The effectiveness of group counseling based on cognitive-behavioral approach on mental health of gifted male students

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ABSTRACT

The aim of this study was to investigate the effectiveness of group counseling based on cognitive-behavioral approach on mental health of gifted students. In this study, the statistical population included all gifted high school male students in Mashhad. 30 of these students were randomly selected and tested with the General Health Questionnaire (GHQ-28), then randomly in There were two experimental groups (n = 15) and control (n = 15). Group counseling based on cognitive-behavioral approach was provided to the experimental group in 8 sessions and each session lasted 2 hours. Data analysis was performed using independent, correlated t-test and analysis of covariance with pretest control. Comparison of test results in pre-test and post-test showed the effect of group counseling based on cognitive-behavioral approach on increasing the mental health components of students in the experimental group compared to the control group. As a result, group counseling based on cognitive-behavioral approach can be used by counselors and psychotherapists as an effective treatment and intervention method to increase the mental health of gifted male students.

1. Introduction

Recent studies by WHO experts in developing countries have shown an increase in the prevalence of depression, anxiety and physical symptoms in developing nations. It seems that 15 to 20% of adults in the community suffer from various symptoms of depression and anxiety (World Health Organization, 2009). The concept of mental health is in fact an aspect of the general concept of health. The culture of Larus psychology defines mental health as: mental talent for coordinated, pleasant and effective work, for difficult situations, flexibility and the ability to regain balance (Ganji, 2003). Evidence from epidemiological studies suggests that there are a number of variables associated with depression, anxiety, and social dysfunction (Mayher, 2006).

In recent years, it has been observed that the cognitive-behavioral approach has a wide applicability for the treatment of various mental disorders (Holmes et al., 2002). Cognitive-behavioral model is an active, directional, short-term and organized approach (Beck, 2002). In this approach, the clients are helped to identify their destroyed patterns of thinking and dysfunctional behaviors, and then, with the help of regular discussions and organized behavioral tasks, can change these thoughts and behaviors (Kirk and Clerk, translation, Qasemzadeh ،1381). Cognitive-behavioral group counseling is an approach that emphasizes the cognitive processes resulting from gaining experience and the role of cognitive processes in behavior, relying on the foundations of learning. Research has shown a high impact on the cognitive-behavioral approach (Engels et al. 1993; Wies et al., 1995; Gonzalez et al., 2004; Wampold, 2002; Hozmozuder et al., 2004; Bradley et al., 2005, Hayes Et al., 2005, quoting Katter, 2005). This approach is considered as one of the most effective treatments for the treatment of mental disorders (Bowers, 2001). Meta-analyzes of the group form of the cognitive-behavioral approach show that this method of treatment can play an acceptable role in the treatment of problems (Petrosli, 2002, citing Wizink et al., 2003).

Feldman (2001) reviewed 28 studies on the effectiveness of cognitive-behavioral therapy methods on students' mental health and showed that cognitive-behavioral therapy is more effective than therapeutic behavior, medication and non-intervention. Gilbert (2004) also reviewed research on mental disorders and concluded that cognitive-behavioral methods of drug therapy and lack of intervention are more effective in treating mental disorders. Kater (2005) also considers the cognitive-behavioral approach to be very effective in treating mental health symptoms. The results of this study show that the effect of cognitive-behavioral group counseling on students 'psychological health is stable over time and the comparison of subjects' psychological profile before and after treatment in a one-year follow-up showed that the combination The cognitive-behavioral and pharmacological approach is not only an effective treatment for reducing and controlling general health symptoms, but also the effect of this treatment is long-term and sustainable and prevents the return of the disorder syndrome after cessation of treatment (Beck et al., 2001; Turkington and King Dan , 2002; Wiesink and Wilding, 2003). Narimani et al. (2003) found in a study that there is a significant positive correlation between mental health and cognitive-behavioral methods in group coping, self-control and social support, problem solving and re-evaluation.

