

ORIGINAL ARTICLE

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Evaluation of the psychiatric examination findings of victims decided to have sexual abuse occurred as a result of trial**✉Ferhan Kandemir¹, ✉Bora Buken², ✉Zerrin Erkol³, ✉Erhan Buken⁴**¹Ministry of Justice, Forensic Medicine Institute, Kutahya Forensic Medicine Branch Office, Kutahya, Turkey²Düzce University, Faculty of Medicine, Department of Forensic Medicine, Düzce, Turkey³Bolu Abant İzzet Baysal University, Faculty of Medicine, Department of Forensic Medicine, Bolu, Turkey⁴Baskent University, Faculty of Medicine, Department of Forensic Medicine, Ankara, Turkey

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Abstract

In the study; it is aimed to examine the personal, environmental, and incident factors that may affect the mental health of the victims of sexual abuse and to discuss the data in the light of the literature. Total 449 (8.7%) cases that were sent with a history of sexual abuse in 5157 cases, which were reported between 2005 and 2012 in the Department of Forensic Medicine, Faculty of Medicine, Düzce University, were examined. Among these cases, 68 (15.1%) cases, which were judged to have committed sexual abuse, were included in the study. Of the cases, 44 (64.7%) were female and 24 (35.3%) were male. In their second mental examination, which was made six months after the date of the incident; there were no psychiatric pictures in 43 (63.2%) cases, Post Traumatic Stress Disorder (PTSD) in 14 (20.6%) cases, depression in three (4.4%) cases, PTSD in three (4.4%) cases, and depression, anxiety disorder in one (1.5%) case, depression, and anxiety disorder in one (1.5%) case. Three (4.4%) cases were referred to another center without a diagnosis. The risk of being affected of mental health in the late period was found increased by 11.32 times in the cases which have psychiatric findings during the first examination, by 12.52 times if the action took place in the form of anal penetration, by 6.9 times if deprived of liberty and by 15.88 times if the attacker was a foreigner. Long-term follow-up of victims of sexual abuse by the psychiatry clinic is important in terms of continuing their normal social life as healthy individuals.

Keywords: Sexual abuse, early psychiatric effects of sexual abuse, late psychiatric effects of sexual abuse, Turkish penal code**Introduction**

Sexual crimes are among social problems that affect not only the victims but also their relatives and the whole society posing a risk for people of all ages. Unfortunately, sexual crime incidents are increasing rapidly in recent years, however, most of them are thought to be concealed, and overlooked. It is known that many physical and mental symptoms and sequelae appear in victims of sexual assault which can affect their lives [1]. In the Turkish Penal Code (TPC), which came into force in 2005, the need to evaluate the mental state in cases of sexual crime was also considered. Therefore, in the fifth paragraph of article 102 and the sixth paragraph of article 103 of the TPC, it is envisaged to increase the punishment in case of “deterioration of physical and mental health” as a result of sexual crime [2]. However, in practice,

there were difficulties due to the lack of a consensus about the conditions that impair physical and mental health [3]. With the Law No. 6545 dated 18.06.2014, which came into force after its publication in the Official Gazette dated 28.06.2014 and numbered 29044, the concept of the deterioration of physical and mental health in the previous version of the law was completely abolished [4]. While the first version of the law was still in force, the cases had then generally undergone mental examination both after the event and six months after the incident. After this specified legal regulation, the tendency to conduct a psychiatric examination usually disappeared or the psychiatric examination started once after the incident. The recall application six months after the incident for psychiatric examination has ended. Therefore, the possibility of detecting psychopathological findings and signs of sexually transmitted diseases due to sexual abuse at an early stage and/or long term has been eliminated.

In the present study, we aimed to analyze the finalized verdicts issued by the judicial authorities related to victims subjected to sexual abuse and to evaluate the personal, environmental and event-related factors that may affect the mental health of the victim

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and to discuss the relevant data in the light of the literature.

Material and Methods

For this purpose, 5157 cases sent by the public prosecutors and courts to Düzce University Faculty of Medicine Department of Forensic Medicine between June 01, 2005, and June 01, 2012, were examined retrospectively. Among 449 (8.7%) cases who were sent within the context of crimes committed against sexual immunity, the patients who had undergone psychiatric examinations both in the acute period after sexual abuse and at least six months after the event date in the Departments of Forensic Medicine and Psychiatry which also expressed their opinions about these cases were detected. Among these cases, 68 (15.1%) sexual abuse victims whose aggrievement was proved based on the verdict issued by Düzce Assize Court and Criminal Courts of First Instance were included in the study. For the study; Board approval was received from the "Non-Invasive Clinical Research Ethics Committee" of Düzce University Faculty of Medicine, dated 12/14/2012 and numbered 2012/333.

