Abstract

Aim: This study aims to analyze the frequency of childhood traumatic events and its correlation with depression and anxiety cases among midwifery students. Material and Method: The study was based on student self-reports concerning abuse and negligence experiences during their childhood and adolescence, evaluated using the Childhood Trauma Questionnaire (CTQ). The correlation with depression and anxiety was assessed using the Beck Depression Inventory and the Beck Anxiety Inventory. Results: The average scores of emotional neglect and physical neglect were 9.0±3.9 and 7.1±2.5, respectively. The average scores of emotional abuse and sexual abuse were 7.1±2.8 and 5.9±2.2, respectively. The average score of physical abuse was 5.4±1.4. The CTQ total points were significantly associated with depression and anxiety. Discussion: Childhood psychological traumas and emotional abuse may lead to the development of dysfunctional attitudes, causing individuals to be prone to depression and anxiety. Emotional abuse, which is one of the most common traumas in childhood, is a type of trauma that should not be ignored and that should be handled properly in clinical practice. Early traumas may be linked to psychological and behavioural problems in adult life.

Keywords
Childhood Trauma; Childhood Trauma Questionnaire; Beck Anxiety Inventory; Beck Depression Inventory; Midwifery Students
Introduction

Traumas are defined as experiences that are threatening or damaging to the physical integrity of the person. The primary events causing psychological and physical trauma are wars, conflicts, violence induced by officials, violence induced by armed groups, political violence, torture, non-political violence, domestic violence particularly against children and women, domestic or non-domestic sexual assault and abuse, violence induced by individuals/groups against adverse parties, oppression and violence induced into communities, and traffic accidents, work accidents, fires, and other natural disasters. A history of childhood trauma is known to be correlated with a myriad of psychiatric disorders and is accepted as a risk factor for disease development. A positive correlation has been found between childhood trauma history and a wide range of psychiatric disorders such as dissociative disorders, anxiety disorders, post-traumatic stress disorder, borderline personality disorder, somatisation disorders, antisocial personality disorder, alcohol and substance abuse, depression, conversion disorder, avoidant personality disorder, psychotic disorders, and obsessive-compulsive disorders [1]. Childhood exposure to interpersonal traumatic stressors has been shown to be extremely common and has been described as a silent epidemic. One study estimated that, worldwide, approximately one-third of children experience physical abuse, while approximately one in four girls and one in five boys experience sexual victimization [2]. It is understood that violence against children is a global issue. Despite multiple years in which physical and sexual maltreatment and assault of children have decreased in the United States, national survey data have continued to indicate notable 1-year prevalence rates of 4.2% for physical abuse, 49.6% for any type of physical assault, 4.2% for sexual abuse, and 3.2% for sexual assault [3]. In Turkey-wide studies on violence against women, the South-Eastern Anatolian region ranked second after Central Anatolia in terms of frequency of violence (47.7% physical and 19.7% sexual) [4]. Having nightmares, wetting the bed, being an introvert, and being aggressive against their mother and/or other children are common effects seen in children whose mother has experienced violence [5]. Also, there is substantial evidence that women with child abuse histories experience poorer physical health in respiratory, gastrointestinal, musculoskeletal, neurological, and gynecological categories and that they utilize health services at relatively higher rates than women who have not been victimized [6]. The cause and how it started, considering true life experiences and the trauma reality that the violence created on its own, the female students were studied to evaluate the association with the pathology that was parallel to childhood abuse and negligence. This evaluation was conducted with the students who may have been present in violent environments and had a risk of experiencing violence by assessing their life experiences in an early retrospective. Various types of childhood trauma have been demonstrated to be associated with anxiety and depressive symptom severity [7]. Furthermore, the present study seeks to clarify the correlation between childhood trauma/neglect and depression/anxiety disorders among female children.

Material and Method

The study was conducted as descriptive, cross-sectional epidemiological research in the School of Health, Mardin Artuklu University between April 7-11, 2014, in Mardin in the southeast of Turkey. All the study participants were midwifery students at the School of Health, Mardin Artuklu University (N=211). After obtaining the university’s consent, legal permission was obtained from the relevant institutions to conduct the study. The research began after receiving the approval from the Ethics Committee. The purpose of the study and their ethical rights was described to students, and then questionnaires were delivered to students who voluntarily agreed to participate. Eight students did not reply to the questionnaires at all. Thus, a total of 203 students (96.2% of the entire population) participated in the survey and their authorized ethic agreements, with signatures, were collected.

