

## Preliminary Study of effectiveness of School based Cognitive-Behavioral Group Therapy on Reduction of OCD Symptoms in children

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### ABSTRACT

**Aim and Background:** The present research aim is primary investigation of school based cognitive-behavioral group therapy effectiveness for reducing OCD symptoms in children.

**Methods and Materials:** Hence in the initial step after evaluating subjects by Spence's anxiety questionnaire (SCAS) – child-form (Spence, 1988) and Spence's anxiety questionnaire (SCAS) – parent form (Spence, 1998) and semi-structured diagnostic interview of children (K-SADS-PL) (Kofman et. al, 1996), 30 children with high OCD symptoms were selected, and were assigned equally by random into two experiment (15) and control (15). Then the Cool-kids school based cognitive-behavioral group therapy program was performed for experimental group and the subjects of control group remained in waiting. All participants and their parents completed the Spence's anxiety questionnaire- child form and Spence's anxiety questionnaire – parent form before and after treatment. Data were analyzed using SPSS software and through independent-t statistical method, concerning the difference of pre and post test scores.

**Findings:** The obtained results showed that applying school based cognitive-behavioral group therapy causes significant reduction of OCD symptoms ( $P < 0/0001$ ) in experimental group subjects compared to control group.

**Conclusions:** In sum it could be suggested that school based cognitive-behavioral group therapy has been able to reduce case OCD symptoms in girl children. Therefore has provided a ground for applying the method, in primary form at schools, concerning the children with OCD symptoms.

**KEYWORDS:** OCD symptoms, cognitive-behavioral therapy , school based cognitive-behavioral group therapy

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### INTRODUCTION

Obsessive - Compulsive Disorder (OCD), neurological psychiatric syndrome is complex, its main feature, unwanted thoughts, repetitive and annoying (obsession), repetitive and annoying ritual behaviors (rituals) that, in order to avoid anxiety, or obsessive thoughts do not thwart (1). American Psychiatric Association (2014), its main characteristic, the presence of obsessive thoughts and compulsions, states (2). The prevalence of post-phobic disorder, substance use disorder and depression, is allocated to fourth place (3).

Prevalence, the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), approximately 4-1 percent (2). Epidemiologic studies have shown that the prevalence of the disorder is lifelong, in her late teens, from 2 to 3 percent is estimated. This disorder among children and adolescents, compared to previous research that exists on this disorder is more common and often tends to be chronic. In various studies, the prevalence of this disorder in children is estimated from 1 to 4% (4,5).

Bloch and others (2009), states that 40 percent of children with obsessive - compulsive disorder in adults to maintain. Despite the prevalence and consequences of this disorder in children, often long delay in the onset and diagnosis of these disorders in children there (6).

Investigations suggested that the treatment of cognitive - behavioral special place in the treatment of this disorder in children and adults. In this treatment, the primary role of beliefs and cognitive dysfunction, such as over-estimate risk, increased responsibility, perfectionism, intolerance of uncertainty, the more the importance of the risk and the importance of ideas, the incidence and duration of stress disorder (7 ).

Cognitive - behavioral therapy, based on the fundamental premise that, feel and behave largely the product of cognition, so the intervention of cognitive - behavioral changes can be made in thinking (8)

On the other hand it should also be mentioned that this matter can be to schools as a promising place to provide mental health services to children and adolescents with mental disorders, such as obsessive - compulsive disorder. The main entry point to the schools, the system of mental health services for children, and research indicates that more than 70 percent of mental health treatment for children, in some countries, be offered by schools. The school-based educational programs and therapy can treat many common barriers in society, such as time, location, labeling, transportation and costs, by providing low cost options, convenient and non-threatening reduce (9). Treatment and school-based education, especially when offered in a variety of educational and counseling services, increased positive attitude, to get mental health services among children. So access to treatment in schools, can normalize mental health care, and increase the likelihood of receiving treatment by students (10).

