

Personality Traits of Mentally Disordered Males Who Committed Homicide

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ABSTRACT

Background: The relationship between personality traits and criminal behavior has not been sufficiently investigated. This study was done to determine the personality traits in a group of criminals who have committed homicide.

Methods: This study was conducted to compare the personality traits in three groups of people in Tehran during 2014. The statistical population was examined 3 communities; first, forensic psychiatric patients; Second, people who accused homicide without psychiatric diagnosis; and, matched group (with no diagnosis and crime). The study sample included 121 males; they have been divided into 3 groups: psychiatric patients who have committed homicide (n=41), murderers without any major psychiatric disorder (n=40) and control group which includes non-committed and non-patient (n=40). The cases were evaluated by a short form of Neo questionnaire.

Results: There was a significant difference between the groups in terms of personality traits, which included neurosis, extroversion, agreeableness and conscientiousness. The most significant difference was in extroversion and conscientiousness variables. Psychiatric patients' committed homicide showed higher scores than those of non-patient and the control group. Psychiatric patients had lower scores in extroversion, agreeableness and conscientiousness characteristics in comparison with the other two groups.

Conclusion: Psychiatric patients who have committed homicide have more irascible traits. Non-patient cases who committed homicide have a tendency to introspection and egocentrism and they are socially compatible in comparison with patient groups. These subjects are among dispassionate ones. The results of this study failed to demonstrate a significant difference between non-patient cases who have committed homicide and the control group.

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1. Introduction:

Violent and aggressive behavior, including homicide in various communities is increasing (1-3). According to some studies, murder is the third leading cause of death among 15-44-year-old people in the world (4). Some researchers found that psychological, biological, and sociological factors have been identified as the roots of violence and murder (5-6).

In studies related to criminal and delinquent behaviors, factors such as social, economic, cultural, mental disorders and substance abuse, victims of violence, family dysfunction, violence resulting from failure and social learning are considered as the causes of violence, namely homicide (7-10). However, a deeper part of the personality which leads a person to violent behavior is the character of one who has been charged with homicide. It can be the result of genetics and environmental factors. Psychological factors of a murder resulting from motivational and emotional factors is the result of a person's character (11-13).

In Iran, there is not enough considerable attention to the personality traits that could be the most important predictor of aggressive behavior and violence. Many of psychological studies can lead to wrong results because of ignoring personality factors (13). Eysenck believes that personality traits and different psychological characteristics of people, leads to specific behaviors that can be effective in prediction of their future behavior. He linked the personality traits with criminal behavior in the process of his studies. The concept of personality is a relatively stable pattern of traits, tendencies or characteristics that give stability to some extent on the behavior. Specifically, the concept of personality is formed of traits and tendencies that lead to individual differences in behavior, behavior stability over time and continuity of behavior

in various situations. Despite being unique, this pattern can be common in a group of people, but their patterns are different in each person; although anyone somehow is similar to others, has a unique character (13). Magargee divided individuals into two categories, the "irascible" and "dispassionate" ones. He believed that irascible people have little deterrent against the stimulus and dispassionate ones have tough and firm deterrent. Magargee believed that certain individuals who have committed violent behavior are eligible to apply dispassionate character, while those who repeatedly commit mild violent behavior, have usually "irascible character". The results showed that individuals who committed extremely violent crimes were introverts, more dispassionate and more consistent than irascible group and had less militancy (14).

In another study, Blackburn found that within an antisocial population, impulsive and aggressive people set in non-anxious and anxious subgroups, which were accordingly labeled primary and secondary psychopaths; and because they are less troubled by emotional problems, they might seem the true psychopaths. However, the secondary group is distinguished by deviant traits rather than neurotic symptoms. The two groups represent distinct types of deviant personality (15). This type of personality classification can indicate the criminal group, but not specifically represents the personality of offenders with violent crime.

In Iran, although there are many studies of psychiatric disorders in the prison population, but research on crime and violent behavior, including murder, is very limited. Increasing knowledge in the field of relation between forensic psychology, personality traits and homicidal behavior can be an important achievement, because it can play an important role in determining criminal responsibility. In this study, the researchers tried to assess the personality traits in this group of criminals.

