

RESEARCH ARTICLE

Investigation of The Impulsivity Levels and Substance Use Characteristics of Recidivists

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Abstract

Prevention of recidivism is the most important goal of today's criminal justice system. The aim of this study, which was designed in a cross-sectional design, was to examine the impulsivity levels and addiction characteristics of convicts with recidivism behavior and to reveal the factors that may be related. The sample of the study consisted of 230 male convicts in four different penal execution institutions; 100 of whom having a one-time offense history, and 130 with a history of recidivism. Personal information form, Barratt Impulsiveness Scale-11 (BIS-11) and Addiction Profile Index (API) were used as data collection tools. The findings of the study showed that lifetime substance use and risky substance use rates of recidivists were statistically significant compared to those without recidivism; impulsivity scores of recidivists were significantly higher than those of first-time offenders; and impulsive behavior increased as the severity of addiction increased in recidivists. As a result of the research, it was revealed that substance use and impulsivity may be a risk factor for re-offending. In this sense, it is thought that it is very important to carry out intervention programs effectively in both penal institutions and probation directorates within the criminal justice system in order to prevent recidivism and support rehabilitation.

Keywords: Recidivist, Substance Abuse, Impulsivity,

Öz

Yeniden suç işlemenin önlenmesi günümüz ceza adalet sisteminin en önemli amacıdır. Kesitsel desende tasarlanmış olan bu araştırmanın amacı tekrar suç işleme davranışında bulunan hükümlülerin dürtüsellik düzeylerini ve bağımlılık özelliklerini inceleyerek ilişkili olabilecek etkenlerin açığa çıkarılmasıdır. Araştırmanın örneklemini dört farklı ceza infaz kurumunda bulunan ve tek suç öyküsü olan (100) ile tekrar suç öyküsü olan (130) 230 erkek hükümlü oluşturmaktadır. Veri toplama araçları olarak kişisel bilgi formu, Barratt Dürtüsellik Ölçeği-11 (BIS-11) ve Bağımlılık Profil İndeksi (BAPİ) kullanılmıştır. Araştırma bulguları mükerrer olan hükümlülerin hayat boyu madde kullanım ve riskli madde kullanım oranlarının suç tekrarı bulunmayan hükümlülere göre istatistiksel olarak anlamlı olduğunu; mükerrer suçluların dürtüsellik puanlarının ilk kez cezaevine giren hükümlülere göre anlamlı olarak daha yüksek olduğunu ve suç tekrarı olan hükümlülerde bağımlılık şiddeti arttıkça dürtüsel davranışın da arttığını göstermiştir. Araştırma sonucunda madde kullanımı ve dürtüsellik için yeniden suç işleme için bir risk faktörü olabileceği ortaya koyulmuştur. Bu anlamda yeniden suç işlemenin önlenmesi ve iyileştirmeyi desteklemek için ceza adalet sistemi içerisinde gerek ceza infaz kurumlarında gerekse denetimli serbestlik müdürlüklerinde müdahale programlarının etkin bir şekilde yürütülmesinin oldukça önemli olduğu düşünülmektedir.

Anahtar Kelimeler: Suç, Mükerrer Suçlu, Madde Kullanımı, Dürtüsellik.

Introduction

Crime, one of the biggest social problems of today, has been the field of study of many disciplines from past to present due to its negative impact on social order. In the criminology literature, this phenomenon, which is defined as any behavior that is explicitly prohibited by criminal law and punishable by sanctions (Dolu, 2012), is a bigger problem when it comes to repetition; the repetition of criminal behavior by the individual reproduces the impact of crime on society. This feeds the structure of crime, which is always relevant and constitutes a "problem" in maintaining social order.

