

EXAMINED THE EFFECTIVENESS OF CBT (COGNITIVE BEHAVIOR THERAPY) ON ANXIETY AND ANXIETY IN CHILDREN WITH NOCTURNAL ENURESIS

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Abstract

In this study we assessed the effectiveness of "Cognitive behavioral therapy" on stress and anxiety in children with nocturia. In this semi-structured study with pre-post assessment and analysis, 30 kids were analyzed and chosen based on inclusion criteria. Kids were assessed using "penn state worry questionnaire for children", "revised children's anxiety and anxiety scale" and "positive and negative affect schedule" on before-after sections. The resulting data were analyzed using descriptive statistics and analysis of covariance. The experiment group showed significant decrease in stress, anxiety, worry and negative feelings which proves the study's hypothesis. Therefore, according to results the cognitive behavioral therapy is effective on stress and anxiety and can be used as a harmless treatment in group training format on children.

Keywords: nocturnal enuresis, anxiety, Kendall cognitive-behavioral

1 Introduction

Enuresis is the involuntary repulsion of urine during sleep after the age at which bladder control should be achieved. This ability usually will obtain at three years old. This problem is divided into two types. In primary or continuous enuresis control has not been achieved at any time for a period of at least 6 months to a year and in the secondary type of bladder control the aforementioned Braymedet obtain and will be lost again (Tajri & et al, 2003). So that anxiety and anxiety in children with enuresis are among common psychiatric disorders. There is Anxiety as a part of every human life, in the extent of moderation in all people. And this extent is considered as an adapted response in such a way that we can say: "If there was no anxiety we would all go to sleep behind our desks." Lack of anxiety may face us with many problems and risks. So, anxiety as part of life of every human being constitutes one of the components of his personality structure. And from this point is that some of the anxieties of childhood and adolescence can be considered normalized and accepted their positive effect on the process of transformation. In other words, we can say that anxiety in some situations creates construction and creativity in people and vice versa, there is also a morbid anxiety. Because the extent of anxiety can be productive and useful, and most people have to experience, But this case may have a chronic and continuous aspects that in this case, not only response cannot considered adapted, But also it should be considered as a source of failure and desperation of person that deprives a person of major part of his facilities. And create a wide range of anxiety disorders that are widespread of recognized disorders of body to unjustified fears and fearfulness (Dadsetan, 1996). (Effert & Huberty, 1990) examined Anxiety in the context of their multi-level behavioral theory. They emphasized on two main themes:

1-Underpinning of the anxiety is a central excitedly response.

2-anxiety may be learned through aversion condition and in such a symbolic way through the language.

In their point of view, the experience of hit and damage is not essential for fear, but also, the fear may easily create through negative excitement that are invoking by words. Words that are evoke with certain situations, for example, the words and the

negative thoughts may be evoked with the pictures of fearfulness.

Thus, they describe a kind of self-conditioning. The importance of their theory is that they depict a transplant and clear relationship between cognitive theory and the theory of conditioning. (Khodapanahi, 2006)

(Huberty, 2010) believes while the anxiety symptoms are different in the type of kind and severity in people and different situations, but some of symptoms are common in the all anxiety disorders and appear in cognitive, behavioral and physical responses. All of these symptoms are not seen in all people or to the same extent.

On the one hand, all people sometimes indicate some of these symptoms but this is not necessarily mean that there is anxiety and will lead to problems. Since many children are suffering from anxiety disorders, the clinical treatments are not able to cover all of them, So, the planners have to invest more in prevention part so that less children experience problematic anxiety.

(Schwartz & wadel, 2012) There are many treatment programs for improving anxiety disorders that all of them have cognitive-behavioral basic. In the field of treatment, cognitive - behavioral method has taken lead generation beyond of other approaches. It is more than twenty years that the amount of effectiveness of cognitive-behavioral therapy has been proven in the treatment of childhood disorders. Cognitive- behavioral therapy is a term to describe psychotherapist's interventions which is aimed to reducing psychological discomforts and maladaptive behavior by changing the cognitive processes. Cognitive- behavioral therapy is based on fundamental assumption that feeling and behavior are largely the products of cognition. So we can created changes in thinking with cognitive and behavioral interventions. Thus, Cognitive- behavioral therapy contains the main elements of both cognitive and behavioral theories. Cognitive psychologists are concerned the way of earning information from the world, a way of unveiling this information and turn it into knowledge, the way of store it and the way of use it in order to directing to our attention and behavior. Cognitive Psychology contains the range of psychological processes.

