

ORIGINAL RESEARCH**Investigating the relationship between personality disorders and criminal thinking styles in prisoners convicted of violent crimes**

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Abstract

Psychologists believe that there is a relationship between personality and criminal behavior. The aim of this study was to investigate the relationship between personality disorders and criminal thinking styles in prisoners convicted of violent crimes. To what extent is there a link between the types of personality disorder, the type of criminal thinking style, and the type of crime in prisoners convicted of violent crime? Is there a relationship between personality disorders in prisoners convicted of violent crimes and their gender? To what extent is there a relationship between the type of personality disorder of prisoners and the frequency of committing violent crimes? These are the factors that led to the research. The research method is a descriptive-correlational study, in which a sample of 996 offenders were selected in terms of demographic characteristics. Data were collected using a questionnaire in two sections: demographic information and Christian Texas Intellectual Thinking Questionnaires and Millon Personality Disorder.

The results show that there is a relationship between the type of personality disorder and the type of crime in prisoners sentenced to violent crimes. Different styles of criminal thinking lead to certain forms of violent crime. It was observed that based on tables and inferential tests, different criminal thinking styles are related to the prevalence of different types of crime. It has been clearly observed that some disorders are more common among women offenders and others are more common among men. However, there are some disorders that are similar in men and women. Different styles of criminal thinking relate differently to the number of crimes, the history of the crime, and the history of the same crime, and this shows that different styles of criminal thinking can create different patterns in the commission of a crime.

Keywords: Personality disorders, Criminal thinking, Violent crimes

Introduction

Every day we see and hear news of various crimes, both violent and non-violent, in the media. Statistics have changed annually, and today the crime rate, especially violent acts, has been higher than the previous generation (Landmann, quoted by Ebrahimi Ghavam). Crime such as poverty, ignorance, and disease has always had a significant presence in human societies. Intellectuals of different societies have always sought to solve the riddle of why some people commit crimes and ignore social norms and rules. The founders of the School of Crime Research consider crime to be a social disease and believe that just as the human body is ready to fight off a possible microbial attack, society defends itself before crime occurs. Thus, action should be taken against those who are suspected of committing a crime in the future (Babaei, 1388). There is no doubt that crime is a multifactorial phenomenon that makes it difficult or impossible to ignore any of its factors (Walsley, 2003). Currently, most criminologists, psychiatrists, and psychologists live the crime from four perspectives. Cognitive, psychological, social and legal can be considered (Olad Abdollahi, Foroughan, Dadkhah and Delavar, 2004). Personality is an influential factor in adaptation and public health, and organized, unified and composed of relatively stable characteristics that distinguish one person from another person or persons (Mahmoud Alilou, Esmaili, Vahedi and Rezaei, 2009). Character is composed of a combination of distinctive features called traits. Traits refer to a specific set such as thinking, feeling, attitude, and behavior (Math, Murthy, Parthasarthy, Kumar & Madhusudhan 2011). According to a 2006 Justice Department report, a significant percentage of prisoners face psychological problems. In 2006, there were about 70,500,600 mental illnesses in US state prisons. The number of mentally ill prisoners in federal prisons and regional prisons was 78,800 and 47,900, respectively (National Reform Center, 2011). In addition, Stidman, Oscher, Robbins, Keys, and Samuels (quoted by Gross and Morgan, 2013) showed that 14.5 percent of men and 31

percent of women offenders in prisons suffer from a serious mental illness. However, 9.6 million people, or about 4.1 percent of the American adult population, are mentally ill (National Mental Health Center, 2012). This discrepancy shows that the number of mentally ill people in the non-prison population and the prison population is very unequal. Considering this significant prevalence, it seems necessary to carefully examine the psychological state among criminals for more effective interventions and the effectiveness of corrective programs.