In recent years, the use of cognitive - behavioral effects on children's mental disorders, such as obsessive - compulsive in schools, has been verified, and based on several health - school-based programs education, is designed that, as of this treatment can be used to "treat anxiety Baltimore children in schools (BCATSS)», «intervention cognitive - behavioral therapy for trauma in schools (CBITS)», «support students at risk of psychological harm (SSET) », and« Cool Kids school-based programs, "noted (10). The Cool Kids between school-based programs, including intervention cognitive - behavioral therapy is that, by rap and colleagues (2001) was designed, and its efficacy in the treatment of child psychiatric disorders, especially anxiety disorders and obsessive - compulsive approved is (Hudson et al., 2004; Mifsud and rap, 2005) (11,12). As such, and given the consequences of obsessive - compulsive children, school based cognitive-behavioral therapy group effectiveness in reducing and treating this disorder in this study to investigate the Kool Kids school based cognitive-behavioral therapy group effectiveness, on reducing children obsession, we will.

## METHOD

### Research type

The present study was quasi-experimental with pretest - posttest control group.

### Subjects

The population, including all students in grades fourth through sixth elementary school girls, in the city of Malard is that, of this number, according to the literature, 30 students with obsessive - compulsive, randomly divided into two groups. trial (n = 15) and control group (n = 15) groups.

### Research Tools

For this purpose, the following tools were used:

1. Spence Children's Anxiety Scale (SCAS) - form children: Spence Children's Anxiety Scale (Spence, 1998), in order to measure and evaluate anxiety in children, according to the fourth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), design and it was made. The scale contains 44 items, that is, 38 questions for reflection syndrome, and 6 questions as to minimize the negative bias, is designed. 5,8,12,15,16,44 questions for separation anxiety subscale, 6,7,9,10,29,35 questions, for social phobia subscale questions 14,19,27,40,41,42 for obsessive - compulsive, 13,21,28,30,32,34,36,37,39 questions, to the following scale panic with agoraphobia, 2,18,23,25,33 questions, for fear of injury. physical, and finally the questions 1,3,4,20,22,24, for generalized anxiety subscales, respectively. Research shows that, on this scale in the Netherlands, Belgium, Germany, Japan, Australia, New Zealand and the UK, standardized, and has high reliability and validity. In Iran, the convergent validity of the questionnaire, the children in the study Anisi Anxiety Inventory (2008), 0.71 Cronbach's, for general anxiety 0.92 Has been achieved.

2. Spence Children's Anxiety Scale (SCAS) - Form Parents: Parents version Spence Children Anxiety Scale (SCAS) (Spence, 1998), as well as children, including 6 of Form separation anxiety, social phobia, obsessive-compulsive disorder, generalized anxiety, phobias specifically, and panic disorder with or without agoraphobia is. Yes questionnaire for children, parents removed in the questionnaire, and a questionnaire of 38 questions is, and options such as the child questionnaire, from zero to 3 is considered. The results of the studies, the Children's Depression Inventory (Parent Form), suggests that, in the preparation of the questionnaire parental anxiety Spence, Spence Children's Anxiety Inventory to match its questions, have been considered.

3. Semi-structured interviews of K-SADS-PL: Inventory K-SADS-PL (Kaufman, 1996), semi-structured interview-that is, to assess the current and previous episodes of mental illness in children and adolescents, According to the DSM-III-R and DSM-IV is designed. In order to evaluate any sign of search criteria, and there are objective. In the study by Kaufman et al. (1996), good validity and reliability, it has been reported. Iran is also Ghanizadeh and colleagues (2006) alpha coefficient for Separation Anxiety Disorder, Panic Disorder, Generalized Anxiety Disorder, Obsessive-compulsive disorder, social phobia and specific phobia to, respectively, 0.63, 1, 0.78, 0.89, 0.87, 0.91, Reported.

4. Cool Kids school-based cognitive-behavioral group therapy plan (Cool Kids): This program is based on research that, in Australia at the University of McCurdy Sydney, Royal North Shore Hospital, and the University of Queensland, have been conducted in more than a decade . The current version of the program, as well as older versions, all largely controlled trials, were evaluated.

