

COMPARATIVE STUDY OF EMOTIONAL CHARACTER AND ALEXITHYMIA IN INDIVIDUALS COMMITTING FIRST DEGREE MURDER AND ORDINARY PEOPLE

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Abstract. Context and objectives: murder as a social phenomenon could be a potential danger for society and families, so studying its roots and causing factors would help to prevent the prevalence of this destructive phenomenon. Therefore, the present study was conducted to compare emotional character and Alexithymia in people committing first degree murder and ordinary people. **Methods:** the method used for this study was causal-comparative. The research population consists of all the prisoners in Yasuj prison committing murder in 2015 and 2016. 40 individuals committing murder were sampled directly and 40 ordinary people were matched and participated in the study. To collect data, emotional nature and Alexithymia questionnaires were used. The collected data were analyzed using multivariate variance analysis tests. **Findings:** Multivariate variance analysis showed significant statistical difference between the scores of emotional nature and Alexithymia in both groups of people committing murder and ordinary people. **Results:** The results of the study show that people committing murder have a tendency towards novel and dangerous acts, and also have trouble expressing emotions and Alexithymia.

Keywords: Emotional character, Alexithymia, Murder

1. Introduction

To keep its life and duration, each society has established norms the achievement of which is dependent of the members of that society commit to the norms and not to refuse them. Refusal and Deviation is a behavior in contrast with established norms of a group or society, so it is something relative and differs from community to community and time to time. Violence is one of the most significant social phenomena and murder is the most severe form of it, that is to kill a human by another human. Murder is a serious crime (1). Most crimes against individuals has long-term consequences for victims which often puts them in danger or even exposed to death (2). According to clause 206 of The Islamic Penal Code, the following cases are first degree murder: 1) in cases that a murderer does something with the purpose of killing a definite person or indefinite member or members of a group, whether it fatal or not, that results in someone's death; 2) in the cases that a murderer does a fatal act, whether he/she is intended to kill a person or not; and 3) in the cases that a murderer commits an act which is not itself fatal, but it is deadly for a sick or old person or a kid and the murderer knows that (2).

In Iran, according to the reports, 62 percent of the murders is caused by a quarrel and according to the formal reports of police and judicial departments, from 2002 to 2014, about 2150 people die because of murder. In the latest report by police department, the real murder rate in the country is 7.2 person per 100,000. According to NAJA (Islamic Republic Police Department) in a 2013 report, Iran is the fifteenth country in first degree murder and the fifth country in deaths because of car accidents in the world. The average age in Iran is 28 and 10 percent of the society are above 55 years old (3). 50 percent of the murders in Iran have no backgrounds and are just committed after momentary angers. 26 percent of murders are committed with a gun, 40 percent with a cold weapon, 50 percent with battery, 10 percent strangling, 5.5 percent others ways and 3 percent unknown. now the murder rate in the country is 2.8 person per 100.000 and Ilam province with 6.6 percent and South Khorasan with 0.005 percent murder rate are the first and the last provinces in the light of first degree murder, Iran is the 27th country in the world in terms of discovering and arresting murder and murderers (3). 6 murders happen daily in Iran. 15 percent of the murders occur because of moral and behavioral reasons, 31 percent in quarrels, 3 percent if robberies, 15 percent because of family disputes, 26 percent unknown and 9 percent other reasons. 50 percent of murders in the country have no prior background (3).

Murder, like any other phenomena, crimes, and inconveniences, has got several incentives and must be approached comprehensively in order to be explained. Psychological explanations for this context are psychoanalytic approaches (with emphasis on fixation in development phases, psychic structure's unbalance and mother-child relationship disorder), behavioral approaches (with emphasis on conditioning, observcational-social learning and correspondence principle theory), cognitive approaches (with emphasis on personal believes, self-control abilities, behavioral judgment and social cognition) and Eysenck personality aspects and his emphasis on committing criminal acts in some neuro systems because of reactivity, sensitivity and irritability (4). With emphasis on biological parameters, Robert Cloninger created a firm theoretical framework for personality which includes both normal and abnormal personality. Personality according to this behavior, consists of natural elements which Cloninger represents in

his neuro-biological model (5). Cloninger's neuro-biological model studies genotypic aspects of personality and embraces natural aspects including harm avoidance, novelty seeking, reward dependence (6).