Childhood Trauma Questionnaire (CTQ): This assessment tool developed by Bernstein et al. [8] was translated from its original language into Turkish by Prof. Dr. Vedat Şar and then finalized [9]. The questionnaire consists of a total of 28 questions. This questionnaire yields five sub-scores addressing sexual, physical, and emotional abuse as well as emotional and physical negligence during childhood. Answer options are (1) never; (2) rarely; (3) sometimes; (4) often; and (5) very often. Before calculating CTQ scores, the scores from positive statements (items 2, 5, 7, 13, 19, 26, 28) are inverted (e.g. 1->5, 2->4). The sum of five sub-scores yields the overall CTQ score. Thus, while the sub-score range is 5-25, the overall score range is 25-125. Note that the scores of items addressing minimization (items 10, 16 and 22) need not be inverted; because these three items only measure trauma denial they have no contribution to the overall score. To calculate the minimization score, only 5 points (highest score) from each of these three items are taken into account and each is counted as 1 point. By summing them, a minimization score between 0 and 5 is obtained. Emotional abuse is addressed by items 3, 8, 14, 18, 25; physical abuse is addressed by items 9, 11, 12, 15, 17; physical neglect is addressed by items 1, 4, 6, 2, 26; emotional neglect is addressed by items 5, 7, 13, 19, 28; and sexual abuse is addressed by items 20, 21, 23, 24, 27. Findings of this questionnaire suggest that a score above 5 for sexual and physical abuse—that is, the presence of a yes answer, regardless of the level, for any question—should be taken as a positive feedback. It is understood that this limit may increase to the level of 7 points for emotional abuse and 12 points for emotional neglect. It is evident that such limit may be around 35 for the total score [9]. High scores point to the
The abundance of childhood trauma experiences and to the severity of the violence [10].

Beck Depression Inventory (BDI): This is an inventory consisting of 21 items that measure physical, emotional, cognitive, and motivational signs of depression. Each question is scored on a scale of 0-3, and an overall score of 17 or above signifies depression requiring clinical attention. The score range is 0-63. Developed by Beck et al. in 1961 [11], the inventory was reviewed subsequently by Beck [12]. Then Hisli adapted the inventory to Turkey in 1988 and reassessed its validity and reliability [13].

Beck Anxiety Inventory (BAI): This inventory was developed by Beck et al. The inventory consists of 21 items aimed at measuring the severity of individual anxiety signs on a Likert-type scale of 0-4 (ranging between “none” and “severe”). The inventory queries subjective anxiety and physical signs. Inventory items measure the presence and severity of typical anxiety signs over the previous week. The score range is 0-63. Higher overall scores from the inventory indicate the severity of the anxiety experienced by the individual [12]. A validity and reliability study of the inventory in Turkey was conducted by Ulusoy [14].

Analysis was performed using SPSS 16.0 for Windows. In the analyses, scores calculated based on the Childhood Trauma Questionnaire, depression, and anxiety section, Beck Depression Inventory and Beck Anxiety Inventory were regarded as individual result variables. Variance and chi-square analyses were employed to query any difference across measuring methods applied to the study group. We evaluated anxiety and depression scores as a dependent variable, and we analyzed emotional abuse, physical abuse, physical neglect, emotional neglect, and sexual abuse and CTQ total scores as independent variables. Percent and mean values were used in descriptions. P<0.05 was judged as statistical significance.

Results
The average student age was 21.4±1.9, the average score of the Childhood Trauma Questionnaire was 35.8±9.1, the average score of the Beck Depression Inventory was 13.7±10.4, and the average score of the Beck Anxiety Inventory was 19.8±12.7. Average scores of emotional neglect and physical neglect were 9.0±3.9 and 7.1±2.5, respectively; average scores of emotional abuse and sexual abuse were 7.1±2.8 and 5.9±2.2, respectively; and the average score of physical abuse was 5.4±1.4. Of the overall positive feedback (N=75) of 36.6% to the Childhood Trauma Questionnaire, emotional abuse (N=65) accounted for 31.7%, physical abuse (N=35) for 17.1%, physical neglect (N=47) for 22.9%, emotional neglect (N=47) for 22.8%, and sexual abuse (N=48) for 23.4%. The study further revealed low (N=55) 26.8%, average (N=56) 27.3%, and severe (N=60) 29.4% anxiety, and (N=64) 31.2% depression requiring clinical attention. With regard to sexual assault, one student stated “often,” one student stated “sometimes,” and three students stated “rare” (total N=5) constituting a total sexual abuse feedback of 2.4%. Emotional abuse was statistically significantly related to anxiety and depression (p=0.005). Physical abuse was statistically significantly related to anxiety (p=0.009) and depression (p=0.02) (Table 1). CTQ scores were high and significant (p=0.005), sexual abuse (p=0.009) and physical abuse (p=0.025) were statistically significant in sexual assaults (Table 2). Positive feedback of childhood trauma total scores were significantly associated with anxiety (p=0.000) and depression (p=0.001). Positive feedback of physical neglect was significantly associated with anxiety (p=0.017) and depression (p=0.016). Positive feedback of depression was significantly associated with anxiety (p=0.000) (Table 3). In sexual assault, cases were associated with positive feedback of physical abuse (p=0.002) and positive feedback with emotional abuse (p=0.018). Also, positive feedback of childhood trauma total scores (p=0.053) and positive feedback of sexual abuse (p=0.001) were statistically significant in the sexual assault cases.

