Submissive Behaviour, Depression, and Suicide Probability in Male Arrestees and Convicts

Erkek Hükümlü ve Tutukluların Boyun Eğici Davranışları, Depresyon ve İntihar Olasılıkları

Tuğba GÖRGÜLÜ¹, Şennur TUTAREL-KIŞLAK²

¹Ankara Probation Service, Ministry of Justice, Ankara, Turkey

²Department of Psychology, Ankara University Faculty of Languages, History and Geography, Ankara, Turkey

ABSTRACT

Introduction: The aim of this study was to determine the relationship of suicide probability with submissive behaviors and the levels of depression in male arrestees and convicts staying in penal institutions.

Methods: The study consisted of 326 male participants from five different prisons. A personal information form was used to collect the socio-demographic data, The Suicide Probability Scale (SPS), Beck Depression Inventory (BDI) and the Submissive Behaviour Scale (SBS) were used to determine the related psychological characteristics.

Results: The results showed that depression was determined in 69% of the inmates (convicts and arrestees), while the suicide probability rate was found to be in the proportion of 88% which is higher than in the general population. Regarding the examination in terms of crime types, it was found that the suicide ideation rate of sex offenders or sex offender arrestees ($x=18.33$; $ss=7.28$) and the hostility rate of burglary offenders ($x=16.63$; $ss=4.75$) were much higher than that of the other types of offenders. According to the findings of the Hierarchical Regression Analysis conducted in order to define the variables predicting the subscale rates of SPS, while previous suicide attempt(s) and depression predict hopelessness rate; self-attempted suicide, witnessing suicide attempts, self-harm and depression predict suicide ideation rate. Furthermore, education status and depression symptoms predict negative self-evaluation rate, and lastly education level, witnessing suicide attempts, self-harm and depression symptoms predict hostility subscale rate.

Conclusion: Factors such as social isolation, mislearning, etc. were considered to cause increased feelings of hopelessness, suicide ideation, negative sense of self and feelings of hostility in convicts and arrestees staying indoors. (Archives of Neuropsychiatry 2014; 51: 40-45)

Key words: Convicts, arrestees, submissive behaviours, depression, suicide probability

Conflict of interest: The authors reported no conflict of interest related to this article.

ÖZET

Amaç: Bu çalışmada ceza infaz kurumunda kalan hükümlü ve tutukluların intihar olasılıkları ile boyun eğici davranışları ve depresyon düzeyleri arasındaki ilişkilerin belirlenmesi amaçlanmıştır.

Yöntem: Araştırma beş farklı cezaevinde bulunan toplam 326 erkek katılımcı ile yürütülmüştür. Sosyo-demografik özellikleri toplayabilmek için Kişisel Bilgi Formu, ilgili psikolojik özellikleri belirlemek için de İntihar Olasılığı Ölçeği (İÖÖ), Beck Depresyon Envanteri (BDE) ve Boyun Eğici Davranışlar Ölçeği (BEDÖ) kullanılmıştır.

Bulgular: Sonuçlara göre mahpusların (hükümlü ve tutukluların) %69'unda depresyon olduğu belirlenmiş, intihar olasılığının ise %88 oranla genel popülasyonun üstünde olduğu bulunmuştur. Suç türleri açısından incelendiğinde, cinsel suç işlemiş ya da bu suçla tutuklanmış olanların intihar düşüncelerinin ($x=18,33$; $ss=7,28$) ve hırsızlık suçu işlemiş olanların düşmanlık puanlarının ($x=16,63$; $ss=4,75$) diğer suç türlerine göre daha fazla olduğu belirlenmiştir. İÖÖ alt ölçek puanlarını yordayan değişkenleri belirlemek üzere yapılan regresyon analizi sonuçlarına göre, kişinin daha önce intihar girişiminde bulunmuş olması ve depresyonun varlığı umutsuzluk puanını yordarken, kendisinde ve çevresinde intihar girişiminin olması ile kendine zarar verme davranışı ve depresyonun, intihar düşünceleri puanını yordadığı belirlenmiştir. Ayrıca, öğrenim durumu ve depresyon semptomlarının, kendini olumsuz değerlendirme puanını ve son olarak öğrenim düzeyi, çevresinde intihar girişimi olması, kendine zarar verme davranışı ve depresyon semptomlarının düşmanlık alt ölçek puanını yordadığı bulunmuştur.