Personal differences exist in natural aspects forming the processing of emotional data and first learning components especially conditioning unconscious behavioral responses. Nature is a hereditary bias in emotions and formulated learning which is the basis for life and is stable throughout the individual's life. Each aspect of nature is a naturally distributed characteristics which is almost hereditary, visible in children and stable in time and partly predict individual's behavior in adulthood. Natural differences which are not stable at first, tend to be stable in the second and third year of life (6). Gardini et.al in a study (7) showed that novelty seeking scores has a positive correlation with gray matter cortex in anterior cingulate and forehead. Generally, the results of this anatomical correlation is consistent with this finding that novelty seeking individuals, tend to be active and express dangerous acts (8). Gardini et.al in another study (7) found that there is a negative relationship between harm avoidance and orbito-frontal and posterior occipital areas cortex gray matter metabolism. According to these we could assert that since the retro-orbital cortex are functionally responsible for emotions and anxiety and reward control, low levels of gray matter in this areas could justify behavioral prevention and personality phenotypic development of harm avoidance (8). Some other researches have demonstrated that personality disorders in most of the measures in MMPI test are more in murderers rather than ordinary people (9). Recent studies conducted in terms of the relationship between personality factors and suicide ideas or committing it suggest a correlation between harm avoidance and neuroticism, extraversion, thought novelty seeking and/or committing suicide (10, 11). Other personality factors considered relevant to suicide acts and thoughts, based on conducted studies, include low scores in reward, dependence, perseverance, self-control and cooperation, and high scores in self-transcendence and psychoticism (12, 13). Lennox and Dolan (2014) studied mood, personality and mental disorders in men committing crime. These men showed less vulnerability and fear of punishment and also had anti-social characteristics (14). Boroiu (2014) studied personality features in women committing crime and suggested that criminal women had antisocial characteristics.

Another variable that is associated with murder seems to be Alexithymia. Alexithymia is conceptually defined as difficulty in recognizing emotions, difficulty in describing feelings and outside thinking (16). Alexithymia is the lack of expressing excitements due to an ability lack of cognitive processing of emotional information, of regulating emotions or of deliberately inhibiting emotional expression. When emotional information cannot be perceived and evaluated in the process of cognitive processing, the person is emotionally and cognitively disturbed and feels helpless which may show itself in complaints and in physical pain (16). Many researchers suggest that Alexithymia expands people's chance to psychiatric disorders (17, 18). Examples include: Alexithymia in drug and alcohol abusers (20) and anxiety and panic disorders (21). Chang, King Huang and Xiaohu (2016) in a study on the symptoms of post-traumatic stress and Alexithymia in the perpetrators of violent crimes represented that these perpetrators have a lower performance function than the normal group (22). Lichev and Uwe (2016) in a research studied Alexithymia and Depersonalization disorder in pedophilic men and suggested that these people have difficulty in executive function (23). Basharpour et.al (2016) studied emotional failure in addicted and ordinary people and found significant difference between these two groups in terms of emotion seeking and emotional experience as processing-emotional components, and difficulty in expressing emotions as a part of Alexithymia in these two groups (24). Pamela, Mathis and Powell (2016) conducted a research studying language function, mental health and Alexithymia in young prisoners which had low level language function and mental health, and had difficulty in executive function (2016).

According to the statistics on first degree murder, as Reza Poostchi and Ebrahim Sani suggested, personality disorder is more prominent in murderers than ordinary people; other studies also have shown the relationship between suicide ideas and committing suicide in emotional nature components like harm avoidance, neuroticism, extroversion and novelty seeking, and on the other hand, those suffering cognitive data processing disorder tend to act more antisocial like taking drugs and alcohol. According to what mentioned and regrading shortage of information on murder criminal's psychological and personality features, the present study investigates emotional nature features and Alexithymia in first degree murderers. Findings of this study would be applicable for prison authorities, courts, medical jurisprudence, crime psychologists and other bodies associating with crime and criminals, especially murder.