Recidivism and the factors that influence individuals to recidivate are important issues for policy makers and the public. In recent years, contrary to the registered crime rates, it is stated that the rate of repeated offences has exceeded 50% in many countries (Fazel & Wolf, 2015). In a study conducted in Türkiye as a result of retrospective examination of the forensic files of the cases for which criminal responsibility was requested to be investigated by judicial units, it was found that the recidivism rate was 14% (Koç & Parlak, 2023). The increase in crime rates in recent years and concerns about the personal and social consequences of crime necessitate a better understanding of crime and recidivism. A recidivist is defined as "a person who commits a crime again after being definitively convicted for a crime" (Arslan and Kayañççek, 2009:3), while recidivism refers to "re-entry to prison due to a new crime committed by the same person". According to Arslan and Kayañççek (2009:20); "the state of recidivism reveals that the person is not sufficiently affected by the sanction imposed on them; and that the punishment they are sentenced to does not rehabilitate them and their persistence in committing crimes pedagogically". In the literature, it has been shown that recidivism is associated with the male gender (Bonta et al., 1998; Thomas et al., 2002; Evans et al., 2011), adverse living conditions (Bonta et al., 1998; Topses, 2013; Kaya, 2022) and psychiatric morbidity (Baillargeon et al., 2009) (Hakansson & Berglund, 2012). Therefore, it is important to determine the variables of recidivism.

Convicts, who are the direct subjects of recidivism, are particularly vulnerable to substance use and abuse (Bernstein et al., 2015:2). Many studies show that substance use and criminal behavior are closely related (Wallace et al., 1998; Fazel and Danesh, 2002; Fazel et al., 2006; Fridell et al., 2008; Dart et al., 2015). While some of the criminal behavior is to finance the substance (Stewart et al., 2000), substance use is also clearly associated with other crimes. Untreated substance use behavior can lead people to commit new and differentiated criminal acts "to finance their addiction", which means that addiction is a risk factor for recidivism (Molina Coloma et al., 2022:37). One of the concepts frequently associated with substance use disorders is impulsivity.

Impulsivity, which is one of the core manifestations of psychiatric disorders (Kuştepe et al., 2019), can be defined as the tendency to respond to an internal or external stimulus quickly and without planning (Moeller et al., 2001; Gvion & Apter, 2011; Cservenka & Ray, 2017), without considering whether the outcome may be positive or negative for oneself or others. Impulsivity (Whiteside & Lyman, 2001), which indicates a personality structure that is indicative of sensation seeking, lack of forethought and urgency, is associated with alcohol and substance abuse (Hanson, Luciana, & Sullwood, 2008; Perry & Carroll, 2008; Rieser et al., 2019). A study has shown that people with a history of substance use prefer immediate reward at a higher rate (Özdemir et al., 2012:300). In this respect, substance users are typically more impulsive than non-users, and impulsivity is also a risk factor for people to try substances for the first time (De Wit, 2009). Impulsivity, which affects many areas of life, is associated with crime and problematic behaviors (Martin, et al. 2019).

Compared to the general population, prisoners are at higher risk for substance abuse (Mumola and Karberg, 2006) and are more impulsive (Patton et al., 1995). Although impulsivity is identified as a risk factor for substance abuse in the literature, it is a topic that has rarely been examined among incarcerated adults (Bernstein et al., 2015:3), despite the fact that substance use still exists as a significant problem and that it affects recidivism. There are a limited number of studies in the

literature to interpret the effects of substance use on criminal behavior and impulsivity. In this sense, the research has a quality that will contribute to the literature. Within the complex structure of criminal behaviour, drug-related criminals are a type of crime that needs to be examined separately in terms of evolving into recidivism. In this respect, the study has the qualifications to support state policies in the fight against recidivism. In addition, it is thought that this study will contribute to increasing the frequency of the impulsive behaviour prevention intervention programme and smoking, alcohol and substance addiction information programme carried out within the scope of improvement studies in penal institutions. Therefore, the aim of the study is to examine the addiction characteristics and impulsivity levels of convicts with recidivism and to reveal the factors that may be related. In this sense, the research has a quality that will contribute to the literature.

