



The Role of Childhood Abuse and Psychological Symptoms in Discriminating Frequency of Drug Use and Self-Harm in Incarcerated Men Convicted of Robbery

Soygundan Hüküm Giymiş Erkeklerde, Çocukluk Dönemi İstismarı ile Psikolojik Semptomların Uyuşturucu Kullanma Sıklığı ve Kendine Zarar Verme Sıklığını Ayırt Ediciliği

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ABSTRACT

The aim of the present study was to investigate the role of prior childhood abuse and current psychological symptoms on the frequency of drug use and self-harming behavior among a group of male prisoners convicted of robbery. The sample consists of 127 men convicted of armed, aggravated, unarmed/forced robbery, who were held in Metris T-type closed penitentiary state correctional institution. History of childhood abuse was assessed with The Childhood Trauma Questionnaire (CTQ) and psychological symptoms were assessed with The Brief Symptom Inventory (BSI). Frequency of drug use was assessed with three questions and self-harm was assessed through four questions both on the self-completed demographic information form. Among 127 men recruited, history of childhood abuse and psychological symptoms provided discrimination concerning frequency of drug use and self-harm. The rate of self-harming individuals in the present study was relatively high compared to the literature. There was a significant correlation between CTQ total and subscale scores and BSI total and subscale scores, except for the emotional neglect subscale.

Keywords: Robbery, incarceration, childhood abuse, psychological symptoms, drug use, self-harm.

ÖZ

Bu çalışmada, çocukluk çağı istismar yaşantısı ile psikolojik semptom sıklığının, uyuşturucu madde kullanma ve kendine zarar verme davranışlarının sıklığını ayırd ediciliğine bakılmıştır. Çalışmanın örneklemini, Metris T tipi cezaevinde yağma, silahlı, silahsız soygundan hükümlü 127 erkek oluşturmaktadır. Çocukluk dönemi istismarı Çocukluk Çağı Travmaları Ölçeği (ÇÇTÖ) ile, psikolojik semptomlar ise Kısa Semptom Envanteri (KSE) ile ölçülmüştür. Uyuşturucu madde kullanımı ve kendine zarar verme davranışı demografik bilgi formunda sorularla belirlenmiştir. Çalışmanın sonuçları, çocukluk çağı istismar yaşantısı ile psikolojik semptom sıklığının, uyuşturucu madde kullanma ve kendine fiziksel zarar verme davranışlarının sıklığını ayırd ettiğini, psikolojik semptomların daha yüksek ayırd ediciliğe sahip olduğunu göstermiştir. Çalışmada, duygusal ihmal dışında tüm ÇÇTÖ alt ölçek puanlarının, KSE toplam puanı ve tüm alt ölçek puanları ile ilişkili olduğu görülmüştür. Duygusal ihmal ise sadece hostilite ile ilişkili çıkmıştır.

Anahtar sözcükler: Soygun, yağma, hükümlülük, çocukluk çağı istismarı, psikolojik semptomlar, uyuşturucu madde kullanımı, kendine fiziksel zarar verme davranışı.

Introduction

History of childhood maltreatment and mental health problems are common among incarcerated individuals (Dietrich 2003, Ibrahim et al. 2015, Debowska and Boduszek 2017, Yüksel and Çifci 2017). It is well known that children who are maltreated may be deprived of the necessary developmental opportunities for healthy emotional developmental, and as a result may feel unloved, unworthy of affection. These adverse childhood experiences may in turn create a risk for mental health problems (Wolfe 1999, Garbarino 2000, Reddy et al. 2006, Khaleque et al. 2013). As stated, mental health problems are common among incarcerated individuals, and the problem is most pervasive among those who were raised in dysfunctional families, where maltreatment may exist as a major problem (Greene et al. 2014).

Conduct problems, crime, and alcohol and illegal drug use in adolescence are among the negative risks associated with abuse and neglect in childhood (Crosson-Tower 1999, Maughan and Cicchetti 2002, Chen 2011). In addition to being abused as a child, also witnessing violence, traumatic life events, death of relatives or loved ones were found to be related to depression, and lower quality of life among prisoners (Skarupski et al. 2016). Dissociative experience was also found to be related to childhood abuse, adverse family experiences, parental history of drug and alcohol abuse, and psychiatric problems among prisoners (Walker 2002, Dietrich 2003, Altintas and Bilici 2018). Antisocial Personality Disorder is cited as one of the most common psychological disorders among prisoners. One study reported 79.9% of inmates having at least one personality disorder, with Antisocial Personality Disorder with the highest prevalence (Brazao et al. 2015). Garcia et al. (2012), found that Antisocial Personality Disorder was higher among inmates who had left their family homes early (average 13 years), compared to inmates who left home at an average of 18 years. Other studies have also reported an association between personality disorders and violent crimes (Alevizopoulos and Igoumenou 2016).

