



THE ROLE OF DEPRESSION AND EMOTION REGULATION IN STUDENTS' SUICIDAL TENDENCIES

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Abstract

Objective: This study aims to investigate the role of emotion regulation and depression in predicting the risk of suicide.

Methods: The research is correlational and practical according to the type of use of the results. The studied sample includes 400 undergraduate students of Tehran University 2022 who were randomly selected. Data collection tools were valid and reliable questionnaires of Kall and Gill suicide probability scale, cognitive emotion regulation questionnaire (CERQ-P), and standard Beck depression questionnaire (BDI-II): short form. Data were analyzed using descriptive statistics and Pearson's correlation tests, multivariate linear regression using SPSS-25 statistical software.

Results: The results showed that suicide had a positive and significant correlation with emotion regulation ($r=0.81$) and depression ($r=0.76$). Also, the results of stepwise regression analysis showed that predictor variables were able to significantly explain 0.61 of the variance of suicide in students.

Conclusion: The results of this study showed the importance of emotion regulation and depression variables in predicting suicide tendencies in students.

Keywords: Suicide, emotion regulation, depression.

it can also be considered a kind of duty. Until Schneidman studies, suicide was considered a social phenomenon, and in its explanation, mainly demographic variables were investigated and studied; But by defining suicide as a method that a person uses for a specific problem, he predicted the possibility of suicide and its prevention using psychological components [2,3]. Extensive research has been done on the cognitive structures involved in the semiology of suicide attempts; But the question that always comes to mind is, what infrastructures can intervene in this action? One of the significant issues in this

Introduction

Suicide is one of the serious problems of public health and the level of suicide tendency is considered as one of the important indicators of the mental health of people in society [1]. Therefore, this phenomenon has always been discussed by psychologists, and considering the increase of people who deprive themselves of the blessings of life, the need to investigate the role of psychological and social factors in the occurrence of this phenomenon, as well as its timely prevention and treatment, not only in terms of scientific research is important, but from a human point of view,



person has a feeling of sadness, worthlessness, despondency, and lack of self-confidence and suffers from avoiding social relationships, sleep disorders, eating disorders, and even psychotic symptoms, and these problems and complications cause a decrease in performance and his role and responsibility in society [12]. Few people do not experience depression during their lifetime. Depression does not belong to a certain class, but some people are more vulnerable to this disorder due to their special situation. In terms of change of location and sudden separation from family, as well as the pressure of studying and fear of exams and other stressful factors during their studies, students are one of the groups exposed to mental disorders, including depression, and this problem can have unfortunate consequences for them, including academic failure. Follow Studies conducted on student groups that show a high range of depression disorders [13], have drawn the attention of researchers to the causes of people's vulnerability to depression and inventing more effective treatment methods [14]. Research shows that one of the psychological structures related to depression is the emotion of anger [15] and thirty to forty percent of people with depression experience this emotion [16]. Conceptually, anger is defined as a strong feeling of protest or satisfaction towards a person or situation, which can be synonymous with feelings of annoyance, resentment, anger, anger, hostility, or being angry [17]. Spielberger [18] considers anger to be a psycho-

field is the introduction of some mental disorders as factors that lead to suicide attempts, among which depression can be mentioned [4]. Depression, which is often referred to as a mental cold, can reduce a person's threshold of patience and tolerance, as well as his ability to restrain impulses, and ultimately increase the possibility of committing suicide in the affected person [5,6]. As Beck states in his cognitive theory, despair is the connecting link between depression and suicide [7]. In confirmation and proof of this claim, it can be pointed out that more than 80.% of those who successfully commit suicide in America and Europe suffered from depression at the time of death [8]. Students are a special group of people who are passing youth to adulthood, and this issue can cause a lot of stress In their lives [9]. The numerous stresses that have a negative effect on a person's personal and social coping, cause a decrease in a person's resistance, and in the long run, have a negative and unpleasant effect on a student's mental health [10]. Stress, anxiety, and depression will result in the occurrence of physical and mental diseases, dysfunction in performance and adaptability, and finally, a decrease in the quality of student's life [11]. Depression is one of the important causes of disability in all societies and one of the most common mental disorders, which appears as a global health problem in all cultures. Depression is generally associated with mood changes, and its symptoms are irritable mood and lack of interest and pleasure. A depressed



significantly to three disorders; Depression, anxiety, and eating disorders are associated. In addition, the use of non-adaptive strategies plays a key and important role in the occurrence of psychological disorders compared to not using adaptive strategies. For example, using maladaptive strategies such as rumination has a stronger relationship with psychological disorders than using adaptive strategies such as positive reappraisal. A variable that can effectively deal with anxiety sources is psychological toughness. So that people with higher psychological toughness can withstand anxiety better [28]. Hardiness is a set of personality traits introduced by [29] and acts as a source of resistance in facing stressful life events. This personality variable consists of three interdependent components including commitment, control, and combativeness. People with high tenacity are more committed to what they do and dedicate themselves to the goal (commitment) in addition to having a sense of mastery over the situation (control) and consider life's challenges and limitations as an opportunity for growth (combat) [30]. Toughness protects a person against external and internal pressures. In addition, psychological toughness is known as a skill that prepares a person to face problems and problems in life. People with high stubbornness do not only consider themselves victims of change but also consider themselves as determining factors for the results of change [31]. Therefore, according to the mentioned materials, the