Sonuç: Hükümlü ve tutukluların kapalı ortamda kalmaları, sosyal izolasyon, yanlış öğrenmeler gibi faktörlerin umutsuzluk duygularına, intihar düşüncelerine, olumsuz benlik algısına ve düşmanlık duygularında artışa neden olduğu düşünülmektedir. (Archives of Neuropsychiatry 2014; 51: 40-45)

Anahtar kelimeler: Hükümlü ve tutuklular, boyun eğici davranışlar, depresyon, intihar olasılığı

Çıkar çatışması: Yazarlar bu makale ile ilgili olarak herhangi bir çıkar çatışması bildirmemişlerdir.

Correspondence Address

Tuğba Görgülü, Ankara Probation Service, Ministry of Justice, Ankara, Turkey

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Introduction

An individual may become the victim of a forcible situation in his/her lifetime. How the individual perceives this situation, the duration of exposure to it, and the ability to control it are among the factors that determine the individual's positive or negative reactions. How these experiences are perceived by the individual, the duration of exposure to a forcible experience, and the ability to control these experiences are among the factors which determine the individual's positive or negative reactions. In this context, suicidal behavior is a negative reaction that may occur as a result of a forcible situation. Suicidal behavior, a state of aggression directed to the individual himself/herself, is defined as the individual's decision to end his/her life knowingly and willfully and, unlike many other violent behaviors, it may affect individuals of all ages (1,2,3). According to the results of studies, suicide is a substantially complex behavior and it cannot be explained by a single risk factor. The risk factors demonstrated by studies include age, marital status, experience of trauma or abuse, a previous suicide attempt, substance abuse, personality disorders, hopelessness, and depression (4,5,6,7,8).

The relevant studies showed that depression (specifically major depression) was the most striking one among the risk factors of suicide. In addition, adoption of submissive behavior, in other words obedience patterns, due to hopelessness, despair, and feeling of loneliness might accompany depression symptoms (9,10,11,12,13).

Staying in prison is undoubtedly one of the most stressful experiences. There are various reasons for prison suicides that are reported to occur with a 10-14-fold higher frequency when compared to the general population. The reasons for prison suicides include entry to the prison for the first time, living in a crowded ward or in a small one-man cell, staying in prison for a long time, and psychiatric problems caused by such conditions (14,15). It is also reported that there were suicidal attempts in the past, as 50% of prisoners committed suicide in prisons (16). Is undoubtedly is one of the most stressful experiences. There are various reasons of prison suicides which are reported to occur with a 10-14-fold higher frequency compared to the population. The reasons of prison suicides include entry to prison for the first time, staying in such places for a long time and psychiatric problems caused by such conditions (14,15). In addition, it has been reported that there is in 50% of prisoners who committ suicide in prisons (16).

As a result of these reasons, the aim of this study was to determine if there was a difference between the mean scores related to depression, submissive behaviors, and probability of suicide in terms of the types of crime in male arrestees and convicts, and the correlations between the socio-demographic properties, depression and submissive behaviors, as well as the probability of suicide in the same group.

Methods

Sample

This study included a total of 326 volunteer male participants including 162 arrestees and 164 convicts selected randomly from Bitlis Type E, Erzurum Type E, Kahramanmaraş Type E, Mersin Type E and Ümraniye Type E and T penal institutions. It was observed that these 326 arrestees and convicts were mostly between 24 and 29 ages (29.9%), primary school graduates (38%), unemployed (47.5%), and single (58.3%).

When the distribution by penal institutions was examined it was found that 19% stayed in K.Maraş Type E closed prison, 21.5% stayed in Mersin Type E closed prison, 21.2% stayed in Erzurum Type E closed prison, 18.7% stayed in Bitlis Type E closed prison and 19.6% stayed in İstanbul Type E, and T closed prison (Table 1).