Method

This research is a cross-sectional study designed to reveal the factors that may be related by examining the impulsivity levels and addiction characteristics of the recidivists among convicts in the penal institution. Consent was obtained from the participants that they voluntarily agreed to participate.

Sample

The research was conducted between May 2023 and July 2023 in a total of four different penal execution institutions, in Izmir in Türkiye; the sample consists of 230 male convicts with a single criminal history (100) and 230 male convicts with a history of recidivism (130) who are serving their sentences for criminal offenses, selected by random sampling method.

The inclusion criteria were to be a convict between the ages of 18 and 50, to be able to read and write, to give voluntary consent to participate in the study after being informed, and to be in a penal execution institution for a judicial offense. The exclusion criteria were not being in the age group specified in the study (under 18 and over 50), being

under the influence of any substance or in a period of withdrawal during the information and interview, having a clinically low level of intelligence that would prevent the participant from understanding and answering the questions asked in the study, having a severe physical illness that could disrupt study compliance, and having an active psychotic disorder or an active mood disorder (mania or severe depression, suicidal thoughts).

The dependent variables of the study were the scores obtained from the Addiction Profile Index (API) and Barratt Impulsiveness Scale-11. The independent variables were the sociodemographic characteristics of the convicts (age, marital status, education level, income level) and substance use characteristics (duration of substance use, type of substance used, etc.).

Process

The study was conducted after obtaining permission from the Ministry of Justice, General Directorate of Prisons and Detention Houses. After the first admission to the institutions where permission was obtained, recidivist and non-recidivist convicts were determined. The scales were administered by face-to-face interviews with the determined convicts in groups of approximately 12 people in classrooms and group work rooms so as not to create a security vulnerability. The convicts completed the study between 30 and 50 minutes on average.

Data Collection Tools

Personal Information Form

The form was prepared by the researcher and consisted of detailed questions such as age, marital status, occupation, education level, family structure, crime committed, substance use (duration of substance use, type of substance used, etc.).

Barratt Impulsiveness Scale-11 (BIS-11)

It is a self-completed scale used to assess impulsivity. It consists of thirty items and has three subscales; attention (inattention and cognitive disorganization), motor (motor impulsivity, impatience) and non-planning (inability to maintain control, intolerance to cognitive confusion). When assessing the BIS-11, 4 different sub-scores are obtained; total score, non-planning, attention and motor impulsivity. The higher the total BIS-11 score, the higher the impulsivity level of the person. The Turkish validity and reliability study of the BIS-11 was conducted by Güleç et al. (Güleç et al., 2018).

Addiction Profile Index (API)

The scale consists of 37 items and 5 subscales. The development of the scale and its validity and reliability study was conducted by Ögel et al. in 2012. For the severe craving and motivation to quit questions, symptoms related to the last week are questioned, while the last year is evaluated in other categories (Ögel, 2012).

Data Analysis

Statistical analyses were performed using the SPSS (IBM SPSS Statistics 25) package program. The distribution of numerical variables was evaluated by Kolmogorov-Smirnov test and the p value was found to be less than 0.05, and it was determined that the distribution was not normal. Numerical variables were compared with Mann Whitney-U test. The Chi-square test was performed to test the relationship between two categorical variables and Pearson Correlation test was performed to test the relationship between two continuous variables. The significance level was evaluated as $p < .05$.

RESULTS

A total of 230 convicts, 130 recidivists (repeat offenders) and 100 non-recidivists, participated in the study. The average age of the participant group, which consisted of male convicts between 18-50 years old, was 33.30 ± 8.73 (31.80 ± 9.3 for repeat convicts and 30.80 ± 9.8 for non-repeat

convicts). It was concluded that 35.4% of 130 repeat convicts were primary school graduates, 47.7% were single, 83.8% were employed in a job before entering the penal institution, 57.7% had a history of traumatic events, 30% had a family history of divorce, 26.2% had a history of domestic violence, 26.2% had a history of childhood neglect, and 50% had self-harming behavior. Hence, there is a statistically significant difference between the groups in the variables of education, history of traumatic events, experience of domestic violence, suicidal ideation and attempt, self-harm and childhood neglect (Table 1).

