# The Effectiveness of Beck's Group Therapy Cognition on Academic Performance of Secondary School Girls in Zahedan

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**ABSTRACT:** Cognitive therapy is an insight-oriented treatment that emphasizes the identification and transformation of negative thoughts and maladaptive beliefs and, in this way, affects the mental health and adaptability of users in the field of affective disorders. The purpose of this study is to examine the effectiveness of Beck's group therapy cognition on academic performance of secondary school girls. The Wechsler Intelligence Test and the students 'continuous grades were used in four lessons in mathematics, science, geography, and dictation to collect information. Initially, Wechsler intelligence test was used to measure the subjects' intelligence and then based on the academic performance score in control and experimental group were randomly selected. The sample group consisted of 28 male secondary school students. The treatment group was administered during 9 sessions and two weeks after the completion of post-test sessions. The results showed Beck's group therapy cognition improved the students' academic performance.

**Keywords**: Beck's Group Therapy Cognition, Academic Performance.

## INTRODUCTION

In industrialized countries, the start of formal education marks the transition to the middle of a child, along with a middle-aged childhood literacy that prepares children for specialized occupations. Children at school recognize their unique abilities and others and a sense of moral commitment and responsibility. The danger in this stage is the feeling of humiliation that is reflected in the children's pessimism. They lack confidence in their ability to do good work, this feeling of inadequacy occurs when the family does not prepare children for an academic life, or a time when parents, teachers and peers have destroyed the sense of competence and skills of children with negative responses (Burke, 2011).

Bandura (2001) has defined personal performance as the belief of individuals in their ability to exercise some control over their performance and on environmental events; individuals with high personal performance believe that they can do things that can change environmental events. Those who have low personal performance believe that they cannot do anything at all (Fist & Fist, 2012).

Self-efficacy depends on individual achievements and the judgment of the children about their accomplishments, children who are successful in education and sports, many of the children who fail in these fields find themselves efficient. There are children who are very deserving, but unfortunately do not get a positive understanding of their ability.

Philips (1987) found that in this case, the perceptions of children are more likely to be affected by their parents' negative assessments than objective evidence of their achievements (Wagner, Phillips, 1992, quoted by Rice, 2007). Adult rejection severely undermines the function of some children when girls do not do things right, they get messages from parents that their ability is difficult and negative stereotypes (for example, girls are poor in math) will undermine their interest and performance (Burke, 2011).

In the opinion of therapists, personal beliefs arise in early childhood. Throughout their lives, they continue to evolve, and early childhood experiences create the foundation for personal beliefs about themselves and the world. People are usually supported and loved by the elderly, and as a result, beliefs of this kind are found that (I'm lovely, and I'm satisfied with it) is the same thing that makes them adept at having a positive opinion about themselves. But those with psychological disorders, because of their negative experiences in life, have such beliefs (I'm not lovely and I am not satisfied with it). The negative experiences, when accompanied by crisis or psychological trauma, affect the system of their beliefs. Certain negative experiences such as being mocked by the teacher lead to certain contingent beliefs, as the belief that if others do not like my behavior, so I'm worthless beliefs. These beliefs may turn into negative cognitive schemas (Sharef, 2007).

Based on what was discussed, the present research seeks to answer the following question: Does Beck's group therapy cognition have a positive effect on improving the academic performance of students? The purpose of this study is to examine the effectiveness of Beck's group therapy cognition on academic performance of secondary school girls and this hypothesis has been studied in which Beck's group therapy cognition has a positive impact on improving the academic performance of the students.

**The statistical population of sample and research methodology**

The statistical population is the second grade elementary school girl students in Zahedan. A multistage cluster sampling method was used. In this way, random sampling from Zahedan education centers was performed at random from among the second schools of girls in district 2 randomly selected and at the next stage, two classes of the second grade of the second grade were chosen randomly. The subjects were selected based on the Wechsler Intelligence test for children with normal IQ (90-109) and higher, but poor educational performance (13-15) and lower ones. In a control and experimental group, 14 subjects in each group (total 28) people were placed.

