

Research Article

Feelings of guilt, shame, and forgiveness of the detainees and convicts in a psychiatric prisoner's service

Bir psikiyatri mahkum servisinde bulunan tutuklu ve hükümlülerin suçluluk, utanç ve affetme duyguları

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Abstract

Introduction: In the present study, the purpose was to examine whether there is a difference in the feelings of guilt, shame, and forgiveness in prisoners who committed one or more crimes. Also, the relationship between the number of crimes involved, the diagnosis of existing or past psychiatric diseases, and demographic data was examined.

Methods: This cross-sectional study was conducted with 107 inpatients in the prisoner's ward. The demographic data forms Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Guilt and Shame Scale (GSS), and Heartland Forgiveness Scale (HFS) were administered in the study.

Results: A total of 107 people (51 people involved in one single crime and 56 people involved in more than one crime) were included in the study. The education level was lower in many crimes than in a single crime ($p=0.032$). Although the diagnosis of mood disorder was higher in the group that was involved in one single crime (36.6%), the diagnosis of antisocial personality disorder was higher in the group that was involved in multiple crimes (41.9%). No differences were detected between the groups in terms of BAI ($p=0.903$) and BDI ($p=0.557$) scores. No differences were detected between the groups in terms of GSS (guilt and shame) and HFS scores (p values of 0.745 and 0.676, respectively). A positive correlation was detected between the BDI and BAI of all prisoners and the HFS-forgiveness subscale. A positive correlation was detected between the GSS-guilt and shame subscales and all subscales and the total score of HFS.

Conclusion: The study showed that anxiety and depression are more common in individuals who were exposed to violence in childhood. It was considered that identifying the prisoners who were involved in the crime for the first time and who felt remorseful and guilty could prevent further crimes. Finally, it is considered that the rate of crime can be reduced by preventing childhood violence and providing psychiatric support to individuals with psychiatric symptoms in order to raise individuals who are mentally healthy and have a low tendency to harm.

Keywords: prisoner, guilt, regret, psychiatry

Öz

Giriş: Çalışmamızda; bir ve birden fazla suç işlemiş mahkumlarda suçluluk, utanç ve affetme duygularında bir farklılık olup olmadığını incelemek amaçlanmıştır. Ek olarak karışılan suç sayısı, var olan ya da geçmişte olan psikiyatrik hastalık tanısı ve demografik verilerinde ilişkisi incelenecektir.

Yöntem: Kesitsel çalışma mahkum servisinde yatarak tedavi gören 107 kişi ile yürütülmüştür. Tüm katılımcılara demografik veri formu, Beck Depresyon Ölçeği (BDÖ), Beck Anksiyete Ölçeği (BAÖ), Suçluluk ve Utanç Ölçeği (SUÖ) ve Heartland Affetme Ölçeği (HAÖ) uygulanmıştır.

Bulgular: Çalışmaya 107 kişi (tek suça karışan 51, birden fazla suça karışan 56 kişi) dahil edilmiştir. Çok suça karışanlarda öğrenim düzeyi tek suça karışanlara göre daha düşüktü ($p=0,032$). Tek suça karışan grupta duygudurum bozukluğu tanısı fazla iken (%36,6), çoklu suça karışan grupta antisosyal kişilik bozukluğu tanısı (%41,9) fazla saptanmıştır. Uygulanan ölçekler açısından gruplar arasında farklılık saptanmadı ($p>0,05$). Gruplar arasında BAÖ ($p=0,903$) ve BDÖ ($p=0,557$) skorları açısından anlamlı bir fark saptanmadı. SUÖ (suçluluk, utanç) ve HAÖ skorları açısından gruplar arasında farklılık saptanmadı (sırasıyla p değerleri; $p=0,745$, $p=0,676$). Tüm mahkumların BDÖ ve BAÖ ile HAÖ-başkalarını affetme alt ölçeği arasında pozitif korelasyon saptanmıştır. SUÖ-suçluluk ve utanç alt ölçekleri ile HAÖ'nun tüm alt ölçekleri ve total skoru arasında pozitif korelasyon saptanmıştır.

