


Positive Parenting Program to Promote Child Development Among Children 1 to 3 Years Old: A Quasi-Experimental Research

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Abstract

Introduction: Child development receives lack of concern and the role of parents in promoting child development is not frequently mentioned in Vietnam. This study aimed to examine the effectiveness of Positive Parenting Program to Promote Child Development on maternal knowledge and practice and development of children aged 1 to 3 years. **Methods:** This is a quasi-experimental study conducted in Nha Trang city, Vietnam. There are a total of 60 mothers whose children were identified as suspected developmental delayed participated in the study. There were 30 mothers who attended the program as experimental group and 30 mothers who joined the study as comparison group. Ages and Stages Questionnaires, Third Edition (ASQ-3) were applied to assess the child development. Descriptive analysis and paired and independent-samples t-test were applied to examine the research objectives. **Results:** The findings suggested that after the program implementation, the maternal knowledge of child development and child development of the experimental group were significantly higher than pre-program and the improvements of these variables were better than the comparison group ($P < .05$) while the maternal practice to promote child development was significantly better only within the experimental group. **Conclusions:** The program was effective in improving several maternal outcomes and child development. The study recommends applying the Positive Parenting Program to Promote Child Development to enhance mother's knowledge of child development and child development.

Keywords

positive parenting program, child development, ages and stages questionnaire (ASQ-3)

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Introduction

Developmental delay problem among children should be identified and intervened early. The early years of life present a unique opportunity to lay the foundation for healthy development.¹ Situation of promoting child development is shown limited in Vietnam, especially at home. It is reported that young children were typically kept at home with untrained caregivers.² The involvement of Vietnamese parents in activities supporting early development, such as reading books, telling stories, or singing songs, is somewhat modest. Forty-five percent of mothers involved in such activities, while the percentage of fathers involved in these activities was only 14.9%. Besides, only 26.2% of under-5

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children lived in households where at least 3 children's books were present for the child.³

Since the positive parenting concept aims to promote positive discipline and avoid harsh punishment,⁴ the application of the positive parenting concept in this study is strongly motivated by the problematic physical punishment practice among the parents in Vietnam. Regarding a report from Vietnam's General Statistics Office and UNICEF surveyed in 2013 and 2014,³ there are 68.4% of children aged 1 to 14 who experienced psychological aggression or physical punishment during the last month. In Vietnam, corporal punishment is a much more accepted disciplinary tool than in most western societies. Research has also found that some parents from Southeast Asia actually viewed scolding and physical punishments as expressions of parental love, as they see this as a way to protect their children from dangerous activities.⁵

Relationship between positive parenting and child development is well reported. A national organization in Canada, Invest in Kids, found that 30% of all children had social, emotional, or cognitive problems, often linked to a lack of positive parenting.⁶ Smith et al⁷ also found that mothers positive parenting practice had children with more optimal social and cognitive development at 40 months of age. Another study by Cprek et al⁸ showed a strong correlation between positive parenting practices and child's risk of developmental, social, and behavioral delays.

Programs promoting positive parenting have been conducted in many countries with many different cultures. Findings show the positive effects of Positive Parenting Program on child development and parental outcomes. A systematic review and meta-analysis by Sanders et al⁹ examined over a hundred of Triple P-Positive Parenting Program studies spanning over 33 years of research. The study suggested the short- and long-term positive effects of Positive Parenting Program on child social-emotional development and behaviors and parenting practices. Besides, Triple P was also found to improve parental efficacy, parental relationships, and parental adjustment.⁹ An evaluation by Zubrick et al¹⁰ assessed the effectiveness of a Triple P-Positive Parenting Program conducted in Australia. The study suggested the reduction of child behavior problems after the parents participated in the Triple P.¹⁰ Another Australian study¹¹ indicated similar results as the Triple P was effective in reducing child disruptive behavior, dysfunctional parenting, conflicts between parents over child rearing, and parental mental health problems. Study from Norway¹² also suggested the reduction in child behavior problems and harsh parenting among parents after receiving positive parenting enhancement program. Though the relationship between Positive Parenting Program and social-emotional development

and behavior of children has been well documented, lack of studies examines the effects of positive parenting on other developmental domains, such as physical and cognitive development.