In this study, a semi-experimental design with pre-test, test and test and control groups was used.

The experimental group participated in a therapeutic group that lasted three sessions a week for 45 minutes in 9 sessions. Two weeks after the end of the treatment group, the grades of both groups of lessons (mathematics, science, geography, dictation) were used as a post-test in the first three-year trials. The content of group therapy sessions is based on cognitive-treating treatments. In Beck's cognitive therapy, three levels of thinking are usually examined. The auto-negative thoughts of a particular position and involuntarily occur when a person is in an emotional disturbance, and it seems reasonable and difficult to stop. The underlying assumptions, for example, "if I can influence others, I will be ahead of life" and rules like (I should not disappoint others) lead the behavior and negative axial beliefs that are the third and deepest of the thoughts. Negative pivotal beliefs are too general and non-controversial (like I'm worthless). This belief is usually shaped by the experiences of early life learning and remains inactive until associated events in their lives (Ninan, 2008).

The contents of each session are as follows:

First session> In this session, the rules of the treatment group for participants were fully explained.

Second session> Focusing on recognizing members in a variety of dimensions, including their abilities, talents and weaknesses.

Third Session> Helping the group to look deeper into the problem areas and identify the unknown areas of its existence that needs to be changed.

Fourth Session> Explaining the difference between understanding and feeling and describing the relation between explaining the relationship A-B-C, identifying the concept of cognitive errors and explaining its relationship with annoying emotions.

Fifth Session> In this session, 5 cognitive errors of all or none of the thinking, exaggerated generalization, subjective filtering, neglecting the positive, hasty conclusion are first fully explained, then the members dealt with revealing automatic thoughts using the technique of inductive questioning and mental imagery.

Sixth Session> A complete description of five cognitive errors, emotional reasoning, dashes, tagging, personalization, and the use of direct questions, deductive questions, and mental imagery for the discovery of automatic thoughts and determination of their cognitive errors.

Seventh Session> Familiarizing the members with the daily spirituality reporting sheet and how to complete it and outline the benefits of using this tool to identify and modify the automatic thoughts and assign a homework assignment.

Eighth Session> Teaching three techniques to ask the question "what reason do you have?" Are there any other explanations for this phenomenon? And the question of what is the real consequences of this issue for the assessment and change of cognitions

Ninth Meeting> Familiarizing the members with basic schemas

To analyze the data, the statistical method of mean and standard deviation for assessing intelligence and students' academic performance status were used in pre-test and post-test in groups. The research hypotheses were based on the test results of inferential statistics of covariance analysis.

## Instrument of measurement

The Wechsler Intelligence Scale is used to measure the intelligence of children aged 6 to 16 years. This test consists of two verbal intelligence and practical intelligence scales, in which the practical intelligence scale has five sub-tests for completing images, arranging images, designing cubes, inserting segments, encoding, and maze, and the verbal scale of the five general information sub-tests, similarities , calculus, vocabulary, comprehension and digitization of cultivars. The children's Wechsler scale is generally highly valued, with the average reported internal consistency by Wechsler (1991) for all 11 age groups equal to 86% for the IQ of a total scale of 95% for the verbal scale and 91% for the practical scale (Marnat , 2010).

## Teacher-made tests

Teacher-made tests are usually limited in content and their goals are more within a class, the concept does not mean that the exam and / or test will only measure minor details and goals, but the content and objectives of the teacher's tests have the same importance as the content and objectives of standardized tests, but more limited (Ganji, 1978).

## RESULTS

Based on the results of the children's Wechsler test, the mean IQ in the control and experimental groups was 94, as shown in Table 2, since the amount (f = 1151.571) with degrees of freedom (df = 26, df = 1) at a significant level a = 5% is meaningful. Therefore, the null hypothesis was rejected and the assumption of the research was confirmed with 95% confidence. Since the comparison of the mean scores for the academic achievement of the control group (13.7857) and the experimental group (17.0536) in the post-test phase indicates an increase in the scores of the subjects in the experimental group compared to the control group, it can be concluded that Beck's cognitive therapy group on the improvement of academic performance has a positive effect. According to beta coefficients, the effect of Beck's cognitive therapy group on improving academic performance is 81.6%.