One of the most common disorders in the prison community is antisocial personality disorder (APD). Antisocial personality disorder is common in the non-prison community, accounting for about 4%, while 47% of men and 21% of women prisoners have it (Fisel and Dench, 2002; Leo, Liao Jiang and Wong, 2014). Anti-social personality disorder with symptoms such as cheating, irresponsibility, disregard for the rules, lack of remorse, and impulsivity and its diagnoses are generally based on antisocial behavior. An essential feature is the pattern of severe disregard for the law and the violation of the rights of others (American Psychological Association, 2000). Adolescents who exhibit this behavior are diagnosed with behavioral disorders and when they enter adulthood, they are diagnosed with APD. A large population of prisoners diagnosed with APD provides evidence of a link between criminal behavior and APD. This is especially true of criminal thinking (Liu, Jiang & Wang 2014). Theoretically, the information of the present study can be considered. In traditional criminological models, brigades are known as groups with different levels of crime potential. Although these models can be somewhat helpful in explaining the severity and frequency of crime and related pathologies, newer models and a multi-level view of the psychological dimensions of crime make it necessary to examine the underlying factors of behavior. The lifestyle pattern assumes that a person's belief system can determine and reinforce his or her dominant behavioral pattern. With this view, it has a strong

theoretical logic based on general cognitive approaches and textual theories. The combination of mental illness and dominant cognitive styles also provides more complex explanations that are significant in their own right. However, there is little empirical evidence to test these theoretical models. Gathering empirical evidence that there is a link between belief systems and mental illness with specific offenses can open the door to these theoretical models to correct hypotheses or stronger explanations. Otherwise, the models will remain at the level of theories that have only logical order. Therefore, the present study intends to finally answer the general question of whether, based on personality disorder, it is possible to predict the styles of criminal thinking in prisoners convicted of violent crimes.

Hypothesis

Hypothesis 1: There is a relationship between the type of personality disorder and the type of crime in prisoners sentenced to violent crimes.

Hypothesis 2: There is a relationship between the type of criminal thinking style and the type of crime in prisoners convicted of violent crimes.

Hypothesis 3: There is a relationship between personality disorders in prisoners convicted of violent crimes and their gender.

Hypothesis 4: There is a direct relationship between the severity of prisoners' personality disorders and the frequency of their violent crimes.

Hypothesis 5: There is a direct relationship between the styles of criminal thinking of prisoners and the frequency and frequency of their violent crimes.

Materials and Methods

In the present study, a sample of 996 people was selected by voluntary and available sampling method from among the prisoners of Alborz province prison in the age range of 25 to 60 years, and the relevant judge had issued their verdict with certainty. The data collection tool used is the MCMI-III Personality Questionnaire. It is one of the most widely used psychological tests, translated into several languages and used in several intercultural studies and research. Khajeh

Moghei (1993) in Tehran has standardized the second version of this test and Sharifi (2002) has standardized the third version in Isfahan. To refine the test, from the choice of the ball to the construction of the scale, and to external validation using the theory of desire Van was used as a criterion for these three steps. MCMI-III Personality Questionnaire is designed to assess personality traits and psychological trauma. Therefore, it can be used to make clinical decisions or to determine whether a person has a particular disorder or a special psychological feature is used. Various studies have shown a relatively good validity for personality disorder scales, strong correlations were obtained from 0.85 to 0.93 with an average of 0.78, in the case of symptom scales. Clinically, good correlations have been obtained from 0.44 to 0.95 with an average of 0.80 (Craig, 1999). Evidence in Iranian studies also indicates sufficient validity and validity of this test (Sharifi, 2002; Chegini, Delavar, Gharaei, 2013).

Criminal Thinking Styles Questionnaire: One of the most important tools for measuring criminal thinking is the psychological list of criminal forms for long form (PICTS and its Short Form (CTS). 37 Questions: Researchers at the University of Texas at Kristin College based on a joint research project with the Federal Bureau of Investigation, Prisons developed a tool for measuring criminal thinking with 37 questions. This test includes six scales after cognitive risks with anti-social attitudes that are associated with criminal behaviors. These six scales include: entitlement (claiming to have a special right and misdiagnosis of claims as a need), justification (tendency to reduce the deterioration of antisocial behavior, and justification of these acts and behaviors by resorting to external factors or brief causes). Orientation of power (aggression to control others and situations), cruelty (lack of emotional engagement in dealing with others), reasoning to commit a crime (negative attitude about the law and officials) and irresponsibility (blaming others for self problems). Scoring method based on 5-point Likert scale (completely disagree = 1, disagree = 2, I have no opinion = 3, agree = 4 and completely agree = 5). Phrases 1, 7, 13, 18, 19, 28 are scored in reverse. The time required to