In addition, 14.4% of the arrestees and convicts constituting the sample were in prison because of burglary, 25.8% were in prison because of homicide, 22.1% were in prison because of robbery, 17.5% were in prison because of sexual crime and 20.2% were in prison because of assault (Table 2).

Instruments

Personal Information Form: The personal information form which was prepared by the investigators included items related with crime and suicide as well as socio-demographic questions related related with age, gender and marital status.

Suicide Probability Scale (SPS): SPS is a self-assessment likert type scale composed of 36 items. This scale includes four subscales including Hopelessness (HP), Suicide ideation (SI), Negative self-evaluation (NS) and Hostility (HS). The scale adopted to Turkish by Tuğcu. The internal reliability for the SPS is high ($\alpha = .87$) and its test-retest reliability was found to be .98

Table 1. Distribution of the participants by penal institution (PI)

Penal institutions	n	%
K.Maraş Type E Closed PE	62	19.0
Mersin Type E Closed PE	70	21.5
Erzurum Type E Closed PE	69	21.2
Bitlis Type E Closed PE	61	18.7
İstanbul Type E and T closed PE	64	19.6
Total	326	100

Table 2. Distribution of the participants by crime type

Crime type	n	%
Burglary	47	14.4
Homicide	84	25.8
Robbery	72	22.1
Sexual crime	57	17.5
Assault	66	20.2
Total	326	100

(17). The original validity studies of the scale were conducted on the normal population, psychiatric group and subjects with suicide attempt. The scale was applied to individuals who had not received psychiatric treatment or who were not receiving current psychiatric treatment and the mean score for the normal population was found to be 52.28 (18,19).

Beck Depression Inventory (BDI)-1979 Form: The Beck Depression Inventory which is composed of 21 items was developed to evaluate various depressive symptoms. Each item is scored between 0 and 3. The scoring classification is as follows: 0-13: minimal depression, 14-19: mild depression, 20-28: moderate depression and 29-63: severe depression (20). The form dated 1961 was adapted to Turkish by Tegin (1980) and the form dated 1978 was adapted to Turkish by Hisli (1987). The two half test reliability coefficient of BDI is .74. Different results have been obtained in correlation with different scales in validity studies (21).

Submissive Behaviour Scale (SBS): SBS which measures submissive social behaviors related with depression was developed by Gilbert and Allan (1994). The scale is composed of 16 items and rated between 1 and 5. The Cronbach alpha value of the original form of the scale was found to be .92 for the general population and .85 for the student population (22,23). The Turkish adaptation of the scale was performed by Şahin et al. Accordingly, the test-retest reliability of the scale was found to be .84 and its correlation with BDI was found to be .65 (21).

Statistical Analysis

In this study, it was examined, if the relevant variables met the main premises of multivariate statistics before analysis. The scores were transformed into z score and the extreme values above and below ± 3.29 were removed. The data were analysed using SPSS 15 package program. The difference between the mean total scores of the arrestees and convicts was determined by independent-sample t test and the difference between the mean total scores related with crime types was analysed by ANOVA. For the other aim of the study, hierarchical regression analysis was performed to determine the variables which predicted the Hopelessness, Suicide Ideation, Negative Self-evaluation and Hostility subscale scores. Pearson Correlation analysis and Double Point Series Correlation analysis were used to determine the variables which would enter into the regression equation. P value of .05 was considered significant.

Procedure

Before, the study was initiated, the necessary approvals were obtained from the Ministry of Justice CTE General Directorate and Ankara University Ethics Committee. The arrestees and convicts were included in the study as groups consisting of 5 individuals and the application was performed on a single session under the control of the primary investigator. Before the study was initiated, an informed consent form was given to the arrestees and convicts. The Personal Information form used in the study and related scales were filled in by the arrestees and convicts themselves, yet the answers of the arrestees and convicts who had difficulty in reading and vision or who asked for help were recorded by the investigator. The investigator told the participants that a diagnosis had to be made a prescription had to be written by a physician to answer "yes" to the questions related with presence of psychological and physical problems and if they used medication regularly.