Manouchehri et al. (2003) in a study investigated the effectiveness of cognitive-emotional counseling in a group method on the mental health of infertile women. The results showed that group counseling based on cognitive-emotional approach increased their mental health and reduced their anxiety symptoms. Khodayari-Fard (2007) found in a study that cognitive-behavioral interventions, both individually and in groups, have affected the psychological health of male prisoners. The importance and necessity of this research is that the World Health Organization has stated that the mental health problems of the world are 11.5% in 2000 and statistics show that by 2020 these disorders will reach 15%; This means that the existence of anxious and hopeless human beings will place a heavy burden on societies and indicates that the global community has a lot of work to do to improve individual and social life (Katherine, 2007).

In recent years, there has been a progressive increase in the number of students referring to counseling and treatment centers, an increase in the prevalence (Zee Wayne et al., 2009; cited in Broder, 2009) and the severity of their mental health problems (Andrews, Hejenberg and Weidenig , 2006; Zee Wayne et al., 2009, quoting Broder) has increased the concern of professionals about students' mental health (Chelminsky and Zimrin, 2003; Verquille, Bruscalt and Tiger, 2007; edited by Katherine, 2007). Numerous studies in Iran also indicate that there are several psychological problems among students. The psychological dimension of health in many countries of the world (especially the third world countries), due to the main attention to other health priorities, such as infectious diseases in the past or chronic diseases in the present, has received less attention. . Gifted students face a number of problems, including conflicts with community values and the behavior of adults. Experts attribute their problems to their lack of understanding by adults and, as a result, to hostility from adults and teachers.

Also, one of the common perceptions about gifted students is that unacceptable behaviors are instilled in them. These behaviors include moodiness, isolationism, solitude and not helping others, aggression, emotional instability, social incompatibility and lack of attractiveness. Therefore, it is not important that the person is intelligent, but it is important that the intelligent person has a mentally healthy person to benefit other people in the community in the light of his intelligence. The purpose of this study was to investigate the effect of group counseling based on cognitive-behavioral approach on promoting mental health of gifted students to resolve their behavioral incompatibilities and improve their mental health by using appropriate behavioral and cognitive methods. Therefore, this study tries to examine the general assumption that "group counseling based on cognitive-behavioral approach is effective in increasing the mental health of gifted students" with group counseling based on cognitive-behavioral theory.

Method

The design of the present study is a quasi-experimental pre-test-post-test with a control group. At the beginning of the

study, a mental health questionnaire (GHQ-28) was completed by students to determine the level of mental health of each student based on the mental health questionnaire. Then, the students who obtained the highest score in this questionnaire were randomly assigned to the experimental and control groups. After one week, group counseling sessions were performed on the experimental group in a cognitive-behavioral manner and the control group waited. After 4 weeks (8 sessions) of group counseling, the Mental Health Questionnaire (GHQ-28) was completed again by the same students and re-evaluated and re-scored.

In this study, the statistical population consists of all gifted high school male students who are studying in Mashhad in 1397-98. The sample of this study consists of 30 students (15 in the experimental group and 15 in the control group) from the first grade of Talented High School. Sampling was done by availability. The criteria for joining the research groups were that first the students were evaluated by the Raven IQ test (adult form) and then the students whose IQ was above 130 were allowed to participate in the research. The following tools were used to collect data:

Raven IQ test (adult form): Raven test is one of the group and non-cultural tests that Raven (1941, 1981, 1985) designed to measure intelligence. This test includes two forms for children and adults, which is suitable for ages 5 and up. The adult Raven test is designed for people 9 years of age and older. This form consists of four subtests, each of which follows a separate pattern and logic. This form has 3 elements that are divided into 7 series with increasing difficulty. This test is designed with black and white images and its execution time is 2 minutes. The reliability of the Raven test by the retest method has been reported in the range of 80% to 90% at different time intervals and groups (Raven, Kurt and Raven, 1983). The correlation of this test with Wechsler and Stanford-Binet tests is an indicator of validity that is reported in the range of 60% to 86% (Raven, Kurt and Raven, 1983). This test has been standardized on the knowledge of students in the age groups of 3 to 4 years old in Tehran during a study conducted by Baqer Sanaei Zaker in collaboration with Hassan Pasha Sharifi on the causes of academic failure at Tarbiat Moallem University. Raven matrices in the UK are classified into a large group, mainly used in military selection. Factor analysis has shown that the degree of saturation of this test is very high in Spearman factor g, the factor that is called general intelligence.

Mental Health Questionnaire (GHQ-28): This questionnaire is the most well-known screening test that has had a great impact on the progress of research in psychiatry by Goldberg (1979) to differentiate people with mental disorders from the population referred to medical centers. Made public). The questions are graded in a four-point range (basically, usually, more than usual, always) using the Likert method, with questions ranging from 1 to 4 from right to left. In general, low scores indicate mental health and high scores indicate a lack of mental health. This questionnaire includes four sub-scales which are as follows: a) Physical symptoms (physical): It has 7 items: headache, feeling weak and weak, feeling the need for strengthening drugs and feeling hot or cold Examines the body. B) Symptoms of Anxiety: It has 7 items. Examines anxiety, insomnia, stress, and anger. C) Social dysfunction: It has 7

articles. Examines a person's ability to perform daily tasks, satisfaction with tasks, sense of usefulness, learning power, and enjoyment of daily life activities.

D) Symptoms of depression: It has 7 substances. Feelings of worthlessness, hopelessness, feelings of worthlessness in life, suicidal thoughts and the desire to die and inability to do things. Each person's total score is the sum of the scores of the four subscales. Scores between 14 and 21 on each scale indicate the deterioration of the subject in that factor. Mirkhashti (1996) obtained an alpha of 0.93 for the reliability of this questionnaire and Dastjerdi (1998) during a study on students of teacher training centers reported a reliability coefficient and correlation coefficient of 0.84 for the whole test and each subscale. Alborzi, quoting Chang and Spears (1994), presents the reliability coefficient of each subscale of the Mental Health Questionnaire in the following table:

Table 1) Calculation of reliability coefficient of GHQ-28 general health questionnaire using Cronbach's alpha method

Physical symptoms	Social dysfunction	Depression	Anxiety	
0.88	0.85	0.90	0.82	Reliability coefficient

As can be seen in Table 1, the reliability coefficients of the subscales of the mentioned test are reported in the range between 0.82 to 0.90, which indicates that they are satisfactory.

Methods:

In the first stage, in order to identify the subjects as gifted students, Raven intelligence test (adult form) was performed on them. Then, among the subjects who obtained a score above 130, they were randomly selected and in the second stage, a general health questionnaire (GHQ-28) was administered to them. After differentiating students with mental symptoms using the scores of General Health Questionnaire (GHQ-28) and their random assignment in experimental and control groups, according to the educational goals of their group, they entered the counseling and treatment process, ie the third stage of research. Group counseling with cognitive-behavioral approach was conducted in groups (groups of 12 people) in 8 2-hour sessions and benefited from strategies for writing negative thoughts, training in identifying cognitive errors and social skills. The content of the intervention is as follows:

Session 1: a) Explain about the training program and its importance and necessity; B) Determining the rules of the program, including determining the warm-up time, the duration of the program, the duration of the meetings, the need for uninterrupted participation; C) Describe educational program, including homework plan, participation in role implementation and encouraging group discussion; D) Summarizing the discussion by the members and reviewing the important points of the meeting. Session 2: a) Review the contents of the previous session; B) Behavioral interviews and initial history of situations that cause psychological maladaptation, including anxiety and depression, and training in emotion management techniques; D) Explain the symptoms of mental disorders and its types; D) Summarizing the contents of the meeting and giving homework. Session 3: a) Review the contents of the second session; B) Teaching stress management techniques,

training and practicing relaxation and relaxation; C) Summarizing the contents of the meeting and giving homework. Session 4: a) Review the contents of the third session; B) Stimulus-thought-feeling-behavior relationship; Identify thoughts and teach the incident, goal behavior and outcome; C) discussion of latent and overt motivators; D) attention to the consequences of each action; And choosing effective behaviors to summarize the contents of the meeting and give homework. Session 5: a) Review the contents of the fourth session; B) teaching cognitive reconstruction techniques; J); D) Techniques for improving interpersonal relationships, e) Summarizing the contents of the meeting and giving homework. Session 6: a) Review the contents of the fifth session; B) role play with a focus on self-talk and flexible and inflexible thoughts; D) teaching bold behavior techniques; E) Distinguish healthy and unhealthy lifestyle and f) Summarize the content provided, rewards and positive feedback. Session 7: a) Reviewing the summary of the sixth session, b) Teaching decision-making and problem-solving skills; C) Practice role-playing d) Summarize the contents of the session and give homework. Session 8: a) Summarizing the treatment and following up the previous sessions and the necessary solutions b) Generalization of what has been learned.

Finally, in order to evaluate the effectiveness of group counseling based on cognitive-behavioral approach on mental health of gifted students, independent test and analysis of covariance were used and to evaluate the stability of the effect of independent variable, paired t-test was used by SPSS-18 software.

findings

Descriptive indicators of the total score of the Mental Health Scale are presented in Table 2. Also, Figure 1 shows the pre-test and post-test averages of the control and experimental groups in the mental health variable.

Table 2) Descriptive indicators of control and experimental groups in pre-test and post-test

Post-test		pre-exam			
standard deviation	Average	Average standard deviation	Average	Number	group
11.02	48.19	11.16	48.58	15	Control
8.40	30.83	10.31	49.66	15	the experiment

In order to significantly assess the effect of group counseling based on cognitive-behavioral approach on mental health of gifted students, independent t-test, analysis of covariance and paired t-test were used. Before analyzing the results, the necessary assumptions for using covariance analysis were confirmed. Thus, using the Levin test, the assumption of equality of variance of the experimental and control groups in the mental health variable and its subscales at the level of 0.05 was not significant, so the use of analysis of covariance was not a problem.

Table 3 shows the results of covariance analysis on the subscales of mental health, namely anxiety, depression, social dysfunction, and physical symptoms by removing the pretest effect.

Table 4) Summary of the results of analysis of covariance The effect of group counseling based on cognitive-behavioral approach on mental health subscales

P	F	Average squares	Degrees of freedom	Total squares	Statistical index	Scales
0.001	480.12	540.65	1	540.65	Sources of changes	Anxiety
0.001	23.64	56.03	1	56.03	pre-exam	
		3.15	21	34.12	Post-test	
		630.77	24	630.77	Error variance	
0.014	179.41	237.24	1	237.24	Total	Depression
0.019	38.67	29.81	1	29.81	pre-exam	
		9.391	21	41.95	Post-test	
		313.35	24	313.35	Error variance	
0.0945	285.31	364.043	1	364.043	Total	Social dysfunction
0.040	12.50	28.05	1	28.05	pre-exam	
		8.39	21	8.39	Post-test	
		409.48	24	409.48	Error variance	
0.008	11.51	55.46	1	55.46	Total	Physical symptoms
0.002	5.80	26.53	1	26.53	pre-exam	
		3.11	21	3.11	Post-test	Scales
		118.16	24	118.16	Error variance	Anxiety