**Table 1.** Descriptive Traits of the Academic Performance Variables in the Pre-test and Post-Test Stages.

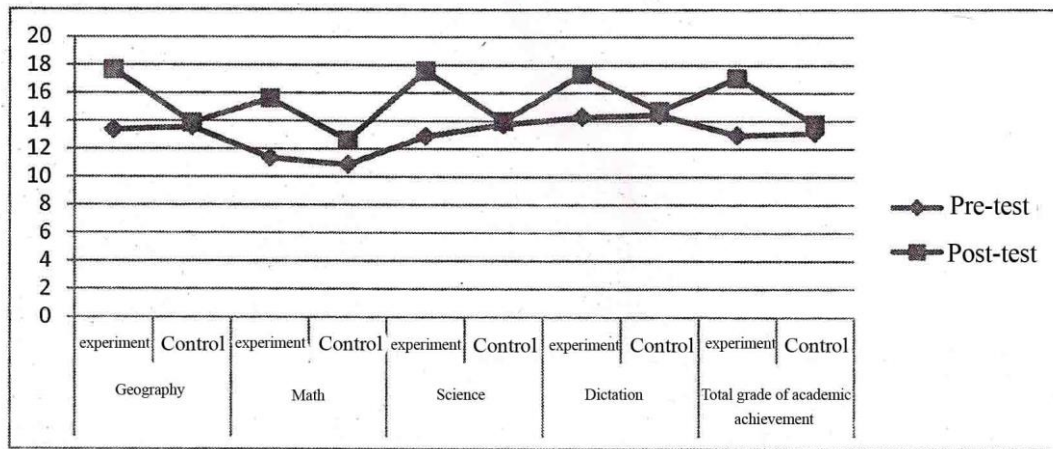| Variable Academic Performance | | Pre-test | | Post-test | |
|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD |
| Geography | Experimental | 13.3664 | 2.64658 | 17.6786 | 0.66815 |
| | Control | 13.5714 | 1.39859 | 13.8571 | 1.39268 |
| Math | Experimental | 11.3357 | 2.39410 | 15.6071 | 1.14654 |
| | Control | 10.8571 | 2.15218 | 12.6071 | 2.63977 |
| Science | Experimental | 12.8929 | 2.27363 | 17.5714 | 0.73005 |
| | Control | 13.75 | 0.89335 | 13.9643 | 1.48666 |
| Spelling | Experimental | 14.2857 | 1.06904 | 17.3571 | 0.49725 |
| | Control | 14.4286 | 0.64621 | 14.7143 | 1.58980 |
| Academic Achievement Score | Experimental | 12.9702 | 1.22944 | 17.0536 | 0.50171 |
| | Control | 13.1518 | 0.96723 | 13.7857 | 1.02073 |

**Figure 1.** Comparison of the average academic performance in each group by pre-test and post-test separately.

**Table 2.** Results of covariance analysis of academic performance with control of the effect of pre-test.

| Index<br>Sources of changes | SS | df | MS | F | Sign. | Effect size | Test power |
|---|---|---|---|---|---|---|---|
| Overlapping effect | 6657.431 | 1 | 6657.431 | 10292.773 | 0.05 | 0.997 | 1.000 |
| Group effect | 74.752 | 1 | 74.752 | 115.571 | 0.05 | 0.816 | 1.000 |
| error | 16.817 | 26 | 0.647 | | | | |
| Total corrected | 6749 | 28 | | | | | |

According to the above data, since the value of F = 115.571 with degrees of freedom (df = 26, df = 1) is significant at a conducting level a = 0.05, then the null hypothesis is rejected and the assumption of the research is confirmed with 95% confidence, and because the comparison of the mean of the experimental group in the post-test stage indicates that the scores of the subjects in the experimental group are higher than the control group, so it can be concluded that Beck's cognitive therapy group is effective on the academic performance. Based on the beta coefficients, the effect of Beck's cognitive therapy group on the academic performance is 81.6%.