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2. Materials and Methods:

Participants

The study sample was chosen people who had committed homicide and referred to forensic psychiatry department in legal medicine organization of Iran from December 2014 to July 2015. The participants were divided into patients and non-patients groups based on the diagnosis made by at least two forensic psychiatrists. Therefore, studied population includes 3 groups: The first group included men who had committed homicide and had psychiatric disorders (criminal psychiatric patients; mean age = 34 ± 3.7), the second group included non-patient men who have committed homicide (criminals who had not psychiatric disorders; mean age = 33 ± 2.8), and the third group consisted of non-patient men and non-committed that have matched with the other two groups in terms of demographic characteristics (education, geographic region and so on). This group was the control one with mean age = 33 ± 3.3 . The number of samples was estimated by Cohen's table 0.05 and test power 0.80, with sample size for each group of 40 subjects.

The first group of men with psychiatric disorders (schizophrenia (n=24), bipolar in mania phase (n= 10), other psychiatric diagnosis (n=7)] who had committed homicide with non-random sampling of purposive method were selected from patients who had been hospitalized in Razi psychiatric hospital.

The second group of men was chosen from referrals to Tehran legal medicine center by non-randomized sampling of purposive method. They had committed homicide and were not mentally ill.

The third group (who matched in terms of demographic characteristics) was selected from a healthy society (non-patient.non-committed homicide) in a non-random sampling of available type.

The third group was randomly recruited from different areas and they were workers, technical professionals, self-employers and so on. The non-psychotic murderers were recruited from Rajaei Shahr prison.

Exclusion criteria for the non-patients groups were: previous psychotic episode,

epilepsy, mental retardation, dementia, previous psychiatric hospitalization, and consumption of any psychiatric medication.

The mental disordered murderers were recruited from Razi psychiatric hospital. These patients were stayed in the hospital for at least 5 years. Exclusion criteria for this group were: presence of active psychotic symptoms (hallucination, delusion, negative symptoms). The psychotic symptoms of participants had been controlled and at the time of the study they were cooperative and oriented to time, place, person and events.

The study was a quantitative and causal-comparative research. It was approved by the Ethics Committee of Islamic Azad University, Rudehen branch, Tehran. The participants knew the goal of the research and signed the special form of informed consent. At the time of the study all the patients were been controlled and not influenced by psychotic features and they were fully capable of understanding the nature of their illegal acts.

Questionnaire Instrument

We used NEO-Five Factor Inventory (NEO.FFI) in this study. NEO Five-Factor Inventory is a psychological instrument which can assess five main factors of personality. In 1989, Costa and McCrae designed short form Five-Factor Inventory which contains 60 items and maybe used to derive only the five domain scores (12 items per domain). NEO Five-Factor Inventory (NEO FFI) was developed with the aim of assessing the five domains of the FFM: (a) neuroticism (N), that means the tendency to experience negative emotions and psychological distress in response to stressors; (b) extraversion (E), the degree of sociability, positive emotionality, and general activity; (c) openness to experience (O), levels of curiosity, independent judgment, and conservativeness; (d) agreeableness (A), altruistic, sympathetic, and cooperative tendencies; and (e) conscientiousness (C), one's level of self-control in planning and organizing the activities. The five domains are hypothesized to be relatively orthogonal to each other (16).

In Iran, standardization of NEO by KiaMehri, 2002 was performed in a sample of 380 students in Humanities faculty of Tehran University; and correlation coefficient was reported between 0.41 and 0.75 in five main dimensions. Chronbach's alpha coefficient was reported for each of the main factors of neurosis, extraversion, openness to experience, agreeableness and conscientiousness, respectively, 0.86, 0.73, 0.56, 0.68 and 0.87. In order to evaluate the validity of the tests, correlation between self-report form (S) and form of evaluate observer (R) were used. The maximum correlation was 0.79 in extroversion factor and the minimum rate was 0.54 in the adjustment factor (17).

Data analyses were presented in two sections of descriptive and hypothesis testing. In the first part, the variables were described with indicators of central tendency and dispersion. In the second part, the hypotheses were studied for each level by analysis of variance, multivariate and chi-square tests. It is provided two methods to evaluate normality of single variable. In the first method, the quotient of the amount of curvature and deformation of standard error can be checked according to the normal distribution, and it can be compared with a critical value 1.96 and the second method is the normalization of the tests. While the assumptions of variance analysis were not established, alternative solutions had been used.