Sonuç: Çocukluk çağında şiddete maruz kalmış olan bireylerde anksiyete ve depresyon düzeyleri daha yüksekti. İlk defa suça karışmış ve pişman olup suçluluk hisseden mahkumların tespit edilmesinin ilerleyen suçları engelleyebileceği düşünülmüştür. Son olarak ruhsal yönden sağlıklı, zarar verme eğilimi az bireylerin yetişmesi için çocukluk dönemi yaşanan şiddetin önlenmesi ve psikiyatrik semptomları olan bireylere verilecek psikiyatrik destekle suç işleme oranının azaltılabileceği düşünülmektedir.

Anahtar kelimeler: mahkum, suçluluk, pişmanlık, psikiyatri.

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Key Points

1. The diagnosis of mood disorder was higher in the group that was involved in one single crime; the diagnosis of antisocial personality disorder was higher in the group that was involved in multiple crimes.
2. It was considered that identifying the prisoners who were involved in the crime for the first time and who felt remorseful and guilty could prevent further crimes.
3. It is considered that the rate of crime can be reduced by preventing childhood violence and providing psychiatric support to individuals with psychiatric symptoms in order to raise individuals who are mentally healthy and have a low tendency to harm.

Introduction

Crime and criminal sanction in return for crime are as old as human history. Although many disciplines investigate the concept of crime, it is part of the justice system. Actions that are contrary to the rules of society and are accepted as unfair within the framework of society and its rules are accepted as crimes. In short, behaviors that are prohibited and punishable when they occur are acts defined as crimes [1]. Punishment, on the other hand, refers to sanctions aimed at intimidating or deterring the person who commits the crime in exchange for a criminal act. Punishment is defined as sanctions against guilty individuals or those at fault according to the law [1, 2]. The punishment methods applied for crimes committed throughout history vary. In our present day, imposing prison sentences on criminals is the most frequently used method of punishment [1, 2].

Current psychiatric approaches focus on the relationship between feelings such as guilt, shame, and forgiveness and delinquency. Guilt is a feeling that a person feels as a result of attributing bad feelings and harm to his or her behavior after committing an action that will harm his or her moral value judgments [3]. Individuals who feel guilty because of their wrong behavior feel tension, remorse, and regret in their inner world. Previous literature data have shown that feelings of guilt reduce recidivism [4, 5]. Shame is different from guilt. Although the individual might experience guilt without social interaction when alone, social interaction plays an important role in the formation of shame [6]. Although individuals might experience the feeling of guilt in their inner world and hide from society, the feeling of shame generally arises in the face of behaviors that are not accepted by society when moral rules are violated [6, 7]. When people are embarrassed, they can feel worthless and exposed. Unlike guilt, shame elicits a defensive rather than motivating response. When people are embarrassed, they want to run away, hide, deny responsibility, and blame others [8]. The relationship between shame and guilt is also contradictory. In addition to the literature data indicating that shame does not affect recidivism, studies are reporting that individuals can reduce recidivism by isolating themselves from society [9].

The concept of forgiveness has some sub-dimensions, such as self-forgiveness, forgiving situations, and others. Focusing on forgiving others involves reducing the response to harm from others, and self-forgiveness involves feelings that occur as a result of harming oneself or others [6, 7]. Also, feelings such as disappointment, anger, grudge, hatred, enmity, and revenge might arise in people who were harmed by another person, and the concept of forgiveness is defined as the management of these emotions. For a guilty person, forgiveness is the struggle against negative thoughts such as worthlessness, guilt, and self-hatred in his or her inner world. It can be argued that individuals with high levels of forgiveness toward themselves, others, and situations experience less regret and lead happier lives. However, on the contrary, people who cannot forgive show more regret, unhappiness, and restlessness [6–8]. In a previous literature study, it was reported that self-forgiveness was positively correlated with shame and negative guilt [10].

In light of all this information, the purpose of planning this study was to examine whether there is a difference in the feelings of guilt, shame, and forgiveness in prisoners who committed one or more crimes. It also aimed to compare the types of crimes committed by the prisoners, the number of crimes, the diagnosis of psychiatric disease, and demographic data.