Childhood trauma, including abuse, is among the many risk factors for future drug use (Wu et al. 2010, Lake et al. 2015). Drug abuse is common among incarcerated males with a history of childhood abuse (Johnson et al. 2000, Wolff and Shi 2012, Ross et al. 2018).

Another problem encountered among incarcerated individuals is physical self-harm. Self-harming behavior is defined as physically injurious behavior such as cutting, burning, piercing, the skin, hitting the head, punching, without the intention of suicide. Self-harming behavior is frequently encountered in individuals with a history of childhood trauma and drug use (Evren et al. 2012, Darke and Torok 2013, Harford et al. 2014). Self-harming behavior is pervasive among male prisoners, with a history of traumatic life experiences including severe childhood abuse, history of parental imprisonment, history of self and family mental health problems, high life stress, drug related problems, anger and anxiety (Kenny et al. 2008, Sakelliadis et al. 2010, Gunter et al. 2011).

This correlational study aimed to investigate the discriminating role of childhood abuse and present psychological symptoms on the frequency of drug use and self-harming behavior among a group of male prisoners convicted of robbery. It was hypothesized that both childhood abuse and psychological symptoms would discriminate frequency of drug use and self-harming behavior. Also the relationship between history of childhood abuse and present psychological symptoms was assessed. This specific crime type was chosen to narrow the crime type and investigate these characteristics in a group accepted as career criminals.

Methods

Participants

The study was conducted in Metris Prison, a T-type closed penitentiary state correctional institution in the Esenler district of Istanbul. Inclusion criteria was crime type, the sample was recruited among 129 offenders convicted of armed, aggravated, and unarmed/forced robbery who were located at a certain unit in the institution. Other crime types were excluded. Volunteers made up the sample which eventually consisted of 127 men. The age of the sample varies between 20-60, with a mean of 33. Total sentence time is between 240 to 18010 days, with a mean of 3699.56 days. The majority of the sample completed secondary school (40.9%), followed by primary school (32.3%), high-school (16.5%) and university (3.9%), 6.3% of the sample was illiterate. Most of the sample was single (45.7%), followed by married (41.7%) and divorced (12.6%). Forty five percent of the sample had an incarcerated relative (see table 1).

Procedure

Ethics committee approval was granted by the Research Ethics Committee of Nişantaşı University, Istanbul. Permission to conduct the study was made through an application (consisting of the research proposal including the instruments and the ethics committee approval) made to the office of Metris T and R Type Closed Penitentiary State Correctional Institution. The institution sent the application to the Bakırköy district attorney general's office, which was later sent to the Republic of Turkey Ministry of Justice, General Directorate of Prisons and Detention Houses. Official permission to conduct the study was sent through the General Directorate of Prisons and Detention Houses to Bakırköy district attorney general's office, which in turn sent the documents to Metris T and R Type Closed Penitentiary State Correctional Institution. After the study was implemented, permission to publish the work was granted by the Republic of Turkey Ministry of Justice, General Directorate of Prisons and Detention Houses (No: 57292265-204.06.03-E.883/78550).

A Master's-level psychology student working at the institution collected the data. He informed the inmates (these convicted of armed, aggravated, and unarmed/forced robbery) about the study. Those who agreed to participate met at the researchers' office which is a part of the institution. First confidentiality was explained, it was made clear that participation was voluntary and that they could leave at any time during the process.

Table 1. Demographics

		Minimum	Max	Mean	Frequency	Percent
Age		20	60	33.03		
Sentence time		240	18010	3699.56		
Education	Illeterate				8	6.3
	Primary school				41	32.3
	Secondary school				52	40.9
	High school				21	16.5
	University				5	3.9
Marital status	Single				58	45.7
	Married				53	41.7
	Divorced				16	12.6
Incarcerated relatives	Yes				58	45.7
	No				69	54.3

Each participant signed an informed consent form at the beginning and was informed. The instruments were individually administered to those who agreed to participate in the study. Due to the educational attainment of prisoners the researcher read the questions and noted the answers.

Data Collection Tools

Demographic questions

Participants completed questions assessing age, marital status, education, and whether they had an incarcerated relative. Information regarding drug use and self-harm was assessed through the personal information form.

