






Research Paper

The Effectiveness of Cognitive-Behavioral Play Therapy (CBT) and Resiliency Based Play Therapy on Sleep Disorder in Children with Functional Abdominal Pain

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Abstract

Introduction: Children with functional abdominal pain often suffer from Abdominal pain before falling asleep. This study aimed to determine the effects of resiliency based play therapy and cognitive-behavioral play therapy on sleep disorder in children with functional abdominal pain.

Methods: The research method was quasi-experimental, with pre-test, post-test, and follow-up with a control group. The research participants consisted of 24 children with functional abdominal pain aged 5-10 years old with their mothers referred to Amin Hospital Specialized Clinic in Isfahan (2018), who were purposefully selected and randomly assigned to three groups (two therapeutic groups and a control group, each group with 8 children). Bruni et al. (1996) sleep disorder Scale was used to measure the dependent variable in the pre-test, post-test, and one month follow up. Two experimental groups received a treatment course on cognitive-behavioral play therapy and resiliency based play therapy in 8 sessions, and the control group did not receive any treatment. The data were analyzed using repeated-measures analysis of variance.

Results: The results revealed that only there was a significant difference between resiliency-based play therapy and cognitive-behavioral play therapy with a control group in sleep ($P < 0.05$), there was no significant difference between resiliency based play therapy and cognitive-behavioral play therapy ($P > 0.05$).

Conclusions: Resiliency based play therapy and cognitive play therapy have been effective in recovering sleep disorder of children with functional abdominal pain. Therefore, this treatment can be used to improve sleep disorders in children with functional abdominal pain in health centers.

Extended Abstract

OBJECTIVE

Children with functional abdominal pain often suffer from abdominal pain before falling asleep, and pain has a negative effect on sleep

quality. These children have symptoms of behavioral sleep disorders, nightmares, and more daily fatigue than healthy children. Play therapy is one of the most

important therapeutic approaches for children. Cognitive-behavioral play therapy contains the principles of cognitive-behavioral therapy and play and is designed to teach children coping skills. Cognitive Behavioral interventions for behavioral childhood insomnia are effective and lead to a rapid improvement in children's sleep. However, beyond cognitive-behavioral intervention for children, it is necessary to pay attention to another part of sleep effects and other psychological variables. Research has shown that sleep affects the resiliency levels of children and adolescents. So that sleep problems would lead to reduced resiliency and potentially increasing the risk of psychopathology. In support of the role of promoting resiliency based play and its relation to sleep problems, now some studies aimed at teaching resiliency skills for children have shown success in increasing resiliency and reducing psychopathology in children. According to research evidence presented on the relationship between sleep, resiliency, and cognitive-behavioral skills, In the present study, it was necessary to investigate the effect of these two interventions on sleep disorders in children with abdominal pain. This study aimed to determine the effects of resiliency based play therapy and cognitive-behavioral play therapy on sleep disorder in children with functional abdominal pain.

MATERIALS AND METHODS

The research method was quasi-experimental, with pre-test, post-test, and follow-up with a control group. The research participants consisted of children with functional abdominal pain aged 5-10 years old with their mothers referred to Amin Hospital Specialized Clinic in Isfahan (2018). Twenty-four children were

purposefully selected and randomly divided into three groups (two therapeutic groups and a control group, each group with eight children). Bruni et al. (1996) sleep disorder Scale was used to measure pre-test, post-test, and one month follow up. Two experimental groups received a treatment course on cognitive-behavioral play therapy and resiliency based play therapy in eight sessions, and the control group received no intervention at the end of the study. The data were analyzed using repeated-measures analysis of variance.

RESULTS

Descriptive findings showed that in the sleep disorder, the cognitive-behavioral play therapy group had a mean of 45.75 in the pre-test phase, and in the post-test and follow-up phase, the mean of this variable was changed to 35 and 34/87 respectively. In the resiliency based play therapy group, the mean of sleep disorder in the pre-test phase was 45.75, and in the post-test and follow-up phase, it was changed to 34.12 and 32, respectively. In the control group, the mean of sleep disorder in the pre-test phase was 48.75, and in the post-test and follow-up phase, it changed to 54 and 51.78. The results of repeated measure analysis of variance indicated that there is a significant difference between one of the therapeutic groups and the control group in sleep disorder in post-test and follow-up ($P < 0.001$). The results of the posthoc Bonferroni test revealed that there was no significant difference between resilience-based play therapy and cognitive-behavioral play therapy ($P > 0.05$). However, there was a significant difference between the two treatments with the control group ($P < 0.05$) (Table 1).

Table 1. Results of Repeated Measures Analysis of Variance for Sleep Disturbance Variables by Intra-Group and Between-Group Analysis

Analysis	Sum of Square	df	Mean Square	f	sig	Partial Eta Squared
Inter-group						
Time (three steps)	667.69	2	338.85	17.69	0.001	1
Group x Time interaction	907.06	4	226.76	11.84	0.001	1
Error	804.58	42	19.16	-	-	-
Between-group						
group	2958.11	2	1479.06	6.14	0.008	0.84
Error	5056.54	21	240.79	-	-	-

CONCLUSION

In CBPT sessions, Cognitive-behavioral techniques have led to cognitive development, reduced night stress, and increased coping strategies in children. Since physiological factors may lead to sleep problems, therefore, improving the abdominal pain in children has reduced the sleep disorders of children. On the other hand, resiliency training based play therapy helps maintain positive adaptation and returns to baseline after facing adverse conditions. The child's thoughts and strengths and weaknesses can be assessed by playing. The reasons for the child's insomnia can be asked in the play and then explore possible ways to solve the problem. Through the play, the child can explore past and present events and solve problems through role-

play, storytelling, or mental imagery. In the present study, the main focus of resilience-based play therapy was to enhance the sense of self-efficacy and adaptation to challenging situations for children with abdominal pain. Children with abdominal pain have lost their sense of function and self-efficacy, and instead of using problem-solving, they show their problems in other ways, including insomnia. Therefore, Resiliency-based play therapy with focusing on the child's strengths and practicing required skills leads the child to be more prepared to face the maladaptation and solving problems, making it easier for the children to solve their problems and then have a better sleep.

Resiliency based play therapy and cognitive play therapy have been effective in recovering sleep

disorder of children with functional abdominal pain. Therefore, this treatment can be used to improve sleep disorders in children with functional abdominal pain in health centers.

Ethical Considerations

This research is taken from the doctoral dissertation on psychology and has a code of ethics from the University's Scientific Research Committee of IR.IAU.KHUISF. REC.1397.012. The authors of this study have followed the Helsinki study ethics protocols. The information of the participants in this study remains completely anonymous. All of this information will be protected after the study. Research objectives are fully described to the participants (parents of the children). They also filled out the consent form of the study.

Funding or Supports

This study had no sponsors and was conducted with a personal cost.

Author's Contributions

Ms. Shekoufeh Nikneshan's responsibility was the initial writing and preparation of the paper. Dr. Golparvar did the statistical analysis of the data and was responsible for the initial idea of the study. Dr. Abedi also had the initial idea for the study. Dr. Nasri and Dr. Famouri undertook to collect the sample.

Conflict of Interest

In this article, there was no reported any conflict of interest.

Applicable Remarks

This study by examining the role of cognitive-behavioral play therapy and resilience-based play therapy for children with functional abdominal pain will help improve the sleep of children with functional abdominal pain.

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