Methods

Sample Group

A total of 107 people who applied to Elazig Mental Health and Diseases Hospital and received inpatient treatment in the prison ward were included in the study in a randomized manner. Inclusion criteria for convicted patients were being between the ages of 18 and 65, not having an intellectual disability or mental retardation, not receiving any psychiatric treatment in its current form, and not having any physical disease that might affect the state of psychiatric symptoms or neurological disease (cerebral palsy, dementia, cerebrovascular disease).

Procedure

A written informed consent form was first signed by all participants who met the inclusion criteria. The scales were applied to the participants on the first day of their admission to the ward. The application and evaluation of the scales were performed by the same psychiatrist. The scale-filling process was completed in approximately thirty minutes. When the scales were filled, the results were transferred to electronic media by the same psychiatrist, the records were kept regularly, and thus, possible errors and missing data were minimized. A total of 120 people were invited to the present study. However, 13 people were not included in the study because they either refused to participate in it or did not meet the study criteria. A total of 51 people who were convicted of one single crime and 56 patients who were convicted of more than one crime and met the study criteria were included.

Data Collection Tools

Sociodemographic and Clinical Data Evaluation Form, Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Guilt and Shame Scale (GSS), and Heartland Forgiveness Scale (HFS) were used in the study. The sociodemographic and clinical data evaluation form was prepared by the researchers in light of the clinical experience in the cases and the information obtained from the scanned sources and according to the aims of the study. This form has a semi-structured format and contains demographic information such as age, gender, educational status, marital status, occupation, place of residence, family structure, and economic status, as well as clinical data such as type of crime and number of prison entries.

The depressive states of the participants were evaluated with the Beck Depression Inventory (BDI). The Turkish validity and reliability study of the scale was carried out by Hisli. The scale consists of 21 questions in total, and each item is scored between 0 and 3. The total score range of the scale ranges from 0 to 63, and a score of 0 to 9 indicates that there are no depressive symptoms, 10 to 16 points indicate mild symptoms, 17 to 24 points moderate symptoms, and 25 or more points severe symptoms [11].

The anxiety states of the participants were developed by Beck et al. and measured with the Anxiety Inventory (BAI). BAI is a 21-item Likert-type self-assessment scale scored between 0 and 3, and the scale total score ranges from 0 to 63. A high scale score indicates high anxiety. The Turkish validity and reliability of the scale were performed by Ulusoy et al. [12].

The guilt and shame scale (GSS) is a 5-point Likert-type scale developed by Sahin et al., consisting of 24 questions that measure feelings of shame and guilt, which are experienced in various situations and are claimed to be associated with depression. It has two sub-dimensions: guilt and shame. The Cronbach Alpha value of the scale was calculated at 0.80 for the "shame" subscale and 0.81 for the "guilt" subscale. Its correlation with BDI was detected to be -.10 [13].

The Heartland Forgiveness Scale (HFS) was developed by Thompson et al. to measure the level of forgiveness in individuals. The scale was adapted to Turkish by Bugay et al. The 7-point Likert type consists of a total of 18 items, and there is no reverse-scored item on the scale. It consists of three sub-dimensions of six items: forgivingness of others (FO), self-forgiveness (SF), and forgivingness of situation (FS), and gives a total score of "forgiveness." High scores are evaluated as positive and low scores as negative [14].

Ethical approval informed consent and permissions

The approval for the study was obtained from the Non-Interventional Local Ethics Committee of Firat University with the meeting number 2019/06-28 (date: April 11, 2019, number: 06-28). The study was conducted in line with the Declaration of Helsinki after obtaining ethics committee approval.

Statistical analysis

The analysis was made with the SPSS 22 (Statistical Package for Social Sciences; SPSS Inc., Chicago, IL) package programs. In the study, continuous data are shown as mean±standard deviation and median (minimum-maximum) values, and descriptive data are shown as n and % values in categorical data. Along with the Pearson Chi-square test, the chi-square test was used for the comparison of categorical variables between groups. The conformity of continuous variables to normal distribution was evaluated with the Kolmogorov-Smirnov test. The Mann-Whitney U test was used to compare the variables that did not fit the normal distribution between the two groups. The Spearman correlation test was used to examine the relationship between continuous variables. The statistical significance level in the analysis was accepted as $p < 0.05$.

