

Effect of attachment promotion program on problem behaviors of toddlers and parenting efficacy of child care workers in childcare facilities

Moon Jung Hyun ^{1,*}, ¹ Kim Eun Sil ² and ¹ Park Ae Jeong ^{3,*}

¹Namseoul University Graduate School, Master's in Child Counseling Psychological Therapy, Korea ² Professor, Department of Child Welfare, Namseoul University, Korea ³Namseoul University Graduate School, Doctoral Program, Korea

*Corresponding author. Email: 1wjdgus0703@naver.com, 2gender@hanmail.net, 3ajlove8@naver.com

Abstract

This study aimed to examine effect of attachment promotion program for toddlers and child care workers in child care facilities on toddlers' problem behavior and child care workers' parenting efficacy. The program consisted of 8 sessions, which included 'introduction,' 'understanding cues from the child,' 'responding appropriately to the child,' and 'exploring and resolving factors disturbing sensitivity.' The participants were 20 toddlers (18 - 40 months of age) and 20 child care workers who parenting them in child care facilities. The results were that the attachment promotion program reduced problem behavior of toddlers and increased parenting efficacy of child care workers. This study is meaningful in that the attachment promotion program not only reduces problem behavior by making infants feel strong emotional bonds and cohesion, but also enhances the sense of efficacy of positive parenting for life instructors raising children, thereby creating a stable parenting environment for infants and young children in nursing facilities. It is meaningful in that it has revealed that it can provide. The meaning of this study is that the attachment promotion program not only reduces problem behavior by making toddlers feel strong emotional bonds, but also enhances the sense of efficacy that it can provide a stable nurturing environment for toddlers in child care facilities.

Keywords: Toddlers in childcare facilities, Childcare workers, Attachment promotion program, Parenting efficacy, Problem behavior

Introduction

Attachment means emotional connection between a rearer and a child. The attachment that forms in early childhood has an important influence not only on one's childhood, but throughout the entire life of an individual [1]. Stable attachment helps young children develop confidence, emotional stability, social ties, and cognitive abilities. However, the number of toddlers under the protection of childcare facilities is rising due to reasons such as divorce, running away, and child abuse [2]. Toddlers in childcare facilities form incomplete attachments with their parents due to discord between, and physical and emotional abuse and neglect by the parents [3]. These negative experiences lead to depression, anxiety, and behavioral problems [4].

Not all toddlers in childcare facilities exhibit behavioral problems. They are able to form stable relationships with their caregivers inside childcare facilities, which can supplement the psychological deficiencies of their parents [5]. Toddlers in childcare facilities experience difficulties due to the loss of adults in parental roles— or targets of attachment—to whom they can become attached. However, forming an attachment with childcare workers acts to protect the children from the risk factors resulting from their experiences with their original families. This has been verified by research; children in childcare facilities with strong attachment to childcare workers demonstrate lower levels of psycho emotional problems [6], and attachment to childcare workers has a direct influence on the overall developmental areas of toddlers in childcare facilities [7][8]. This is because the childcare workers provide overall life guidance and

psychological support for children until the children are discharged from the facility and the process for them to become independent begins [9]. Therefore, the roles of childcare workers are very important to the behavioral problems of toddlers in childcare facilities, as they directly influence the attachment of children who find themselves in facilities due to the breakup of their families. Furthermore, for toddlers in childcare facilities who face difficulties in forming relationships with their parents during the early stages of their development, childcare workers become their second parents and provide an early experience of attachment, which had been taken away from them.

Childcare workers as caregivers are naturally required to spend a lot of time with their children, leading to faster psychological or physical burnout as they conduct their jobs; this also influences their job satisfaction [10]. Furthermore, there is a lack of research on parenting efficacy and emotional support provided by childcare workers in childcare facilities. Additionally, while there have been studies on the treatment programs for behavioral problems of toddlers in childcare facilities, there is a lack of research on programs for attachment promotion, which are protective factors against behavioral problems from a preventative perspective. Therefore, this study aimed to develop a program to advance attachment with childcare workers in order to prevent problem behavior in toddlers in childcare facilities and to verify the program's effectiveness.

The research questions are as follows: Does the attachment promotion program reduce the behavioral problems of toddlers in childcare facilities? Does the attachment promotion program increase the parenting efficacy of childcare workers in childcare facilities?