It covers all fields of behavior from feelings to perception, recognition of designs, attention, learning, memory, concept formation, thinking, guided imagery, remembering, language, excitements and the processes of growth to help to understand the nature of the mind of thought. The idea that the way of our thinking effects on our emotions plays an important role in the treatment of anxiety. In addition to this, the way of our action in a position depends on the consequences that are followed behavior; In other words, if an unpleasant event happens after a behavior, that behavior is more likely to reduce or even stop (Kandall et al 2006). In recent years, it has been raising the tendency toward the use of Cognitive- behavioral therapy for working with children and adolescents. The results of conducted research indicate that this method is effective and useful in the treatment of generalized anxiety disorders, depressive disorders, interpersonal problems and social phobia, morbid fears, refusing to go to school, sexual abuse and in pain management.

So in this study, we are examining the effectiveness of cognitive behavioral therapy on anxiety and anxiety in children with enuresis and attempt to answer to this question that whether cognitive behavioral therapy is effective to reduce anxiety in children with enuresis or not?

2 Methodology

Methodology is quasi-experimental with pre-test and post-test scheme with a control group.

The statistical population of present study includes Children with enuresis referring to outpatient clinics of Urology Specialists in 2015 and the first half of 2016 in Kermanshah city. The total number of participants in this study was 30 children admitted to the pediatric urology specialists in Kermanshah that after randomly selection, 15 individuals were placed in control group and 15 individuals were in intervention group. Sampling for children to targeted participate in the study was based on inclusion criteria. After selecting the case study sample, they randomly were placed into two groups: Control and alternative. In the pilot studies minimum samples of 15 people is appropriate. (Delavare, 2001)

Exclusion criteria including the following cases: lack of chronic diseases, lack of bladder or kidney health problems in children, lack of specific medication, no history of traumatic experiences in the past six months, the primary nocturnal enuresis

3 Research Tools

A: Penn State-form of children Worry Questionnaire (PSWQ-C) (Korpita et al. 1991).

This questionnaire includes 14 items of self-report type.

The questionnaire has used to worry measurement in the children and is useful tool for comprehensive diagnosis and assessment in children between 6 and 18 years old. Questionnaire materials is graded from zero to three as a 4-degree scale. The total test score is between zero and 42 and with the higher total score in children is a sign of greater concern. The convergent and diagnostic and reliability validity of questionnaires has been approved in the study of Mofrad, Atef and Bayanzadeh (2000) (Bakhtiari, et al., 2013).

3.1 Revised child anxiety and anxiety scale (RCADS)

This scale of self-report questionnaire is for children and adolescents from 8 to 18 years old with 47 items and has six scales for measuring separation anxiety disorder, social phobia, generalized anxiety disorder, panic disorder, obsession, incontinent and major anxiety disorder. At this scale the respondent should express that whatever every item is true on him/her due to their usual feelings. In a study on clinical and non-clinical samples good psychometric properties has been reported to this questionnaire. Two specific strong point of this scale are: have several scales is related to the numerous diagnosing anxiety disorder that can be helpful in determining for treatment, the second that has the short scale for anxiety to be evaluated the possibility of anxiety (Chorpita 2011).

3.2 Positive and Negative Affect Scale for Children PANAS-C

This questionnaire is a scale that is used to emotion of children in many studies that includes 24 items and measures the positive and negative emotion of children. Unlike a scale of emotion and arousal, this scale wants from children to grading some adjectives alone (such as angry, sadness) with respect to that in have felt them in recent weeks. Psychometric properties of this scale have been reported appropriate by Alornt and et al., in a

series of comparative analyzes on clinical population, Chorpita and Dalyden observed that measures of negative affection and arousal emotional scale both have correlation with anxiety scales. Meanwhile Negative Affection Scale reliability is high briefly. It was observed in the same study that positive affection Panas has higher correlation with anxiety clearly, although there is a problem due to significant correlation with other scales of negative affection, concern and confusion in its discriminant validity. Although the scale of emotional arousal due to having the high content validity to mood has better potential for prediction for the occurrence of anxiety in the future. However, any advantage or disadvantage related to it requires further researches. According to our findings use of the PANAS is recommend generally in the comprehensive assessment program (Chorpita, 2011)

D. assessment questionnaire of children with nocturnal enuresis

This questionnaire in parts of parents assessment, medical assessment and psychological therapist, including A. the findings of résumé B: familial history, C. physical examination findings, D. preclinical findings has been set. Each section has yes and no option and one column is to more explain about that option. Parents form includes 23 items and therapist form has been set in four different sections. This form has been prepared, set and presented by Mahmoud Gharayi in the book of bowel disorders and nocturnal enuresis of children as a practical guide for assessing and treating physicians, psychiatrists, psychologists.