Based on the results in Table 3, in the anxiety dimension, the calculated F value (23.64) is significant in degrees of freedom (21.1) with a significance level (0.001), therefore, the null hypothesis is rejected and with 95% confidence. Percentage We conclude that there is a significant difference between the means of the experimental and control groups in the rate of anxiety and mental health. In the depression dimension, the calculated F value (38.67) in degrees of freedom (21.1) is significant with a significance level (0.019), therefore, the null hypothesis is rejected and we

conclude with 95% confidence that between the means There was a significant difference in the rate of depression and mental health in the experimental and control groups. In the dimension of social dysfunction, the calculated value of F (12.50) is significant in degrees of freedom (21.1) with a significant level (0.040), therefore, the null hypothesis is rejected and we conclude with 95% confidence that between There were significant differences in the mean of social disorder and mental health in the experimental and control groups. In the dimension of physical signs, the value of F calculated (5.80) is significant in degrees of freedom (21.1) with a significant level (0.002), therefore, the null hypothesis is rejected and we conclude with 95% confidence that between There were significant differences in the mean of physical symptoms and mental health in the experimental and control groups.

Finally, in Table 4, the results of correlated t-test are presented to determine the stability of the effect of group counseling based on cognitive-behavioral approach on mental health of gifted students.

Table 4) Summary of correlated t-test results to determine the sustainability of the effect of group counseling based on cognitive-behavioral approach on mental health of gifted students over time

Alpha value	Degrees of freedom	t	The standard deviation	Average	group
0.021	14	1.30	8.40	30.83	Post-test
			9.04	32.54	Follow up

According to Table 4, there is no significant difference between the mental health of gifted students in the post-test and follow-up stages. In other words, the effect of group counseling based on cognitive-behavioral approach on mental health has a good stability over time.

Discussion

Cognitive-behavioral approach, especially due to the type of view that governs it, is an efficient method that is used for a wide range of problems. This approach, on the one hand, focuses on what people are doing by making desirable behavioral changes, and on the other hand, by emphasizing psychological processes, guides people to the feelings and beliefs that cause problems. Behavior can be changed (Rachman, 2000). The results of this study showed that group counseling based on cognitive-behavioral approach is effective in increasing the mental health of gifted students in the experimental group compared to the control group. The results also indicate that group counseling based on cognitive-behavioral methods on increasing the four dimensions of mental health; That is, the dimension of anxiety (P = 0.0001), the dimension of depression (P = 0.019), the dimension of social functioning disorder (P = 0.040) and the dimension of physical symptoms (P = 0.002) have been effective.

The results of this study on the effectiveness of group counseling based on cognitive-behavioral approach in increasing the mental health of gifted students, in line with research conducted by Engels et al. 1993; Weiss et al., 1995; Bowers, 2001; Feldman, 2001; Holmes et al., 2002; Wampold, 2002; Gonzalez et al., 2004; Hozmozuder et al., 2004; Gilbert, 2004; Kater, 2005; Bradley et al., 2005; Hayes et al., 2005; By Mayher, 2006; Narimani and Rafiq Irani, 2003; Manouchehri et al., 2003; Khodayari-Fard, 2007 is in line. Also, the results of this study are consistent with the meta-analyzes performed on the group form of cognitive-behavioral approach, which shows that this method of treatment can play an acceptable role in the treatment of problems (Petrosli, 2002). The results of these studies all show that group counseling in a cognitive-behavioral manner can be used as an effective and effective treatment and intervention method for counseling and psychotherapists. But the limitations and suggestions that can be presented in this research can be expressed as follows:

- Since the selected sample is related to Mashhad city, so caution should be exercised in generalizing the results to other parts of the country.

- The present study was conducted only on the mental health of gifted students, and it is not easy to talk about generalizing the results to other students with special needs.

- Carrying out a similar research in which gender is also included as a variable in the research design.

- Designing a research in which, in addition to group counseling based on cognitive-behavioral methods, group counseling in other ways to confirm the increase of mental health is examined.

- Applying group counseling based on cognitive-behavioral methods for other groups of children and adolescents with special needs.

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