Results

The differences between the mean total scores of the arrestees and convicts were analysed by independent-sample t test. As a result of the analysis, no significant difference was found between the two groups in terms of the mean total scores of SBS, BDI, SPS/HP, SI, NS and HS subscales. Therefore, the data of the two groups were combined and the analysis were continued with a total of 326 arrestees and convicts.

As a result of the findings, depressive symptoms were not observed in 31% of the participants according to the BDI scores, while mild depression was found in 18%, moderate depression was found in 29%, and severe depression was found in 22%. In addition, the suicide probability scores of 88% of the arrestees and convicts were found to be higher in comparison to the mean value of the normal population according to the results of the analysis performed based on the SPS mean value of the normal population ($x = 52.8$) stated by Tuğcu (1996).

In the direction of the objectives of the study, the one-way analysis of variance (ANOVA) was performed to test if there was a difference between the mean scores (BDI, SBS, HP, SI, NS and HS) related with the types of crimes of the arrestees and convicts. The results of the analyses revealed that the SI scores ($F(4-321)=3.70$; $p<.05$) and HS scores ($F(4-321)=2.72$; $p<.05$) of the participants varied by the type of crime (Table 3).

According to the results of inter-group comparison performed by the Tukey test, the mean suicide ideation score of the individuals who committed sexual crimes ($x=18.33$; $sd=7.28$) and the mean hostility score of the individuals who committed a burglary ($x=16.63$; $sd=4.75$) were significantly higher compared to the other crime types ($p<.05$).

Hierarchical regression analysis was performed to determine the variables which predicted the Hopelessness, Suicide Ideation, Negative Self-evaluation and Hostility subscale scores of the SPS in direction of the other objective of the study. Pearson Correlation analysis and Double Point Series Correlation

Table 3. The mean total scores related with crime types of the arrestees and convicts and ANOVA results

Scales	Crime type	n	x	SD	F
SI	Bulgary	47	16.76	6.60	3.70*
	Homicide	84	14.50	6.07	
	Robbery	72	15.19	7.01	
	Sexual crime	57	18.33	7.28	
	Assault	66	14.62	6.66	
HS	Bulgary	47	16.63	4.75	2.72*
	Homicide	84	14.40	4.48	
	Robbery	72	16.25	5.41	
	Sexual crime	57	15.75	3.54	
	Assault	66	14.75	4.99	

* $p<.05$

analysis were used to determine the variables which would enter into the regression analysis. Accordingly, the correlation coefficient values between the sociodemographic variables (age, education, duration of stay in prison, family relationship, suicide attempt, substance use, regular drug usage, presence of a suicide attempt in social environment presence of a physical illness, self-harm behavior), submissive behaviour, depression scores and SPS subscale scores are significant and the values range between $r=.12$ and $.86$ ($p<.05$).

In hierarchical regression analyses, all of the sociodemographic variables were included in the analysis in the first block and depression and submissive behavior scores were included in the second block (Table 4). According to the hierarchical regression analysis performed to find the variables predicting HP scores, presence of suicide attempt in the social environment ($t=2.3$; $p<.05$) and depression ($t=1.4$ $p<.05$) were found to be the variables which predicted hopelessness.

As a result of the hierarchical regression analysis performed to find the variables predicting the SI scores, the total variance declared increased to 14% following inclusion of depression and submissive behaviour in the analysis after the sociodemographic variables and the result was found out that be significant ($F(14-236)=17.44$; $p<.05$). Accordingly, it was found that

presence of previous suicide attempt ($t=6.02$; $p<.05$), presence of suicide attempt in the social environment ($t=2.20$; $p<.05$), self-harm ($t=2.12$; $p<.05$) and depression ($t=7.78$; $p<.05$) were the variables which predicted suicide ideation in the best way (Table 4).