The content of the program, children and parents work from the same book, but upon meeting structure is designed according to the needs of the school environment, and the components of the child, the parent component is also considered, along with school teachers, education to alleviate the problems, and students are given questions. The first implementation of this program in 2002, and in vulnerable schools was conducted, and the results showed that the school plans to dramatic changes in levels of child anxiety and obsessive-compulsive symptoms leads.

The program consists of eight main session, is as follows:

Session 1: What is the nature and causes of anxiety (Program Overview): Understanding anxiety, defining anxiety, fears and concerns personal identification, learning about feelings, scale concerns and communicate thoughts, feelings, and eventually homework.

Session 2: Learning realistic thinking: review homework, because of the important thoughts, what internal dialogue and its importance, how people think of detectives and search for evidence, and eventually homework.

Session 3: Rewards: review homework, applying the thinking of detectives for major concern, their education and ultimately rewarding homework.

Session 4: Fight the fear by facing fear: review homework, fight the fear by facing a fear, a list of fears and concerns, providing step ladder and eventually homework.

Session 5: Creative exposure: review homework, surfing concern, a new phase stairs and eventually homework exercises.

Session 6: Problem Solving: review homework, learning, problem solving and ultimately homework.

Session 7: Bold as: review homework, define the behaviors of courage and daring, and then homework.

Session 8: Dealing with Harassment: review homework, preemption on bullying, and eventually homework.

If necessary, the program can be held for 10 sessions:

Session 9: review of progress

Session 10: Keeping cope with the achievements and failures

The program for parents, 2 meeting approved that, in order to introduce the program and explain the concept of anxiety, and principles and outline program is to inform parents. If required, we can, with individual consultations, questions, and issues for parents to pay. The general principles and a description of the activities available to teachers is that, if necessary, students are able to answer questions.

### **Research methods**

For this purpose, visit to an elementary school in the Malard city, and a total of 114 spens anxiety questionnaire form children - among students in grades fourth, fifth and sixth implemented. Then 41 children, has the highest signs of obsessive - compulsive, in terms of obsessive - compulsive questionnaire, they were selected to participate in the study. Then the parents, were invited to attend, and after the interview, they were asked to complete a questionnaire parent's spens -, complete. Then, the teachers also asked questions in this area, confirmed the symptoms of OCD in children. Then, the child psychiatric interview questions from K-SADS-PL, in order to verify the signs of obsession, and that obsession is the main problem, was performed. Finally, the third of these children, due to depressed, as the main problem and one for Ritalin, was excluded from the sample. Finally, the remaining 37 children, 30 had the highest score, were selected to participate in clinical research. The subjects, 15 subjects were randomly assigned to the experimental group and 15 patients in the control group.

### Data analysis

For data analysis, descriptive statistics to determine the frequency, mean, standard deviation and independent t test for the mean differences between the two groups based on the software SPSS 16, is used.

## RESULTS

Table 1 shows descriptive findings, participants in the experimental group were 2 people in the fourth grade 8 students in the fifth grade, and sixth grade are 5 people. In the control group, respectively, in the fourth grade 6 people, 3 people in the fifth grade, and sixth grade are 6 people. Table 2 shows the mean and standard deviation of variable obsessive - compulsive, in two group shows. The mean and standard deviation of the experimental group Spence Anxiety Scale - Children's form in pre 8.46 (3.35), and in post 66/5 (2.66), and the parents in the pre-test form 6.13 (2.44), and in post 4.33 (2.19), which represents a reduction of symptoms of obsessive - compulsive disorder, post-test.

**Table 1: frequency and percentage of subjects in the experimental group and the control class breakdown**

Control (N = 15)		(Trial (N = 15		Group Class
Percent	frequency	Percent	frequency	
40	6	13/33	2	Fourth grade
20	3	53/33	8	Fifth Grade
40	6	33/33	5	Sixth grade
100	15	100	15	Total

**Table 2. Descriptive indicators in scale obsessive - compulsive experimental group and the control group in the form of children and parents, Spence Anxiety Scale**