Method

This is a descriptive and causal-comparative study that has been done retrospectively. The statistical population of this study consists of all the perpetrators of homicide in Yasuj city, 40 of them are selected as sample by available sampling method, and 40 of them are selected from the normal people by matching method. The questionnaires of emotional and affective nature of Alexithymia were given to individuals. After completing the questionnaire, the data were analyzed using SPSS software and Manua's method. The following tools were used to collect data: The Affective and Emotional Composite Temperament (AFECT) and The Affective and Emotional Composite Temperament created by ate & Lara (2012) with the goal of integrating emotional and affective temperament into one model. 52 questions of this scale measure the emotional nature of 6 components: will, anger, inhibition, sensitivity, coping, control. These 6 components are measured on a 7-point Likert scale. And the other 12 questions include 12 emotional forms that include: depressed, anxious, indifferent, obsessive, cyclothymic, dysphoric, irritable, quirky, inhibited, hyperthymic, cheerful and euphoric, that they are on a scale Likert measures of 5 points. The last 3 questions also give you an overview of the emotional and affective nature of a person who ate & Lara (2012).

Cronbach's alpha coefficients produced 5 dimensions of emotional nature in the range of 0.87-0.97 and 0.75 for the inhibition dimension (13). The obtained Cronbach's alpha results of the subscales of this test on the subjects of the

present study were 0.95 for will, 0.86 for anger, 0.80 for inhibition, 0.88 for sensitivity, 91 for coping, and 94 for control.

Alexithymia Toronto Scale (TAS-20): This questionnaire was developed by Bekbi et al. The Alexithymia Toronto questionnaire is a self-assessment questionnaire with 20 questions that have three dimensions of difficulty in identifying emotions (7 questions), difficulty in describing emotions (5 questions), and focusing on exterior experiences (8 questions). The questions are evaluated according to the 5-point Likert criterion, and ranging from "Totally Agree" (1) to "Absolutely Opposed" (5). The score is 60 and higher as High intensity Alexithymia and Scores of 52 Down are considered low intensity Alexithymia (26). In grading this scale, Shahkholian et al. have considered grades 60-53 to be of low intensity Alexithymia (without Alexithymia). The internal consistency validity of the Cronbach's alpha in Iranian sample for the total TAS-20 scale and the dimensions of DDF, DIF, and EOT in the Iranian clinical sample was 77%, 73%, 69% and 65%, respectively.

Results

The number of 40 death row prisoners in Yasuj with mean and standard deviation of age was 39.87 and 8.30 and 39.49 and for non-killers 7.40 respectively.

Table 1. Mean and standard deviation of scores of subjects in both killer and non-killer groups

Normal		Killer		Variables
SD	M	SD	M	Group Membership
36/56	2/03	24/201	2/32	Emotional and Affective Behavior
64/181	4/72	57/370	9/20	Alexithymia

Table 1. The mean and standard deviation of the subjects' scores in the emotional-affective group of the perpetrators of murder were 36.56, 2.3 and 2.24, respectively, and the mean and standard deviation of Alexithymia in the group of the perpetrators of the murder was 6.181.64, 72.7 and 59.7, 9.29 in ordinary people respective.

Table 2. The results of multivariate analysis of variables for the main effect of group variables on dependent variables

Et a	p	Df Er ror	Df hypothesis	f	Meas ure	Test Name	Sour ce
0.529	7.00	4.000	78.000	0.000	0.51	Piley effect	Grou p
0.471	8.679	4.000	76.000	0.000	0.51	Lambda Wilkes	
1.122	10.381	4.000	74.000	0.000	0.51	Hoteling effect	
1.122	12.883	2.000	39.000	0.000	0.51	biggest root of the error	

The results of Table 2 show that the significance levels of all tests are permissible using the multivariable covariance analysis. These results indicate that there is a significant difference between the two groups of test and control in terms of dependent variables. Multivariate covariance analysis will be used to determine which variables are different than the control group. Also, to test the homogeneity of covariance assumption, the box test was used and the results showed that the box value was not significant (BOX, 77.77, $f = 0.75$, $p = 0.057$). As a result, the presumed difference between the covariance was still established.

Table 3. Multivariate analysis of variance for comparison of groups' average

Meaningfulness	F	Mean of squares	Degree of freedom	Sum of squares	Relative Variable	Changes root
0/000	1.875	0.46307.971	1	0.46307.971	Emotional affective behavior	Intercept
0/000	1.035	55908.150	1	55908.150	Alexithymia	
0/000	20.768	8265.446	2	16530.892	Emotional affective behavior	Group
0/000	9.469	511.385	2	1022.770	Alexithymia	

Table 3 shows the results of multivariate analysis of variance analysis for comparing the mean of group scores in each of the variables. According to the results of this table, there is a statistically significant difference between the mean of emotional-affective exertion ($f = 76/20$, $p < 0.001$) and Alexithymia ($f = 46.9$, $p < 0.001$).