Gender, age of the victim at the date of the incident, the number of incidents of sexual abuse exposed by the victim, educational status of the victim, the first mental examination findings of the victim after the incident, and at least six months after the incident, the victim's mental health affected by the act of sexual abuse in the long term, and its effect on his/her school success, the income level of the victim or his/her family, the marital status of victims' parents, victim's intelligence level, the presence of penetration, the place of the incident, whether the act of deprivation of liberty is accompanied to abuse, the number of perpetrators, proximity of the perpetrator(s) to the victim, etc. were defined as independent variables of our study.

The psychiatric examinations of the cases that were subjected to multiple sexual assaults were made six months after the last event date.

Statistical analyzes were carried out with PASW 18 and SPSS 17 programs. Descriptive statistics (mean, standard deviation, median, minimum, maximum, percentage values) of all data in the study were recorded. In comparing categorical variables, correlations between data were investigated using the chi-square test, Fisher's Exact test, Likelihood Ratio test, McNemar test, and PABAK. Binary Logistic Regression analysis was performed to determine the risk factors affecting mental health. $P < 0.05$ was considered as the level of statistical significance.

The data of the study were used in the specialty thesis of research assistant Ferhan Kandemir MD who received his specialty training in the Department of Forensic Medicine of Duzce University Faculty of Medicine.

Results

In our study, 44 (64.7%) cases were female and 24 (35.3%) cases were male.

The mean (\pm SD) age of the cases was 14.60 ± 4.2 (min:7, max:37, median:14.5) years. The mean (\pm SD) ages of female, and male cases were 15.65 ± 4.2 (min:7, max:37, median:15), and 12.41 ± 3.07

(min:8, max:19, median:11) years, respectively. When the cases were classified according to age groups; the respective number of cases in age groups were as follows: 0-12 (n=18: 26.5%), 13-15 (n=26: 38.2%), 16-18 (n=18: 26.5%), and ≥ 19 years (n=6: 8.8%).

Thirty-five cases (51.5%) were found to be exposed to sexual assaults more than once at different times. Considering the age limit in terms of giving consent to sexual activity in Turkish Penal Code, when the cases were classified as those with < 15 , and ≥ 15 years of age, it was determined that 24 (54.5%) female and 20 (83.3%) male cases were < 15 years old. A difference was observed between the age groups in terms of genders ($\chi^2=5.635$ df=1 $p=0.018$) which was due to the greater number of male patients aged < 15 years. This difference was because 13 (72.2%) of 18 cases in the 0-12 age group were male. There was no significant difference between the genders in terms of deterioration of mental health ($\chi^2=0.761$ df=1 $p=0.383$) (Table 1).

All our cases were of school age or above. It was found that a 17-year-old and moderate mentally retarded girl (1.5%) never went to school and was illiterate. The cases were primary (five years) school (n=25, 36.8%), middle (eight years) school (n=26, 38.2%), high school (n=13, 19.1%), university graduates (n=2: 2.9%), while one (1.5%) case was a university student.

In the first mental examination of the cases performed after the event, any psychiatric disorder was not found in 37 (54.4%) cases, while acute stress disorder (ASD) (n=12, 17.6%), depression (n=10, 14.7%), post-traumatic stress disorder (PTSD) (n=3, 4.4%), anxiety disorder (n=2, 2.9%), adjustment disorder (n=2, 2.9%), depression and anxiety disorder (n=1, 1.5%) were detected in respective number of cases. One (1.5%) case could not be diagnosed and transferred to another center.

In the second mental health examination of the cases performed six months after the date of the incident; any psychiatric disorder could not be detected in 43 (63.2%) cases, while PTSD (n=14, 20.6%), depression (n=3, 4.4%), PTSD and depression (n=3, 4.4%), anxiety disorder (n=1, 1%), depression and anxiety disorder (n=1, 1.5%) were detected in a respective number of cases, and 3 (4.4%) cases were referred to another center without the establishment of the diagnosis. The difference between the number of patients who could and could not receive a psychiatric diagnosis in the first and second examination was not significant ($p=0.167$).