Standard deviation	Average	Test phase	group	Scale
3/35	8/46	(n=15) pre-exam	examination group	Spence Children's Anxiety Scale (SCAS) - Children form
2/66	5/66	(n=15)Pro-exam		
3/67	8/73	(n=15) pre-exam	control group	
3/60	9	(n=15) Pro-exam		
2/44	6/13	(n=15) pre-exam	examination group	Spence Children's Anxiety Scale (SCAS) - Parent Form
2/19	4/33	(n=15) Pro-exam		
2/82	8/53	(n=15) pre-exam	control group	
2/64	9	(n=15) Pro-exam		

**Table 3: Comparison of variable research in experimental and control groups, independent t test, the difference between pre - and post-test (child form)**

P	t	The standard deviation of the difference between pre and post-test	Mean difference of pre-post test	group	Index Variables
0/001	4/33	2/67	2/80	Experiment	Obsessive - Compulsive Disorder
		0/59	-0/26	Control	

**Table 4: Comparison of variables, the experimental and control groups, independent t-test, pre and post-test scores on the (parent's form)**

P	t	The standard deviation of the difference between pre and post-test	Mean difference of pre-post test	group	Index Variables
0/0001	4/83	1/61	1/80	Experiment	Obsessive - Compulsive Disorder
		0/83	-0/46	Control	

The results of Tables 3 and 4 also indicate that important, t observed by the two groups, based on the child form, the variable obsessive - compulsive, equal to  $t = 4.33$  which, according to critical values alpha levels are

significant in 0.0001. Also *t* observed by the two groups, based on the parent form, is significant ( $t = 4/83$   $p$ : 0.0001) that indicate the treatment program, the symptoms of obsessive - compulsive, respectively.

## DISCUSSION AND CONCLUSION

The aim of this study was to examine the Primary investigation of school based cognitive-behavioral therapy group effectiveness, on reducing children obsessive. The results showed that the treatment has positive effect on reducing symptoms of obsessive - compulsive That is, the results can be, consistent with previous findings in the field, such as research Hudson et al., 2004; Mifsud and rap, 2005, Barrett et al., 2010; Neal and Christensen, 2009; he said. Mifsud and rap (2005), Kool Kids and school-based program, launched in vulnerable schools. Their research, conducted after the program, as well as after the 4-month follow-up period showed that school-based program is an effective tool for reducing symptoms of children.

Neil and Christensen (2007), in reviewing the effectiveness of school-based prevention interventions and 24 studies in Australia, concluded that school-based cognitive-behavioral program of Kool Kids, Effect size is above average.

Alignment due to findings in previous research in this area can be found in the theoretical foundations and practical similarity in the present study and previous research, he said. So that fundamentally can not accept this view, cognitive defects and distortions in children, is proven in the etiology of this disorder, and symptoms of Obsessive - Compulsive Disorder is, and therefore, as previous studies have proven this important have recent study, in line with these studies, for this achievement is important. In terms of application, recent research from the start, according to previous research, the research process, tools used, desired techniques and semi-structured sessions, moved forward, and thus practical terms is also expected to achieve the result was in line with the results of such studies. The combination of research, other research in this area, we must not neglect the cultural similarities and differences. In this regard, since the first time Cole Kids program, for children who lived in more deprived tissues, and did not take advantage of family-oriented programs evolution was developed, in the current study, plan on disadvantaged children in terms of socio - economic, conducted and, therefore, it seems, Kool Kids program, in the case of Iran have similar efficacy, with the other's culture. In the end it would be necessary-is also that, as in any research study, which has its own limitations, among them-as restrictions on sex, resulting in a lack of accurate generalization of the results to the opposite sex, restrictions on age, resulting in a lack of accurate generalization of the results to different ages, non-treated, resulting in a lack of reliability and durability of treatment and more. In this way, according to the findings of this study, it appears that the application of school-based Kool Kids cognitive - behavioral program appropriate treatment, in order to reduce the symptoms of obsessive - compulsive disorder, in children. For this reason, it can be as efficient and effective therapy in reducing symptoms of mental disorders, such as anxiety disorders and obsessive - compulsive, psychological clinics, counseling centers, private clinics and public and private schools, used.

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