Results

A total of 51 people (4 women) in the group that was involved in one single crime and 56 people, 1 of whom was a woman, in the group that was involved in more than one crime (107 people in total) participated in the present study. Among the 56 people involved in more than one crime, 27 were involved in two crimes, 9 committed three crimes, and 20 were imprisoned for four or more crimes. The education level of the individuals in the group that were involved in one single crime was significantly higher than that of those involved in more than one crime ($p = 0.032$). Also, 80.4% of those who were involved in one single crime were receiving psychiatric treatment, and it was significantly higher than that of those who were involved in more than one crime ($p = 0.006$). Although the rate of alcohol use was higher in the group that was involved in one single crime ($p = 0.001$), smoking was higher in the group that was involved in multiple crimes ($p = 0.017$) (Table 1).

In terms of the diagnosis groups, although the diagnosis of mood disorder is higher in individuals who are involved in one single crime (36.6%), the diagnosis of antisocial personality disorder (41.9%) is higher in the group that was involved in multiple crimes. Also, as can be predicted, the average length of stay in prison was 26.61 months for those who were involved in one single crime, although it was 46.65 months for the group that was involved in more than one crime ($p = 0.005$) (Table 2).

The mean values of BAI, BDI, GSS, HFS, and subscale scores were similar in both groups, but no differences were detected ($p > 0.05$). 84.3 percent of the group that was involved in one single crime and 83.9% of those involved in more than one crime stated that they regretted it (Table 3).

Among the prisoners who were involved in one single crime were positively and significantly correlated ($r: 0.629$, $p < 0.001$). BAI and HFS-forgiveness of others, GSS guilt and shame, GSS-guilt and HFS-forgiveness of situation, the HFS-forgiveness of others and HFS-forgiveness of situation and HFS-total score, HFS-self-forgiveness and HFS-forgiveness of others, the HFS-forgiveness of situation and HFS-total score, GSS-shame and HFS-forgiveness of situation and HFS-total score were positively correlated ($r = 0.629$, $p < 0.001$; $r = 0.301$, $p = 0.032$; $r = 0.591$, $p < 0.001$; $r = 0.331$; $p = 0.018$, $r = 0.672$, $p < 0.001$; $r = 0.748$, $p < 0.001$; $r = 0.441$, $p = 0.001$; $r = 0.601$, $p < 0.001$; $r = 0.857$, $p < 0.001$; $r = 0.307$, $p = 0.028$; $r = 0.862$, $p < 0.001$, respectively) (Table 4).

Table 1. Demographic characteristics of the participants

	The group that was involved in one single crime (n=51)	The group that was involved in more than one crime (n=56)	p *
Gender	n (%)	n (%)	
Female	1 (7.8)	1 (1.8)	0.138
Male	47 (92.2)	55 (98.2)	
Marital status			
Single	29 (56.9 %)	35 (62.5 %)	0.061
Married	16 (31.4 %)	8 (14.3 %)	
Separated from spouse	6 (11.8 %)	13 (23.2 %)	
The family model in which he lives			
Nuclear family	33 (64.7)	34 (60.7)	0.670
Extended family	18 (35.3)	22 (39.3)	
Education level			
Primary education	14 (27.5 %)	19 (33.9 %)	0.032
High school	27 (52.9)	35 (62.5 %)	
University	10 (19.6 %)	2 (3.6 %)	
Economic level			
Low	43 (84.3)	49 (87.5)	0.256
Middle	4 (7.8)	2 (3.6)	
High	4 (7.8)	2 (3.6)	
Currently receiving psychiatric treatment			
Yes	41 (80.4)	31 (55.4)	0.006
No	10 (19.6)	25 (44.6)	
History of psychiatric treatment in the past			
Yes	36 (70.6)	32 (57.1)	0.149
No	15 (29.4)	24 (42.9)	
Alcohol use			
Yes	36 (70.6)	18 (32.1)	<0.001
No	15 (29.4)	38 (67.9)	
Substance use			
Yes	28 (54.9)	24 (42.9)	0.213
No	23 (45.1)	32 (57.1)	
Smoking			
Yes	37 (72.5)	52 (92.9)	0.017
No	8 (15.7)	3 (5.4)	
Quit	6 (11.8)	1 (1.8)	

* Pearson Chi-Square Test was used.