Discussion
Emotional abuse was described as excessive verbal intimidation, mocking, or humiliating criticisms and comments made

| Table 2. Childhood trauma questionnare scalarates with sexuel abuse |
|---------------------------------|-----|-----|-----|-----|
| Emotional trauma neglected  | 1.73 | .080 |
| Emotional abuse                | -0.64 | 940 |
| Physical neglect               | 2.64 | .009* |
| Physical abuse                 | 0.52 | .600 |
| Physical abuse                 | 2.26 | .025* |
| Total CTQ                      | 2.86 | 0.005* |
| Anxiety                        | -1.28 | 0.200 |
| Depression                     | -0.60 | 0.540 |

*: p<0.050; **:p<.001
by the guardians of the child that would endanger the emo-
tional or psychological health of the child [15]. Studies on child
abuse in our country reveal that emotional abuse (78%) was
ranked at the top. Another study reports that emotional abuse
was ranked top for frequency followed by physical and sexual
abuse. Studies in Hatay and Ankara further report frequent
emotional abuse [16, 17]. The studies further show that, of
the children aged between 7-18 living in Turkey, 56% witness
physical abuse, 49% witness emotional abuse, and 10% witness
sexual abuse [18]. Our study has revealed that the frequency
of emotional and sexual abuse and physical and emotional ne-
glect was high, yet below the average of overall Turkey scores.
It may be argued that these results are understated. Even when
studies are conducted with anonymous subjects, in our country,
where it is perceived that any form of violence should be kept
secret or would create shame if disclosed, revealing violence
is difficult and the burden of the violence is often carried by the
victim secretly.

Childhood abuses were correlated with subsequent develop-
ment of progressive psychiatric disorders. Our findings sup-
port the current literature arguing that such abuses should be
researched as a risk factor, particularly for mood and anxiety
disorders [17]. Emotional abuse with positive feedback and de-
pression that requires clinical attention was found to be ac-
companied by findings showing average and severe levels of
anxiety. 50-60% of adults with major depressive disorder his-
tory have a history of one or more anxiety disorders in their
lifetimes. Patients who consult to primary health centres with a
major depressive disorder diagnosis have a concomitant anxi-
ety disorder of 70%. 65% of the patients with major depres-
sive disorder diagnosis have moderate anxiety symptoms and
20-25% of them have severe anxiety symptoms [19]. Looking
at the emotional, physical, and sexual abuse sub-scales of the
Childhood Trauma Questionnaire conducted among individuals
with a history of emotional abuse and neglect, traces of child-
hood traumas were found to be underlying such disorders [20].
We recommend that childhood traumas and abuses, along with
medical diseases, should be treated as a serious problem re-
quiring attention.

Despite the frequency of sexual abuse occurring in social life, it
is usually kept secret and only 5-10% of the incidences are dis-
closed. 90% of these acts are committed by a person familiar
to the child [21]. A study by Meyerson et al. reveals that the in-
cidence of sexual trauma is higher in female children [22]. Also,
another study conducted with a group of college students in
Hong Kong reveals higher incidence of sexual trauma in female
children [23]. In this respect, since violence against women has
been more intense throughout history, our study focuses on fe-
male students. However, we would like to remind the reader
that each member of a society may be exposed to violence. A
sexual assault in Van supports this finding. Of 8 victims of a
sexual abuse in the incident, 5 (62.5%) were male and 3 (37.5%)
were female [24]. Research reveals it is mostly children aged 3-
5 who are exposed to sexual abuse [21]. However, the records
of the Forensic Medicine Department of Corum reveal 11 sexual
abuse incidents against minor children where 9 (81.8%) of the
victims were female, 4 (45.4%) were age 15, 2 (18.18%) were
age 16, and there was one victim at each of the ages of 7, 8,
11, and 14 [25]. Another study in Hatay reveals that female
children were exposed to sexual violence at higher rates [26].
And our study reveals a rate of 23.4% for sexual abuses with
positive feedback and 2.4% for sexual assaults with positive
feedback. A student reporting the frequency of abuse as “often”
in the study requires consideration. The fact that total scores
of physical abuse with positive feedback, emotional abuse with
positive feedback, sexual abuse with positive feedback, and
childhood traumas with positive feedback among the students
who were the victims of sexual assault are high and statistically
significant reveals that violence is a multifaceted phenomenon
and persistently engulfs the victim.