answer this questionnaire is 15 minutes. In one study, Knight et al., examined the psychometric properties of the Criminal Investigation Questionnaire (CTS) on a sample (N = 250) of criminals with parole. The main purpose of the study was to study the validity of CTS prediction validity. The results of the validity of the scales were calculated using the method of estimating internal consistency: entitlement (0.80), justification (0.72), power orientation (0.75), rigidity (0.66), and reasoning for crime (0.644), personal responsibility (0.63). Taxman et al. (2011) using a confirmatory factor analysis method to examine the 6-factor structure as well as a possible 2-factor structure and a single-factor model on a sample of released prisoners on bail they paid. The results of confirmatory factor analysis for 6 factors showed that based on 3 general fitness indicators, including CFI RMSEA, Toker-Lewis index (TLI), the data showed appropriate fit. The data obtained from the research are examined using descriptive analyzes, including the calculation of central trend indices, scatter, and score distribution diagram. In order to assess the situation of the prisoners, t-tests were used for one group, diagrams and tests of Chi Square and Cramer's V. Group comparisons were based on multivariate analysis of variance. The relationship between personality disorder variables and criminal thinking styles was tested by Pearson correlation test. Data were analyzed using SPSS software version 23.

Results

The first hypothesis was that there was a relationship between the type of personality disorder and the type of crime in prisoners convicted of violent crimes. The findings generally supported this assumption. Although the distribution of violent crime did not differ much in some mental disorders, in many other cases the prevalence of different forms of violent crime varied based on the type of mental disorder, indicating the confirmation of the researcher's hypothesis. Table 1: Cross-sectional distribution of personality disorder and type of crime

Disorder	Crime code									
	Thief with harassment	Premeditated murder	Kidnapping / hostage-taking	Stick-up	Armed robbery	Assault	Rape	Total		
Personality disorder	Patient	% 10.9	35.9	13.8	17.6	16.4	18.1	21.2	18.5	
	Healthy	% 89.1	64.1	76.2	82.4	83.6	81.9	78.8	81.5	
Cramer's V		0.081								
p-value		0.021								

In the second hypothesis, the researcher expected that different styles of criminal thinking would lead to a particular form of violent crime. It was observed that based on tables and inferential tests, different criminal thinking styles are related to the prevalence of different types of crime. This means confirming the research hypothesis and the relationship between the style of criminal thinking and the type of crime. Table 2: Cross-sectional distribution of criminal thinking style and type of crime

Disorder	Crime code								Total	
	Thief with harassment	Premeditated murder	Kidnapping / hostage-taking	Stick-up	Armed robbery	Assault	Rape			
Southern thinking style	Yes	% 63.6	70.1	54.5	63.4	58.7	50.2	54.9	59.5	
	No	% 36.4	29.9	45.5	36.6	41.3	49.8	45.1	40.5	
Cramer's V		0.127								
p-value		0.000								

The third hypothesis sought to investigate the prevalence of gender-specific disorders. It has been clearly observed that some disorders are more common among women offenders and others are more common among men. However, there are some disorders that are similar in men and women. In general, the research hypothesis is confirmed and it is found that the pattern of disorder in women and men prisoners of violent crimes is not the same. Table 3: Cross-sectional distribution of mental disorder and gender