Table 1. Characteristics of Convicts with and without Recidivism on Some Variables

	Convicts with Recidivism (N=130)		Convicts without Recidivism (N=100)		p
	Mean±SD		Mean±SD		
	N	%	N	%	
Age	31.80 ±9.3		30.80 ±9.8		.199
Marital Status					
Single	62	47.7	55	55	.542
Married	43	33.1	29	29	
Divorced	25	19.2	16	16	
Total	130	100	100	100	
Education					
Literate	10	7.7	4	4	.005*
Primary School	46	35.4	19	19	
Secondary School	45	34.6	36	36	
High School	25	19.2	27	27	
Associate's Degree	1	0.8	4	4	
Bachelor's Degree	3	2.3	10	10	
Total	130	100	100	100	
Defining School Success					
Good	12	9.2	5	5	.072
Bad	73	56.2	47	47	
Mediocre	43	33.1	48	48	
Other	2	1.5	0	0	
Total	130	100	100	100	
Employment Status Before Entering the Penal Institution					
Employed	109	83,8	86	86	.652
Unemployed	21	16,2	14	14	
Total	130	100,0	100	100	
History of Traumatic Events					
Yes	75	57,7	38	38	.003*
No	55	42,3	62	62	
Total	130	100,0	100	100	
Family History of Divorce					
Yes	39	30	19	19	.057
No	91	70	81	81	
Total	130	100	100	100	
Experience of Domestic Violence					.004*
Yes	34	26.2	11	11	
No	96	73.8	89	89	
Total	130	100	100	100	

Childhood Experience of Neglect					.008*
Yes	34	26.2	12	12	
No	96	73.8	88	88	
Total	130	100	100	100	
Suicidal Ideation					.012*
Yes	44	33.8	19	19	
No	86	66.2	81	81	
Total	130	100	100	100	
Self-Harm Behavior					.001*
Yes	56	43.1	11	11	
No	74	56.9	89	89	
Total	130	100	100	100	
Suicide Attempt					.001*
Yes	37	28.5	11	11	
No	93	71.5	89	89	
Total	130	100	100	100	
Post-Release Hardship					.479
Yes	14	10.8	8	8	
No	116	89.2	92	92	
Total	130	100	100	100	

*p<.05

Results Regarding the Characteristics of Substance Use of Convicts

In the study, it was concluded that there was a statistically significant difference between recidivist and non-recidivist convicts in terms of lifetime substance use (p<0.05). The lifelong substance use rate of recidivist convicts was found to be 81.5%, which is higher than the lifelong substance use rate of convicts without recidivism (36%). When the groups were compared in terms of whether there were people with substance abuse in their family and environment, a statistically significant difference was found (p<0.05). When the risky use rates obtained as a result of the Addiction Profile Index were analyzed, a statistically significant difference was found between the convicts with recidivism and the convicts without recidivism (p<0.05). It was found that 12.5% of the convicts in the repeat offense group had risky substance use with high addiction severity (Table 2). The mean age of which the convicts tried a substance for the first time was 19.91±7.68 and the first substance used by 50.4% of them was marijuana. It was concluded that there was a statistically significant difference between the repeat convicts and the convicts without recidivism in terms of the type of offence committed (p<0.05). It was determined that 56.9% of the convicts with recidivism and 36% of the

convicts without recidivism were in penal execution institutions due to drug offences.

