

Research Paper

The Role of Impulsivity, Sensitivity to Reward and Anhedonia in Distinction People With Symptoms of Borderline Personality Disorder From Ordinary People



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ABSTRACT

Objectives The aim of this study is to determine the role of impulsivity, sensitivity to reward and also anhedonia in distinction People with symptoms of borderline personality disorder from normal people.

Methods This study uses both the descriptive and correlative method. The sampling method was sampling and targeting type. The samples comprised of students from Tabriz University (2016-2017 academic year), initial 200 candidates for screening and subsequent 80 candidates for target sampling. In the first step of this study, the Millon Clinical Multiaxial Inventory (MCMI-III) was used for screening followed by Balloon Analogue Risk Task for measuring the impulsivity and resistance variable as sensitivity to reward and the Snaith-Hamilton scale of pleasure is used to measure anhedonia variable.

Results It was illustrated broadly that the impulsivity variable, with 0.61 ratio, has the most important role in the Detection function. The resistance variable towards earning rewards with a 0.47 ratio occupies second place in the Detection function; the anhedonia variable occupied the third place in the Detection function with a ratio of 0.42.

Conclusion Reward deficiency syndrome can be considered as a fundamental pathological symptom of impulsivity and anhedonia in borderline personality disorder BPD. The poor functioning of the brain's rewards system is a deprivation of sensory mechanisms in people affected with BPD, that led to anhedonia and low arousal and finally impulsivity.

Keywords:

Reward sensitivity, Anhedonia, Impulsivity, Reward deficiency syndrome, Sub-threshold borderline personality

Extended Abstract

1. Introduction

The purpose of this study was to determine the role of impulsivity, rewarding sensitivity and anhedonia between individuals with borderline personality disorder and normal people. According to the theory of reward deficiency syndrome, although impulsive behaviors are quite associated with possible injury or loss, yet they provide the conditions for achieving a type of reward. The

reward deficiency syndrome is a psychological theory first noticed by Blum, which is known by the search for reward-seeking behavior or addictions. According to Blum's research, people with reward deficiency syndrome tend to follow the most severe emotions, since it allows them to feel continuous and permanent enjoyment and reward, thereby the dopamine levels increases in their brains. Reward sensitivity, in disorders associated with reward deficiency syndrome, means that individuals do not enjoy the usual rewards seeking process in their natural and daily life activities which leads to various mental disorders, abnormal and resistant patterns of achieving rewards and pleasure.

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2. Method

The research method was descriptive-correlational. The statistical population of the present study included the students of Tabriz University in the 2016-17 academic year. According to the research method, 200 people in the first stage were selected by screening, and according to the Tabachnick & Fidell formula, 80 were selected by purposeful sampling in the second stage. In fact, according to the mean and standard deviation obtained on the Millon scale-3, 40 people with borderline personality disorder and 40 normal people were selected. In other words, the subjects' scores were converted to the standard Z score, those who had a score of above Z 1.5 were considered as individuals with borderline personality signs and those with a low Z-negative of 1.5 were normal individuals. In other words, the conversion of raw scores to Z scores standardized and displayed the scores of subjects in Z's distribution with mean as zero and standard deviation of one in turn controlling the scattering. To measure the variables in the first stage of the study, the Millon-3 questionnaire was used to screen individuals with borderline personality disorder, computerized task of balloon risk for measuring the impulsivity variable and the Essen and Hamilton's pleasure scale for measuring anhedonia variable.

3. Results

The results of the study showed that the impulsivity variable with the coefficient of 0.61 has the most effective role in the discriminant function while the sensitivity of reward variable with a coefficient of 0.47 and the anhedonia variable with a coefficient of -0.42 are second and third in order, respectively.

4. Discussion

In sum, the results of present study indicate that impulsivity, rewarding sensitivity and anhedonia are the most important factors in differentiating between the individuals with borderline personality disorder and the normal individuals. According to the theory of reward deficiency syndrome, Eysenck's, Gary's, and Zuckerman's, it can be said that these three characteristics have a high diagnostic value in individuals with borderline personality traits. As per Eysenck's theory, people with higher emotional instability (such as borderline personality) are more sensitive to threats and reward signs/clues, thus because of anhedonia, they look for excitement and incitation in the environment. According to Gary's theory, people with high impulsivity have a higher sensitivity in the BAS system which makes them more capable/susceptible to potential rewards symptoms and have a low

inhibitory mechanism, seen in addictive and enthusiastic behaviors. On the other hand, according to Zuckerman's theory, seekers of superior senses are in a state of anhedonia, therefore need more powerful stimuli to achieve optimal levels of arousal. He also stated that while facing with challenging and reward-based task, responses are more severe.

Thus, according to the theory of reward deficiency syndrome, a defect in the brain reward system is a kind of deprivation of sensory mechanisms in individuals with signs of borderline personality. This leads to anhedonia, low arousal and finally leads to impulsivity in such individuals. However, more studies are needed to clarify the role of the reward deficiency syndrome in borderline personality disorder. In general, the results of the present study can be inferred that anhedonia can be considered as an underlying factor in the incidence of impulsive behaviors and abnormal patterns of reward seeking in people with borderline personality signs. However, the clarification of this issue requires further researches.

Ethical Considerations

Compliance with ethical guideline

The participants signed the informed consent form and had the right to leave the study at any time.

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Conflict of interest

There authors declare that they have no conflict of interest.

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