biological state that is associated with muscle tension and automatic nervous system excitation. Cheng et al. [19] believe that the experience of anger and its adverse consequences is one of the most common sources of psychological stress. Much research evidence confirms that depressed patients experience significantly higher levels of anger and hostility compared to the normal group [20,21]. Chronic and continuous anger has a negative effect on the course and treatment of mood and anxiety disorders, leads to the continuation or worsening of depression and anxiety symptoms, and causes disease recurrence and loss of treatment gains [22]. Therefore, a more accurate understanding of the role of anger in mental illness, especially depression, will lead to more effective treatment. Emotion regulation refers to the processes during which a person tries to correct the processes related to the creation of his emotions, which is usually associated to reduce the intensity of emotional experiences [23]. Cognitive regulation of emotion is used to manage emotions to increase adaptation, and they are part of adaptation strategies that are related to the experience and treatment of emotional and physical discomfort [24,25]. According to research [28], emotional deficits and repetitive negative thoughts are effective in the development of psychopathology in young people with social anxiety disorder and mood disorders. According to research [27] factors related to the cognitive regulation of emotions



disorders such as mood disorders, psychotic disorders, or disorders related to drug use.

Tools

Cull and Gill Suicide Probability Scale

This scale includes 36 items and four subscales of hopelessness, suicidal thoughts, hostility-aggression, and negative self-evaluation. Items are scored based on a four-point Likert scale from never: 1 to always: 4; After scoring, a weighted score is given to each item individually, which is done to increase the probability of detecting the risk of suicide. Cronbach's alpha of the total score on this scale is reported as 0.93. Also, it has been found that this scale separates suicidal people from non-suicidal people [32]. This scale has also been used in adolescent groups and its four-factor structure has been confirmed. Its reliability is also reported by Cronbach's alpha method for 0.91 [33]. In Iran, in a research that used this scale on teenagers, it was found that there is a correlation between the score of this tool and the symptoms of depression and anxiety, and it can distinguish teenagers prone to suicide [34]. In the study [35], the reliability of this scale was obtained with Cronbach's alpha coefficient of 0.86. In the present study, the reliability of this scale was obtained with Cronbach's alpha coefficient of 0.86, which indicated the desired reliability of the present scale.

Cognitive Emotion Regulation Questionnaire (CERQ-P)

This questionnaire has 36 questions and its purpose is to measure the subscales of

purpose of this research was to investigate the role of emotion regulation and depression in predicting students' suicidal tendencies.

Methods

This research is a descriptive correlation type, and the researcher has considered suicidal tendencies as criterion variables and emotion regulation and depression as predictor variables. The research population includes all undergraduate students of Tehran University in 1401, of which 400 people (190 boys and 210 girls) were examined as a sample group. The number of sample groups was calculated and determined by Cochran's formula. The age range of the subjects was 18 to 27 years and their average age was 21 years. Sampling method in this research, among the students of Tehran University, the questionnaire was randomly distributed among the students of different faculties using the internet survey method. The implementation method was that the questionnaire placed in the channels of the faculties. Students were referred to the questionnaire site through a link and filled out the questionnaire. Fully aware of the content of the research, the students could participate in the research and fill out the questionnaire with their consent. The inclusion criteria included adult students (18 to 30 years old), Iranian and Muslim, literate and interested in participating in the present study. Also, the people in the sample group should not have mental



of a self-report. There are several groups of questions in this questionnaire, and each question expresses the state of a person. This questionnaire includes a four-item scale whose score ranges from 0 to 3. In the research [38], the validity of the content, form, and criterion of this questionnaire has been evaluated. Cronbach's alpha coefficient calculated in the research for this questionnaire was estimated to be above 0.7.

Data analysis

To analyze the information in this research, descriptive statistics indicators were determined first, and in the next step, to answer the proposed hypothesis, the regression statistical method was used in a step-by-step manner. All statistical analyzes in this research were done using SPSS-25 software.

Result

First, the descriptive findings and then the results of the statistical analysis conducted to check the research hypotheses are presented. Out of 400 students, their average age was 21.

cognitive regulation of emotion (self-blame, acceptance, rumination, positive refocusing, refocusing on planning, positive re-evaluation, perspective-taking, catastrophizing, blaming others). This questionnaire was invented [36] to evaluate the cognitive strategies that every person uses after experiencing threatening events or life stress. Its response range is Likert-type. In examining the psychometric characteristics of the test, the reliability of the test was obtained using Cronbach's alpha coefficient equal to 0.91, 0.87, and 0.93, respectively [36]. In Iran, the validity of the test was checked through the correlation of the total score with the scores of the subscales of the test, which ranged from 0.40 to 0.68 with an average of 0.56, all of which were significant [37].