**Table 3.** Co-variance analysis results for the mathematical scores with the control of the pre-test effect.

| Index<br>Sources of changes | SS | df | MS | F | Sign. | Effect size | Test power |
|---|---|---|---|---|---|---|---|
| Overlapping effect | 5572.321 | 1 | 5572.321 | 1345.489 | 0.000 | 0.981 | 1.000 |
| Group effect | 63.000 | 1 | 63.000 | 15.212 | 0.001 | 0.369 | 0.963 |
| error | 107.679 | 26 | 4.141 | | | | |
| Total corrected | 5743 | 28 | | | | | |

According to the above data, since the value of F = 15.212 with degrees of freedom (df = 26, df = 1) is significant at a conducting level a = 0.05, then the null hypothesis is rejected and the assumption of the research is confirmed with 95% confidence, and because the comparison of the mean of the experimental group in the post-test stage indicates that the scores of the subjects in the experimental group are higher than the control group, so it can be concluded that Beck's cognitive therapy group is effective on the academic performance in the course of math. Based on the beta coefficients, the effect of Beck's cognitive therapy group on the academic performance in the course of math is 36.9%.

**Table 4.** Co-variance analysis results on science scores with control of pre-test effect.

| Index / Sources of changes | SS | df | MS | F | Sign. | Effect size | Test power |
|---|---|---|---|---|---|---|---|
| Overlapping effect | 6961.509 | 1 | 6961.509 | 5075.592 | 0.05 | 0.995 | 1.000 |
| Group effect | 91.080 | 1 | 91.080 | 66.406 | 0.05 | 0.719 | 1.000 |
| error | 35.661 | 26 | 1.372 | | | | |
| Total corrected | 7088.250 | 28 | | | | | |

According to the above data, since the value of F = 66.406 with degrees of freedom (df = 26, df = 1) is significant at a conducting level a = 0.05, then the null hypothesis is rejected and the assumption of the research is confirmed with 95% confidence, and because the comparison of the mean of the experimental group in the post-test stage indicates that the scores of the subjects in the experimental group are higher than the control group, so it can be concluded that Beck's cognitive therapy group is effective on the academic performance in the course of science. Based on the beta coefficients, the effect of Beck's cognitive therapy group on the academic performance in the course of science is 71.9%.

**Table 5.** Co-variance analysis results on dictation scores with control of pre-test effect.

| Index / Sources of changes | SS | df | MS | F | Sign. | Effect size | Test power |
|---|---|---|---|---|---|---|---|
| Overlapping effect | 7200.036 | ١ | 7200.036 | 5189.729 | 0.05 | 0.995 | 1.000 |
| Group effect | 48.893 | ١ | 48.893 | 35.242 | 0.05 | 0.575 | 1.000 |
| error | 36.071 | ٢۶ | 1.387 | | | | |
| Total corrected | 7285 | ٢٨ | | | | | |

According to the above data, since the value of F = 35.242 with degrees of freedom (df = 26, df = 1) is significant at a conducting level a = 0.05, then the null hypothesis is rejected and the assumption of the research is confirmed with 95% confidence, and because the comparison of the mean of the experimental group in the post-test stage indicates that the scores of the subjects in the experimental group are higher than the control group, so it can be concluded that Beck's cognitive therapy group is effective on the academic performance in the course of dictation. Based on the beta coefficients, the effect of Beck's cognitive therapy group on the academic performance in the course of dictation is 57.5%.