Table 2. Psychiatric diagnoses of the participants

	The group that was involved in one single crime (n=51)	The group that was involved in more than one crime (n=56)	p *	
Past diagnoses	n (%)	n (%)		
Antisocial personality disorder	1 (2.8)	12 (37.5)	0.033	
Mood disorder	9 (25.0)	4 (12.5)		
Major depressive disorder	1 (2.8)	0 (0.0)		
Psychotic disorder	5 (13.9 %)	4 (12.5)		
Schizophrenia	1 (2.8)	1 (3.1)		
Delusional disorder	3 (8.3)	2 (6.3)		
Substance use disorder	4 (11.1)	0 (0.0)		
Attention deficit disorder	0 (0.0)	1 (3.1)		
Obsessive Compulsive Disorder	1 (2.8)	0 (0.0)		
Social anxiety disorder	1 (2.8)	0 (0.0)		
An unclear diagnosis	10 (27.8)	8 (25.0)		
Total	36 (100.0)	32 (100.0)		
Current psychiatric diagnoses				
Adjustment disorder	7 (17.1)	1 (3.2)		0.170
Antisocial personality disorder	7 (17.1)	13 (41.9)		
Psychotic disorder	7 (17.1)	6 (19.4)		
Schizophrenia	1 (2.4)	1 (3.2)		
Delusional disorder	3 (7.3)	3 (9.7)		
Mood disorder	15 (36.6)	7 (22.6)		
Major depressive disorder	1 (2.4)	0 (0.0)		
Total	41 (100.0)	31 (100.0)		

* Pearson Chi-Square Test was used

Table 3. Scores of the scales applied to the participants

	The group that was involved in one single crime Median (min-max)	The group that was involved in more than one crime Median (min-max)	p *
Beck Depression Inventory	17.0 (0.0 -50.0)	25.5 (0.0 -59.0)	0.903
Beck Anxiety Inventory	16.0 (0.0 -63.0)	16.5 (0.0 -63.0)	0.557
GSS-Guilt	42.0 (12.0 -60.0)	39.0 (12.0 -60.0)	0.745
GSS-Shame	35.0 (12.0 -57.0)	31.5 (12.0 -60.0)	0.644
HFS-SF	36.0 (14.0 -42.0)	38.5 (9.0 -42.0)	0.938
HFS-FO	16.0 (6.0 -36.0)	16 (4.0 -28.0)	0.751
HFS-FS	22.0 (7.0 -42.0)	19.5 (5.0 -42.0)	0.245
Total HFS	75.0 (30.0 -126.0)	72 (18.0 -126.0)	0.676

BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; GSS: Guilt and Shame scale; HFS: Heartland forgiveness scale, Self-Forgiveness (SF), Forgiveness of Others (FO) and Forgiveness of Situation (FS), * Mann-Whitney-U test

Table 4. Correlation analysis results of the scales applied to the group that was involved in one single crime

	BDI	BAO	GSS-Guilt	GSS-Shame	HFS-SF	HFS-FO	HFS-FS	Total HFS
BDI		r:0.629, p<0.001	r:-0.060, p=0.674	r:0.157, p=0.270	r:0.303, p=0.031	r: 0.230, p=0.104	r:0.098, p=0.495	r:0.247, p=0.081
BAI			r:0.009, p=0.948	r:0.200, p=0.159	r:0.244, p=0.085	r:0.149, p=0.298	r:0.271, p=0.054	r:0.157, p=0.270
GSS-Guilt				r:0.591, p<0.001	r:0.005, p=0.973	r:0.207, p=0.146	r:0.331, p=0.018	r:0.173, p=0.224
GSS-Shame				r:0.591, p<0.001	r:0.156, p=0.275	r:0.267, p=0.058	r:0.307, p=0.028	r:0.216, p=0.128
HFS- SF				r:0.005, p=0.973	r:0.156, p=0.275	r:0.441, p<0.001	r:0.601, p<0.001	r:0.857, p<0.001
HFS-FO				r:0.207, p=0.146	r:0.267, p=0.058	r:0.441, p=0.001	r:0.672, p<0.001	r:0.748, p<0.001
HFS-FS				r:0.331, p=0.018	r:0.307, p=0.028	r:0.601, p<0.001	r:0.672, p<0.001	r:0.862, p<0.001

BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; GSS: Guilt and Shame scale; HFS: Heartland forgiveness scale, Self-Forgiveness (SF), Forgiveness of Others (FO) and Forgiveness of Situation (FS)

For prisoners involved in more than one crime, BDI and BAI, GSS-guilt and HFS-forgiveness of others, HFS-self-forgiveness, HFS-total scores, and GSS-shame, HFS-forgiveness of others with the HFS-forgiveness situation and HFS-total score, HFS-self-forgiveness and HFS-forgiveness of others, HFS-forgiveness situation and HFS-total score, the HFS-forgiveness of others with GSS-shame, HFS-self-forgiveness, and HFS- total score was detected to be positively correlated with HFS-forgiveness of the situation and HFS-total score (r=0.764, p<0.001; r=0.294, p=0.028; r=-0.368, p=0.005; r=0.329, p=0.013; r=0.799, p<0.001, r=0.661, p<0.001; r=0.790, p<0.001; r=0.540, p<0.001; r=0.482, p<0.001; r=0.837, p<0.001; r=0.426, p=0.001; r=0.349, p=0.008; r=0.379, p=0.004; r=0.829, p<0.001, respectively) (Table 5).

Table 5. Correlation analysis results of the scales applied to the group that was involved in more than one crime

	BDI	BAO	GSS-Guilt	GSS-Shame	HFS-SF	HFS-FO	HFS-FS	Total HFS
BDI		r:0.764, p<0.001	r:0.120, p=0.377	r:0.219, p=0.105	r:0.151, p=0.265	r:0.242, p=0.073	r:-0.009, p=0.949	r:0.109, p=0.425
BAO			r:0.037, p=0.784	r:0.078, p=0.569	r:0.119, p=0.382	r:0.127, p=0.351	r:-0.017, p=0.901	r:0.060, p=0.661
GSS-Guilt				r:0.799, p<0.001	r:0.368, p=0.005	r:0.294, p=0.028	r:0.147, p=0.281	r:0.329, p=0.013
GSS-Shame				r:0.799, p<0.001	r:0.349, p=0.008	r:0.426, p=0.001	r:0.261, p=0.052	r:0.379, p=0.004
HFS-SF				r:0.368, p=0.005	r:0.349, p=0.008	r:0.540, p<0.001	r:0.482, p<0.001	r:0.837, p<0.001
HFS-FO				r:0.294, p=0.028	r:0.426, p=0.001	r:0.540, p<0.001	r:0.661, p<0.001	r:0.790, p<0.001
HFS-FS				r:0.147, p=0.281	r:0.261, p=0.052	r:0.482, p<0.001	r:0.661, p<0.001	r:0.823, p<0.001

BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; GSS: Guilt and Shame scale; HFS: Heartland forgiveness scale, Self-Forgiveness (SF), Forgiveness of Others (FO) and Forgiveness of Situation (FS)

When all prisoners were evaluated, HFS-forgiveness of others with BAI, HFS forgiveness of others with GSS-guilt, HFS-forgiveness of others with guilt, HFS-forgiveness of self, HFS-forgiveness of situation and GSS-shame, HFS-forgiveness of situation with HFS-forgiveness others and HFS-tota score, HFS-forgiveness of self with HFS-forgiveness of others, HFS-forgiveness of situation and HFS-total score, HFS- forgiveness of others with GSS-shame ,HFS-self-forgiveness, HFS-forgiveness of situation and HFS- total score were positively correlated with HFS-forgiveness of situation and HFS-total score (r=0.195, p=0.044; r=0.247, p=0.010; r=0.249, p=0.010; r=0.199, p=0.040; r=0.242, p=0.012; r=0.714, p<0.001)

; $r=0.668$, $p<0.001$; $r=0.772$, $p<0.001$; $r=0.503$, $p<0.001$; $r=0.526$, $p<0.001$; $r=0.845$, $p<0.001$; $r=0.366$, $p<0.001$; $r=0.249$, $p=0.010$; $r=0.282$, $p=0.003$; $r=0.314$, $p=0.001$; $r=0.845$, $p<0.001$, respectively).