3.3 Implementation Method

participants after examining specialist doctor by questionnaire for nocturnal enuresis was showing that the problem is psychogenic was selected and after performing the first three questionnaires were enrolled and randomly assigned to the intervention group and control group. These sessions once a week for an hour, was conducted by the researcher. As well as during a session with parents the need to implement the treatment plan was recommended to them. And it was agreed that sessions to be implemented twice a week and for 60 minutes and parents also participate and collaborate in some sessions. Cognitive behavior therapy based on cognitive behavioral program of Kendall program in 1994 was designed by Philip Kendall to reduce the symptoms of disorders in children, this therapy method has four steps based on therapy protocol: understanding feelings of fear step, waiting for negative events, actions and attitudes that can reduce interference and results and encouraging, it has been designed. Therapy sessions were designed in a way that at first childhood be aware of your physical reactions to anxiety and physical symptoms and identify signs of anxiety. In the next incidents of negative expectations and anxiogenic accidents and their types will be discussed in therapy session meeting. In the third step the actions and behaviors of children against the events of are examined anxiogenic and problem solving skills and mental relaxation was taught to them. Finally, to the group members were given an opportunity to evaluate the new behaviors they have learned and encourage him/her to do new skills. That content of each session has been prepared and set and presented in the table based on the book of Chorpita (2011) (table 1).

Table 1: content of cognitive behavioral therapy sessions for treatment of children

Session	content
First	Its contact with the authorities, assessment, setting treatment goals, identify stressful situations, familiar with the concept of age-related behavioral problems and nocturnal enuresis
Second	Training different feelings, identify symptoms created in anxiogenic position, positive reinforcement Training, probationary contract and blackout behavior
Third	Training physical symptoms of anxiety, identify physical reactions, Training forming behavior and interaction behavior
Fourth	In person meeting of parents order to increase cooperation with them in the treatment process and responding to possible questions.

Data analysis in the descriptive part with mean and standard deviation. In the second part ANCOVA analysis of covariance was used to testing hypotheses and control of the effect of pre-

test in experimental and control groups. Data were analyzed by using 23-SPSS statistical software.

4 Results

Table 2: Replacing the participants in groups

Group	Number	Percentage
Invention	15	50
Control	15	50
Total	30	100

Findings in Table 2-9 show that in this study, 30 children were present with nocturnal enuresis that were replaced in both groups

(intervention and control) and in each group 15 people has been located.

Table 3: Mean and standard deviation of scores participants in the positive and negative assessment questionnaire for children

Variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Positive affection	30	25	43	32	4.938	0.186 -0.060
Negative affection	30	41	58	51.10	4.78	0.488 -0.439

As can be seen in the table mean and standard deviation positive affection among participants was equal to the 32.200 ± 4.938 .

While in negative affection score of 51.10 ± 4.78 had been obtained.

Table 4: Mean \pm SD of anxiety and anxiety

Variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Anxiety	30	44	69	55.53	6.67	0.186

The mean of anxiety and anxiety of participants was equal to 55.53 years old with standard deviation of 6.67.

Table 5: Mean \pm SD of concern PSQW

variable	Number	Minimum	Maximum	Mean	Sd	Skewness
Concern	30	28	40	34.23	2.95	0.322

The average concern score of participants was equal to 34.23 years with a standard deviation of 2.95.

- Research hypothesis: there is a significant difference between anxiety scores in the intervention and control group after the intervention step

In all variables skewness and kurtosis is between -2 and +2, which represents the normal distribution samples.

Table 6: descriptive data of anxiety variable

	Group	Mean	Sd
Pre test	Intervention group	58.80	6.97
	Control group	53.60	6.60
Post test	Intervention group	50.530	5.659
	Control group	54.533	6.42

As can be seen in the total average score of anxiety participants in the control group was equal to (6.28 ± 53.60). This mean and standard deviation in the intervention group was equal to (5.65 ± 58.80). While the mean of the control group has not changed significantly (6.42 ± 54.53) it seems a significant change has

occurred in the intervention group (5.65 ± 50.530) that this difference is measured by testing significant covariance. Covariance analysis was carried out on the data normality in descriptive part and homogeneity and Levin test also has come in this part.