Drug Use

Drug use, age of onset and frequency was assessed with three questions on the demographic information form. The first question was “did you use drugs before imprisonment”, if the answer was “yes”, then the second was “at what age did you start using drugs”, the third was “with what frequency did you use drugs” (every day, once a week, once a month or less).

Self-harm

Self-harm and its frequency was assessed through four questions on the demographic form. The respondents were asked the following questions “did you ever physically harm yourself intentionally by scratching or cutting your arm, wrist or other body parts”, “did you ever physically harm yourself intentionally by burning yourself with a cigarette or some other way, or pulled your hair”, “did you ever physically harm yourself intentionally by hitting or banging your head or other body parts, to a wall, window or other place”, “did you ever physically harm yourself intentionally by carving or pouring acid on your skin”, if the answer was “yes” then the question was followed by asking the frequency: “what is the frequency” (every day, once a week, once a month or less). The type of self-harm wasn't evaluated in the study, a participant who answered that he harmed himself in any

of these questions, was accepted as showing self-harm, and was included in the analyses as such.

Childhood Trauma Questionnaire (CTQ)

History of childhood maltreatment was assessed through the Childhood Trauma Questionnaire (CTQ) developed by Bernstein et al. (1994). The questionnaire is a 5 point Likert scale (“never,” “rarely,” “sometimes” “often” and “very often”) composed of 28 items and can be administered to adults and adolescents. Higher scores indicate an increase in abuse and neglect. The CTQ consists of five subscales, namely emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. The Turkish standardization study was conducted by Aslan and Alparslan (1999), Cronbach's alpha for subscale ranged from 0.71 to 0.92, Cronbach's alpha for total score is 0.95.

The Brief Symptom Inventory (BSI)

The Brief Symptom Inventory (BSI) is a 5 point likert type (0-4) self-report or interviewer-administered inventory designed to measure psychological symptoms in adolescents and adults (Derogatis 1993). It is the short form of the SCL-90-R (Symptom Checklist). The Turkish version was adapted by Şahin and Durak (1994) with three different samples. Internal consistency was 0.79, 0.96 and 0.95. Validity studies with the nine dimensions and three global indices were conducted with the Social Comparison Scale (-0.14 to 0.34), Submissiveness Scale (0.16 to 0.42), Stress Audit 4.2-Os (0.24 to 0.36), UCLA Loneliness Scale (0.13 to 0.36), Beck Depression Inventory (0.34 to 0.70). The Turkish form consists of 5 subscales, namely Somatization, Negative Self-concept, Depression, Anxiety, and Hostility.

Statistical Analysis

Data was analyzed using the Statistical Package for Social Sciences (SPSS). Descriptives including mean were computed for study variables, also frequency and percentages were computed to determine the distribution,. Discriminant analysis was performed to determine whether CTQ and BSI scores discriminated

frequency of drug-use and self-harm. Spearman rank correlation coefficient was used to determine the relationship between variables. Through a Post hoc power analysis , a medium effect of 0.0625 was found, and the the power of the study was estimated as 0.70.

Results

Table 2 shows percentages of frequency of drug use and self-harm, and CTQ and BSI mean scores and standard deviations in terms of drug use and self-harm. Of 127 participants, 20.5% used once a month or less, 6.3% used once a week, 18.9% used daily (total drug use rate is 45.7%), whereas 54.3% reported that they never used drugs. Mean scores and standard deviations according to frequency of self-harm: are as follows, 3.2% self-harmed once a month or less, 55.1 % once a week, self-harmed 6.3 % daily (total self-harm rate is 64.6%), whereas 35.43% reported that they didn't show self-harming behavior.

F test results with Wilks' Lambda were computed to see whether childhood trauma and psychological symptoms had a significant effect in determining classification for drug use. Results showed that CTQ and BSI have a significant effect in determining classification.

One discriminant function explaining 86.5% of the variance was obtained. The canonical correlation coefficient of 0.32

corresponding to this function, has a medium effect in discriminating the groups. The chisquare value related to Wilks' Lamda statistics was also significant (0.87). These results indicate that CTQ and BSI discriminate frequency of drug use.

The discriminant function standardized coefficients of the CTQ and BSI, in discriminating frequency of drug use, indicate that, BSI with a coefficient of 0.68 has a higher discriminating effect on frequency of drug use, compared to the coefficient of 0.47 for CTQ. The discriminant function shows a high correlation with CTQ (0.81) and BSI (0.91).