Standard Beck Depression Inventory (BDI-II): short form

The depression questionnaire (BDI-II) was designed and compiled by Beck (1972) to measure the symptoms of depression such as emotional, cognitive, motivational, and physiological depression. This questionnaire is a short form of 13 questions in the form

Table 1. Frequency, the mean, and standard deviation of research variables

Variable	N	Mean	SD
Depression	400	22.17	8.61
Emotion regulation	400	97.11	13.72
Suicide	400	69.05	10.61



To check the normality of the data, the one-sample Kolmogorov-Smirnov test was used. The results showed that the data had a normal distribution. Based on this, Pearson's correlation test was used to investigate the relationship between research variables (Table 2).

Table 2. Pearson correlation coefficients between research variables

Correlation coefficients	Emotion regulation	Depression
Suicide	** 0.81	** 0.76

The results of Pearson's correlation coefficients showed that the variables of emotion regulation and depression were directly and significantly correlated with suicide at the error level ($P < 0.01$).

Table 3. Summary of the results of the regression model of suicidal tendency based on emotion regulation and depression

Steps	Variables	r	r ²	F	B	β	t	Sig.
First	Emotion regulation	0.81	0.66	249.11	0.21	0.29	7.25	0.001
Second	Depression	0.76	0.61	383.34	0.91	0.76	19.61	0.001

the comparison of emotion regulation variables with a beta value of 0.29 and depression with a beta value of 0.76, it is possible to understand the greater importance of the depression variable in predicting the variance of suicidal tendencies compared to depression.

Discussion and conclusion

The present study aimed to investigate the regulation of emotion and depression on the possibility of suicide. As mentioned, the step-by-step regression method was used for this purpose. The results showed that emotion regulation and depression were positively and significantly related to the risk of suicide, and as it was thought, the level of emotion and depression could predict suicide with a relatively distant but positive frequency. According to the findings of the present study, among

To determine the level of prediction in explaining the variance of suicidal tendencies in students, a step-by-step regression test was used (Table 3). The results showed that in the first step, the emotional regulation variable had a relatively good correlation with suicidal tendencies, and the t-coefficient for it was 7.25. In the second step, depression was entered into the equation, for which the t coefficient was 19.56 and statistically significant. Finally, its two-step regression predictor variables significantly explain 0.81 of the variance of students' tendency to commit suicide. Beta coefficient (β) was also used as a scale of the relative importance of variables. Therefore, from



restlessness as a state of exciting and unstoppable anxiety and despair as a low probability of positive changes in the future are associated with feelings of depression and suicidal ideation, and each can evoke the other. In explaining the negative relationship between resilience and depression, we can refer to vulnerability to depression and the inability to create positive self-concepts in people who have low resilience. This is even though resilience as a personality trait characterized by positive self-perception and high levels of optimism that protect a person from experiencing depression. This means that people with high resilience have characteristics such as positive self-concept, and effective and adaptive coping behaviors that protect them from psychological vulnerability, including depression; Therefore, as the level of resilience increases, the probability of depression decreases, and this can be a promising part of the path to reduce depression. This finding was also confirmed in research [43]. Also, the research results indicate the positive effect of emotion-oriented coping strategies on depression. When a person uses emotion-oriented coping strategies, he is focused on negative emotions and thoughts (such as projecting emotions and mental rumination), and this increases mental turmoil. In emotion-oriented coping, focusing on negative emotions, including; Anger, anxiety, shame, and despair increase the level of anxiety, depression, and emotional vulnerability [44].

emotion regulation and depression, depression could predict the narcissistic tendency to a greater extent than emotion regulation.

The findings of the present research are in line with many researchers and inconsistent with the findings of some researchers. This finding is consistent with the results of research [38] on the positive and significant relationship between suicidal thoughts and depression and [39] on modeling the structural equations of suicidal ideation based on resilience and coping strategies with the mediating role of depression.

Suicidal behavior in the normal population often occurs in the context of a psychiatric disorder, usually depression, and if depression is removed, 80% of suicidal behaviors are reduced [40] This emotional state goes beyond formal diagnostic classifications as a core feeling of intense distress with an urgent need for relief is described. In this situation, the person considers life worthless and useless, thinks about death and dying and people who have died, and considers death as a way to escape from perceived problems and difficulties [41], in this regard, we can refer to the differential activation model [42] also mentioned; He suggests that certain thought processes can be associated with different moods through a person's learning history. for example; Depression may occur with feelings of hopelessness, failure, and restlessness. These feelings may be associated with each other and then reactivated in the form of suicidal schemas whenever the mood is low; Therefore,



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Overall, according to the background of the research and the results of the current research, it seems that the level of high depression is the strongest predictor of the risk of suicide because it can explain the risk of suicide along with emotion regulation; Therefore, psychologists are expected to pay special attention to this structure.

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