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Original Research

The Relationship Between Emotional Intelligence And Cognitive Behavior On The Treatment Of Depression And Anxiety In Adolescents

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Abstract

Background: This study aimed at investigating the relationship between emotional intelligence and cognitive behavior on adolescents' anxiety. Emotional intelligence includes the capacity of the individual to accept realities, flexibility, ability to solve emotional problems, and ability to cope with stress and impulses.

Methods: This study is descriptive and correlational. The statistical population of the study consisted of adolescents in Semnan city and cluster random sampling was used for sampling. So among the four high schools, 80 students were selected randomly. Then, three classes were randomly selected from the second grades of each high school and the Bar-N Emotional Intelligence Questionnaire and Adult Raven Test were performed by the Testable. Data collection tools were Bar-N emotional intelligence questionnaire and Raven's progressive test. Data analysis was performed through descriptive statistics including frequency table and frequency percentage, and inferential statistics through Pearson correlation tests and multivariate regression.

Results: The findings of this study showed that in general, it can be said that based on the findings of this study, emotional intelligence has a significant relationship with anxiety in a reverse direction.

Conclusion: According to the final results of the study, the higher emotional intelligence caused the less stressful anxiety mode.

Keywords: Emotional Intelligence, Cognitive Behavior, Depression, Anxiety, Adolescents

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Introduction

Researchers in mental-behavioral health sciences agree that depression and anxiety are the most common and fundamental mental illnesses in the last two decades and according to international statistics, between 15% of individuals aged 15 to 74 who go to physicians, have obvious symptoms of depression. Many depressed and anxious people have difficulty in the ability to think, concentrate, or decisions making. They may be easily distracted or suffer from memory trouble (1).

Depression and anxiety in children and adolescents are important issues in the field of psychological science. Clark et al. reviewed the researches and showed more than 20% of students up to the age of 18 suffer from clinical depression, at least once. They believed students' depression is not apart from some problems such as weakness in social skills, social anxiety and severe anxiety associated with other stressful sources, drug and alcohol use, lack of adequate participation in pleasing and joyful activities, suicidal thoughts, neurological problems, encountering with multiple stressful events and interpersonal problems, cognitive behavior disorder and eating disorders in adolescent girls.

Different theories have been proposed in explaining the reasons of depression and anxiety. Treatment methods have also been developed based on existing theories. Depression and anxiety have been studied from biological perspective, psychoanalytic perspective, cognitive-behavioral perspective, and systemic theories. According to the etiology of this disorder, different treatment methods have been suggested, as well. One of these approaches was cognitive-behavioral therapy that has been proposed since the 1970s for the treatment of various types of depressed patients, and its usefulness has been confirmed in some researches (2). In methodological-behavioral methodology, the patient is encouraged to view the relationship between negative unwanted thoughts and their depression feeling as hypotheses that should be tested, and use those behaviors that come from negative unwanted thoughts for the outcome as a test to assess the validity or accuracy of those thoughts (3).

In various researches, it has been shown that one of the most important factors affecting the incidence of anxiety and depression was a deficit in emotional regulation and emotional intelligence (4). Emotional intelligence is the ability to properly recognize others' emotions and respond appropriately to them, as well as to stimulate, inform, discipline, and control their own emotional responses (5).

Emotional intelligence is the capacity of the individual to accept realities, flexibility, the ability to solve emotional problems, and the ability to cope with stress and impulses. In Gellman's opinion, emotional intelligence included both internal and external elements. Internal elements include self-awareness, self-actualization, sense of independence and capacity, self-maturity, and decisiveness; and external elements include interpersonal relationships, ease of empathy, and sense of responsibility. On the other hand, it could be said that emotional intelligence includes mutual changes of emotion and cognition that lead to functionalizing (3). Evidence suggested that emotional intelligence was a clear mental capability whose validity has been measured. According to the definition of Salvi and Mayer, emotional intelligence is a form of social intelligence that is a suitable predictor of efficiency in certain areas such as job and educational performance. Scotty, Oei et al. (2007) [2] believed that emotional intelligence includes interpersonal factors such as better social relationships and subjective factors such as more optimism. Therefore, emotional intelligence is an important non-cognitive power that could be changed and predicts double psychosocial functioning (6).

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Those who pay more attention to their emotional intelligence, and those who get lower scores in clarity of emotions, and those who said that cannot adjust their emotional mood, show lower emotional adjustment in lots of scales related to emotional intelligence. On the contrary, those who have more emotional clarity and ability to regulate their own emotions, experience higher levels of mental health and getting infected less to psychological disorders (4).