This is a very hard and heavy load for a child to carry. Assess-
ments were conducted, by means of CTQ, in Turkish popula-
tions known to have higher incidence of childhood trauma. For
example, while average CTQ scores of schizophrenic patients
displaying dissociative signs is at a range of 50.0-52.2, it is
38.3-41.5 for patients not displaying any dissociative sign.
Among university students satisfying the criteria of borderline
personality disorder, the total CTQ score was found to be 40.6
for individuals co-diagnosed with dissociative disorder, com-
pared to 37.1 for the others. In university students who do not
display any of these disorders, the average was found to be
32.9. On the other hand, for a Dutch population, the correspond-
ing average was found to be 50.9 for the clinical group and 23.5
for the non-clinical group. For a university student population in
North America, the average was found to be 36.8-37.8 for fe-
nale and 35.4-37.9 for male students while it was found to be
32.1 for female and 34.5 for male university students in Turkey.
The study by Sar et al. reveals a score of 61.3 in the dissociative
disorder group, 44.3 in family members, and 36.1 in the non-
clinical group [9]. Furthermore, the average score was found to
be 62.4 in a study by Zeren et al., 64.2 in a study by Aslan and
Alparslan, 71.5 in a study by Ozan et al., and 100.6 in a study
by Bostanci et al. [16]. The average score of 35.8 yielded by our
study was consistent with the non-clinical group. Correlation
between “the total scores of childhood traumas with positive
feedback” and “anxiety and depression inventories with positive
feedback” was interpreted to suggest unfavourable conditions
and problems related to the childhood abuse experiences.

Regarding possible limitations of these studies, it should first
be noted that the sample sizes of the study referenced in this
article were medium. Our research group consisted solely of
midwifery students, but this group may not be generalizable
to the overall adolescent population. Also, our study was cross-
sectional research, which does not permit assessment of tem-
poral and thus potentially causal relations. However, this was
the first research exploring the childhood traumas of Mardin
city’s female adolescents and any corresponding illness with
anxiety and depression. Secondly, the outcomes reported were
largely based on self-report symptomatology instead of clinical
interview diagnosis and retrospective assessment. At the end
of the study, it was considered that face-to-face contact would
be more effective. However, it was found that items in the ques-
tionnaire revealed secret conditions that would not likely have
been disclosed by the victims in a face-to-face situation. It was
further found that studies conducted without asking the iden-
tity of the subjects to detect past trauma in detail can turn out
to be more effective because the subjects are more comfortable with disclosure. Although there is no one-to-one question about sexual assault, five students wrote about their sexual assault events. In fact, childhood traumas, including psychological traumas, are still being ignored in our country. For this reason, training and seminars should be planned. Children and adolescents need to have their rights explained to them.

Studies have shown that each gender and age group of society is exposed to risk of violence, although the type, frequency, and severity of the risk varies. Besides resulting in physical injuries, violence against children also harms their cognitive, behavioural, social, and emotional functions [27]. Violence and its associated factors are complex and multidimensional. The Childhood Trauma Questionnaire employed in the present study has been found to be significant for its capability to reveal such violence. The high associated scores of anxiety and depression indicate that childhood violence is a public health issue that may be accompanied by potential pathologies. In our study, childhood traumas provided a basis for depression and anxiety disorders in adulthood. Childhood psychological traumas, particularly emotional abuse, may lead to the development of dysfunctional attitudes, causing individuals to be prone to depression and anxiety. Emotional abuse, one of the most common traumas in childhood, is a type of trauma that should not be ignored and that should be handled properly in clinical practice.

This idea is supported by these results; a growing body of evidence suggests that the developing brain organizes in response to the pattern, intensity, and nature of sensory, perceptual, and affective experience of events during childhood. Threat activates the brain's stress-response neurobiology. This activation, in turn, can affect the development of the brain. These results could indicate that previously-experienced emotional and physical traumas can lead to later symptoms of anxiety and depression. In fact, these pathological conditions can be viewed as an expected result of the trauma, because the developing brain is exquisitely sensitive to stress [28]. In this respect, it may be argued that the adverse behaviours occurring within the family may lead to adverse impacts on all family members; however, children and women are particularly vulnerable. In cases diagnosed with depressive disorder and anxiety, it is appropriate to examine the familial and social relationships as well. If we want individuals and society to be healthy, we have to protect our own and our children's psychological health. All of the effects of early traumas may not appear immediately, but they are likely to arise in the future. We see the results of physical traumas on our bodies, but what about our breakable souls? And, ultimately, which are the more damaging traumas?

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Competing interests
The authors declare that they have no competing interests.

References
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