

## REDUCING DEPRESSION AMONG IRANIAN GIRL PUPILS: EFFECT OF COGNITIVE-BEHAVIORAL THERAPY (CBT)

Assist. Prof. Dr. Abbas Madandar ARANI  
Lorestan University  
IRAN

Lida KAKIA  
Sofia University  
BULGARIA

### ABSTRACT

Depression is one of the most common psychological disorders. In recent years, cognitive-behavioral group therapy has received more attention for treating depression. The main purpose of present study is to examine the effect of Cognitive-Behavioral Therapy (CBT) on reducing depression among girl pupils of Junior high schools of Tehran city. The method of research is quasi-experimental. Multiple Cluster Sampling technique was employed to select 16 pupils and then they were randomly divided to each of control and case groups. After participation of experimental group at CBT meetings, all of the participants took pre-test and post- test. Data were analyzed using dependent t- student test. The findings revealed that there is significant difference between two groups at pre- post test results regarding Back Depression Inventory. The findings of present study provide empirical supports for the effects of CBT on girl pupils' depression reduction at junior high schools.

**Key Words:** Group counseling, cognitive-behavioral approach, depression.

### INTRODUCTION

Depression is one of the most common emotional disorders in human being at present. Pupils of guidance schools girls in particular are at an age and stage in the course of life that makes them more vulnerable to emotional disorders than others (Lewinson., Rohde & Seeley, 1998; Sheras, 2001). To explain the causes of depression, several theories such as biological model, psychological dynamics, behavioral, cognitive and existentialism have emerged. Meanwhile, the use of cognitive style - impact of human cognition on emotional status – has been considered more than other theories (Ellis, 1987). The main principle of group counseling is that the foundation of many emotional disorders such as depression should be searched on relationship between individual with others and therefore this method can increase pleasurable experiences, improve social relationships, resolve conflicts and finally reduce emotional disorders (Peterson & Halstead, 1998). Cognitive Behavioral Therapy (CBT) is based on the theory that there is a relationship between a person's thoughts (cognitions), actions and mood (Beck, Rush, Shaw, & Emery, 1979). People who suffer from depression generally present negative thoughts, isolation, decreased pleasant activities and difficulties in interpersonal relationships. CBT is a highly structured therapy that focuses on teaching patients how to use cognitive techniques to identify maladaptive negative thought patterns and replace them with more adaptive and healthy ones. It also focuses on behavior and its effect on mood, and works with increasing the patient's pleasant activities in order to improve their mood. Scientists and doctors have begun to take seriously the risk of depression in children and adolescents. Before puberty, boys and girls are equally likely to develop depressive disorders. By age 15, however, girls are twice as likely as boys to have experienced a major depressive episode (Cyranowski, Frank, Young, Shear, 2000). Depression in adolescence comes at a time of great personal change—when boys and girls are forming an identity distinct from their parents, grappling with gender issues and emerging sexuality, and making decisions for the first time in their lives. Depression in

adolescence frequently co-occurs with other disorders such as anxiety, disruptive behavior, eating disorders or substance abuse. It can also lead to increased risk for suicide (Weissman et al, 1999; Shaffer, 1996). Up to 25% of adolescent girls experience an episode of major depression, at least twice the rate found with adolescent boys. In addition to reducing the suffering associated with depression, prevention efforts with this high-risk population have the potential to avert short- and long-term functional impairment, reduce the risk of associated mental and physical health problems, and provide mental health services to teens who may not otherwise receive help. The effectiveness of such programs depends upon the ability to reach at-risk girls and provide effective intervention, and to accomplish these goals in ways that are sustainable in community settings such as schools (Wolfe, Dozois, Fisman, and DePace, 2008). Considering these findings, the hypothesis of this study is whether group counseling with Cognitive-Behavioral Therapy (CBT) method can reduce emotional depression among girl pupils of Junior high schools.

## METHOD

In this quasi-experimental research, sample population were girl pupils of Junior high schools in Tehran city in the academic year of 2008 - 2009. After random selection of 4 educational districts (2 schools from each district and 3 classes from each school) a Multiple Cluster Sampling technique was employed. A sample size of 288 patients using the Beck Depression Inventory were screened. From those students who scored between 21 and 30, 16 pupils were randomly selected and divided into two control and experimental groups (each group with 8 pupils). Multiple Cluster Sampling technique was employed to select 16 pupils and then they were randomly divided to each of control and case groups.

