
The Effects of a Children's Post-Traumatic Stress for in Childcare Facilities

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Abstract

This study aims to verify the effect of reducing post-traumatic stress by identifying post-traumatic stress of children in child care facilities and providing effective group programs. Among the 28 children in childcare facilities residing in Chungcheongnam-do, 14 people in the experimental group and 14 people in the control group were targeted. To measure PTSD symptoms, the Posttraumatic Diagnostic Scale (PDS) was used. For data analysis, χ^2 , Mann-Whitney U analysis and Wilcoxon signed rank test were performed using the SPSS 25.0 statistical program. The results of the study are: First, it can be seen that the homogeneity of post-traumatic stress. Second, for post-traumatic stress, the average rank of the experimental group was lower than that of the control group. Third, in order to prove that the effectiveness of the post-traumatic stress program in the experimental group is maintained in the follow-up test, so the follow-up results were maintained. In conclusion, the need for systematic support for early intervention and follow-up management regarding post-traumatic stress and trauma experiences of children in child care facilities is emphasized. Post-traumatic growth programs should be actively implemented.

Keywords: PTSD (Post Trauma Syndrome Disorder), Post Trauma Stress, Children, Childcare Facility

1. INTRODUCTION

Currently, the causes of admission to child care facilities in Korea are child abuse, economic poverty, parental divorce, neglect and neglect, child disability, and disease. In 2019 alone, 4,047 people were subject to protection measures, and 2,739 children were admitted to facilities. Among them, 1,707 children were admitted to childcare facilities, 401 temporary shelters, 6 children with disabilities, and families living together. 625 (Ministry of Health and Welfare, 2019).

Children in childcare facilities have various difficulties and problems compared to children in ordinary families. First, regardless of developmental level, children in facilities showed greater self-discordance than children who did not live in facilities, and their self-esteem, achievement motivation, and self-image were also low.

It distorts one's emotions, is not smooth in emotional regulation, and is highly likely to have aggressive and negative tendencies in school life and peer relationships (Mcloyd, 1993). Childcare facilities Children's experiences of parental separation and unstable parenting environment negatively affect individual attachment and psychological development (Razak et al., 2018). In addition, it is reported that there are psychological shocks, long-term abuse, and traumatic experiences due to exposure to various family problems (Hong, 2010).

Waite and Shewokis (2011) describe the experience of separation from parents due to parental separation, that is, parental divorce, due to childhood trauma along with abuse of neglect. Such childhood traumatic experiences should be given more attention because they can reinforce the developmental vulnerability of children as they grow up. In addition, it is necessary to pay attention to the experiences of separation from their parents that they experience in childhood when looking at the many children who are recently admitted to childcare facilities.

Trauma experiences have different degrees of psychological trauma depending on the individual's personality and environment, and appropriate management and therapeutic intervention are required according to post-traumatic events and stress.

Therefore, the purpose of this study is to identify the post-traumatic stress of children in child care facilities and to verify the effect of reducing post-traumatic stress by providing an effective group program.

2. THEORETICAL BACKGROUND

As a result of a meta-analysis of the prevalence of post-traumatic stress in childhood, the prevalence of post-traumatic stress in adults was 24%, whereas the prevalence of post-traumatic stress in adults was 27% and 33% in children. It can be seen that the rate of occurrence of stress increases (Fletcher, 1994). According to Terr (1983, 1985), children who have experienced a one-time traumatic event, unlike adults and adolescents, have more frequent dreams related to the traumatic event, a greater tendency to avoid related accidents or triggers, and to play the traumatic experience. It is often reproduced in a form (Han, 2002). Therefore, it is necessary to alleviate the child's post-traumatic stress as an early-traumatic therapeutic intervention for childhood post-traumatic stress.