2. Research methods

2.1. Research subjects

This study consisted of 20 toddlers aged 18-40 months (10 in the experimental group, 10 in the control group) and 20 childcare workers (10 in the experimental group, 10 in the control group) who were at a childcare facility located in Chungcheong-do (see Table 1).

Category				Experimental group	Control group	χ²/t (p)
		М	Ν	6	6	
	Sex	171	%	60.0%	60.0%	.000
Childcare facilities	Sex	F	N	4	4	(1.000)
Toddlers		F	%	40.0%	40.0%	
	Months	Mean/Standard	deviation	29.20±10.00	30.20±4.98	283 (.780)
			N	0	1	
		М	%	0.0%	10.0%	1.053
	Sex	r	N	10	9	(.305)
Childcare facilities		F	%	100.0%	90.0%	
Childcare workers		25.20	N	2	2	
	A	25-29	%	20.0%	20.0%	2.343
	Age	30-34	N	4	3	(.800)
		30-34	%	40.0%	30.0%	

Table 1. General characteristics of research subjects (N=10)

	35-39	Ν	2	3	
	55-59	%	20.0%	30.0%	
	40-44	N	1	1	
		%	10.0%	10.0%	
	45-49	N	0	1	
		%	0.0%	10.0%	
	50-54	N	1	0	
		%	10.0%	0.0%	

2.2. Research tools

2.2.1. Korea-Child Behavior Checklist (K-CBCL 1.5-5)

This study utilized the Korea-Child Behavior Checklist (K-CBCL 1.5-5), which was developed for use in Korea by Korean ASEBA in the 2000s from the CBCL developed by Achenbach to measure problem behavior in toddlers. This checklist is classified into 8 sub-areas: total problem behavior, internalization, externalization, anxiety, emotional problems, overall developmental problems, rebellious behavior, and ADHD. The checklist consists of a total of 100 questions measured on a 3-point scale. The reliability of this test (Cronbach's α) was .94.

2.2.2. Parenting efficacy test

This study utilized the Korean version of the parenting efficacy test by Kim, Lim, and Huh (2014)[11] based on the Parenting Sense of Competence (PSOC) originally developed by Gibaud-Wallston and Wandersman (1978). This test consists of two sub-areas of competence and stability, with a total of 15 questions measured on a 5-point scale. The reliability of this test (Cronbach's α) was .88.

2.3. Research design

In this study, in order to investigate the effect on the reduction of toddlers' problem behavior and enhancement of the sense of parenting efficacy of childcare workers through the running of the attachment promotion program for toddlers, the pre-post-test control group design was used. In the experimental group, the attachment promotion program was applied after pre-testing, and the post-test was conducted upon the end of the program. In the control group, the attachment promotion program was not performed after pre-testing and post-test was performed after a set period of time. The research design model that outlines the above description is shown in <Table 2>.

Category	pre-test	Intervention	post-test
Experimental group	01	Х	03
Control group	02		04

O1, O2 : pre-test(K-CBCL, K-PET test)

O3, O4 : post-test(K-CBCL, K-PET test)

X : Intervention (Attachment promotion program)

2.4. Procedure

To recreate the attachment program for toddlers and childcare workers in childcare facilities, this study conducted data collection, a literature review, a draft program development, a verification of program content validity, revisions and supplementation of the program, and final program development.

2.4.1. Literature review

To create an attachment promotion program, this study reviewed existing studies on mother-child interaction promotion programs [12][13], and extracted common components. The results indicated that sensitivity or reactivity was an important component. Especially, Kim's study reported that attachment stability is determined by caregiver' belief, value and personality and mother's sensitivity [14].

2.4.2. Development of a draft program

Based on existing literature, this study extracted the components of the attachment promotion program as well as the objectives and program details of each session, and three experts verified the content validity of the program.

(1) Goals and objectives of the attachment promotion program

The goal of this study is to reduce the problem behavior of toddlers in childcare facilities by promoting attachment between toddlers in childcare facilities and childcare workers by implementing an attachment promotion program. In the attachment promotion program, the sense of parenting efficacy of childcare workers is to be enhanced through parenting education (rearer education). The detailed objectives to accomplish the purpose of the attachment promotion program are as follows. First, toddlers and childcare workers re-experience the interactions with rearers through early childhood rearing activities. Second, the environments in which toddlers and childcare workers can interact with each other through physical contact are increasingly formed and nurtured. Third, through parenting education, childcare workers can respond appropriately to the child's development process and needs.