The correct classification rates according to frequency of drug use are shown in table 3, 39 of 69 individuals who never used drugs, 4 of 8 individuals who use drugs monthly or less, 12 of 26 individuals who use drugs once a week, and 10 of 24 who use drugs on a daily basis were classified correctly. The overall correct level of estimation is 51.2%.

F test results with Wilks' Lambda were computed to see whether childhood trauma and psychological symptoms had a significant effect in determining classification for self-harm. Results indicate that BSI has a significant effect in determining classification. One discriminant function explaining 96.4% of the variance was obtained. The canonical correlation coefficient of 0.42 corresponding to this function, has a medium effect in discriminating the groups. The chisquare value related to Wilks'

Table 2. Mean Scores and SD's of CTQ and BSI in Terms of Frequency of Drug Use and Self-harm

Frequency of Drug use	N	Percent	Variable	Mean score	SD
Never	69		ÇÇTÖ	49.00	16.37
		54.3 %	KSE	45.12	43.98
Once a month	26		ÇÇTÖ	60.42	18.55
		20.5 %	KSE	69.81	46.57
Once a week	8		ÇÇTÖ	49.77	10.86
		6.3 %	KSE	55.13	34.72
Daily	24		ÇÇTÖ	57.25	14.50
		18.9 %	KSE	77.79	45.91
Total	127		ÇÇTÖ	53.32	16.71
			KSE	56.98	46.04
Frequency of Self-Harm					
Never	45		ÇÇTÖ	49.76	15.27
		35.4 %	KSE	35.13	28.56
Once a month	4		ÇÇTÖ	62.00	19.65
		3.2 %	KSE	96.00	63.97
Once a week	70		ÇÇTÖ	53.67	15.68
		55.1 %	KSE	63.63	46.37
Daily	8		ÇÇTÖ	65.88	25.81
		6.3 %	KSE	102.13	58.00
Total	127		ÇÇTÖ	53.32	16.71
			KSE	56.98	46.04
Childhood Trauma Questionnaire (CTQ) The Brief Symptom Inventory (BSI)					

Lamda statistics was also significant (0.81). These results indicate that CTQ and BSI discriminate frequency of self-harm.

The discriminant function standardized coefficients of the CTQ and BSI, in discriminating frequency of self-harm indicate that BSI with a coefficient of 0.98 has a higher discriminating effect on frequency of self-harm, compared to the coefficient of 0.04 for CTQ. The discriminant function shows a moderate correlation with CTQ (0.52) and a high correlation with BSI (0.99).

The correct classification rates according to frequency of self-harm are shown in table 4. Thirty seven of 45 individuals who never harmed themselves, 1 of 4 individuals who use harmed themselves monthly or less, 14 of 70 individuals who harmed themselves once a week, and 4 of 8 who harmed themselves on a daily basis were classified correctly. The overall correct level of estimation is 44.1%.

Spearman rank correlation coefficients show a significant relationship between CTQ and BSI total scores. In terms of subscale scores, all subscales were significantly correlated with each other, except for the emotional neglect subscale which only correlated with the hostility subscale of the BSI (see table 5).

Discussion

In the current study it was examined whether history of childhood abuse and present psychological symptoms discriminated frequency of drug use and self-harming behavior in a sample of males convicted from robbery. Also, the relationship between history of childhood abuse and present psychological symptoms was examined.

Drug use and self-harm was evident in a considerable portion of prisoners in the study. To our knowledge, this study has reported

a higher rate (64.6%) of self-harming behavior when compared to the previous studies which indicated differing rates of self-harm among prisoners from 5% to 60.5% (Fotiadou et al. 2006, Gunter et al. 2011, Hawton et al. 2014, Marotta 2017, Taşören 2018).

Descriptive analyses showed that in terms of frequency of drug use, the highest level of reported childhood abuse was in the group who used once a month, whereas the lowest was in the group who didn't use drugs; the highest level of psychological symptoms was in the group who used daily, whereas the lowest was in the group who didn't use drugs. In terms of frequency of self-harm, participants who reported harming themselves daily scored the highest on childhood abuse and psychological symptoms.