When the predictors of NS scores were examined, it was found that the variance declared increased to 6% following inclusion of depression and submissive behaviour in the analysis after the sociodemographic variables and the result was found to be significant ($F(14-236)=2.69$; $p<.05$). According to the result of the analysis, education status ($t=2.42$; $p<.05$) and depression ($t=3.86$; $p<.05$) were found to be the variables which predicted the scores related with negative self-evaluation (Table 4).

Finally, the regression analysis performed to determine the predictors of HS score as shown in Table 4 revealed that the total variance declared increased to 6% following inclusion of depression and submissive behaviour in the analysis after the sociodemographic variables and the result was found to be significant ($F(14-236)=8.17$; $p<.05$). According to the result of the analysis, the best predictors of hostility were found to be education status ($t=2.28$; $p<.05$), presence of suicide attempt in the social environment ($t=3.11$; $p<.05$), self-harm ($t=2.41$; $p<.05$) and depression ($t=4.36$; $p<.05$).

Discussion

The levels of depression in arrestees and convicts staying in penal institutions were examined in the context of this study and it was found out that 22% of them had severe depression, while 88% of them had a higher probability of suicide when compared to the general population. These findings are significant, because social limitations caused by staying in a closed environment such as a prison and by the fact that arrestees and convicts could not get in touch with their families might facilitate the development of depressive symptoms and increase suicide risk. Similarly, there are studies have shown that the frequency of depression and suicide risk is higher in individuals staying in penal institutions when compared to the general population (14,24,25). It is also possible to observe other psychological and psychiatric problems, besides depression, in individuals staying in penal institutions. For example, a study conducted in Turkey showed that 67% of the arrestees and convicts had a psychiatric disorder, while 29% had mood disorder (26). According to the results of relevant studies, individuals staying in prisons are at risk of psychological problems. Therefore, the systematic performance of observational and interview studies and the meticulous conduct of individual and group studies with a professional team are suggested.

This study showed that a higher rate of suicide ideation occurred in the individuals who committed sexual crimes and hostility than those who committed a burglary, and than those who committed other crimes. This finding is consistent with the information in the literature (27). Individuals who have committed sexual crimes are mostly included in activities of the same crime group and excluded from various activities with other arrestees and convicts in order to prevent them from exposure to possible attacks (28). This might make them feel lonely and lead to their social isolation. In addition, lack of family and social support (29) for these individuals might lead to suicide ideation and increase suicide probability. Burglary, as a type of crime, is included in the judicial crime group. As stated in the law, the

Table 4. The variables which predicted the HS, SIS, NSES and HosS scores (results of the hierachric regression analysis)

Predicted variables	Predictive variables (according to the order of inclusion in the regression analysis)	R ²	B	β	T	F
HP	Presence of suicide attempt in the social environment	.18	2.07	.14	2.3*	4.33
	BDI	.30	.04	.82	1.4*	7.16
	Presence of suicide attempt	.37	5.67	.33	6.02*	1.73
SI	Presence of suicide attempt in the social environment		1.89	.11	2.20*	
	Presence of self-harm behavior		1.80	.13	2.12*	
	BDI	.51	.27	.40	7.78*	17.44
NS	Learning	.08	.27	.16	2.42*	1.72
	BDI	.14	.09	.26	3.86*	2.69
	Learning	.27	.30	.13	2.28*	7.22
HS	Presence of suicide attempt in the social environment		2.07	.18	3.11*	
	Presence of Self-harm behavior		1.60	.17	2.41*	
	BDI	.33	.12	.26	4.36*	8.17

* $p<.05$

crime of burglary (30) is considered shameful. Staying in prison as a result of a shameful crime might increase the feeling of anger and result in hostility. It is thought that it would be beneficial to conduct comprehensive studies related with development of the relevant feelings and its relation with crime in the future.

Depression variables and the presence of suicide attempt in social environment were found out to be the predictors of hopelessness variable determining the probability of suicide. A strong correlation between depression and hopelessness is already known (31). In addition, the feelings of loneliness, hopelessness, depression and despair are increased in these individuals as a result of such factors as staying in a prison, presence of suicide attempt in social environment, taking one another as a model, and lack of recognition of alternative solutions.