Discussion. The present study aimed at comparing emotional personality and Alexithymia in first degree murderers and ordinary people. The results of the study suggested that there is a meaningful difference between average scores of both groups of people. The results of the study are consistent with studies of Chang, King Hang and Xiaohu (2016), Lichi and Owe (2016), Basharpour et.al (2016), Pamela, Mathis and Powell (2016), Lennox and Dolan (2014) and Boriou (2014). Hypothesis 1: there a significant difference between murderers and ordinary people in terms of emotional personality. The results of the study proved this hypothesis. In examining the emotional personality of murderers and ordinary people, the research results suggested that there is a meaningful difference between those committing first degree murder and ordinary people. These findings are consistent with research results of Farmer et.al (2004), which demonstrated that novelty seeking is an emotional nature component in those committing suicide and murder (27). But some other studies have shown different results, that is they reported less novelty seeking in individuals committing suicide and murder (11) or less or no meaningful difference between ordinary people and first degree murderers (10). Previous studies showed high scores for harm avoidance in those committing suicide compared to other members of a group (11). There have been reported high scores for reward dependence in other studies (10, 28). There are studies that suggest high levels of perseverance in the person committing suicide or murder (11) while there are some other studies which have shown low levels of perseverance in these people (29, 30). Self-directs score comparison shows low levels of this aspect in the individual committing suicide compared to ordinary people. Low score in self-guidance which is considered as one of the main components of personality disorders by experts, reflects vulnerable personality, irresponsibility, immaturity and not being able to conduct daily life. This finding in the frame of disorder in identity and feeling absurd which are significant features for committing suicide, is understandable and also all of the studies report such results (11). Because of the relationship of self-guidance aspect with personality disorder and the association of personality disorders with suicide actions (28) achieving low scores of self-guidance was expected. Also low scores in cooperation aspect in those committing suicide show characteristics like self-orientation, not tolerating others and ignoring people's rights. Individuals who show low levels of cooperation, have features like revenge seeking and feeling enmity towards others. Some researches have shown high scores of self-transcendence of the actors (11) and some others reflected meaningful difference between the actor and ordinary people (11). Low scores for character aspect, show weak character evolution and emphasizes a disorder in the person (31).

Hypothesis 2: alexithymia between first degree murderers and ordinary people is significantly different. The findings of the present study confirm the hypothesis and this finding is consistent with the findings of Chang, King Huang and Xiaohu (2016) who studied trauma symptoms and alexithymia in criminals and suggested that have lower executive functions compared to ordinary people (22). These findings are consistent with researches conducted by Lichi and Owe (2016) who studied alexithymia and personality failure in pedophilic persons and showed that this people have difficulty in executive function and character (23). The research findings of Pamela, Mathis and Powell (2016) are consistent with the findings of the present study which examine language function, mental health and alexithymia in young prisoners and suggested that young prisoners have lower language function and mental health, and face trouble in executive function (24). In explaining these findings, we could argue that alexithymia is a cognitive-emotional feature and the individual suffering it is unable to modify and understand his/her emotions. When emotional data could not be understood and evaluated cognitive processing procedure, individuals would be cognitively and emotionality helpless and this could disrupt emotional and cognitive structures (32). This individuals because of lack of emotional knowledge and inability to emotionally process his own emotions, usually cannot identify, understand or describe their own emotions and have a limited ability to adapt to challenging situations. One of the ways to control challenge, especially for their unleashed emotions and negative feelings is verbal method, so increase as a part of psychological systems for expressing emotions and mental disturbance. Those who have the ability to understand their own emotions and express emotional moods effectively, could better deal with their problems and adapt to the environment better. These people have better mental health. They consider negative events as opportunities not threats, but healthy people enjoy communicating others and some kind of positive emotions would be formed inside them because of their high self-confidence, and this leads to a healthy condition in all of their emotional, mental, social and physical aspects. Lacking enough previous studies regarding personality features and the psychology of first degree murderers were two limitations for the present study, and this study was only conducted on men, so this would make generalization difficult, therefore it is recommended that studies in the future examine both men and women.

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