Disorder			Male	Female	Disorder		Male	Female	
Schizoid	Patient	%	17.4	19.5	Avoidance	Patient	%	19.3	27.1
	Healthy	%	82.6	80.5		Healthy	%	80.7	72.9
Cramer's V		0.019		Cramer's V		0.061			
p-value		0.554		p-value		0.555			
Depressive	Patient	%	35.1	47.4	Dependent	Patient	%	33.2	39.4
	Healthy	%	64.9	52.6		Healthy	%	66.8	60.6
Cramer's V		0.075		Cramer's V		0.040			
p-value		0.018		p-value		0.210			
Narcissistic	Patient	%	53.8	67.7	Selfish	Patient	%	61.4	61.2
	Healthy	%	42.2	32.3		Healthy	%	38.6	38.8
Cramer's V		0.090		Cramer's V		0.005			
p-value		0.004		p-value		0.830			
Antisocial	Patient	%	75.2	74.5	Borderline	Patient	%	63.3	63.4
	Healthy	%	24.8	25.5		Healthy	%	36.7	36.6
Cramer's V		0.009		Cramer's V		0.001			
p-value		0.768		p-value		0.981			
Obsessive	Patient	%	31.7	35.8	Pessimist	Patient	%	58.9	52.5

Disorder			Male	Female	Disorder			Male	Female
	Healthy	%	68.3	64.2		Healthy	%	41.1	47.5
	Cramer's V		0.066			Cramer's V		0.039	
	p-value		0.031			p-value		0.141	
Self-harm	Patient	%	27.7	48.4	Schizotypal	Patient	%	16.3	21.1
	Healthy	%	72.3	51.6		Healthy	%	83.7	78.9
	Cramer's V		0.142			Cramer's V		0.044	
	p-value		0.000			p-value		0.166	
Borderline	Patient	%	60.7	56.8	Paranoid	Patient	%	57.2	63.6
	Healthy	%	39.3	43.2		Healthy	%	42.8	36.4
	Cramer's V		0.051			Cramer's V		0.052	
	p-value		0.096			p-value		0.101	
Anxiety disorder	Patient	%	36.4	52.3	Somatiform	Patient	%	51.9	65.8
	Healthy	%	63.6	47.7		Healthy	%	48.1	34.2
	Cramer's V		0.102			Cramer's V		0.126	
	p-value		0.001			p-value		0.000	
Manic	Patient	%	48.6	38.5	Depressive	Patient	%	36.9	37.8
	Healthy	%	51.4	61.5		Healthy	%	63.1	62.2

Disorder			Male	Female	Disorder			Male	Female
	Cramer's V		0.090			Cramer's V		0.031	
	p-value		0.007			p-value		0.652	
Alcohol dependence	Patient	%	76.9	80.0	Drug addiction	Patient	%	86.5	85.6
	Healthy	%	23.1	20.0		Healthy	%	13.5	14.4
	Cramer's V		0.026			Cramer's V		0.017	
	p-value		0.409			p-value		0.831	
PTSD	Patient	%	37.9	41.8	Thought disorder	Patient	%	49.9	38.3
	Healthy	%	62.1	58.2		Healthy	%	50.1	61.7
	Cramer's V		0.071			Cramer's V		0.110	
	p-value		0.040			p-value		0.002	
Major depression	Patient	%	47.4	53.2	Delusional disorder	Patient	%	27.7	32.5
	Healthy	%	52.6	46.8		Healthy	%	72.3	66.5
	Cramer's V		0.126			Cramer's V		0.085	
	p-value		0.000			p-value		0.019	

The results in general confirmed the research fourth hypothesis. Based on the correlation results, there was a direct relationship between the severity of prisoners' personality disorders and the frequency of their violent crimes. In most disorders (which can be described in detail above), it can be seen that some disorders are more strongly related to the number of crimes. Some other disorders with a criminal record and some others have a stronger relationship with the recurrence of a similar crime. Table 4: Consequences of correlation analysis of number of crimes, history of similar crime and history of dissimilar crime with mental disorders

Disorders	The number of crimes	A similar crime record	Unprecedented crime record
Schizoid	0.209	0.087	0.002
Avoidance	0.147	0.155	0.189
Depressed	0.208	0.038	0.132
Dependent	0.107	0.015	0.051
Narcissistic	0.286	0.039	0.117
Selfish	0.189	0.267	0.019
Antisocial	0.230	0.161	0.182

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As can be seen, according to the research fifth hypothesis, there is a relationship between the styles of criminal thinking of prisoners and the frequency of committing violent crimes. It can be seen that different criminal thinking styles relate differently to the number of crimes, criminal history, and similar criminal history, and this suggests that different criminal thinking styles can create different patterns in the commission of a crime. Table 5: Consequences of correlation between the number of crimes, the history of similar crimes and the history of similar crimes with the style of criminal thinking