**Table 6.** Co-variance analysis results for geography scores with control of pre-test effect.

| Index / Sources of changes | SS | df | MS | F | Sign. | Effect size | Test power |
|---|---|---|---|---|---|---|---|
| Overlapping effect | 6961.509 | 1 | 6961.509 | 5835.324 | 0.05 | 0.996 | 1.000 |
| Group effect | 102.223 | 1 | 102.223 | 85.686 | 0.05 | 0.767 | 1.000 |
| error | 31.081 | 26 | 1.193 | | | | |
| Total corrected | 7094.750 | 28 | | | | | |

According to the above data, since the value of F = 85.686 with degrees of freedom (df = 26, df = 1) is significant at a conducting level a = 0.05, then the null hypothesis is rejected and the assumption of the research is confirmed with 95% confidence, and because the comparison of the mean of the experimental group in the post-test stage indicates that the scores of the subjects in the experimental group are higher than the control group, so it can be concluded that Beck's cognitive therapy group is effective on the academic performance in the course of geography. Based on the beta coefficients, the effect of Beck's cognitive therapy group on the academic performance in the course of geography is 76.7%.

**CONCLUSION**

A student who has difficulty in her education, in addition to suffering from psychological and sometimes physical injuries, also causes damage to the community. The present study also examines the effectiveness of group cognitive therapy based on Beck's approach to improving the academic performance of the students. The findings of this study indicate that Beck's group therapy cognition has been effective in improving the academic performance. This confirms the findings that cognitive-behavioral interventions have been effective in improving educational problems. Winchestan's study (2009) on the effect of cognitive- behavior on math anxiety, Wolf and Espírito's research (2009) on the effectiveness of cognitive behavior therapy on the academic achievement, study of Steve Jones and Chris Bratz (2006) on the effect of cognitive therapy on improving the academic performance in literature and research of Abed (2010), Hatamipour (2007) suggests that the group therapy cognition has been effective on improving the academic and research and also the results of Farzam and Pouria (2008) on the impact of cognitive techniques to improve the academic performance of our support. The sample size (28 subjects) can be one of the limitations of this research. Among the other constraints of the present study, the limited statistical society can be pointed out to the second year guidance students of Zahedan.

In line with the results of this research, it is suggested that this research be carried out at high school level as well as the impact of Beck's therapy cognition on the need for progress and document style.

**Conflict of Interest**
The authors declare no conflict of interest.

**REFERENCES**

Burke, L. (2011). Psychology of Growth, Volume I (from fertilization to childhood). Translated by Yahya Seyyed Mohammadi: Arasbaran Publications.

Fist, J., & Fist, J. G. (2012). Personality Theories. Translated by Yahya Seyyed Mohammadi, Tehran: Ravan publishing.

Farzam, Mehrdad, Pouria, Mandana. (2008) The Effect of Group Cognitive Therapy on Academic Performance of Male Students in the First Primary School of Tehran. Proceedings: Islamic Azad University, Roodehen Branch

Ganji, H. (1978). Psychological Tests, Mashhad: Astan Qods Publications.

Hatamipour, Samira.(2007), Reviewing the Effectiveness of Group Cognitive Therapy on Improving the Academic Performance of Secondary School Girl Students in Tehran. Proceedings: Azad University of Tehran South Branch

Jones,s&Robert,ch.(2006)cognitive therapy for improving academic performance in high school literature.Journal of Academic achievement 167.119_120

Marnat, G. G. (2010). Psychic Assessment Guide. Vol 1, translated by Hassan Pasha Sharifi, Tehran: Roshd Publications.

Ninan, Michael.Dryden, Vindy (2008) Cognitive Science (Main Techniques). Translator Mohsen Dehghan Anahita Ganjavi. Tehran: Growth Publishing.

Rice, P. (2007). Psychology of Growth (from birth to death): translated by Mahshid Foroghan, Tehran: Arjmand Publication.

Sharef, A. R. (2007). Psychotherapy and counseling theories. translated by Mehrdad Firuz Bakhteh: Rasa Publication.

Winchestan,A.(2009).The effective of cognitive_behavioral group therapy of mathematics in first grad high school students.Journal of professional counseling v12 n2 p12_14