Discussion

In the study, it was examined whether there is a difference in feelings of guilt, shame, and forgiveness in prisoners who have committed one or more crimes and the effect of crime type, number of crimes, a diagnosis of psychiatric illness, and demographic data on delinquency. In our results, the education level of the prisoners involved in more than one crime was lower than that of the other group. Both groups had been exposed to violence during childhood. Although alcohol use was higher in the group involved in a single crime, and smoking was higher in those involved in more than one crime, the rates of substance use were similar in both groups. Finally, it was observed that prisoners, whether involved in a single crime or more than one, felt remorse and guilt. A positive correlation was found between the BDI and BAI of all prisoners and the HFS-forgiveness subscale. A positive correlation was found between the GSS-guilt and shame subscales and all subscales and the total HFS score.

Studies conducted in the literature on violent behavior in psychiatric patients and rates of psychiatric illness in prisoners [15–18] Violent behavior was shown to increase with chronic mental illnesses such as schizophrenia and bipolar affective disorder (BAD) [15]. It was reported that the comorbidity of alcohol and substance use disorders in these patients increases violent behavior [16]. In the research conducted on detainees and prisoners, self-harming behaviors, anger control problems, and alcohol or substance use problems are at the forefront [19]. In a previous study conducted with a group of detainees and convicts in Turkey, it was found that there was any substance use at a rate of 42%, a previous history of psychiatric illness at a rate of 35%, and treatment intake for this reason [20]. In many studies in the literature, it was shown by repeated studies that individuals with alcohol or substance use disorders are involved in crime both to obtain the substance and for other purposes. In many of these studies, it was reported that the costs of individuals with alcohol or substance use disorders to society increase due to both their involvement in crime and substance use [21–23]. From another point of view, in research on prisoners, a history of addiction and prescription drug abuse in prison was shown [24, 25]. Our results supported the literature data. It was shown that alcohol use was higher in single offenders, cigarette use was higher in multiple offenders, and substance use was higher in both groups. The fact that cigarette use among prisoners involved in multiple crimes is higher than the other group is also consistent with the literature. In a previous study evaluating the relationship between sociocultural factors and smoking, it was reported that cigarette use increased as the length of stay in prison or prison entrances increased [26]. Consistent with the literature data, it was shown that alcohol and substance use were high in both groups before entering prison. In addition, in some studies conducted with prisoners in Turkey, it was found that the majority of the education level was at the primary education level, but in our study, the education level was at the high school level [27].

It was also shown that prisoners are exposed to childhood traumatic life events more frequently, and their tendency to violence increases as stressful life events increase. It was reported that childhood traumas also increase psychiatric symptoms and cause anger management problems [4]. The present study showed that participants in both groups were exposed to violence during childhood. Finally, when we looked at the demographic data, we saw that the education level of the prisoners involved in multiple crimes was low. In the studies carried out without separating it as a multiple crime or a single crime in the literature review, it was also observed that the education level of the prisoners was low [19]. However, it has not been possible to distinguish whether this is because people are involved in crime and go to prison and fall behind in education or whether the inadequacy of their education level is associated with their involvement in a crime.

In a previous study conducted on prisoners and convicts in a similar penal institution, the rate of depressive disorder was detected at 22%. Also, the suicidal thoughts of prisoners and detainees were found to be significantly higher [8]. In another study, a high rate of 69% of the prisoners was diagnosed with a psychiatric disorder; mood disorders were found to be present in 29% [29]. Similarly, in our results, the rates of mood disorders were found to be high in prisoners who were involved in one single crime in both past and present diagnoses. Although the crimes leading to the arrest of the prisoners were stated in the studies in the literature, it was not examined how many crimes they were involved in. In our results, a mood disorder was prevalent in those involved in one single crime, and antisocial personality disorder was prominent among those involved in multiple crimes. This was an expected result by the definition of antisocial personality disorder. Consistent with the literature data, it was found in the present study that anxiety and depression scores were high, but no differences were detected between the two groups.