(2) Reorganization of the attachment promotion program

This program was made up of 8 sessions, which were as follows: Session 1 "Introduction," Sessions 2 and 3 "understanding cues from the child," Sessions 4 and 5 "responding appropriately to the child," Sessions 6 and 7 "exploring and resolving factors disturbing sensitivity," and Session 8 "conclusion."

In the Introduction session, the guidance on the purpose and necessity of the attachment promotion program is provided, a sense of intimacy is formed, and the importance of attachment is recognized. In Understanding cues from the child session, the association between attachment and sensitivity and the importance of sensitivity are recognized so that exercises and practices to understand cues from the child can be performed. In the Responding appropriately to the child session, toddlers' behavioral principles according to attachment types are understood and the session is structured for the childcare workers to respond appropriately to the toddlers' needs through interactive plays. In the Exploring and resolving factors disturbing sensitivity session, after confirming the rearer's attachment, the factors disturbing sensitivity of the rearer are examined and identified, and while playing with the child, those identified factors can be removed in the session. In the Conclusion session, both of the participants compliment on each other's changes and improvements while completing the attachment promotion program, and the session aims to develop the confidence to improve interactions with children with sensitivity in real life in the future.

2.4.3. Final program design

Based on the review and opinions for revision by the experts, this study completed the final design of the attachment promotion program for the toddlers and childcare workers in the childcare facilities, as shown in Table 3.

Table 3	Final Design	of the A	Attachment	Promotion Program	h
Table J.	i illai Desigli	or the r		rioniononiriogram	

Sess ion	Componen t Area	Objective	Program Content
1	Introduction	Program introduction	 Theory – The concept of attachment, attachment stages, and attachment promotion Practice – Practicing sensitive reactions through interactive play
2	Understandi ng cues from the child	Learning about the importance of sensitivity and factors that improve sensitivity	 Theory – Related content on attachment and sensitivity, quickly recognizing cues from the child Practice – Practicing sensitive reactions through interactive play
3	Understandi ng cues from the child	Quickly picking up cues from the child	 Theory – Review of factors related to sensitivity, and quickly noticing cues from the child Practice – Practicing sensitive reactions through interactive play
4	Responding appropriatel y to the child	Understanding the behavior which was quickly noticed	 Theory – Understanding the principles of child behavior and attachment types seen through attachment behavior, Practice – Practicing sensitive reactions through interactive play
5	Responding appropriatel y to the child	Responding appropriately to child's behavior after understanding it.	 Theory – Review of factors relating to sensitivity, understanding the importance of responding appropriately to the child Practice – Practicing sensitive reactions through interactive play
6	Searching and resolving factors hindering sensitivity	Identifying factors influencing sensitivity, understanding the relationship between internal working model and attachment formation	 Theory – Learning about factors affecting sensitivity, understanding types of internal working models through adult attachment interview sheets Practice – Practicing sensitive reactions through interactive play
7	Searching and resolving factors hindering sensitivity	Exploring internal model, and modifying internal working models through modeling and coaching	 Theory – Exploring the internal working model using the story creation method, modifying the internal working model with modeling and coaching methodologies Practice – Practicing sensitive reactions through interactive play
8	Conclusion	Recognizing the changes of the children and own self	Practice – Evaluating the program, evaluating how one changed after the program, sharing how one changed

2.5. Data processing and analysis

SPSS 24.0 was used for the analysis in this study. To verify the homogeneity of the experimental and control groups, the pretest was analyzed using the nonparametric Mann-Whitney test. Afterwards, the pretest-posttest tests of the experimental and control groups were analyzed using a nonparametric Wilcoxon signed rank test.

3. Research results

3.1. Testing the homogeneity of the experimental and control groups

To verify the homogeneity of the experimental and control groups in terms of the pretest for parenting efficacy and problem behavior, this study conducted a Mann-Whitney U test. The results of the pretest on the parenting efficacy and problem behavior in the experimental and control groups did not yield significant differences, confirming homogeneity (see Table 4).