Furthermore, the results of analyses revealed that the presence of a suicide attempt in an individual or social environment, self-harm and depression scores were the variables predicting suicide ideation in the strongest way. Similar results are observed in literature. The presence of a previous suicide attempt, presence of self-harm and depression are the most important risk factors of suicidal behavior (14,32). Since there is a strong link between depression and a suicidal behavior (33), the risk of presence of depressive symptoms or of the severity of symptoms in arrestees and convicts triggering suicide ideation should be considered carefully by professionals. In case of any previous psychiatric disorder, suicide attempt or self-harm with detailed assessment techniques during the first interview with convicts, follow-up and rehabilitation studies should be conducted with certain intervals. The presence of suicidal behavior in the family or social environment is also a great risk for suicide ideation and suicidal behavior. These individuals also tend to be depressive with a higher rate (34,35). Presence of a person who has committed suicide in the social environment of these individuals carrying a risk in terms of suicidal behavior constitutes a negative model for them and may be an encouraging, triggering factor in terms of suicidal behavior. As a result of the above-mentioned factors, suicide attempts or suicidal behaviors occurring both in prison, and in the convict's family should be addressed carefully and the necessary therapies should be provided by using crisis intervention methods.

In this study, it was found out that education level and depression were the variables which predicted negative self-evaluation in the strongest way. Accordingly, the rate of negative self-evaluation increases as the education level decreases and the depressive symptoms become more severe. The results are compatible with the principles of Beck's Cognitive Theory. According to Beck, there is a linear relation between depression and negative self-evaluation (36) and studies have shown similar results (37,38). Education level is one of the important criteria for positive or negative self-evaluation. As the education level increases, the level of self-confidence increases in parallel. In this context, according to a study conducted with nurses, it was found out that as the education level increases, the feeling of individual success increases as well, while the rate of negative self evaluation decreases.

When the predictors of hostility were examined, it was found out that the presence of a previous suicide attempt in social environment, exposure to violence, physical self-harm, education

and depression were significant variables. Accordingly, the feelings of hostility increased in arrestees and convicts who witnessed a previous suicide attempt in social environment, who were exposed to violence, who harmed themselves physically, and who had depressive symptoms. According to Freud, depression is the direction of individual's anger towards himself/herself (40,41). Thus, individuals who have intensive feelings of hostility directed their anger towards themselves by harming themselves physically. This finding was supported by other studies. For example, the presence of feelings of hostility and depression was found in individuals who injured themselves and a significant correlation was found between depression and hostility (42). This finding was supported by other studies. For example, presence of feelings of hostility and depression was found in individuals who injured themselves and a significant correlation was found between depression and hostility (42). Moreover, in a study conducted with 61 patients who have attempted self-harm, the scores of hostility were found to be significantly higher in these patients when compared to the others (43). It was found out that exposure to violence might lead to learning of violence behavior and trigger feelings of hostility (44). The education level also predicted feelings of hostility in this study. As the education level decreases, hostile feelings increase. This may arise from a weakness in anger-management and more negative self-evaluation and under-evaluation (45).

In Turkey, studies conducted on suicidal behavior and risk factors have recently increased, however there has been little research on arrestees and convicts having a higher suicide rate when compared to the general population. Accordingly, this study will have a significant contribution to the relevant literature thanks to the sample researched. As the population of arrestees and convicts is at risk of psychological problems, it is clear that more scientific studies on penal institutions are needed. It is suggested that there is a need for development of various psychological intervention programs for the population in question such as educating for developing self-improvement, implementing healthy coping methods and conducting more systematic rehabilitation studies for convicts.

In this study, the risks of depression symptoms and suicide probability of the convicts were found out to be substantially high. This study, however, could not elucidate, if this result stemmed from negative prison environment or negative results were caused by crime behavior. This is one of the limitations of this study and future studies, which may enlighten this problem, are needed.

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