




Prediction of Self-Injurious Behaviors Based on Impulse Control, Internalized Shame and Rumination in Adolescents Referred to Harm Reduction Centers

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Abstract

The aim of the research was to predict self-injurious behaviors based on impulse control, internalized shame and rumination in adolescents referring to harm reduction centers. The descriptive-correlation research method was regression analysis type. The statistical population of the research was adolescents aged 14 to 18 years who referred to harm reduction centers in Tehran in 2022 with a number of 1365 people. In order to select the research sample, 300 people were selected by simple random sampling method. The research tools were self-harm, impulsivity, rumination and internalized shame questionnaires. For data analysis, Pearson correlation and multiple linear regression were used simultaneously. The results showed that there was a positive and significant relationship between impulse control, rumination and internalized shame with self-harming behaviors. Internalized shame had the highest and motor impulsivity the lowest predictability. Rumination had no part in this prediction.

Keywords: Adolescents, impulse control, internalized shame, rumination, self-injurious behaviors

Introduction

One of the harms faced by teenagers is self-injurious behavior, which is more common during adolescence. Also, in the conducted studies, the existence of psychological problems and diagnoses such as problems related to impulse control, internalized shame, and rumination have been reported in adolescents with complaints of self-injurious behaviors. Adolescents who engage in self-injurious behaviors usually experience increasing tension and arousal before performing these behaviors, and sometimes this arousal is mixed with a conscious expectation to receive pleasure and is related to self-injurious behaviors (Shafti, et al., 2021). In the emotional model of Gratz and Roemer (2004), the role of emotions in self-harm behaviors has been discussed. The activation of feelings of guilt and shame about an emotion internally, followed by blame, leads to the use of ineffective coping strategies such as rumination. (Keyvanlo, et al., 2022). In this research, the hypothesis was the impulse control, internalized shame and rumination play role in predicting self-injurious behaviors in adolescents referred to harm reduction centers.

Method

The current research was descriptive-correlation research. The statistical population included adolescents (boys and girls) aged 14 to 18 years who referred to harm reduction centers in Tehran, with a number of

1365 people in 2022, and 300 people were selected as sample by simple random sampling method according to the research criteria. To analyze the data in this research, Pearson correlation test and multiple regression analysis were used simultaneously by SPSS-25 software.

Tools

Self-Harm Questionnaire (SHI): Sanson, et al.,(1998) developed this 22 items questionnaire based on scoring (no = 0 and yes = 1) and reported its reliability by Cronbach's alpha coefficient of 0.84 and validity of 0.70. In the present study, the Cronbach's alpha coefficient reliability of this scale was 0.76.

Barratt Impulsivity Scale (BIS-11): Barratt, et al., (2004) designed this 30 items scale based on a four-point Likert scale (never = 1 to always = 4) and reported its reliability by Cronbach's alpha coefficient of 0.73 and its validity as 0.71. In the present study, the Cronbach's alpha coefficient reliability of this scale was 0.76.

Internalized Shame Scale (ISS): Cook (1993) developed this 30 items scale, with scoring based on a five-point Likert scale (never = 0 to always = 4) and reported its reliability by Cronbach's alpha coefficient for shyness and self-esteem 0.94 and 0.90, respectively, and its validity of 0.74 and 0.91. In the present study, the Cronbach's alpha coefficient reliability of this scale was 0.79.

Rumination Reflection Scale (RRS): Nolen- Hoeksema and Morrow (1991) designed this 22 items questionnaire with four-point Likert scale (never = 1 to always = 4) reported its reliability by Cronbach's alpha coefficient of 0.88 to 0.92, and its validity They reported 0.81. In the present study, the Cronbach's alpha coefficient reliability of this scale was 0.78.

Results

The average age of the participants was 16.49 with a standard deviation of 1.42. Also, among 300 teenagers, 190 were girls (equal to 63.3%) and 110 were boys (equal to 36.7%).