Six months after the date of the incident a second examination performed in 37 (8.1%) cases who had not any detectable psychiatric disorder in their first examination revealed the presence of PTSD in 3 (8.1%), depression in 1 (2.7%), PTSD and depression in 1 (2.7%) case. PTSD (n=5), while depression (n=2) was detected in the second examination of 12 cases whose first examination demonstrated the presence of ASD. PTSD persisted in the second examination of 2 of 3 patients diagnosed as PTSD in the first examination. Ten cases with depression diagnosed during the first examination were found to have PTSD (n=2), anxiety disorder, (n=1), PTSD, and depression (n=1) in the second examination. One of the two cases with anxiety disorder detected at the first examination was found to have PTSD and depression in the second examination. In the second examination, depression was detected in one of two cases with adjustment disorder diagnosed in the first examination. PTSD was detected in the

second examination of one case who was referred to us without the establishment of diagnosis in the first examination. In the second examination of other cases, a psychopathological disorder that met the international diagnostic criteria was not found.

Therefore, in the examination of 21 cases performed six months after the incident, PTSD was detected in 13 (19.1%), depression in 4 (5.9%), PTSD and depression in 3 (4.4%), and anxiety disorder in one (1.5%) cases, and accordingly we concluded that their mental health was affected by sexual abuse in the long term.

The mental health of the victims was affected by sexual abuse in

12 (27.3%) of 44 females and 9 (37.5%) of 24 male cases in the long term. Any statistically significant difference was not detected between genders in terms of deterioration of mental health ($\chi^2=0.761$ df=1 $p=0.383$).

Information about school success of a total of 26 cases could be obtained. Among the mental health of 12 (46.2%) cases were affected by sexual abuse, and eight (66.7%) of mentally affected cases had a decrease in school success. A significant difference was found between the cases whose mental health was and was not affected in terms of a decrease in school success ($\chi^2=7.490$ df=1 $p=0.006$) (Table 1).

Table 1. Factors affecting the mental health of cases

| | | Mental Health | | | | X2 | df | p |
|---|--------------------|---------------|------|--------------|------|-------|----|-------|
| | | Affected | | Not Affected | | | | |
| | | n | % | n | % | | | |
| Gender | Female | 12 | 27.3 | 32 | 72.7 | 0.761 | 1 | 0.383 |
| | Male | 9 | 37.5 | 15 | 62.5 | | | |
| Age | Under 15 | 13 | 29.5 | 31 | 70.5 | 0.104 | 1 | 0.747 |
| | 15 years and older | 8 | 33.3 | 16 | 66.7 | | | |
| Income rate (According to minimum wage) | Under | 13 | 61.9 | 32 | 68.1 | 0.248 | 1 | 0.619 |
| | Up to | 8 | 38.1 | 15 | 31.9 | | | |
| Parent relationship | Married | 17 | 35.4 | 31 | 64.6 | 1.572 | 1 | 0.210 |
| | Other | 4 | 20.0 | 16 | 80.0 | | | |
| Penetration | Vaginal | 5 | 22.7 | 17 | 77.3 | 1.013 | 1 | 0.314 |
| | Other | 16 | 34.8 | 30 | 65.2 | | | |
| Number of sexual abuse | One time | 12 | 37.5 | 20 | 62.5 | 1.240 | 1 | 0.265 |
| | Multiple times | 9 | 25.0 | 27 | 75.0 | | | |
| Number of attackers | One person | 16 | 28.6 | 40 | 71.4 | 0.794 | 1 | 0.373 |
| | Two or more | 5 | 41.7 | 7 | 58.3 | | | |
| Previous history of sexual abuse | Positive | 1 | 11.1 | 8 | 88.9 | 1.900 | 1 | 0.168 |
| | Negative | 20 | 33.9 | 39 | 66.1 | | | |
| Mental Retardation | Positive | 4 | 33.3 | 8 | 66.7 | 0.041 | 1 | 0.840 |
| | Negative | 17 | 30.4 | 39 | 69.6 | | | |
| Getting additional opinions from other institutions | Positive | 16 | 47.1 | 18 | 52.9 | 8.336 | 1 | 0.004 |
| | Negative | 5 | 14.7 | 29 | 85.3 | | | |

Income levels of 45 (66.2%) cases or their families were below the minimum wage. It was determined that income levels did not affect mental health impairment ($\chi^2=0.246$ df=1 $p=0.619$) (Table 1).