Table 2. Characteristics of Substance Use of Convicts with and without Recidivism

	Convicts with Recidivism (N=130)		Convicts without Recidivism (N=100)		p
	Mean±SD		Mean±SD		
	N	%	N	%	
Lifelong Substance Use					
Yes	106	81.5	36	36	.000*
No	24	18.5	64	64	
Total	130	100	100	100	
Presence of People with Substance Use in the Family and Environment					.000*
Yes	79	60.8	24	24	
No	51	39.2	76	76	
Total	130	100	100	100	
Probation Measure					
Yes	79	60.8	14	14	.000*
No	51	39.2	86	86	
Total	130	100	100	100	
Frequency of cannabis use					
Never	25	19.2	67	67	.000*
At least once	17	13.1	6	6	
More than three times	88	67.7	27	27	
Total	130	100	100	100	
Frequency of methamphetamine use					
Never	77	59.2	85	85	.000*
At least once	11	8.5	4	4	
More than three times	42	32.3	11	11	
Total	130	100	100	100	
Amount of Substances Used					
Single Substance	57	43.8	78	78	.000*
Multiple Substances	73	56.2	22	22	
Total	130	100	130	100	
Addiction Profile Index (API) Risky Use Rates					
Low Addiction Severity	103	80.5	96	96	.002*
Moderate	9	7	2	2	
High Addiction Severity	16	12.5	2	2	
Total	128	100	100	100	

*p<.05

Results on Addiction and Impulsivity Levels of Convicts

The total score and sub-score mean scores of the BDI-11 of the convicts with and without recidivism were compared and it was found that the total score and sub-score mean scores of the impulsivity scale of the group with recidivism were statistically significantly higher than the group without recidivism (Table 3).

Table 3. Comparison of the Mean Impulsivity Scores of Convicts with and without Recidivism

	Convicts with Recidivism (N=130)	Convicts without Recidivism (N=100)	
	Ort±SD	Ort±SD	
Total Score	59,10±12,04	54,71±12,50	p<0,05 ^a
Non-planning	23,80±4,75	22,06±5,21	p<0,05 ^b
Motor	19,66±5,23	17,97±4,59	p<0,05 ^c
Impulsivity			
Attention	15,13±3,98	14,22±4,01	p<0,05 ^d

^a U= 4990,000, p=0,03

^b U= 5491,000, p=0,04

^c U= 5233,000, p=0,01

^d U= 4963,500, p=0,00

Pearson correlation analysis was used to determine the relationship between Addiction Profile Index (API) risky substance use severity and impulsive behavior. The findings obtained are shown in Table 4.

Table 4. The Relationship Between API and BIS Scores of Convicts with Recidivism

		Impulsivity Total Score
API	Pearson r	,325*
Total Score	p	,000
	n	228

*Correlation is significant at p<0.01.

There was a moderate (r=0.349) positive and significant (p<0.05) relationship between addiction severity and impulsive behavior. According to the findings obtained, as the severity of addiction increases, impulsive behavior also increases.

Discussion

In the study, it was concluded that there was a significant difference between recidivists and first-time offenders in the variables of education,

history of traumatic events, experience of domestic violence, suicidal ideation and attempt, self-harm and childhood neglect. Consistent with the findings of this study, there are studies (Steurer & Smith, 2003; Hill, 2015; Cheeks, 2021) that find a direct and strong relationship between education level and recidivism. According to Yuxhnenko et al. (2019:7), educational problems may influence the onset of criminal behavior and may be associated with persistent problems related to social adjustment that may complicate an offender's reintegration. Research has reported a consistent relationship between childhood maltreatment and involvement in the criminal justice system (Evants and Burton 2013; Smith et al., 2005). Understanding the potential relationship between maltreatment and recidivism is critical for planning rehabilitative treatments (Vitopoulos et al., 2019:360). Many convicts may have problems stemming from adverse childhood experiences characterized by family breakdown, physical and sexual abuse, failure in education and professional life, negative parental attitudes, and substance abuse (Eccleston & Sorbello, 2002:237). In addition to all these, there are also studies showing that family problems predict future recidivism among first-time adult offenders, but not among convicted offenders with a known criminal history (Harris, 2011).