			Mann-	Whitney l	J			
Categ	ory		Mean	Stand ard Deviat ion	Averag e Rank	Total Rank	U	z (p)
	Overall	Experimen tal group	47.20	9.68	8.60	86.00		- 1.44
Pare nting	parenting efficacy	Control group	52.10	5.99	12.40	124.00	31.000	2 (.14 9)
effic acy	Competen	Experimen tal group	46.00	11.05	8.90	89.00		- 1.22
of child care	ce	Control group	48.90	5.97	12.10	121.00	34.000	3 (.22 1)
work er		Experimen tal group	49.10	7.72	7.95	79.50		- 1.94
	Stability	Control group	54.30	7.13	13.05	130.50	24.500	7 (.05 1)
	Problem behavior	Experimen tal group	56.40	9.51	11.80	118.00	37.000	- .985
	total	Control group	52.60	7.00	9.20	92.00	57.000	(.32 5)
Probl em	Internalizat	Experimen tal group	56.30	7.78	12.00	120.00		- 1.14
beha vior in	ion	Control group	52.70	5.77	9.00	90.00	35.000	5 (.25 2)
toddl ers	Externaliza	Experimen tal group	58.10	13.63	11.00	110.00	45.000	- .379
	tion	Control group	54.90	7.49	10.00	100.00	45.000	(.70 4)
	Emotional problems	Experimen tal group	58.90	7.61	11.85	118.50	36.500	- 1.03

Table 4. Homogeneity Test Results for the Experimental and control Groups (N=10)

		Control group	55.60	5.87	9.15	91.50		5 (.30 1)	
	Anxiety	Experimen tal group	54.10	5.90	12.05	120.50		- 1.29	
		Control group	51.40	2.50	8.95	89.50	34.500	1 (.19 7)	
	Overall developme	Experimen tal group	57.80	7.07	11.20	112.00		- .540	
	ntal problems	Control group	56.60	6.02	9.80	98.00	43.000	(.58 9)	
	ADHD	Experimen tal group	58.10	11.24	11.05	110.50	44.500	- .438	
	ADHD	Control group	53.10	3.75	9.95	99.50	44.500	(.66 1)	
	Rebellious behavior	Experimen tal group	59.60	10.33	11.40	114.00	41.000	- .706	
	Schavior	Control group	56.20	6.68	9.60	96.00	41.000	(.48 0)	

3.2. Effect of attachment promotion programs on parenting efficacy of childcare workers

To examine the effects on the parenting efficacy of childcare workers, this study conducted a nonparametric Wilcoxon signed rank test on the pretest-posttest results of the experimental and control groups, and the results are shown in Table 5.

		Pretest		Posttest		Negative rank			Positive rank			T i e		
Categ	gory	Μ	S D	Μ	S D	N	Ave rag e ran k	Ran k tota I	N	Ave rag e ran k	Ran k tota I	N	z (p)	
Ove rall pare ntin	Exp erim enta I Gro up	47.2 0	9. 68	57.1 0	3. 21	2	3.25	6.50	8	6.06	48.5 0	0	- 2.143* (.032)	
g effic acy	Con trol Gro up	52.1 0	5. 99	52.5 0	5. 80	4	4.00	16.0 0	5	5.80	29.0 0	1	787 (.431)	

Table 5. Pretest-Posttest Results of Parenting Efficac	cy of Experimental and Control Groups
Table 5. Tretest Tostest Results of Farenting Effect	by of Experimental and control of oups

Com pete nce	Exp erim enta I grou p	46.0 0	11 .0 5	54.7 0	5. 46	2	3.50	7.00	7	5.43	38.0 0	1	-1.849 (.064)
nce	Con trol grou p	48.9 0	5. 97	47.7 0	5. 74	4	3.88	15.5 0	2	2.75	5.50	4	-1.063 (.288)
Stab ility	Exp erim enta I grou p	49.1 0	7. 72	57.4 0	2. 59	1	3.00	3.00	8	5.25	42.0 0	1	- 2.312* (.021)
	Con trol grou p	54.3 0	7. 13	56.1 0	5. 45	1	2.50	2.50	5	3.70	18.5 0	4	-1.725 (.084)

In the experimental group, the score of sense of parenting efficacy was significantly improved after the program (M=47.20) compared to before the participation in the program (M=47.20) (z=-2.143, p<.05), but with the control group there was no significant difference after the program implementation (M=52.50) compared to before the program (M=52.10) (z=-.787, p>.05). In addition, in terms of stability, which is a sub-domain of sense of parenting efficacy, the scores of the experimental group significantly improved after the program (M=57.40) compared to before the program(M=49.10) (z=-2.312, p<.05), but the control group did not show any significant difference after the program implementation (M=56.10) compared to before (M=54.30) (z=-1.725, p>.05). From these results, it can be seen that the attachment promotion program has the effect of enhancing the overall sense of parenting efficacy and stability, one of the sub-domains, for childcare workers. However, in terms of competence, another sub-domain of the attachment promotion program, there was no significant difference in both the experimental group and the control group.