The mental health of 17 (35.4%) of 48 cases whose parents were alive, and married at the time of the incident, and four (20.0%) of 20 cases whose parents were separated or died were negatively affected. The marital status of the parents or their being alive did not affect the mental health state of the cases ($\chi^2=1.572$ df=1 $p=0.210$).

Moderately (n=2, 2.9%), and mildly (n=10, 14.7%) deteriorated mental retardation was detected in a total of 12 (17.6%) cases. Four (33.3%) cases with mild mental retardation were affected by the sexual abuse they suffered, and there was no statistically significant difference between the presence or absence of mental retardation in the victim and its effect on mental health ($\chi^2=0.041$ df=1 $p=0.840$).

Sexual abuse was accompanied by penetration in 43 (63.2%) cases. It was found that the sexual act performed as a penetration did not make a significant difference in terms of deterioration

of mental health ($\chi^2=0.877$ $df=1$ $p=0.349$). Mental health was deteriorated in 5 (23.8%) of 22 (32.4%) cases with a history of vaginal penetration, and 12 (44.4%) of 27 (39.7%) cases with a history of anal penetration. Any statistically significant difference was not seen between mental health deterioration and the sexual act committed through vaginal penetration or not ($\chi^2=1.013$ $df=1$ $p=0.314$). Whereas a statistically significant difference was detected between mental health deterioration and absence or presence of anal penetration during the sexual act ($p=0.049$).

Sexual assaults were committed in the house of the defendant ($n=17$, 25%), out in the open ($n=15$, 22.1%), in the workplace of the defendant ($n=13$, 19.1%), in the house of the friend or acquaintance of the defendant ($n= 8$, 11.8%), at the victim’s home ($n=4$, 5.9%), in the vehicle ($n=3$, 4.4%) in the construction building ($n=2$), in the vehicle and the open area ($n=2$), at the married couple’s own home ($n=2$), in the orphanage ($n=1$), and at the schoolyard ($n=1$).

Five of the nine cases (55.6%) who were exposed to the act of deprivation of liberty in addition to the act of sexual abuse were found to be affected by mental health. In the first examinations of these cases, ASD ($n=3$), depression ($n=1$), adjustment disorder ($n=1$), and mental retardation ($n=3$) were detected in the indicated number of patients. In four of the cases, the offender was the lover of the victim, and in the other five cases, the offender was the person known by the victim.

Sexual assaults were committed by a total of 92 aggressors in 68 cases. Sexual assaults were committed by one ($n=55$, 80.9%), two ($n=9$,13.2%), three ($n=2$, 2.9%), five ($n=1$), and eight ($n=1$)

aggressors in respective number of cases. Eighty-four (91.3%) aggressors were the people known by the victim including spouses ($n=2$, 2.2%), lovers ($n=19$, 20.7%), friends ($n=19$, 20.7%), relatives ($n=4$, 4.3%), step father ($n=1$, 1.1%), while others were also identified by the victim in different ways.

It was determined that the mental health of the victim was affected due to sexual abuse committed by 23 (27.4%) aggressors, and five (62.5%) of the eight cases with deteriorated mental health stated that they did not know the perpetrator before. It was determined that the aggressor’s being a recognized or unrecognized person made a significant difference in terms of deterioration of mental health ($\chi^2=4.255$ $df=1$ $p=0.039$).

The Binary Logistic Regression model formulated to determine the risk factors affecting mental health was found to be significant ($\chi^2=25.58$ $p<0.001$). The risk of being affected by the mental health of the cases with psychiatric findings in the first examination, increased by 11.32 times compared to the cases without psychiatric findings in the first examination. It was determined that the sexual acts performed in the form of anal penetration increased the risk of mental health deterioration by 12.52 times compared to the sexual acts performed in other ways ($p=0.003$).

It was found that deprivation of liberty accompanied to the sexual abuse incident increased the risk of mental health deterioration by 6.92 times ($p=0.05$). It was revealed that when compared with an acquainted attacker, an unknown aggressor increased the risk of mental health deterioration by 15.88 times ($p=0.027$) (Table 2).

