST surveys prepared by the International Association for the Protection of Child Abuse and Neglect have been internationally accepted and epidemiological studies with these surveys have begun in many countries of the world (16,21).

As pilot in Turkey, ICAST-CH survey which is a different form of these surveys, were applied to 70 children in the frame of Balkan Epidemiological Study on Child Abuse and Neglect- BECAN. In our country, ICAST-R was first used by Koc *et al.* in a study conducted with university students in 2012 (22).

Later, in a study conducted by Simsek *et al.*, it was applied to 173 1st year medical faculty students (23). ICAST-R questionnaire is a questionnaire for young adults aged 18-24. In our study, young people who were close to 18 years of age were targeted for the fact that the participants in the study were more likely to remember their memories of the recent past due to the fact that they were just out of childhood, and therefore, students studying in the first year of the university were included in the study.

In our study, it was observed that the most common abuse type was emotional abuse with a rate of 80.5% among all abuse types. In the study conducted by Koc *et al.* with cases applying to Ege University Child Protection Unit, the frequency of sexual abuse was 49%, the frequency of physical abuse was 25%, the frequency of emotional abuse was 11% and the frequency of neglect was 14% (24). In a study conducted in Canada in 2003, 29% of the all proven traumatic cases were found to be emotional abuse or neglect (25). Although the other studies indicate that emotional abuse is the most common of all abuse types, admissions to hospitals due to emotional abuse are less common than the other types of abuse. This may be because of the victim is less aware of this issue, does not think that he/she should get help, the effects of emotional abuse are not visible as in physical or sexual abuse and are difficult to diagnose.

Studies addressing the impact of childhood traumatic experiences on psychiatric disorders such as anxiety disorders or depression have gained momentum in re-

cent years. When the types of trauma are considered separately, it has been revealed that emotional neglect and abuse and physical abuse are important factors on depression and anxiety and negatively affect the course of such disorders (26), and the effect of emotional neglect history on depression and social phobia is evident (27-29).

Despite the absence of psychiatric symptoms in 20-50% of the abuse victims, psychiatric disorders such as anxiety, depression, substance abuse, suicidal behavior, borderline personality disorder and post traumatic stress disorder may occur later in the period (30) and it is stated that young people especially who are sexually abused have risky sexual intercourses and continue their risky behaviours during adulthood (31).

A presence of anxiety sensitivity, which can be described as a concern for anxiety symptoms, may exacerbate possible anxiety disorders. Anxiety sensitivity has been tried to be revealed by learning or by assuming that it develops as a result of genetic factors but it is still unclear what effects individual differences such as age, education, past experiences or gender have on anxiety sensitivity. The reason for this is the absence of long-term and prospective studies investigating the factors on children (32-33).

It is stated that high anxiety sensitivity level can help predicting symptoms that may occur in the future, even if they are not currently present (34-35). A statistically significant difference was found between abuse and anxiety and anxiety sensitivity levels. However, there are only few studies in the literature examining the relationship between childhood abuse and anxiety among university students. In the study of Kabasakal and Erdem, it was determined that there was a negative relationship between childhood abuse experiences and psychological well-being among the university students (36).

UEE basically aims to select successful students from a group of students with very different characteristics in terms of school learning and place them in faculties that are suitable for their knowledge. In the process of placement of students in universities and faculties, scores obtained from entrance exam to university and total scores obtained from lecture notes showing their success in high school are determining (37).

Applications for admission to higher education in other societies around the world are being ranked and students are being selected by using quite different crite-

ria such as grades from high school lectures, school and class success rankings, high school graduation exams, entrance exams to universities, talent exams, extra-curricular activities, work experience, knowledge of the field of application, purpose letter on intent and education to be taken, letters of recommendation from educators (38). Perhaps this is why it is difficult to question academic success in studies and to associate academic success with other factors and it is not preferred in studies.

It is known that experiencing anxiety prevents students from bringing the potential they have to life, leads to incompatibilities both in interpersonal relations and in learning status, and even sometimes causes them to stop their education therefore negatively affects the future goals and professional decisions of students (13-14). The educational process at a university is also a developmental transition period. For this reason, consequences of childhood abuse experiences can become especially apparent for students starting university.

A multidisciplinary approach is required to childhood abuse experiences. Family medicine, which has an important role in this team, takes into account the physical characteristics as well as the psychological, cultural and existence sides. Due to this holistic approach defined as a biopsychosocial approach model, it has an effective field of study in diagnosis, treatment, rehabilitation and protection for child neglect and abuse (39-40).

However, in order to be able to diagnose abuse, to protect or rehabilitate a person from physical and psychosocial adverse health consequences that may occur in the presence of abuse, the level of awareness of physicians should be increased. For this reason, providing sufficient training to physicians regarding child abuse and neglect both during their education in medical schools and after graduation will increase the awareness of physicians on this issue and make them to acknowledge new developments.

In addition, "child protection units" have been started to be established in many hospitals providing medical education in our country. Studies should be conducted to establish and reproduce such child protection units in all universities and educational research hospitals, and interdisciplinary research on the subject should be increased with the participation of experts working in different branches within these centers.

The recent studies on child abuse in Turkey increase the awareness of the subject every day. All the studies

conducted in our country, including our study, show that the frequency of child abuse is at a considerable level. Since reaching healthy generations depends on healthy development process of a child, both preventive measures and lifelong rehabilitation services are essential to combat this important issue.

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