Given that drug use and self-harming behavior is pervasive among prisoners, this study also investigated whether the rate of childhood abuse and psychological symptoms had a discriminating effect on the frequency of drug use and self-harming behavior. Results showed that both history of childhood abuse and psychological symptoms provide discrimination on the frequency of drug use and self-harm, with psychological symptoms having a higher discriminating effect. Given that depression, stress, and PTSD is common among incarcerated individuals with drug related problems (Şimşek 2018, Aslan et al. 2019), these findings are in line with studies which show that drug use may be a dysfunctional way of dealing with negative emotions especially in populations with a history of trauma (Scott et al. 2013, Heggeness et al. 2019). It should be remembered that especially when their ability to cope with difficulties and troubles is limited, individuals who use drugs often turn to drugs in order to cope with their negative emotions (Peraza et al. 2019) and this could help in explaining the risk of drug use associated with childhood abuse. In addition, children who are abused, also

Table 3. The correct classification rates according to frequency of drug use

Frequency Of Drug Use	Predicted Group Membership								Total	
	Never		Once a Month		Once a Week		Daily			
	f	%	f	%	f	%	f	%	f	%
Never	39	56.5	14	20.3	7	10.1	9	13	69	100
Once a Month	1	12.5	4	50	1	12.5	2	25	8	100
Once a Week	6	23.1	3	11.5	12	46.2	5	19.2	26	100
Daily	6	25	3	12.5	5	20.8	10	41.7	24	100

Table 4. The correct classification rates according to frequency of self-harm

Frequency of Self Harm	Predicted Group Membership								Total	
	Never		Once a Month		Once a Week		Daily			
	f	%	f	%	f	%	f	%	f	%
Never	37	82.2	4	8.9	4	8.9	0	0	45	100
Once a Month	1	25	1	25	1	25	1	25	4	100
Once a Week	32	45.7	12	17.1	14	20	12	17.1	70	100
Daily	2	25	1	12.5	1	12.5	4	50	8	100

Table 5. The correlation between CTQ and BSI

		CTQ Total	Emotional Abuse	Physical Abuse	Physical Neglect	Emotional Neglect	Sexual Abuse
BSI Total	r	0.41**	0.51**	0.53**	0.29**	0.09	0.35**
	p	0.00	0.00	0.00	0.00	0.27	0.00
Anxiety	r	0.35**	0.44**	0.49**	0.24**	0.07	0.30**
	p	0.00	0.00	0.00	0.00	0.43	0.00
Depression	r	0.42**	0.54**	0.55**	0.33**	0.12	0.34**
	p	0.00	0.00	0.00	0.00	0.18	0.00
Negative Self-concept	r	0.34**	0.46**	0.45**	0.20*	0.05	0.35**
	p	0.00	0.00	0.00	0.02	0.60	0.00
Somatization	r	0.36**	0.42**	0.47**	0.23*	0.04	0.33**
	p	0.00	0.00	0.00	0.01	0.64	0.00
Hostility	r	0.44**	0.50**	0.52**	0.30**	0.17*	0.36**
		0.00	0.00	0.00	0.00	0.04	0.00

Childhood Trauma Questionnaire (CTQ)
The Brief Symptom Inventory (BSI)

lack the necessary emotional support and love, and are usually deprived of positive social experiences, and the chance to learn how to recognize, express, and regulate their emotions. Given that drug use can be present among individuals who suppress their emotions and try to ignore negative emotions because they lack the necessary coping skills (Wong et al. 2013, Belding et al. 1996), it can be said that these individuals may turn to drugs because they do not know how to solve their problems and how to cope.

These findings are also supported by studies conducted with female prisoners. Chen and Gueta (2015), in their study found a high rate of drug addiction and childhood abuse among female prisoners and concluded that severity of drug problems was related to family mental health problems and childhood abuse. In other studies, adverse childhood experiences, particularly sexual abuse was high among female prisoners with drug problems (Jones et al. 2018), recent sexual abuse in high-risk incarcerated girls predicted substance abuse problems, and similarly substance abuse was reported as a means to avoid negative affect in female prisoners with a history of childhood sexual abuse (Asberg and Renk 2012, Rich et al. 2016).

Self-harming behavior seems to be less studied in prison samples. It is reported that self-harm can be used as a means for blocking out, releasing, and coping with overwhelming emotions (Sakelliadis et al. 2010, Gunter et al. 2011), and this may explain the reason behind the increase in self-harm in line with childhood abuse. In prison samples, avoidance coping was found to be related with increased risk of self-harming behavior (Kirchner et al. 2008). Maladaptive emotion regulation strategies are common among individuals with a history of adverse childhood experiences (ACE) including abuse and neglect. Individuals with a history of ACE's may show emotion dysregulation and exhibit more emotion focused coping and less problem focused coping (Espeleta et al. 2018, Sheffler et al. 2019), which in turn can

explain their anxiety and depressive mood prior to self-harm (Warm et al. 2009). Furthermore, self-harm was found to be related to history of trauma, impulsivity, psychopathology and especially depression, among incarcerated women (Völmm and Dolan 2009). In terms of mental health problems and self-harming behavior, psychotic disorders, borderline personality disorder, affective disorders and substance abuse were associated with self-harming behavior in male prisoners (Verdolini et al. 2017).