Table 7: Levene test a test for equality of variances

F	Degrees of freedom 1	Degrees of freedom 2	Significant
2.61	1	28	0.117

Equality of variances test shows that default of covariate analysis has been observed so the next table shows the

covariance analysis results.

Table 8: results of covariance ANCOVA effectiveness of treatment on anxiety at pre-test post-test part

Resource	Sum of squares	Degrees of freedom	Mean square	F	Significant	Eta coefficient
Modified Model	647.493	2	323.756	17.553	0.000	0.565
Anxiety	527.493	1	527.493	28.301	0.000	0.514
Groups	352.712	1	352.712	19.124	0.000	0.415
Error	497.947	27	18.443			
Total	83938.00	30				

The results indicate that after removing the effect of pre-test, the two interventions and control groups are significantly different

with F equal to 19.12 at level of 0.000. Eta coefficient is equal 0.415 which indicates the effectiveness of the intervention.

Table 9: paired Comparison of intervention and control groups in in anxiety post-test step

groups	Mean difference	standard error	Significant	The difference in the confidence level of 92%	
				Up	Down
Control	7.4	1.692	0.000	10.87	-3.928

5 Discussion

The research hypothesis was confirmed based on this that cognitive-behavioral therapy reduces anxiety in children with enuresis which is aligned with the results of (Volek & et al. 2015). They conducted a study to evaluate the effectiveness of psychotherapy on anxiety disorder and anxiety in children.

66 participants were participated in the cognitive behavioral therapy sessions. (Keyn & et al., 2015) Also, was conducted a study to evaluate the effectiveness of method of coping cat therapy (Cognitive therapy Kendal) on anxiety reduction in children with autism syndrome. For this purpose, there were 22 children between the ages of 8-14 years that an average of their IQ was 70. These children were placed randomly in the group and were treated with cognitive-behavioral therapy for sixteen sessions. The results indicate that cognitive-behavioral therapy has been effective on anxiety of these children in comparison with control group and this effect was remained in participants for two months.

Anxiety and anxiety were detected based on diagnostic criteria and questionnaires. The Results indicated that those who had recently thought about suicide have responded to the treatment more than others. These results finally indicated that anxiety and anxiety of children have been reduced. So, this method of treatment was detected appropriate to reduce psychological problems of children. This means that children in the intervention group significantly after the intervention were felt less anxiety and showed less anxiety symptoms compared to the control group. This finding is consistent with the results of other researches that have been conducted in this field. (Basak nejad & et al, 2011), Puleo et al., (2011), Herbert et al., (2009) Ehn et al., (2013) 30 girls of 11 to 13 years old that had been measured by using the structured diagnostic Interview and Children Anxiety Scale, divided randomly in two groups of randomized and experimental. Then, cognitive behavioral therapy group was conducted on them by method of coping with anxiety. The obtained results of analysis of single variable covariance indicated that there is a significant difference between the scores of posttest anxiety of two randomized and experimental groups that were still going on after a month of treatment effect.

In another research that conducted recently by (Zarghami and et al., 2015) aimed to treating children of 8-10 years also, had been used of cognitive therapy method based on Kendal program. In this plan a semi-experimental has been conducted with pretest-posttest and control group. 40 children of 11 to 13 years old with a diagnosis of comprehensive anxiety disorder, separation anxiety or social anxiety were replaced randomly in two groups

of 20 persons (treatment group and the group of expects) after clinical interview by child and adolescent psychiatrists, evaluating by semi-structured diagnostic Interview by placing at the clinical level based on anxiety scale that is based on the test of list of behavioral problems in children.

Intervention therapy was performed based on Individual cognitive behavioral program for ten sessions to the participants of treatment group.

Under evaluating significant clinically indicated that cognitive-behavioral therapy has been significantly reduced the symptoms of the treatment group anxiety compared with group of expects that has been continued in one and a half months and three months pursuits. Articulating this finding we can say that although this method of treatment emphasizes more on children's anxiety, But techniques that have been taught to children and their parents ,especially in 5-6 and 7 sessions can have a significant effect on reducing negative self-talking and cause increasing confidence and positive self-talking and increasing temper of students. In this orientation sessions of self-talking in anxiety or depressive situations, differentiation were performed between anxiety and harmonious self-talking, problem solving training, helping child to change self-talking and finally, the results indicated that these techniques have been effective. Therefore, addition of parents and teachers training to this context of treatment and signs and symptoms pursuit and abundance of enuresis can be useful in subsequent studies.

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