The experience of a traumatic event negatively affects an individual's mental health, and the effect may persist for a lifetime (Solomon & Siegel, 2003). On the other hand, the effects of traumatic experiences are not only negative, but also include positive aspects that promote individual potential (Joseph & Linley, 2006). There is also the aspect that life's challenges such as trauma provide an opportunity to grow as a human being (Bonanno, 2004). In this regard, Tedeschi and Calhoun (2004) described the positive psychological changes that people get as a result of struggling with challenging and difficult adversity experienced in life as Post-Traumatic Growth (PTG) and Post-Traumatic Growth (PTG). The term was first used by Tedeschi and Calhoun (2006). Post-traumatic growth refers to positive changes that occur after experiencing trauma. In this study, post-traumatic growth is simply denoted as PTG.

Introduced in the term "to learn to appreciate the life given to them after trauma, to discover new possibilities and previously unrecognized strengths, and to develop more positive and adaptive growth in interpersonal relationships." made to have

Children in childcare facilities are more likely to have a negative impact on psychological adaptation and development due to their stressful group life and stigma accompanying them (Avery & Freundlich, 2009) They are more likely to experience a sense of withdrawal and maladaptation (Yang et al., 2012). In addition, since they are separated from their parents and deep communion with their parents is not achieved, an intervention program to recover and grow their difficulties and problems must be established.

3. METHOD

3.1 Subject

This study was conducted with children currently residing in childcare facilities as subjects of childcare facility protection at two childcare facilities, a social welfare corporation located in area C. As for the screening criteria, 28 children with a score of 10 or higher were selected, and 14 in the experimental group and 14 in the control group were selected. The average score of each group was 21 or higher.

3.2 Study Design

Table 1. Was presented in this study by composing the design of pre-test, post-test, and follow-up test for the experimental group and the control group. The experimental group conducted 12 sessions of the post-traumatic growth program, and the control group was not provided with the program. A follow-up examination was performed 3 months later in the experimental group and the control group.

Table 1: Study Design

Group	Pretest		Posttest	Follow-up test
Experiment	O1	X	O2	O5
Control	O3		O4	O6

X: Implementation of Post-Traumatic Growth Program

O₁: Experimental group pre-test O₂: Experimental group post-test O₅: Experimental group follow-up O₃: Control group pre-test O₄: Control group post-test O₆: Control group follow-up test

3.3 Measuring Tool

3.3.1 Posttraumatic Stress Diagnostic Scale

To measure PTSD symptoms, the Posttraumatic Diagnostic Scale (PDS) developed by Foa et al. (1997) was used as an adaptation. The PDS consists of several chapters that comprehensively ask about traumatic events, experience period and frequency, PTSD symptom level, and disability level, but only 17 questions asking about PTSD symptom level were extracted and used. The sub-factors of the PTSD symptom scale are reexperience, avoidance, and hyper-arousal based on the diagnostic criteria of DSM-V. The PTSD symptom scale evaluates the severity of symptoms experienced during the past month on a Likert 4-point scale. Clinically, a total score of 10 or less is mild, 11-20 is moderate, and 21 or more can be evaluated as severe. The reliability (Cronbach's α) of the post-traumatic stress scale in this study was .915.

3.4 Data Analysis

This study was analyzed using the SPSS 25.0 statistical program. To verify the homogeneity between groups, cross-analysis (χ^2) and Mann-Whitney U analysis were performed, and descriptive statistical analysis was performed to show the average value of each group. And for difference analysis, Mann-Whitney U analysis and Wilcoxon signed rank test were performed.

4. RESULTS

4.1 Verification of Homogeneity According to Pre-Inspection of Variables

This is the result of the Mann-Whitney U test to find out whether the post-traumatic stress, post-traumatic growth and sub-factors of the experimental group and the control group are homogeneous before the post-traumatic growth group program. Table 2. is the result of verifying the homogeneity of post-traumatic stress and its sub-factors.