Though this issue is recognized and has been addressed widely in many parts of the world, the term "child development" is rather little-known in Vietnam.¹³ Also, the early childhood development services are mainly offered through early childhood education; thus, the Vietnamese parents are typically not aware of the importance of their roles as well as their responsibility in stimulating their children's development.¹⁴ Moreover, the children were not likely to receive early childhood education as there were approximately 77 percent of children aged 3-5 years and 13 percent of children aged less than 3 years not being enrolled in formal pre-learning programme.^{2,15}

The main objective of this study is to examine the effects of the positive parenting program on knowledge of child development, practice to promote child development and positive parenting practice of mothers, and the development of children aged 1 to 3 years old.

Methods

This is a 2-group pretest-posttest quasi-experimental study conducted in Nha Trang city, Vietnam aiming to assess the effectiveness of Positive Parenting Program to Promote Child Development on mother's outcomes and child development. The participants included 30 mothers who attended the program's activities as experimental group and other 30 mothers who participated as comparison group. The participants must meet these following criteria to participate in the program: being 18 years old and above, having their children aged 1 to 3 years identified as suspected developmental delayed, being able to read and write, being residential in the study area for at least 1 year, using social media on regular basis, being the main caregiver of the child, and agreeing to participate in the program's activities. Their children must also be free from disabilities or disorders, which were related to their development. Convenient sampling was used to select the participants for both groups. The participant flow diagram is described in Figure 1.

The study's outcomes were measured by self-administered questionnaires. To measure child development, the Ages and Stages Questionnaires, Third Edition (ASQ-3)¹⁶ were used. The ASQ-3 is a standardized developmental screening completed by mothers to identify young children if they are suspected developmental delayed and need further evaluation. The child development was classified into "normal development" and "suspected developmental delay." Self-constructed questionnaires adopted from reviewed related literature were used to assess maternal knowledge of