### Data collection tools

Beck Depression Inventory: This test, based on 21 key signs of depression is prepared by a famous psychiatrist, Beck in 1967 and has been reviewed and revised in the years to follow. A lot of research on the psychometric properties (reliability and validity) and the appropriate use of this test were carried out. For example, analytical study of Groth-Marnat (1990) for internal consistency of this tool has been reported to have a correlation coefficient between 0/73 to 0/92 with a mean of 0/86 (5). In Iran, research by Hossainajad-Enari (1997) and Farahbaghesh (2004) revealed that reliability and validity of Beck Depression Inventory is high.

## RESULTS

After selection of two groups, pupils in the experimental group participated eight sessions (each 90 minutes) of group counseling with Cognitive-Behavioral Therapy (CBT) method. Then, for each of the subjects a pre- post test was conducted and for data analysis t - student test was used. Table 1 shows score for control and experimental groups' depression test and Table 2 indicates results of t-test for depression in both groups and in both pre-and post-test.

Table 1: Experimental and Control groups scores at depression test

Experimental group								
Subjects	1	2	3	4	5	6	7	8
Pre-test	22	30	21	24	30	21	27	22
Post- test	13	22	18	27	22	20	19	18
Control group								
Subjects	1	2	3	4	5	6	7	8
Pre-test	26	23	24	27	25	29	23	25
Post- test	29	13	25	26	27	26	20	28

Table 2: t- test results for experimental and control groups for depression index

Index	$\Sigma D$	$\Sigma D^2$	t ( 0/05 & df= 7)	t ( 0/01 & df= 7)	t
Experimental group N: 8	38	308	1/895	2/995	3/145
Control group N: 8	8	142	1/895	2/995	0/632

According to table 1, after participation of experimental group in CBT, their post-test scores decreased significantly compared to their pretest. But, since the girls of control group did not participated in CBT, there is not much change in their depression condition and significant difference between pre - post test scores. Also, the results of statistical analysis of table 2 shows that t-test for experimental group (145 / 3) is larger than the t-table with error probability of 0/05 (1/ 895) and t- table with error probability 0/01 (2/955) and therefore can be concluded that there is a significant difference among averages. Moreover, as t for the control group (0/632) is smaller than t- table with error probability of 0/05 (1/895) and t-table with error probability of 0/01 (2/995), therefore in this group, there is no significant difference among averages. Overall, these findings reveal that CBT can significantly reduce depression among girl pupils and therefore the research hypothesis is confirmed.

## CONCLUSION

As was stated earlier the present study is an attempt to investigate the effect of group counseling with CBT method on girl pupils of Junior high schools in Tehran city. Since the comparison of pre-test scores of Beck Depression Inventory at two control and experimental groups does not show a significant difference in the stage before the group counseling, we can deduce that significant differences in post- test scores between two groups is only because of training course of CBT method and psychological intervention. In fact, the findings confirm the hypothesis developed in the present study and showed that firstly, group counseling approach with regards to CBT method can effectively reduce depression among girl pupils of junior high school and secondly, subjects were trained under group counseling have further improvement in their depression compared to control group and this difference was significant.

Research findings in recent years by researchers such as Peterson & Halstead (1998) Rosselló & Jiménez-Chafey (2006) and Habigzang et al (2009) confirm the findings of this study. Also, in Iran the findings of Khodayarifard & Parand (2006) and Taraghijah & Hamdieh (2008) support the findings of present research. However, although CBT method for treatment of depression has led to much research, but most research in this area have some methodological limitations such as lack of comparison with other therapy methods, inadequate number of research subjects under investigation, and treatment's short time (Gibson, & Mitchell, 1990). However, whereas the application of group counseling approach with use of CBT method can be of great benefit for emotional disorders in educational environment, it is highly recommend that through holding special classes for school counselors, this method be employed and receive due attention in the process of teaching and learning.

#### BIODATA AND CONTACT ADDRESSES OF THE AUTHORS



Dr. Abbas Madandar ARANI: I am an Assistant Professor at the Department of Education, Lorestan University, Iran. My research and teaching interest is in educational psychology, educational management and educational organizational behaviors. I have published and presented some papers at international & national journals and conferences on education in Spain, UK, Bulgaria, USA, India, Malaysia, Bosnia & Herzegovina and Turkey.