Another critical factor in penal institutions is suicide and self-harm behavior. Daniel and Fleming (2006) identified previous criminal behavior as a risk factor in prison suicides. According to the study, the significant difference in suicide and self-harm behaviors in recidivists supports the results of other studies on this group, which also has high impulsivity. Berg et al. (2015) associated impulsivity with alcohol and substance use, depression, suicidal tendency, non-suicidal self-harm, aggression towards others and disordered eating. While one manifestation of impulsive behavior is self-harm, another can be expressed as aggression towards others (Coccaro, 2015; Paris, 2005).

The study concluded that the lifetime substance use rate of recidivists was higher than the lifetime substance use rate of non-recidivists. In another study on this subject, in which participants were recidivists, all participants reported lifetime use of

alcohol and illicit substances, and most participants reported using at least one illicit substance in the month prior to their current incarceration (Lattimore et al., 2010). In the study conducted by Hakansson and Berglund (2012), in their comparison between recidivists and non-recidivists in terms of clinical personality patterns and clinical syndromes, it was concluded that recidivists exhibited more antisocial, aggressive-sadistic and borderline personality traits as well as more substance and alcohol dependence. In the same study, recidivism was associated with heroin and amphetamine use, injection drug use and polysubstance use rather than alcohol, opioid analgesics and hallucinogenic drugs. According to many studies on recidivism and psychopathology (Chang et al., 2015; Krueger, et al., 2007), externalizing psychopathology is characterized by individuals who reoffend.

When the findings related to the substance use characteristics of the convicts are analyzed, it is observed that the presence of people with substance use in the family and social environment of repeat offenders is higher than the convicts who are in prison for the first time. This finding supports the view that, as stated in the social learning theory, individuals cannot be evaluated separately from their social environment. As social beings, humans, through interaction with others, observe and model behaviors, and as a result of these observations, they acquire certain behaviors which they exhibit in either a positive or negative manner (Korkmaz, 2003). Similarly, the acquisition of delinquent behavior is influenced by the frequency of communication, the amount of time spent, and the locations in which individuals with deviant behaviors interact (Geçkin, 2019). In a study conducted by Lattimore et al. (2010) with repeat offenders who committed violent crimes, it was concluded that the participants had extensive criminal and substance use histories, low educational and employment skills, and families and peers involved in the substance and criminal justice system.

Numerous studies confirm that impulsivity and risk taking are associated with a wide range of problematic behaviors such as substance use disorder (Lejuez et al., 2003; Verdejo-García et al., 2008; Smith et al., 2014) and criminal behavior

(White et al., 1994; Ribeaud & Eisner, 2006). According to the research findings, it was concluded that as the severity of addiction increases, impulsive behavior also increases. In a study conducted by Bernstein et al. (2015) with convicts, impulsivity was found to be higher among all substance users except cannabis compared to non-users. In the study, use of multiple substances was found to be at a higher level in recidivists than in first-time offenders. This finding is consistent with the results of other studies. Hakansson and Berglund (2012), who examined the risk of recidivism due to substance use problems, found a significant relationship between multiple substance use and recidivism and concluded that as the number of substances used before incarceration increased, the risk of recidivism also increased. Hopley and Brunelle (2012) examined the relationship between drug use and impulsivity more specifically by evaluating alcohol, cannabis, opioid, stimulant and hallucinogen dependence separately. For each of these substances, convicts with probable dependence scored higher on impulsivity than those without probable dependence.