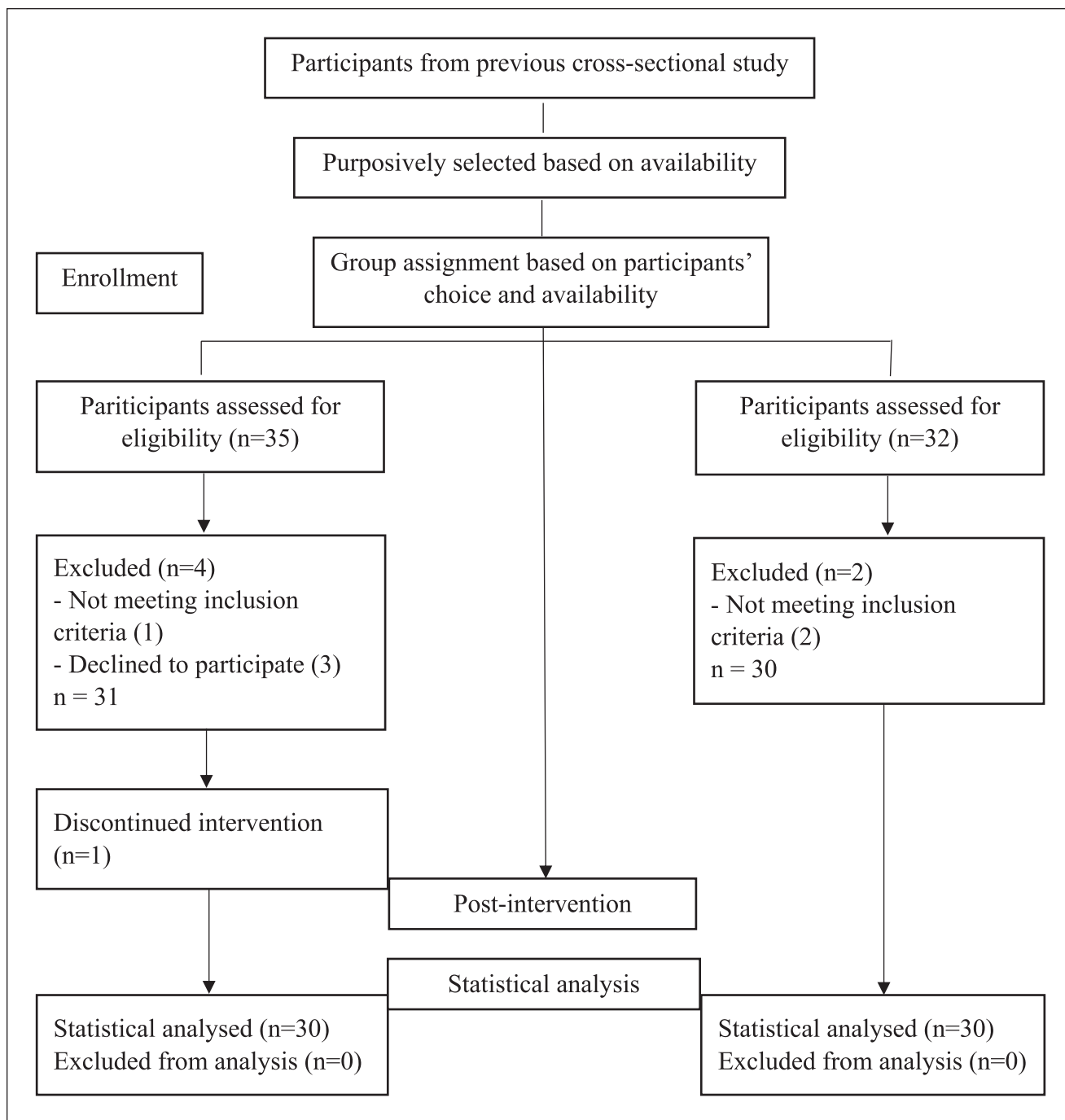


Figure 1. Flow diagram of participants.

child development and positive parenting practice. The questionnaire measuring knowledge of child development includes 17 questions which asked about basic knowledge of child development, factors related to child development, and practice promoting child development. The questionnaire

measuring positive parenting practice adopted the concept of positive parenting by Eanes⁴ and asked how often the mothers practice positive parenting in their daily parenting. Practice to promote child development of the mothers was assessed by 20 items taken from the questionnaire constructed and

applied by a study from UNICEF Thailand.¹⁷ The questionnaire examined the frequency of mothers practicing promoting child development activities. There were also 17 items assessing the general characteristics of the children (9 items), the mothers (5 items), and their households (3 items).

The main components of the program consisted of 4 main activities (1) promoting knowledge of child development, (2) introducing Positive Parenting, (3) applying Positive Parenting's components in daily context, and (4) follow-up and supportive sessions through social media network. Each of the first 2 activities consisted of 1 training session, while the third activity consisted of 2 training sessions. Each training session lasted approximately 2 to 3 h and 2 training sessions were conducted per week. The fourth activity included 4 weekly follow-up sessions and constant support via social-media network. Each follow-up session lasted approximately 5 min. Besides, mothers joined a social media group to receive constant support, the related information provided by the facilitators, as well as share their problems and discuss about others' problems.