As aforementioned, in the present study, psychological symptoms discriminated the frequency of drug use and self-harming behavior more than childhood abuse. This finding suggests that childhood abuse is just one of many factors increasing the likelihood of psychological symptoms, and that multiple adverse childhood experiences may lead to more severe problems. Other adverse childhood experiences such as psychopathology, death, crime and drug abuse in the family, and domestic violence can lead to psychological symptomatology (Roberts et al. 2008, Gunter et al. 2011, Borja and Ostrosky 2013, Mersky et al. 2013, Duin et al. 2018). Thus, it is crucial to screen risk factors in a child's life, which can later lead to psychological problems. In this study, history of childhood abuse is tackled as a risk factor, but it is just one of the many adverse childhood experiences documented in the literature. It is suggested that detecting and preventing childhood abuse to occur in the first place, controlling for adverse life events and allowing for a positive family environment would in fact lower the risk of drug abuse and later crime.

As stated, studies conducted with incarcerated individuals show a relationship between history of childhood maltreatment and mental health problems (Gore-Felton et al. 2001). Similarly the present study reports a significant relationship between all subtests of CTQ and BSI subscale and total scores, with the exclusion of emotional neglect which showed a relationship with only the hostility subscale. As stated, studies conducted with

inmates showed that childhood abuse was related with many mental health problems including generalized anxiety disorder, panic disorder, somatization, dissociative disorder, obsessive-compulsive personality disorder, and antisocial personality disorder (Fishbein et al. 2011, Brazao et al. 2015, Altıntaş and Bilici 2018, Krammer et al. 2018). Correspondingly, depression, anxiety, and somatization were found to be related to childhood abuse in the present study. In line with the literature, hostility and negative self-concept were also found to be related to the history of childhood abuse.

The present study is limited to male convicts, the results should be supported with female samples. Also the present study is conducted with offenders convicted of armed, aggravated, and unarmed/forced robbery and further research conducted with offenders convicted of diverse crimes would help in understanding the personality characteristics of the offenders in each crime type. In the present research the psychological symptoms were assessed through the BSI, a more thorough assessment of mental health history and present mental health would also help in determining the risk factors in crime and early intervention. Relatedly, clinical assessment for mental health problems would help at this point. Given that drug use and self-harming behavior is high among prisoners, these problems should be regarded in terms of whether they lead to, or facilitate criminal behavior, and whether they were present when committing the crime, and also whether they are used as a means of coping with emotional problems which arise from problems related to adverse childhood experiences. Thus more in-depth information can be assessed through open-ended questionnaires and qualitative studies, to understand the mechanisms behind these negative coping behaviors.

Conclusion

Childhood abuse, mental health problems, drug use and self-harm are commonly seen among incarcerated individuals but are rarely assessed among those who are commonly seen as 'career criminals', such as armed robbers. Also the well documented incidence of adverse childhood experiences among prisoners, draws attention to the fact that sufficient measures are not sufficient in preventing childhood abuse, and that more resources should be implemented to tackle this problem. Many types of traumatic life events during childhood including abuse, affect multiple areas of development, with mental health being the most outstanding. Impairment of mental health impedes diverse areas of life of the individual, including family and social relationships, academic achievement, professional life, and general well-being, and can further increase risk for criminal behavior. If mental health and family risk factors can be screened in the school setting, early in the child's life, preventive and treatment measures can be taken, psychosocial interventions can be made, and children can be empowered.

It is of high importance that childhood abuse should be taken into consideration as a multidimensional problem, and in-depth studies should be carried out to discriminate the adverse

effects. Social support and the presence of a significant adult can minimize the adverse effects of traumatic life events and help in coping behaviors, thus emphasis should be made in strengthening the social support system of the child.

As stated earlier, history of childhood abuse is common among prisoners and is one of the many risk factors for criminal behavior. Even so, the problem is diverse among this group, such that, increase in both maltreatment and psychological symptoms pose further risk for drug abuse and self-harm. Thus, when pervasive characteristics of individuals with criminal behavior are studied, further risk behavior such as drug use and self-harm can be assessed, and related risk factors (e.g. childhood trauma) can be understood.

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