This study was done after official permission of Islamic Azad University Roodehen branch, October 2014, by the letter number 95/35887.

3. Results:

The statistical analysis was performed using SPSS for Windows version 14.0. The findings from the data collection are summarized below in Tables.

Table 1 shows demographic data of the participants. Table 2 describes the Neo-FFI scores for the three groups. Psychopathic murderers, non-psychopathic murderers and non-psychopathic non-criminals differed in all parameters. Table 2 shows the mean and standard deviation for Personality traits. Control group have higher mean (35.85) in

Conscientiousness than Murderer and Psychiatric Murderers. The Psychiatric Murderer group have higher mean (25.15) in Neuroticism than Murderer and Control groups. Overall, the control group have higher mean in personality traits than other two groups. Table 3 shows that the Box's Test of Equality of Covariance Matrices is significant ($P < .001$), so it is better to report the Wilks' lambda. There was a statistically significant difference in personality traits among groups, $F(10, 228) = 3.285$, $P < .00$; Wilk's $\Lambda = 0.764$, partial $\eta^2 = .126$. Table 5 shows that the Leven's Test of Equality of Error variances is significant for Extroversion ($P < .010$), Openness ($P < .004$) and Conscientiousness ($P < .010$) so it is better to report the multiple comparisons using Bonferroni adjustment.

We can see from table 6 that there was statistically significant among groups on Neuroticism ($F(2, 118) = 5.860$; $P < .004$; partial $\eta^2 = .09$; power = .866); Extroversion ($F(2, 118) = 10.963$; $P < .000$; partial $\eta^2 = .157$; power = .990); Agreeableness ($F(2, 118) = 7.349$; $P < .001$; partial $\eta^2 = .111$; power = .934) and conscientiousness ($F(2, 118) = 9.063$; $P < .000$; partial $\eta^2 = .133$; power = .972). It is important to note that should make an alpha correction to account for multiple ANOVAs being run, such as a Bonferroni correction. The table 7 shows that the Psychiatric Murderers significantly have higher scores on Neuroticism Control groups ($P < .003$), but there was no significant differences between two other groups. The Murderers groups significantly have higher scores on Extroversion ($P < .037$) than Psychiatric Murderers and less than Control group ($P < .000$). The control groups significantly have higher scores on Agreeableness than Psychiatric Murderers ($P < .001$), but there was no significant differences between two other groups. The control groups significantly have higher scores on Conscientiousness than Psychiatric Murderers ($P < .000$). These differences are easily visualized in the below plot.

4. Discussion:

In this study, we realized that psychiatric patients had higher neurosis scores in

Table 1: Descriptive socio-demographic data of participants (n=121)

Data	Psychotic murderers n=41 N (%)	Non-psychotic murderers n=40 N (%)	Control group* n=40 N (%)
Marital status			
Married	9.8	35.0	22.5
Single	51.2	47.5	62.5
Widower	4.9	15.0	0.0
Divorced	34.114	2.51	15.0
Level of education			
Primary education	24.4	12.5	20.0
Secondary education	31.7	35	27.5
High School	7.3	15	7.5
Completed High School	34.1	35	42.5
Academic (incomplete)	2.4	2.5	2.5

* Control group: non-psychopathic non-criminals

Table 2: Descriptive Statistics for Neo

Group		N	Minimum	Maximum	Mean	Std. Deviation
Murderer	Neuroticism	40	1	47	23.03	9.617
	Extroversion	40	12	45	27.20	7.314
	Openness	40	11	35	24.85	5.736
	Agreeableness	40	10	48	29.15	6.705
	Conscientiousness	40	17	48	35.05	7.355
Psychiatric Murderer	Neuroticism	41	10	47	25.15	9.178
	Extroversion	41	8	41	23.39	7.742
	Openness	41	14	37	25.29	5.741
	Agreeableness	41	8	36	26.05	5.929
	Conscientiousness	41	7	48	29.76	8.549
Control	Neuroticism	40	9	37	18.68	6.930
	Extroversion	40	19	43	30.40	4.771
	Openness	40	17	32	24.50	3.351
	Agreeableness	40	19	42	31.03	4.948
	Conscientiousness	40	23	45	35.85	4.447

comparison of two other groups, but they had obtained lower scores in 3 other variables (introversion, agreeableness, conscientiousness) than other groups and also there were no significant differences between the murderers and the control group.