Table 2. Factors affecting mental health and model analysis (It was determined that the factors not mentioned in the table had no significant effect)

| | Regression Coefficient (B) | SD | ald | p | Odds Ratio (OR) | OR's 95.0% Confidence Interval |
|---|----------------------------|-------|------|------|-----------------|--------------------------------|
| | | | | | | Lower Limit |
| Step 1a Psychiatric Finding in First Examination Availability (PFFEA) | 2.426 | .768 | .980 | .002 | 11.317 | 2.512 |
| Anal Penetration Availability (APA) | 2.528 | .839 | .086 | .003 | 12.523 | 2.421 |
| Deprivation of Freedom (DF) | 1.935 | .988 | .836 | .050 | 6.924 | .999 |
| Attacker Recognition Status (ARS) | 2.765 | 1.247 | .915 | .027 | 15.879 | 1.378 |
| Constant | 1.112 | .758 | .153 | .142 | 3.041 | |

The general significance of the model $p<0,001$
Model $L=1,112+2,426xPFFEA+2,528xAPA+1,935xDF+2,765xARS$
Probability value $p=1/1+$

Discussion

It has been stated that girls and women are more frequently exposed to sexual violence [5-6]. Indeed 64.7% of our cases were female victims. It has been reported that men are exposed to sexual abuse, especially at a younger age [7]. In our study, there was a difference between genders according to age groups (Table 1) and the fact that the difference was due to the high number of male cases in the 0-12 age group supports this view.

Trauma-related impact on the mental health of the victims has

been reported to be more severely felt by women in some, and by men in some other studies. While according to some studies there is no difference in terms of its effect on mental health between men and women [5, 6, 8-9]. Our study supports the view that gender does not affect mental health deterioration due to trauma ($p=0.383$) (Table 1).

In some studies, it was stated that age does not affect stress, while in others it is stated that depression is more common in the elderly, and PTSD and depression are more common in young people [10,11]. Our study supports the view that age groups do not affect

mental health deterioration ($p=0.230$).

It has been reported that low socioeconomic level is an important risk factor for being a victim of sexual crime and increases the risk of long-term sequelae after trauma [3,12]. In our study, any significant difference was not found between the family income level being below the minimum wage and the deterioration of mental health (Table 1).

In the study of Çaylı, it was stated that the number of victims of sexual abuse decreased as the level of education increased [8]. The fact that 66.6% of our cases did not attend school after compulsory education supports the assertion that the probability of sexual abuse increases in those with low education levels.

In studies conducted, it has been stated that the prevalence of mental retardation is seen in 1% of the general population and it is observed twice as much in boys as in girls [13]. In the literature, it has been reported that mentally retarded individuals are exposed to sexual abuse 4 to 10 times more than the general population, and the rates of reporting mentally retarded victims of sexual abuse to legal are at very low levels [14,15]. These victims are thought to fail in perceiving and reporting sexual abuse [14,15]. It is thought that the presence of mental retardation in 17.6% of our cases supports the view that the rate of exposure to sexual abuse is higher in cases with mental retardation. As the severity of mental retardation increases, it becomes more difficult to evaluate other mental pathologies that occur in the person, and the mental disorders previously present in the victim also affect the development of PTSD. While it is known that those with moderate mental retardation may not experience mental trauma due to their inability to perceive and evaluate sexual abuse, it is not understood whether or not psychopathologic disorder related to sexual abuse occurs due to severely limited perception and evaluation of the sexual abuse by cases with severe mental retardation [16]. In a study conducted at Mersin University, four of seven cases with mild mental retardation who were exposed to sexual abuse had suffered from a psychopathologic disorder related to the event, while in all three cases with moderate mental retardation any psychopathologic disorder was not detected. Whether or not any psychopathologic disorder developed in two cases with severe mental retardation could not be determined [16]. In our study, it was found that the mental health of three of the cases with mild mental retardation was impaired, and one of the two cases with moderate mental retardation was diagnosed with PTSD. While in the third case, there were no symptoms other than various phobias and overeating complaints. Although the number of cases is not sufficient, following the literature it is thought that some cases with moderate mental retardation may fail to perceive and evaluate the effects of sexual abuse. Since we did not have a case with severe mental retardation, we could not make evaluations in terms of mental retardation present at this level.