Thinking style	The number of crimes	A similar crime record	Unprecedented crime record
Entitlement	0.209	0.087	0.002
Justification	0.147	0.155	0.189
Power orientation	0.208	0.038	0.132
Oppression and cruelty	0.107	0.015	0.051
Reasoning	0.286	0.039	0.117
Personal irresponsibility	0.189	0.267	0.019

Discussion

In this section, the relationship between the prevalence of the disorder and the type of crime is examined. Because the variables of healthy, disorder and the type of crime of harassment, intentional homicide, kidnapping / hostage-taking, armed robbery, assault and rape, snatch bag (both were on the floor to investigate the relationship between cross-tables and Cramer's index were used. As can be seen, the Cramer's index is statistically significant and shows that there is a significant relationship between schizoid mental disorder and the type of crime. Based on Cramer's index, there is no significant relationship between intrusion disorder and type of crime. According to Cramer's index, it is statistically significant and shows that there is a significant relationship between depressed mental disorder and type of crime. Moreover, there is a statistically significant relationship between dependence disorder and type of crime and also the relationship between dramatic personality disorder and type of crime is statistically significant and also the relationship between narcissistic personality disorder and crime type was statistically significant. The results of the cross-sectional

table shows that there is a statistically significant relationship between antisocial personality disorder and type of crime. Personality disorder no longer had a significant relationship with the type of crime. Negativity disorder has a significant relationship with the type of crime. Obsessive-compulsive disorder was not significantly related to the type of crime. Self-harm is seen in all forms of violent crime and is not very different. The results of the correlation test shows that the relationship is not statistically significant. Schizotypal disorder was not significantly associated with the type of crime. Although its prevalence varies slightly between the seven different masses, it cannot be statistically significant. Borderline personality disorder was significantly associated with the type of crime. Paranoid personality disorder had a relatively similar distribution among violent offenders. His index shows that the relationship between personality disorder and type of crime is not significant. The relationship between anxiety disorder and type of crime was statistically significant. There is a relationship between quasi-physical disorder and type of crime. There was a significant relationship between depression and type of crime. There was a significant relationship between alcohol dependence and type of crime. The relationship between substance dependence and type of crime was significant. Post-traumatic stress disorder has a significant relationship with the type of crime. The type of crime had a significant relationship with thinking disorder. Major depression was more common in rape offenders, and the relationship between delusional disorder and crime was significant. These findings are in line with the research of Johnson et al., 2010; Anas, 2012; Morris 2014; Vanso 2014; Zakin, 2015; Fletcher, Parker, Bass, Patterson, McClure, 2016. The relationship between merit-based thinking style and crime type was statistically significant. The relationship between the style of justifying thinking and the type of crime was statistically significant. Criminal thinking style did not have the same power orientation among different types of distribution crime. The style of criminal cruelty and cruelty had a significant relationship with the type of crime. The style of criminal reasoning had a significant

relationship with the type of crime. The relationship between criminal thinking style and personal responsibility and type of crime was significant. These findings were also aligned with the Hangartenz, Rogers, Müller, Rossler, Gross 2012; And Hangartner, Will, Will Tanis, Halmi, Galinker and Cohen, 2015 study. Moreover, the finding suggests that there is no significant relationship between gender and schizoid disorder. The results show that selection and gender do not have a significant relationship. There is a significant relationship between gender and depression based on the results obtained. The relationship between dependent disorder and gender was not statistically significant. Based on the results obtained, there is a significant relationship between gender and dramatic personality disorder. The relationship between narcissistic personality disorder and gender was not statistically significant. Antisocial personality disorder was similarly distributed among male and female prisoners. There was no significant relationship between personality disorder and gender bias. The results show that obsessive-compulsive disorder is significantly different in men and women. Based on the results of Cramer's index, the negative relationship with gender is not significant. The result shows that the rate of self-harm in women and men is significantly different. Schizotypal disorder was similar in men and women. There is no significant relationship between borderline personality disorder and gender. The relationship between paranoid personality disorder and gender was not significant. The results show that the prevalence of anxiety disorder in men and women is significantly different. A pseudo-physical disorder had a significant relationship with gender. The relationship between manic disorder and gender was significant. The relationship between alcoholism and sexism was not significant. The relationship between alcohol dependence and gender was not statistically significant. The ratio of drug dependence in women was 85.6% and in men was 86.5%. The Cramer index showed that the relationship between drug and sex dependence was not statistically significant. The relationship between thought disorder and gender was significant. The relationship between major depression and gender was also significant. Women were 5.32 percent,