In previous studies, it has been shown that there is a relationship between personality traits and criminal behavior; for instance Basoglu C, Oner O, Ates A and et. al., in 2011 suggested that, there was a significant difference between antisocial personality disorder and healthy control group in term of psychopathy score and temperament traits (18). Atul Aggarwal, Supriya Vaish,

Table 3: Box's Test of Equality of Covariance Matrices

Box's M	62.226
F	1.948
df1	30
df2	44074.594
Sig.	.001

Sharma, and Sushil in their study (2015) focused on personality profile and criminal behavior. According to their research the personality profile can affect the criminal behavior. They declared more studies need

Table 4: Multivariate Tests for General model

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Pillai's trace	.244	3.202	10.000	230.000	.001	.122	.986
Wilks' lambda	.764	3.285	10.000	228.000	.001	.126	.988
Hotelling's trace	.298	3.366	10.000	226.000	.000	.130	.990
Roy's largest root	.255	5.860	5.000	115.000	.000	.203	.993

Table 5: Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Neuroticism	1.489	2	118	.230
Extroversion	4.742	2	118	.010
Openness	5.732	2	118	.004
Agreeableness	.513	2	118	.600
Conscientiousness	4.823	2	118	.010

to be planned to establish the role of determination (19).

Results indicate that psychiatric patients due to the high scores in neurosis have less compatibility and emotional stability. These individuals suffer from emotional disorders such as social phobias, depression, impatience, irritability and restlessness. The rate of neurosis was higher in patients than other groups, but it may be due to impact of staying in the hospital or underlying mental disorders. Due to high scores in neurosis and according to the theory of Maggargee, patients can be ranked in category of irascible characters; and in these types of characters, we are able to predict mild violence (20).

In this study, there was not observed any significant differences between non-patient group who committed homicide and the control group. According to non-patient extroversion score, we can say that these people have a tendency to introversion; these findings are in contrast with Eysenck's theory of more violence and criminal behavior in people who are socially undesirable (13)

The study did not show any significant differences between non-patients and the control group and according to obtained scores, there was not a criterion that

indicates the prediction of dangerous and violent behavior in this group compared with the matched group of non- committed and non- patient cases.

Eysenck believed that the psychotic and the people who commit violent behavior are extroverted people with high levels of anxiety and neuroticism (21), but given to the questionnaire, the control group were at appropriate adaptations and the moderate anxiety.

The findings in this study also confirmed the impossibility to draw the violence process that has been mentioned in Brukman's research 2015(22). Research findings on personality traits are along with Megargee studies 1966 and Blackburn 1975. Accordingly, a man may do aggressive behavior when he faced with a stimulus that is stronger than could control over his anger. This study, like Blackburn's and Megargee research, has been shown that patient group has irascible character. This group is emotional despite facing with low stimulation. Patient's attitude to others is somewhat aggressive, egoistic and cynical. Due to these features, they placed in the category of "suspicious-aggressive" characters. Non-patients group are also dispassionate, socially desirable and have appropriate adaptations. According to

Table 6: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Model	Neuroticism	878.814	2	439.407	5.860	.004	.090	.866
	Extroversion	998.112	2	499.056	10.963	.000	.157	.990
	Openness	12.792	2	6.396	.248	.781	.004	.088
	Agreeableness	512.469	2	256.234	7.349	.001	.111	.934
	Conscientiousness	891.637	2	445.819	9.063	.000	.133	.972
Group	Neuroticism	878.814	2	439.407	5.860	.004	.090	.866
	Extroversion	998.112	2	499.056	10.963	.000	.157	.990
	Openness	12.792	2	6.396	.248	.781	.004	.088
	Agreeableness	512.469	2	256.234	7.349	.001	.111	.934
	Conscientiousness	891.637	2	445.819	9.063	.000	.133	.972
Error	Neuroticism	8848.872	118	74.990				
	Extroversion	5371.756	118	45.523				
	Openness	3039.588	118	25.759				
	Agreeableness	4113.977	118	34.864				
	Conscientiousness	5804.561	118	49.191				
Total	Neuroticism	9727.686	120					
	Extroversion	6369.868	120					
	Openness	3052.380	120					
	Agreeableness	4626.446	120					
	Conscientiousness	6696.198	120					