Table 2: Verification of homogeneity between groups in post-traumatic stress

	Group	M	SD	Average rank	U	Z
Post-Traumatic Stress	exp(14)	1.25	0.48	15.35	109.50	-.11
	con(14)	1.24	0.35	15.68		
Reexperience	exp(14)	1.31	0.89	15.35	109.50	-.11
	con(14)	1.29	0.67	15.68		
Evasion	exp(14)	1.09	0.53	15.14	106.00	-.26
	con(14)	1.08	0.43	15.93		
Hyperarousal	exp(14)	1.41	0.52	15.46	111.00	-.05
	con(14)	1.43	0.42	15.57		
*** p<.001 exp: experiment con: control						

As a result of the analysis in Table 2, the average rank of the experimental group for total post-traumatic stress was 15.34, which was not statistically different from that of the control group, 15.68. And looking at the sub-factors, the average rank of the experimental group for re-experience was 15.34, which was not statistically different from the 15.68 of the control group. In the case of avoidance, the average rank of the experimental group was 15.13, which was not statistically different from that of the control group, 15.93. Also, the average rank of the experimental group was 15.44, which was not statistically different from that of the control group, 15.77. In other words, it can be seen that the homogeneity of post-traumatic stress and its sub-factors was secured between the experimental group and the control group.

4.2 Posttraumatic Stress Pre- and Post-Test Results

Table 3. Shows the post-traumatic stress pre-post-traumatic change of the experimental group and the post-traumatic stress post-pre-change of the control group.

Table 3: Comparison of post-traumatic stress before and after changes in experimental group and control group

	Group	M	SD	Average rank	U	Z
Post-Traumatic Stress	exp(14)	-0.64	0.39	9.66	18.50	-3.90***
	con(14)	-0.01	0.12	22.18		
Reexperience	exp(14)	-0.80	0.73	10.19	26.00	-3.60***
	con(14)	-0.06	0.21	21.57		
Evasion	exp(14)	-0.48	0.49	9.50	15.00	-4.02***
	con(14)	0.03	0.17	22.36		
Hyperarousal	exp(14)	-0.70	0.48	9.94	24.00	-3.75***
	con(14)	-0.03	0.16	21.86		
*** p<.001 exp:experimentcon:control						

First, for post-traumatic stress in Table 3, the average rank of the experimental group was 9.66, which was lower than that of the control group, 22.18, and there was a significant difference at the $p<.001$ level. This average ranking means that the pre-post-traumatic change in the experimental group was significantly lower than the post-pre-change in the control group for post-traumatic stress. This shows that this program is effective in reducing post-traumatic stress.

Also, in the verification of the sub-factors of post-traumatic stress, it was found that the amount of change in the experimental group was significantly lower than that of the control group at the level of $p<.001$.

4.3 The Difference between Post-Traumatic Stress And Post-Traumatic Stress

Table 4. shows the difference between the post-traumatic stress test and the post-traumatic stress test in the experimental group.

Table 4: Difference between post-traumatic stress post-test and follow-up test

Experiment group (N=16)	Test	M (SD)	Negative Rank		Positive Rank		tie Nc	Z
			Average Rank	Na	Average Rank	Nb		
Post-Traumatic Stress	post	0.63(0.29)	9.00	12	1.50	2	1	-3.25**
	follow-up	0.27(0.15)						
Reexperience	post	0.52(0.27)	8.18	11	5.00	3	2	-2.43*
	follow-up	0.32(0.34)						
Evasion	post	0.62(0.42)	7.42	12	8.50	1	2	-2.77**
	follow-up	0.19(0.22)						
Hyperarousal	post	0.72(0.33)	7.23	12	11.00	1	2	-2.63**
	follow-up	0.39(0.29)						
*p<.05, **p<.001, a. posttest > follow-up, b. posttest < follow-up, c. posttest = follow-up								

As a result of the analysis, 12 people had a lower post-traumatic score than the post-mortem score, 2 people had a higher post-traumatic score than the post-mortem score, and 1 person had the same post-traumatic stress. appeared to be There should be no difference between the post-test and follow-up scores to demonstrate that the effectiveness of the program is maintained across follow-up tests. However, a closer look at the analysis

in Table 4. showed that 12 people had a lower posterior score than the posterior score, which was much more than the two people who had a higher posterior score than the posterior score. will be..