3.3. Effects of attachment promotion programs on the problem behavior of toddlers in childcare facilities

To examine the effects on the problem behavior of toddlers in childcare facilities, this study conducted a nonparametric Wilcoxon signed rank test on the pretest-posttest results of the experimental and control groups, and the results are shown in Table 6.

	Pretest		Posttest		N	Negative rank		Positive rank			Tie	
Category	м	SD	М	SD	N	Ave rag e ran k	Ra nk tot al	N	Ave rag e ran k	Ran k tota I	Z	z (p)

Table 6. Pretest-Posttest Results on Problem Behaviour of the Experimental and Control Groups

Ove rall pro ble m beh avio r	Exp erim enta I Gro up	56.4 0	9.51	48.1 0	9.6 1	9	5.00	45. 00	0	0.00	0.00	1	-2.675** (.007)
	Con trol Gro up	52.6 0	7.00	53.2 0	7.8 0	2	1.50	3.0 0	3	4.00	12.0 0	5	-1.225 (.221)
Inte rnali zati on	Exp erim enta I grou p	56.3 0	7.78	49.9 0	7.8 8	8	4.50	36. 00	0	0.00	0.00	2	-2.527* (.012)
	Con trol grou p	52.7 0	5.77	52.8 0	6.3 6	1	4.00	4.0 0	3	2.00	6.00	6	365 (.715)
Exte rnali zati on	Exp erim enta I grou p	58.1 0	13.6 3	48.3 0	11. 43	9	5.00	45. 00	0	0.00	0.00	1	2.668** (.008)
	Con trol grou p	54.9 0	7.49	55.3 0	9.2 3	2	4.50	9.0 0	4	3.00	12.0 0	4	315 (.752)
Emo tion al pro ble ms	Exp erim enta I grou p	58.9 0	7.61	54.1 0	7.3 2	7	4.00	28. 00	0	0.00	0.00	3	-2.375* (.018)
	Con trol grou p	55.6 0	5.87	55.1 0	6.1 4	2	2.00	4.0 0	1	2.00	2.00	7	535 (.593)
Anxi ety	Exp erim enta I grou p	54.1 0	5.90	50.9 0	2.0 2	5	3.00	15. 00	0	0.00	0.00	5	-2.060* (.039)
	Con trol grou p	51.4 0	2.50	51.9 0	3.7 3	1	1.50	1.5 0	2	2.25	4.50	7	816 (.414)
Ove rall dev elop men tal	Exp erim enta I grou p	57.8 0	7.07	53.2 0	6.2 0	6	3.50	21. 00	0	0.00	0.00	4	-2.207* (.027)

pro ble ms	Con trol grou p	56.6 0	6.02	56.6 0	7.4 7	1	3.00	3.0 0	2	1.50	3.00	7	.000 (1.000)
AD HD	Exp erim enta I grou p	58.1 0	11.2 4	52.7 0	3.5 9	5	3.00	15. 00	0	0.00	0.00	5	-2.023* (.043)
	Con trol grou p	53.1 0	3.75	54.3 0	4.6 0	1	1.00	1.0 0	3	3.00	9.00	6	-1.473 (.141)
Reb ellio us beh avio r	Exp erim enta I grou p	59.6 0	10.3 3	52.8 0	4.2 1	6	3.50	21. 00	0	0.00	0.00	4	-2.207* (.027)
	Con trol grou p	56.2 0	6.68	57.6 0	6.4 3	0	0.00	0.0 0	3	2.00	6.00	7	-1.633 (.102)