Blackburn, they were also classified among “controlled- repressor “people (14, 15, 21). Personality traits and level of aggression in non- patient group is similar to control group. The persons who commit serious violent behaviors are introverted, more passionate and more adaptable and have shown less militancy of their own. This result illustrated that the current concept of personality is not a good factor to predict homicide and criminal behavior. According to this finding control group could be as aggressive as non-patient group. This suggests that in violence investigation some factor will be personally deviant, some will be socially deviant, and some will be both of them (23, 24). In general, this study has clearly confirmed in these populations there is no single type of

abnormal personality traits which could prone to chronic rule violation. According to this study there is no evidence for predicting violence behavior; it means that by attention to previous researches we can say that it may be possible to present a classification of personality traits committed to violent behavior; however, this classification does not indicate the distinct personality of the violent persons. Generally, the current concept of violence behavior remains a mythical entity. It can be concluded that it is impossible to draw a process of violence and homicide; therefore, we require further research regarding to the biological, psychological and social dimensions. In this research, the groups of psychiatric disordered patients who have committed homicide did not match with psychiatric

Table 7: Pairwise Comparisons

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Neuroticism	Murderer	Psychiatric Murderer	-2.121	1.925	.818	-6.795	2.553
		Control	4.350	1.936	.080	-.353	9.053
	Psychiatric Murderer	Murderer	2.121	1.925	.818	-2.553	6.795
		Control	6.471	1.925	.003	1.797	11.145
	Control	Murderer	-4.350	1.936	.080	-9.053	.353
		Psychiatric Murderer	-6.471	1.925	.003	-11.145	-1.797
Extroversion	Murderer	Psychiatric Murderer	3.810	1.499	.037	.168	7.451
		Control	-3.200	1.509	.108	-6.864	.464
	Psychiatric Murderer	Murderer	-3.810	1.499	.037	-7.451	-.168
		Control	-7.010	1.499	.000	-10.651	-3.368
	Control	Murderer	3.200	1.509	.108	-.464	6.864
		Psychiatric Murderer	7.010	1.499	.000	3.368	10.651
Openness	Murderer	Psychiatric Murderer	-.443	1.128	1.000	-3.182	2.297
		Control	.350	1.135	1.000	-2.406	3.106
	Psychiatric Murderer	Murderer	.443	1.128	1.000	-2.297	3.182
		Control	.793	1.128	1.000	-1.947	3.532
	Control	Murderer	-.350	1.135	1.000	-3.106	2.406
		Psychiatric Murderer	-.793	1.128	1.000	-3.532	1.947
Agreeableness	Murderer	Psychiatric Murderer	3.101	1.312	.059	-.086	6.288
		Control	-1.875	1.320	.475	-5.081	1.331
	Psychiatric Murderer	Murderer	-3.101	1.312	.059	-6.288	.086
		Control	-4.976	1.312	.001	-8.163	-1.789
	Control	Murderer	1.875	1.320	.475	-1.331	5.081
		Psychiatric Murderer	4.976	1.312	.001	1.789	8.163
Conscientiousness	Murderer	Psychiatric Murderer	5.294	1.559	.003	1.508	9.079
		Control	-.800	1.568	1.000	-4.609	3.009
	Psychiatric Murderer	Murderer	-5.294	1.559	.003	-9.079	-1.508
		Control	-6.094	1.559	.000	-9.879	-2.308
	Control	Murderer	.800	1.568	1.000	-3.009	4.609
		Psychiatric Murderer	6.094	1.559	.000	2.308	9.879

disordered patients who have not committed a crime, So that an intra-group comparison should be performed between psychiatric patients who have committed homicide and patients who had no history of violent behavior. Also, type of murders was not identical, that it might be effective on the results.

5. Conclusion:

This study can be a starting point for further research. Other research that can be performed in this regard is comparison of the personality traits of two groups of

psychiatric patients: one group who has committed violent crimes and another group had no history of any type of violent crimes.

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