Table 1: Correlation matrix between research variables

| Variable | Self-injurious behaviors | Impulsivity, lack of planning | Cognitive impulsivity | Movement Impulsivity | Impulse control (general) | Deep in thought | Depression | Reflection | Rumination (general) | Internalized shame |
|-------------------------------|--------------------------|-------------------------------|-----------------------|----------------------|---------------------------|-----------------|------------|------------|----------------------|--------------------|
| Self-injurious behaviors | 1 | | | | | | | | | |
| Impulsivity, lack of planning | 0.66 | 1 | | | | | | | | |
| Cognitive impulsivity | 0.62 | 0.65 | 1 | | | | | | | |
| Movement Impulsivity | 0.61 | 0.69 | 0.65 | 1 | | | | | | |
| Impulse control (general) | 0.63 | 0.64 | 0.67 | 0.67 | 1 | | | | | |
| Deep in thought | 0.65 | 0.64 | 0.64 | 0.65 | 0.68 | 1 | | | | |
| Depression | 0.64 | 0.64 | 0.61 | 0.69 | 0.60 | 0.67 | 1 | | | |
| Reflection | 0.63 | 0.68 | 0.68 | 0.64 | 0.56 | 0.46 | 0.61 | 1 | | |
| Rumination (general) | 0.69 | 0.66 | 0.63 | 0.61 | 0.63 | 0.56 | 0.56 | 0.59 | 1 | |
| Internalized shame | 0.65 | 0.68 | 0.66 | 0.63 | 0.66 | 0.57 | 0.69 | 0.66 | 0.62 | 1 |

(All results were significant at the P<0.01)

Based on the table 1. the value of Pearson's correlation coefficient between impulse control, rumination and internalized shame with self-injurious behaviors is 0.83, 0.89 and 0.85 respectively, so there is a correlation between impulse control, rumination and internalized shame. There is a positive and significant relationship with self-harming behaviors (p<0.01).

Table 2: The results of regression analysis to predict self-injurious behaviors based on impulse control, rumination and internalized shame.

| predictor variables | B | SE | BETA | T | Sig |
|-------------------------------|------|------|------|-------|------|
| Constant | -2 | 0.89 | - | -2.23 | 0.02 |
| Impulsivity, lack of planning | 0.01 | 0.04 | 0.01 | 0.36 | 0.71 |
| Cognitive impulsivity | 0.02 | 0.07 | 0.01 | 0.32 | 0.74 |
| Movement impulsivity | 0.13 | 0.04 | 0.18 | 3.07 | 0.00 |
| thinking about falling | 0.12 | 0.05 | 0.06 | 2.12 | 0.03 |
| depression | 0.10 | 0.04 | 0.10 | 2.26 | 0.02 |
| reflection | 0.05 | 0.06 | 0.03 | 0.82 | 0.40 |
| internalized shame | 0.14 | 0.01 | 0.77 | 12.01 | 0.00 |

The results in table 2. indicate that motor impulsivity (0.18) and internalized shame (0.77) can predict self-harm behaviors and other research variables, i.e., lack of planning, cognitive impulsivity and reflection, have no role in this prediction.

Discussion and Conclusion

The results have shown that impulse control, internalized shame and rumination positively predict self-injurious behaviors. According to the emotion control theory, emotions are related to the emergence of impulsive behaviors, because the dominance of emotions over behavior and thoughts causes the adolescent to reduce the negative emotions experienced in order to get rid of the negative feelings of shame and rumination with self-harming behaviors. One of the limitations of the present study is the impossibility of separating the participants according to the type of self-injurious behavior. It is suggested that in future studies, in addition to using questionnaires to measure psychological variables, a self-report questionnaire should be implemented to measure behavioral problems in other family members or first-degree relatives and demographic factors. Also, the type of self-injurious behaviors and their severity should be taken into consideration in future researches.

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Acknowledgments

We would like to thank all the people who helped in this research.

Funding

This research is the result of a doctoral dissertation without financial support.

Conflicts of interest

The results of this research do not have any conflict of interest for the authors.



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