In the experimental group, the score of problem behavior significantly decreased after the program implementation (M=48.10) compared to before the program (M=56.40) (z=-2.675, p<.01), but the control group showed no significant difference between before (M=52.60) and after (M=53.20) the program implementation. (z=-1.225, p>.05). Next, in terms of internalization, which is a sub-domain of the problem behavior, in the experimental group, the score significantly decreased after the program implementation (M=49.90) compared to before the program (M=56.30) (z=-2.527, p<.05), but the control group showed no significant difference between before (M=52.70) and after (M=52.80) the program implementation. (z=-.365, p>.05). In terms of externalization, in the experimental group, the score significantly decreased after the program implementation (M=48.20) compared to before the program (M=58.10) (z=-2.375, p<.05) but the control group showed no significant difference between before (M=55.60) and after (M=55.10) the program implementation. (z=-.535, p>.05). In terms of emotional problems, in the experimental group, the score significantly decreased after the program implementation (M=54.10) compared to before the program (M=58.90) (z=-2.375, p<.05) but the control group showed no significant difference between before (M=55.60) and after (M=55.10) the program implementation. (z=-.535, p>.05).In terms of anxiety, in the experimental group, the score significantly decreased after the program implementation (M=50.90) compared to before the program (M=54.10) (z=-2.375, p<.05) but the control group showed no significant difference between before (M=55.60) and after (M=55.10) the program implementation. (z = -.816, p > .05). In terms of overall developmental problems, in the experimental group, the score significantly decreased after the program implementation (M=54.20) compared to before the program (M=57.80) (z=-2.207, p<.05) but the control group showed no significant difference between before (M=55.60) and after (M=55.60) the program implementation. (z=-.000, p>.05). In terms of ADHD, in the experimental group, the score significantly decreased after the program implementation (M=52.70) compared to before the program (M=58.10) (z=-2.2023, p<.05) but the control group showed no significant difference between before (M=53.10) and after (M=54.30) the program implementation. (z=-1..473, p>.05). In terms of rebellious behavior, in the experimental group, the score significantly decreased after the program implementation (M=52.80) compared to before the program (M=59.60) (z=-2.2023, p<.05) but the control group showed no significant difference between before (M=56.20) and after (M=57.60) the program implementation. (z=-1..633, p>.05). From these results, it can be seen that the attachment promotion program has the effect of reducing the overall problem behaviors and the associated sub-domains which are internalization, externalization, emotional problems, anxiety problem, general developmental problems, ADHD, and rebellious problem behavior.

4. Conclusions and recommendations

This study aimed to examine the influence of attachment promotion programs on the problem behavior of toddlers and the parenting efficacy of childcare workers in childcare facilities.

This attachment promotion program was effective in reducing the overall problem behavior, including its sub-domains, of toddlers in childcare facilities. This suggests that the attachment promotion program improves attachment in children, supplements the psychological vulnerabilities of toddlers in childcare facilities, and is effective in reducing problem behavior. Considering the perspectives of the attachment theory and development theory, it has been reported that the attachment in early childhood plays an important role for development throughout human life, and the attachment in early childhood serves as a protective factor for problem behavior occurring in childcare facilities, who undergo family disintegration during the time of attachment formation. Furthermore, this study is significant as it approached the problem behavior of toddlers in childcare facilities from a preventive perspective. These results are in line with results by Jung (2002) [6] who reported that children with stable attachment have lower levels of psycho emotional issues and problem behavior, studies that report that higher attachment between foster care children and foster caregivers led to lower levels of externalization problems [15], and other studies that report that positive relationships between children in childcare facilities and surrogate caregivers led to reductions in problem behavior in children [16].

In addition, this attachment promotion program was effective in raising childcare workers' overall parenting efficacy and stability, a sub-domain of parenting efficacy. This is significant as it can help provide a stable nurturing environment for toddlers in childcare facilities by improving the childcare workers' parenting efficacy. These results are in line with existing studies that report that higher levels of emotional bond and attachment between a mother and her child lead to higher levels of belief that the mother would be able to have confidence in, and successfully execute, childrearing behavior [17].

Given that the majority of studies on attachment promotion programs have focused on autistic children, this study is significant because it expanded the target of attachment promotion program research as it studied toddlers in childcare facilities, who require protection. Furthermore, this study is significant as it included childcare workers as participants, expanding the role of childcare workers so that they could stably form a parent-child relationship with the toddlers in childcare facilities.

Third, the research subject was not limited to toddlers in childcare facilities, but childcare workers were included in the research, and pedagogic theory of attachment was added to the attachment promotion program and modified accordingly. This research employs the imparting of the theoretical knowledge and play activities that can be easily applied in real life, combining the theory and practice, and therefore, the attachment promotion program does not end as a one-off program in the childcare facilities but it can be incorporated in the real practice. Therefore, the role of the childcare workers is no longer limited to the

mundane jobs of caregiving but this research empowers the role of the childcare workers to form and nurture a stable second mother-child relationship for toddlers in childcare facilities.