Also, in the verification of the sub-factors of post-traumatic stress, the sub-factors of re-experience, avoidance, and hyper-arousal showed that there were more people with lower post-mortem scores than post-traumatic scores, indicating that the program's effectiveness was higher in all sub-factors.

5. DISCUSSION AND CONCLUSION

Post-traumatic stress means that the pre-post change in the experimental group was significantly lower than the post-pre change in the control group. Therefore, it was verified that this group program is effective in reducing post-traumatic stress.

In addition, the group program was found to be effective in examining the post-traumatic stress sub-factors caused by traumatic experiences of children in child care facilities. Post-traumatic stress reexperience, avoidance, and hyperarousal symptoms are not clearly distinct factors, but occur simultaneously or complexly, so it is necessary to comprehensively deal with them. In particular, the importance of emotional regulation and stabilization is emphasized in children's traumatic experiences. Exposing traumatic memories in unsafe conditions may have a risk of exacerbating children's traumatic experiences and therapeutic effects as well as less (Cloitre et al., 2010). However, in this group program, it was found that the amount of change in the experimental group was significantly lower than that of the control group in all sub-factors of post-traumatic stress re-experience, avoidance, and hyperarousal by securing emotional safety.

Children's reexperiencing traumatic experiences have a higher intensity and frequency of reexperience than adults, such as more frequent trauma-related dreams and stronger physical responses (McNally, 1991; Terr, 1985). This program secured sufficient emotional trust and safety for each session, and provided emotional control, indirect exposure training, and video or video-related techniques to gradually deal with the traumatic experience to reduce the symptom level of re-experience.

As a result of the implementation of this program, it was effective in reducing avoidance and hyperarousal. Children are known to show higher levels of avoidance and hyperarousal compared to their age (Terr, 1985). This is because the level of memory integration is low due to the low level of cognitive development of the child due to the low level of understanding of the traumatic experience (Han, 2002), and the tendency to be emotionally overwhelmed by the traumatic experience is stronger and thus avoids the traumatic experience itself (McNally, 1991). This program seems to be effective for children with insufficient cognitive development level as the overall understanding of traumatic memory and the psychotherapeutic approach were conducted in emotional, cognitive, and bodily sensory ways.

Second, the reduction in post-traumatic stress symptoms of children in child care facilities was maintained in the follow-up examination. In addition, beyond the maintenance of the group program effect, the reduction in post-traumatic stress symptoms was rather lower, suggesting that this program reduced post-traumatic stress over time.

Therefore, we experienced the need for systematic support for early intervention and follow-up management regarding post-traumatic stress and trauma experience of children in child care facilities. In particular, differentiated management according to the children's admission motives and individual follow-up management are required. This suggests that the manual management and management service system according to the initial management and admission are important because children will act as another variable in their daily life and adaptation to school life in childcare facilities.

In order to overcome the psychological and emotional difficulties they are experiencing due to trauma, the post-traumatic growth program with a more in-depth and professional psychotherapeutic approach like this study should be actively implemented for children in childcare facilities.

The limitations of this study and follow-up studies are limited to generalizing to all children in childcare facilities, as it was conducted only for children in childcare facilities in one region. In addition, various and differentiated post-traumatic growth programs have been developed for adolescents in child care facilities and

those who have experienced trauma who need intervention at an early stage.

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Consent for Publication

The author read and aware of publishing the manuscript in Journal for ReAttach Therapy and Developmental Diversities

Data Availability Statement

The database generated and /or analysed during the current study are not publicly available due to privacy, but are available from the corresponding author on reasonable request.

Declarations

Author declare that all works are original and this manuscript has not been published in any other journal.

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