The mentioned subject is so importance and a must, due to this fact that by researching in this field and providing a suitable model of suggestion system, is identifying the relationship between emotional intelligence and cognitive behavior on the treatment of depression and anxiety in adolescents; since adolescence is the passing period from childhood to adulthood, in this period individuals are faced with physical, mental and social main changes, and the pressure of this stage is very effective in the occurrence of mental disorders. So that many mental disorders are diagnosed with a high percentage at the age of 14 (7). Depression and anxiety are one of the most common and debilitating psychological problems during adolescence and have such a widespread that it is referred to as psychological cold among mental disorders (8). According to research done in Iran, approximately 20% of Iranian students are depressed. Anxiety in early adolescence leads to sensitivity in interpersonal relationships and decreases adjustment. Anxious adolescents experience psychological problems and physical illnesses compared to the same students of their age (9). Therefore, it is important to pay attention to the variables affecting adolescents' psychological disorders.

Different theories have been proposed in explaining the reasons for depression. Treatment methods have also been developed based on existing theories. Depression has been studied from biological, psychoanalytic, cognitive-behavioral perspectives and systemic theories. According to the etiology of this disorder, different treatment methods have been suggested.

Zahra Karami (2015) [10], in her research "The Impact of Emotional Intelligence and Academic Achievement", said that emotional intelligence makes social skills of individuals stronger, so that they could manage others behavior in the direction they want easily; whether it was by his agreement to create a new behavior, whether it's to motivate them to create behavior, function or a new behavior production (10).

Gellman (2010) [11], in his research " Emotional Intelligence, (Emotional Self-Awareness, Self-Control, Empathy and Helping others)" expresses that the timing of emotional development with the other dependent developmental features, especially cognitive development on the one hand; and biological and brain development were intertwined on the other hand. Besides, excited essence to think wisely, work intimately with rational minds, and makes thought capable or incapable were the other important features.

Oei, Dingell (2007) [12], in his research "the Effectiveness of Group Cognitive Behavioral Therapy for Unipolar Depression Disorder", said that it is one of the cognitive-behavioral therapies that had been proposed since the 1970s for the treatment of a variety of depressed patients and its usefulness had been discussed in some researches.

In a study that examined the relationship between generalized anxiety and emotional regulation, Menin (2005) [13], suggested that generalized anxiety would be determined by examining the difficulties in understanding, experiencing, and regulating emotions.

According to the above, and since emotional intelligence and anxiety are among the issues that are based on affecting items to cause many behavioral disorders in children and adolescents, and also due to different

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behaviors that we are seeing such as fear, lying and unrest in class and many other examples, it would be clear that all were associated with emotional intelligence and anxiety. Therefore, one of the main objectives of this study was to investigate the relationship between emotional intelligence and anxiety in adolescents.

Research Methodology

There are different research methods. This research is descriptive due to the fact that it does not interfere in the situation, status, and role of the research variables, and only explains all details descriptively. The statistical population of the study were adolescents in Semnan city and cluster random sampling was used for sampling. Among all high schools in the city, four high schools were selected randomly. Then, the Bar-N Emotional Intelligence Questionnaire and Adult Raven Test were performed by the Testable. The data collection tool was Bar-N Emotional Intelligence Questionnaire and Raven's Progressive Test. The Bar-N Emotional Intelligence Test has 117 questions and was done by Bar-N on 3,831 individuals from 6 countries (Argentina, Germany, India, Nigeria, and South Africa), of which 48.8% were male and the rest were female, and systematically was standardized in North America. The Raven's progressive Matrix Test was prepared before Second World War, and then many pieces of research had been done about it, and had been revised several times. Re-forms of Raven was used to measure the intelligence of people at all levels from 5 years old to adults. The Raven test questions are all of the same type and all show patterns of images or diagrams that are based on a specific algorithm (14).

In this research, it was used Bar-N Emotional Intelligence Questionnaire and Beck Anxiety Questionnaire to collect data. In order to ensure the content validity of the questions in the questionnaire, the opinions of academic experts were collected. For this purpose, the researcher provided them to a number of esteemed university professors, including supervisors and research advisors; then according to their opinions, vague and inappropriate points of the questionnaire were specified in the description of the questionnaire and the validity of the final questionnaire was confirmed by them.

Results

In this section, the results of the analysis of the extracted data were interpreted and based on the research hypotheses and their objectives, appropriate solutions, and suggestions according to the research findings were presented. In descriptive-correlational research methods, in order to analyze the data based on the assumptions proposed, it is necessary to use statistical assumption tests or to use research techniques in citable analysis operations. This study has some questions that have been investigated using statistical methods and the Pearson correlation coefficient.

Descriptive Statistics

In this study, the lowest age of respondents was 14 and the highest age was 19 years. The mean age of the participants in this test was 15.34±0.40.