According to Article 109/5 of the TPC when the crime of deprivation of liberty is committed for sexual purposes, the penalty to be imposed on the perpetrator is increased by half [17]. If the perpetrator also carries out the acts specified under Article 103 of the TPC against the victim who was deprived of his/her liberty for sexual purposes, it is necessary to punish the perpetrator according to the Articles 109/5 and 103 of TPC, since only the motive in the perpetrator is taken into account in the Article 109/5. On the other

hand, it has been stated whether or not the offender committed a sexual act does not affect the verdict. [17]. In the regression analysis (Table 2), it was found that deprivation of liberty played an important role in affecting the mental health of our cases, and in cases deprived of their freedom independently from sexual activity, mental health was affected seven times more frequently than others. In our cases, it is considered that deprivation of liberty affects mental health as a part of sexual activity, but deprivation of liberty without any sexual activity is thought to affect the deterioration of mental health. It is medically known that in cases with active sexual life and who are part of sexual action voluntarily, the deprivation of liberty, regardless of the act of sexual abuse, may affect the mental health of the victim; It is thought that the physician should carefully establish the causal relationship and define the contribution of both conditions to the impact of mental health of the individual.

The relationship between child sexual abuse and victims' mental health is increasingly being proven [18]. It has been reported that individuals who were exposed to sexual abuse as a child, experience a greater number of sexual assaults in adult ages [19]. In our study, 12 (17.64%) cases stated that they had been subjected to sexual assaults other than the sexual act that was the subject of the court. Nine (13.2%) cases stated that the specified sexual act was forcibly committed. It has been determined that other cases were voluntarily engaged in sexual activities when they were under 15 years of age. It has been reported that women who have been sexually abused in their childhood may change more partners and be exposed to a greater number of sexual assaults than women who have not been sexually abused before [20]. Our data support the view that having been previously engaged in sexual activity increases the likelihood of being the subject of sexual acts performed by different people.

Provided that it is not related to the case in dispute, a significant relationship has been indicated between being exposed to sexual assault previously and worsening of mental health [21]. In our study, it was found that there was no significant difference between being previously exposed involuntarily to sexual action not related to the subject of the court, and deterioration of mental health ($p=0.168$).

In studies, it has been reported that the mental health of the victims who were exposed to a sexual act committed through penetration, was more severely affected [22]. Baytunca et al. evaluated a total of 181 Turkish children and adolescents with a history of childhood sexual abuse. They found that suicide attempts were significantly higher in adolescent girl victims who exposed to penetration [23]. Leserman reviewed a wide literature on the topic of sexual abuse. She demonstrated that the sexual abuse involving penetration and multiple incidents appear to be the most harmful psychologically [24]. However, in Çaylı's study, it has been stated that the presence or absence of penetration did not affect the mental health of the victim [21]. In our study, there was no statistically significant difference between whether there was penetration or whether penetration was vaginally in the claimed sexual act and whether mental health was affected ($p=0.349$). On the other hand, a significant difference was detected between the presence or absence of anal penetration and deterioration of mental health ($p=0.049$). In the regression analysis, it was determined that anal

penetration increased the probability of mental health deterioration by 12.52 times when compared with other types of sexual acts ($p=0.003$). It is thought that the banning of anal intercourse in Islamic law may affect this situation [25].

In a study, it was reported that 28.2% of men and 29.8% of women who were sexually assaulted had experienced PTSD at some time in their lives, and this rate was 5.4% for men, and 7.1% for women who had not a history of sexual assault [26]. Güven et al. investigated the characteristics of children exposed to sexual abuse retrospectively. The authors described hopelessness despair (46.5%), fear of reoccurrence of the incident (52.8%), distrust of others (36.8%), difficulty sleeping (32.7%), negative expectations about the future (32.1%), and self-blame (31.1%) in child victims [27]. In a study, Morais et al. examined the effects of childhood sexual abuse on 498 male adolescents. Results indicated that participants with a history of childhood sexual abuse were more likely to be diagnosed with major depression and PTSD than those who did not report a history of childhood sexual abuse [28]. In our study, PTSD has detected in 17 (25%) cases alone or with depression in their second examination. It was stated that 80% of people with PTSD developed another mental illness in the long term and depression was seen as a comorbidity in 26-52% of cases with PTSD [29,30]. It has been reported that children exposed to sexual abuse have an increased risk of depression and that these children have lower self-esteem and negative thoughts about their future [31]. In the second examination of three cases in our study, depression was accompanied by the diagnosis of PTSD. However, it should not be forgotten that depression may have been caused by social events such as social pressures, forced marriage, and other external factors such as financial problems, marital problems, and the causal pattern of depression should be carefully established.