significantly more than men had delusional disorder. These findings were in line with the Darabant, 2010; Kimberly, Mitchell, Hunt, Robertson and Nelson Gray, 2012; Bourgeois and Navogli, 2015; Alillo, Hashemi, Beyrami, Bakhshi and Sharifi, 2014 study.

Correlation analysis of the number of crimes, the history of similar crimes and the history of similar crimes was done by Pearson method. The number of crimes, the number of similar records and the number of unparalleled records of all three were relative. The number of crimes had a positive and significant relationship with all styles of criminal thinking. The findings based on the research of Paris, Frank, Boeing and Bond 2012; Austin Comp, Swawak, Dixtin, Litz, 2014; Garths, Tulle, Mutawwick, Bertz, Lejouz, 2015; Himgen, France, Qield, Kar 2015; Drago, Marugan, Sougard, 2016, was the same.

Given the above, we must say that the issue of caring for dangerous mental patients in our country has been a challenge for many years. As stated in Article 4 of the Law on Security Measures, enacted in 1960: In that case, they will be able to keep or treat them. And in paragraph 2 of Article 2 of the same law, the government is obliged to form a psychiatric hospital for irresponsible criminals within 5 years from the date of enactment of this law. Psychological offenses for criminals were established, but no such action was taken. In Articles 37 and 52 of the Penal in addition to providing a suitable place for keeping critically ill patients, it was pointed out that there is a place for treating patients who have suffered from severe mental disorders (according to the insanity law) and need treatment in the right place, but because the action is still not possible in the Penal Code, due to the importance of the issue of the legislator in Note 2 of Article 150 states: "the judiciary is obliged to provide security measures in any jurisdiction to keep people subject to this article ...", and the judiciary has again been tasked with establishing such a medical center. Thus, the legislature is committed to treating and maintaining criminals with mental disorders who are at risk for themselves and society; like people with personality disorders, especially antisocial and borderline personality disorder, it has made the necessary predictions, but due to the

negligence and lack of attention of the judicial authorities, unfortunately, this has not been done yet, and this issue should be considered sooner or later. In Conclusion, we offer the following suggestions: Changing the legislator's approach in using the criminal model in crime prevention, combating the increase in crime and repeating the crime in the stage; because the legislature has always assumed in dealing with this issue that the offender has free will, hence the obstruction of the anomalies in society that lead to adverse social consequences; such as economic poverty, social insecurity, unemployment, and other criminal factors that contribute the most to the commission of a crime by the individual. Accepting this fact by politicians that our society is suffering from many social diseases and if we ignore them in the future we will face insurmountable problems. In this regard, measures such as permission to conduct extensive scientific research in the field of social harms and the factors that cause them and the diagnosis of social diseases and efforts to solve them are suggested. In order for a judicial official to be able to make a decision during the trial that is appropriate to the individual's personality, it is necessary that in addition to the criminal case, a personality file be filed during the trial. Due to the abundance of personality disorders among prisoners, in addition to considering the criminological and sociological aspects of prisoners' behavior, it is necessary for their psychological aspects to be considered by judicial officials: therefore, more officials need to address health issues. Psychology requires the optimal provision of mental health services, especially the use of specialized and efficient forces in prisons, in order to identify and conduct psychotherapy among prisoners. It is necessary to introduce these people to care centers after leaving prison to provide psychotherapy services and hold group therapy sessions in the treatment of antisocial personality disorder, which is the predominant disorder among the examples of various articles.

Conflict of interest

Authors declare no conflict of interest.

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