Table 1. Statistical description of respondents' age

	Lowest age	Highest age	Mean	Standard error
Age	14	19	15.34	0.40

Inferential statistics

Data were analyzed using SPSS statistical software in two descriptive and inferential sections. In the descriptive section of central indicators and dispersion (mean, standard deviation, minimum and maximum, etc.), and in the inferential section to test all hypotheses, Pearson correlation coefficient and multi-

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variable regression analysis were used step by step. The results of the tests were analyzed to investigate the relationship between emotional intelligence and its skills with cognitive intelligence.

To do this, the correlation between emotional intelligence skills and cognitive intelligence was investigated by Pearson Correlation Test. If every individual in both communities would be measurable or in other words quantities were quantitative, the Pearson method should be used. Correlation coefficient rate (r) between two data groups varies from +1 to -1. If the correlation coefficient was between 0 to +1, the two data groups have a direct relationship together. If it is zero, there is no relationship and if it is between 0 and -1 (0<r <-1), there is an inverse relationship between two variables.

Table 2. Mean and standard deviation of research variables

Variables	Number	Mean	Standard deviation
Emotional self-awareness	80	24.66	3.101
Self-actualization	80	23.56	3.18
Independence	80	21.28	3.65
Responsibility	80	26.25	3.09
Empathy	80	22.89	2.85
Anxiety	80	24.25	3.64

Is there a relationship between components of emotional intelligence and anxiety in Semnan adolescents?

To answer this question, the data related to emotional intelligence variable were analyzed using Pearson Correlation Coefficient, and the results of this analysis were presented in Table 2.

Table 3. The significant tested of Pearson correlation coefficient to calculate the correlation between emotional intelligence and anxiety components

variables	Correlation coefficient	Significant level
Emotional self-awareness and anxiety	-0.333	0.01
Emotional self-actualization and anxiety	-0.278	0.01
Independence and Anxiety	-0.313	0.01
Empathy and Anxiety	-0.215	0.01
Social responsibility and anxiety	-0.290	0.01

As can be seen in the table (2), the results of data analysis showed that anxiety with self-awareness was (-0.333), emotional self-actualization (-0.278), independence (-0.313) empathy and anxiety (-0.215), and social responsibility and anxiety (-0.290) that were significantly correlated with negative direction.

Discussion

As anxiety in early adolescence leads to sensitivity, it also leads to psychological and mood problems experiencing by anxious adolescents [8]. Therefore, in this study, it was very important to pay attention to the variables affecting adolescents' psychological disorders. And in order to solve this relaxation disorder, there were different theories and solutions, that many parents have been desperate to solve this problem; in this regard, noticing to another important variable in relation to the ability and flexibility of adolescents helped us to find an effective result for solving this

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problem. The emotional intelligence component was one of the effective factors for eliminating anxiety and stress in adolescents. The ability to properly recognize emotions and feelings and respond appropriately to them causes ordering and controlling stresses and impulses. This component also had an important impact on adolescents' academic development according to Legrand et al research (2011)[9]. Emotional intelligence makes people's social skills stronger and encourages them to behave properly with others. According to the results of this study, anxiety had a negative relationship with self-awareness, emotional self-actualization, independence, empathy and social responsibility. Emotional tendencies and the abilities to regulate this emotion, bring better mental-health performance and fewer people getting infected to psychological disorders.

In general, it would be said that according to the findings of the present study, emotional intelligence has a significant relationship with anxiety in the reverse dimension, i.e., having the higher emotional intelligence causes the less stressful anxiety moods in everyone. This research is in harmonious with Gelman et al research (2010)[11]. In his research, the researcher found that there was a significant relationship with the reverse direction between emotional intelligence and anxiety. The findings were also in harmonious with the researches of Hay and Goldman (1995), Kendall et al. (2010)[11], Estefanía (2021)[15], and Stephanie and Francisco (2021) [15]. On top of that, it was found there was a significant relationship between emotional intelligence and anxiety in their studies. Parsa (2001), also recognized the relationship between emotional intelligence and depression and analyzed that emotional intelligence leaded to self-control against impulses and stability in troubles.

Conclusion

Based on the findings of this study, one of the main tasks of the educational system and the department of educational planning was to pay attention to emotional intelligence and tried to strengthen it. Since anxiety greatly destroys the performance of every individual, so to control it, the related factors should be considered and all facilities must be used. Reinforcing emotional intelligence reduces anxiety and its control ability. Successful teachers try to strengthen and reinforce this intelligence to improve students' academic performance.

Since this research has achieved a significant relationship with the negative direction between intelligence and anxiety, it was suggested that emotional intelligence enhancement training should be began before the educational process, and also pay more attention to the characteristics of emotional intelligence of students and adolescents in the editing of textbooks.

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