This study has some limitations, and proposes the following for future research: First, this study was conducted with toddlers in childcare facilities in C City, N City, and G gun administrative district in Chungcheong-do, and therefore has limitations in generalizing the results of this study to toddlers and childcare workers in all childcare facilities. Second, this study conducted a pretest and posttest to verify the effectiveness of the program, and further evaluation is needed to verify its long-term effects. Third, this study measured the effectiveness of the program using a quantitative research methodology, and thus is unable to verify the effectiveness of the qualitative elements of attachment promotion. Going forward, it would be necessary to supplement the qualitative elements through behavior observation and interviews with children.

References

Jung. M, Hong. S, Kwon. J, Park. S, "Meta-analysis on the effectiveness of attachment promotion programs," Korean Journal of Early Childhood Education, vol.31, no.1, pp.25-42, (2011)

Cho. M, "A study on the Psycho-Social Disturbance of Children who are exposed to Domestic Violence : Focusing on Hierarchical Analysis Verification," Asia-pacific Journal of Convergent Research Interchange, vol.4, no.3, pp. 31-42, (2018)

Cho. S, Kim. J, Noh. C, "Effects of child attachment to biological parents on behavioral problems among children in outof-home placement," Journal of Korean Society of Child Welfare, vol.51, pp.189-217, (2015)

Hong. Y, "The Relationship among the Institutionalized children's perceived Social support, Self-esteem and Behavior problems." Korean Journal of Youth Studies, vol.17, no.12, pp.187-209, (2010)

Jung. S, "Lived Experience of Relationships between Children in Institutional Care and Child Care Worker," Journal of Korean Society of Child Welfare, vol.21, pp.115-145, (2006)

Jung. S, "Factors influencing psychosocial adjustment of adolescents in institutional care," Ph. D. thesis, Seoul National University Graduate School, Seoul, (2002)

Yang. S, "The Influence of General Characteristics, Temperament, and Attachment on the Development of Young Children in Institutional Care," Korean Journal of Child Studies, vol.37, no.3, pp.83-93, (2016)

Cheong. M, Lee. J, "A Study on Learning Motivation and Ayurvedic Personality Types of Caregiver Trainees," Asiapacific Journal of Convergent Research Interchange, vol.6, no.6, pp. 35-43, (2020)

Kim. M, "The Effectiveness of a Parenting Enhancement Program for Care Workers in Child Care Facilities," Journal of Korean Coaching Research, vol.12, no.3, pp.71-93, (2019)

Choi. S, "The Effects of Perceived Organizational Support and Job Efficacy on Social Workers' Job Performance," Asia-pacific Journal of Convergent Research Interchange, vol.4, no.3, pp. 43-52, (2018)

Kim. J, Lim. H, Huh. S, "A Validation Study of the Korean version of the Parenting Sense of Competence and the Parenting Alliance Inventory," The Korean Journal of Developmental Psychology, vol.27, no.2, pp.1-21, (2014)

Kim. E, "The Development of Maternal Sensitivity Improvement Parent-Education Program for Enhancing Attachment of Children with Autism," Journal of Emotional & Behavioral Disorders, vol.29, no.2, pp.249-276, (2013)

Lim. S, "An Effect of the Mother-Child Attachment Promotion Program for the Child with Pervasive Developmental Disorder," Journal of Korean Academy of Nursing, vol.30, no.5, pp.1133-1144, (2000)

Kim. E, "Relevant variables that affect attachment stability of disabled children," Korean Journal of Counseling and Psychotherapy: Development, vol.21, no.1, pp.137-157, (2008)

Osterman. L, Zeigler-Hill. V, Chadha. S, "Psychological defense and self-esteem instability: Is defense style associated with unstable self-esteem?," Journal of research in personality, vol.42, no.2, pp.348-364 (2008)

Linares. C, Doak. D. F, Coma. R, Diaz. D, Zabala. M, "Life history and viability of a long-lived marine invertebrate," Ecology, vol.88, pp.918-928 (2007)

Kim. H, Suh. S, "The Relationships between Maternal Attachment and Infant Development: The Mediating Effect of Parenting Efficacy," The Journal of Korea Early Childhood Education, vol.12, no.1, pp.307-329, (2012)

Moon Jung Hyun, Kim Eun Sil, Park Ae Jeong, "Effect of attachment promotion programs on infants and childcare workers in childcare facilities", Journal of Applied Healthcare Management, vol.1, no.1, (2020)