In most cases of child sexual abuse, the offender is recognized by the victim [32]. In some of the studies performed, it has been reported that the aggressor's being a foreigner does not cause any difference in terms of rape-related mental findings, and in others increases in the frequency of PTSD and depression [21,33-36]. In our study, it was found that the mental health of the victims was affected as a result of sexual assault performed by 23 (27.4%) of 92 perpetrators. Besides alien offenders affected mental health more significantly ($p=0.039$ $n=92$) and increased the risk of mental health deterioration by 15.88 times ($p=0.027$).

The subject of "The deterioration of mental health due to sexual abuse" in TPC has been discussed extensively with its entry into force in 2005, by the specialists of the relevant fields. According to the amendment of the Article 2547 of TPC in 2005; in the case of reporting impairment in victim's mental health, it was seen that the lower limit of imprisonment for simple sexual abuse subjected to children was increased from 3 to 15 years, while the term of imprisonment was increased from 2 up to 10 years if this sexual assault was directed to adults. Therefore, discussions have started indicating that the mental health deterioration report can be used as a criterion to increase the punishment a little but increasing the lower limit of the punishment greatly with this psychiatric report is not fair from a legal point of view. Opinions have been put forward by the members of the medical and legal professions that the concept of mental health deterioration should be abolished. Despite the concept of "mental health deterioration" in which

severe punishments are envisaged, it was seen that different reports could be given by different physicians or institutions about the same case due to the lack of a common opinion about which psychiatric entities in the medical community to be evaluated as a condition that impairs mental health. Therefore, a standard practice could not be ensured throughout our country.

As a result of these discussions, as per Law No. 6545 dated 18.06.2014, which came into force after being published in the Official Gazette dated 28.06.2014 and numbered 29044, the concept of mental health deterioration in the previous version of the law was completely abolished.

The traumatic stress phenomenon has been tried to be explained with many physiological and biological models [37-40]. In our cases, it is observed that psychiatric diagnosis at the first examination, sexual intercourse committed through anal penetration, accompaniment by deprivation of liberty, and victim's recognition of the offender are effective on mental health deterioration as a result of sexual activity. It is seen that other factors in the occurrence of sexual abuse do not have a statistically significant effect on whether mental health is affected or not.

These findings show that the personal characteristics, the social environment of the victim, and its effects are effective factors in the deterioration of the mental health of the victim, and the mental responses of different people to similar actions may have different characteristics.

On the other hand, in six of 37 (54.4%) cases who did not demonstrate any psychiatric findings that would meet the diagnostic criteria in the early period, severe psychiatric findings were found to show that mental health was affected in the late period. This situation is thought to support the view that mental symptoms may occur in the late period after sexual assault.

It has been observed that after removal of the concept of mental health impairment in articles 102 and 103 of the TPC, the judicial authorities did not send the victim to the psychiatrist unless the battering action is not accompanied to the event or there is a situation requiring psychiatric examination such as suspicion of mental retardation. Therefore, it is seen that there is a serious decrease in the rate of referring victims to psychiatric examination after the legal arrangement, which obviates both the possibility of victims receiving psychiatric help at an early stage, as well as the possibility of identifying and treating the psychiatric symptoms that arise in the long term.

In our study; it has been determined that the aggressor's being a foreigner, being deprived of liberty in addition to sexual abuse action, presence of anal penetration affect the mental health of the victim.

However, in those who are exposed to acts of sexual abuse; It was determined that there was no statistically significant difference between the gender, age (<15 or ≥ 15 years), educational status of the victim, type of sexual assaults (penetration or simple sexual abuse), exposure of the victim to other sexual act(s) unrelated to the event at different times, and mental health impairment.

Whether or not mental health is affected by sexual abuse is a

phenomenon that occurs independently from socio-demographic, and personal characteristics and types of sexual abuse, and it is not possible to define an absolute causative factor that seems to affect mental health. Sending victims of sexual abuse to a psychiatric examination immediately after the incident, identifying mental symptoms that may occur in the late period by following the victim regularly, carrying out treatments for this, are of great importance for victims to continue their normal social life as healthy individuals.

Also, it is thought that it will be appropriate to provide the examination of the cases after the incubation period is completed in terms of sexually transmitted diseases and to monitor these cases to prevent juvenile pregnancy and complications.

Conflict of interests

We declare that we have no conflict of interest.

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Ethical approval

Board approval was received from the "Non-Invasive Clinical Research Ethics Committee" of Düzce University Faculty of Medicine, dated 12/14/2012 and numbered 2012/333.

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