In the study, it was concluded that the group of convicts with recidivism had higher levels of impulsivity than the group of convicts without recidivism. This finding is consistent with the findings of other studies examining the relationship between recidivism and impulsivity. In order to reveal the effect of psychopathy, impulsivity and aggression on recidivism, a recent study (Martin et al., 2019), which revealed the relationships between these dimensions in convicts with and without antisocial personality disorder, emphasized that impulsivity and aggression are at the center of recidivism by revealing that psychopathy is associated with recidivism. In addition, there are studies in which impulsivity was not found in convicted recidivists (Molina-Coloma, 2022). These studies have been explained by the notions that impulsivity is not found at a high rate in many offenders, or that impulsivity is present in many offenders, whether they have reoffended or not (Griffin et al., 2018), and at the same time, it occurs in a wide variety of internalizing and externalizing psychiatric disorders (Berg et al., 2015).

Limitations of the study

All participants were male. The fact that all of the participants were male limited the determination of a possible difference according to the gender variable. This is due to the fact that the institutions where the application was made are only composed of adult male convicts and detainees. In addition, the scales used are based on the subjective reports of the participants since they are self-report scales. Therefore, it is thought to be a limitation in the sense that it may have caused the person to enter into an approach (social desirability) such as showing themselves different from what they are. In addition to the subjective reports of the participants, it is considered that forensic toxicological methods should be used to obtain more reliable information about substance use. In addition, this study is limited to Izmir province. Based on the fact that offender profiles cannot be evaluated separately from the environmental and socio-cultural context in which they are located; it is thought that conducting longitudinal studies in addition to scientific studies and comparative studies to be conducted on a city basis in the prevention of recidivism will provide an opportunity for healthier evaluations.

Conclusion

This study focused on examining substance use and impulsivity in determining the factors that promote recidivism. In addition, the findings obtained in terms of some predicted variables (education, history of traumatic events, experience of domestic violence, suicidal ideation and attempt, self-harm and childhood neglect) require awareness about the effects of these variables in repeat offenders. At this point, continuing to apply the screening tools (ARDEF, DEPAR), which are currently applied in the penal institutions in our country (Maschi and Schwalbe 2012), by revising them according to the needs in the process and supporting them with up-to-date scientific information will enable early intervention.

Identifying the factors that lead to recidivism is crucial for the rehabilitation of individuals

involved in the penitentiary system. The literature shows that risk and protective factors should be assessed in order to understand how to intervene with convicts in prison (Sousa et al., 2019). This study revealed that substance use and impulsivity may be a risk factor for recidivism. In this context, the need for more effective implementation of the Impulsive Behavior Prevention Intervention Program prepared within the scope of Evaluation, Profile Tools and Rehabilitation Programs (DEPAR) for convicts in penal institutions who have impulse control problems or who are observed to need support due to these behavior patterns has emerged.

It is thought that identifying the characteristics of convicts with a high risk of recidivism can maximize the effectiveness of programs implemented as crime prevention strategies in penal institutions. An important point here is that the ultimate goal of risk assessment is the prevention of recidivism rather than its prediction (Olver et al., 2009). Today's criminal justice paradigm is in the direction of focusing on the psycho-social needs of the individual who has turned to criminal behavior; the most important of the goals of the criminal justice system is to carry out improvement activities. It is thought that the studies to be carried out in order to prevent recidivism in penal institutions in our country will enable the evaluation of the effectiveness of the penal execution system. For this reason, it is important to increase the number of scientific researches in this field. In addition, the results obtained emphasize that the improvement activities implemented in penal institutions should target reintegration into society. In this sense, the implementation of intervention programs such as Smoking, Alcohol, Substance Abuse Information Program (SAMBA), Pre-Release Prisoner Development Program and Impulsive Behavior Prevention Intervention Program, which are among the structured programs prepared for implementation in penal institutions to prevent recidivism and support improvement, reveals the importance of psycho-social service support programs.

As a result, the development of effective crime prevention and social reintegration programs should include not only the accurate identification

of the factors that increase the likelihood of crime or recidivism, but also the services to be provided after release. In this sense, supportive work to be carried out in probation directorates and the development of social policies at the macro level in the fight against crime are also very important.

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