Assist. Prof. Dr. Abbas Madandar ARANI  
No. 32, Koya Bahar , Aran, Kashan City , IRAN  
E. Mail: [rie2000@gmail.com](mailto:rie2000@gmail.com)



Mrs. Lida KAKIA currently is a PhD student in Comparative Education at Sofia University, Bulgaria. She has worked as a teacher counselor at different schools in Tehran with more than 22 years of experiences. She has been selected two times as a Merit Teacher and was awarded by Iranian Presidents. She has also presented some articles at International and National conferences and seminars.

Lida KAKIA  
Sofia University  
BULGARIA

E. Mail: [Lida.kakia@gmail.com](mailto:Lida.kakia@gmail.com)  
Mobile: +98)9131632886

#### REFERENCES

Beck, A. T., Rush, A.J, Shaw, B.F., & Emery, G. 1979. *Cognitive therapy for depression*, New York, USA: Guilford Press.

Cyranowski, J.M. Frank, E, Young, E. Shear, M.K. 2000. Adolescent onset of the gender difference in lifetime rates of major depression. *Archives of General Psychiatry*, 57: 21-27.

Ellis, A. 1987. The impossibility of achieving consistency good mental health, *American Psychologist*, 42:364-375.

Farahbaghesh, K. A. 2004. Study and comparison of irrational beliefs among depressed and normal people, [M.A Thesis], Tehran: Faculty of Psychology and Educational Sciences, University of Allameh Tabatabaee: 87-90 [In Persian].

Gibson, R.L & Mitchell, M.H. 1990. *Introduction to counseling & guidance*, New York: Macmillan Publishing Company.

Groth-Marnat, G. 1990. *The handbook of psychological assessment*, (2nd ed.), New York: Wiley-Interscience.

Habigzang, L.F. Stroeher, F.H. Hatzenberger, R. Cunha, R.C. Ramos, M.S. Koller. S.H. 2009. Cognitive behavioral group therapy for sexually abused girls, *Rev Saúde Pública Journal*: 43, Available at: [www.scielo.br/pdf/rsp/v43s1/en\\_759.pdf](http://www.scielo.br/pdf/rsp/v43s1/en_759.pdf)

Hossainnajat-Enari, M. 1997. Effect of Cognitive-Behavioral Therapy (CBT) at reducing depression among boy pupils of high schools of Mashkinshar, [*M.A Thesis*], Tehran: Faculty of Psychology and Educational Sciences, Tarbiyat Moallam University, [In Persian].

Khodayarifard, M. & Parand, A. 2006. Family therapy based on Cognitive-Behavioral approach for depressed adolescent: a case study. *Psychological Research*, 8 (3&4): 62-83, [In Persian] .

Lewinson, P.M., Rohde, P., & Seeley, J.R. 1998. Major depressive disorder in older adolescents, *Clinical Psychology Review*, 18: 765-794.

Peterson, A.L & Halstead, T.S. 1998. Group cognitive behavior therapy for depression in a community setting: A clinical replication series, *Behavior Therapy* , 29(1):3-18.

Rosselló, J.M. & Jiménez-Chafey, M.I. 2006. Cognitive-Behavioral Group Therapy for Depression in Adolescents with Diabetes: A Pilot Study. *Journal of Psychology*, 40(2):219-226.

Shaffer D, Gould MS, Fisher P, Trautman P, Moreau D, Kleinman M, Flory, M. 1996. Psychiatric diagnosis in child and adolescent suicide, *Archives of General Psychiatry*, 53(4): 339-348.

Sheras, P.L. 2001. Depression and suicide in adolescence, In C.E.Walke&M.C.Robert (Eds), *Handbook of clinical psychology*, (3rd Ed), New York: Wiely.

Taraghijah, S. & Hamdieh, M. 2008. Effect of Cognitive-Behavioral Therapy (CBT) at reducing depression among girl students of Tarbiyat Moallam University, Tehran: 4th National Conference on Students Mental Health, [In Persian], Available at: [www.msrt.ir/sites/iransco/Lists/List5/Attachments/26/26.pdf](http://www.msrt.ir/sites/iransco/Lists/List5/Attachments/26/26.pdf)

Weissman M,M. Wolk, S. Goldstein ,R.B, Moreau, D, Adams, P. Greenwald ,S. Klier, C.M, Ryan, N.D, Dahl ,R.E.

Wichramaratne, P. 1999. Depressed adolescents grown up. *Journal of the American Medical Association*; 281(18): 1701-1713.

Wolfea, V. V. Dozoisb , D.J.A. Fismanb , S. DePaceb. 2008. Preventing Depression among Adolescent Girls: Pathways toward Effective and Sustainable Programs, *Cognitive and Behavioral Practice*, 15(1): 36-46.