The concepts of regret and guilt were investigated in people who had been arrested, convicted, or had no history of criminal involvement. Although remorse and guilt were accepted as interrelated moral emotions in the past, their relationship with brain functions has been revealed in recent years [3, 6]. The final result was that, in general, these emotions are associated with each other and with brain functions [3]. A literature review was conducted on remorse, guilt, and remorse in delinquent psychotic patients. Here, it was concluded that there is a relationship between delinquency and remorse, but this relationship is not specific to psychosis. Also, it was found that only two studies were conducted on remorse/guilt for a particular crime and whether or not to commit a crime again [30, 31]. In the first of the studies, the guilt feelings of young men who went to prison were examined. Here, slightly less than half were found to feel guilty [30]. But after his or her release from prison, his or her feelings of guilt gradually decreased. Conversely, feelings of shame increased [31]. In another study, no relationship could be established between admission of guilt, sense of guilt, and re-offending. In other words, although the person feels guilty after being involved in a crime but feels guilty, this situation did not prevent him from being involved in crime again [32]. Similar to these studies, it was also revealed in the present study that prisoners who were involved in one single crime or were involved in more than one crime had remorse and had high guilt and shame scale scores. Also, in line with the literature, in both groups, it was found that feelings of guilt and shame were positively related.

Forgiveness is a coping strategy associated with improving mental health. In a previous study by Lichtenfeld et al., it was stated that emotional forgiveness affects the individual's understanding of the event and causes a change in their cognitions [33]. In another study, it was observed that anger decreased and life satisfaction increased in individuals with a high tendency to forgive, especially self-forgiveness [9]. In another study, it was reported that there is a negative relationship between self-forgiveness and depression and anxiety disorders [8]. In a previous literature study,

it was reported that self-forgiveness was positively correlated with shame and negative guilt [10]. In our results, there was a positive correlation between BAI and BDI scores and the subscale scores for forgiveness of others. Also, the subscales of HFS were found to be positively related, both among themselves and with the guilt and shame scales. Although these results provide valuable contributions to the literature, which has not been studied much in the field, there is a need for extensive research with different study designs.

Limitations

Regarding the results obtained here, some limitations must be taken into account. The first of these limitations is due to our sample size being partially insufficient. Other limitations are unequal distribution between the sexes, working in one single prison, and using self-report scales. These limitations make it difficult to generalize the results. It is important to perform further research with a larger number of participants in different prisons, both inmates and prisoners, to support the results.

Conclusion

It was found in the current study that prisoners were exposed to childhood violence at a higher rate, and their use of education, alcohol, cigarettes, and substances was higher than the population. It was found that prisoners who committed one or more crimes felt remorse and guilt. It was considered that the high levels of anxiety and depression in individuals who were exposed to violence in childhood might cause them to turn to crime. It was considered that identifying the prisoners who were involved in the crime and who felt remorseful and guilty could prevent further crimes. Also, the stigma that can be created by being in prison and the problems of adaptation to social life that might occur after being released from prison can lead the individual to commit crimes again. Finally, to raise individuals who are mentally healthy and have a low tendency to harm, it is considered that the rate of crime can be reduced by preventing childhood violence, increasing the level of education, and providing psychiatric support to individuals with alcoholism, substance abuse, and psychiatric symptoms. It is important to provide psychosocial support to prisoners in prison both during and after their stay because it can reduce the rate of recidivism.

Conflict of interest: None

	Author Contributions	Author Initials
SCD	Study Concept and Design	S.K, SB, GT, NK, F.O.
AD	Acquisition of Data	S.K, GT, NK
AID	Analysis and Interpretation of Data	SB, F.O, NK
DM	Drafting of Manuscript	F.O, GT, S.K
CR	Critical Revision	S.K, F.O, GT

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