Baseline data was used in a cross-sectional study collected at local health centers and kindergartens from October 2019 and January 2020. The recruitment for the program was planned to start in March 2020 but delayed until May 2020 due to Covid-19 pandemic. The mothers with their children who previously participated in the cross-sectional study were selected. The mothers who participated as the experimental group were required to attend 4 learning sessions within 2 weeks at a local kindergarten during May 2020 to June 2020 and apply the recommended knowledge and practice in 3 months. They also received the handbooks, which offered knowledge of child development, practice to promote child development, and positive parenting, and follow-up sessions via social-media network. While those who participated as the comparison group received regular services and the handbooks. The evaluative assessment was conducted to collect post-test data from participants in both groups 3 months after the program finished from September 2020 to October 2020.

Data Analysis

The collected quantitative data were analyzed by descriptive and inferential analyses. Descriptive analysis described distributions by frequency and percentage of all variables. Cross-tabulation was applied to compare child development before and after the implementation of parenting program. Inferential analysis was performed by applying paired *t*-test and independent-samples *t*-test to compare the pre-test (baseline), post-test findings of continuous

outcomes including mother's knowledge of child development, practice to promote child development, positive parenting practice.

The research proposal of this study was approved by the Ethical Review Committee for Human Research, Faculty of Public Health, Mahidol University, Thailand with the number of MUPH 2019-024.

Results

General Characteristics of Participants

General characteristics of the participants are described in the Table 1. Regarding child's characteristics, child's sex had the same pattern in both groups as there are more girls (56.7%) than boys (43.3%). Majority of children were from 12 to 23 age group as there were 90.0% in experimental and 80.0% in comparative group. None of the children from experimental group was born prematurely while only 1 child (3.3%) from comparative group is from premature birth. Most children were born with normal weight in both experimental (93.3%) and comparative group (96.7%). Similar pattern of children breastfed within the first hour was found in both groups as 70.0% and 66.7% of children were breastfed within the first hour in experimental and comparative group, respectively. About two-third of children was exclusively breastfed in both groups. Majority of children had no diarrhea in the last 6 months with percentages at 80.0% and 63.3% in experimental and comparative group, respectively. Most children did not have infectious in the last 6 months with 93.3% in experimental and 83.3% in comparative group. Children living with both parents were dominant as there were 93.3% and 83.3% of them in experimental and comparative group, respectively.

Considering mother's characteristics, majority of mothers belongs to 25 to 29 (36.7%) and 30 to 34 age group (30.0%) in experimental group while this range was more extensive in comparative group as the popular age groups were 25 to 29 (26.7%), 30 to 34 (30.0%), and 35 to 44 (23.3%). All mothers were married in experimental group while 90.0% of mothers were in comparative group. The percentage of mothers attaining diploma or higher degrees (56.7%) was slightly greater than that of mothers attaining degrees below diploma (43.3%) in experimental group while the ratio of both categories was 1:1 in comparative group. The pattern was the same for mother's occupation in both groups as there were slightly more mothers having formal employment (53.3%) than those having informal employment (46.7%). On the other hand, the patterns were different for mother's average working hour. In experimental group, the percentage of mothers spending ≤ 40 and >40 h working per week was the same (33.3%) while

Table 1. Number and Percentage Distribution of Characteristics of Participants in Experimental and Comparison Groups.

Variable	Experimental group (n = 30)		Comparison group (n = 30)		P-value
	Number	%	Number	%	
<i>Child's characteristics</i>					
Child's sex					1.000
Female	17	56.7	17	43.3	
Male	13	56.7	13	43.3	
Child's age (in months)					.278
12-23	27	90.0	24	80.0	
24-36	3	10.0	6	20.0	
Premature birth					.313
No	30	100.0	29	96.7	
Yes	0	0.0	1	3.3	
Low birthweight					.554
No	28	93.3	29	96.7	
Yes	2	6.7	1	3.3	
Breastfed within first hour					.599
Yes	21	70.0	20	66.7	
No	9	30.0	9	30.0	
Not remember	0	0.0	1	3.3	
Exclusive breastfeeding					.175
Yes	18	62.1	19	63.3	
No	11	37.9	8	26.7	
Not remember	0	0.0	3	10.0	
No response	1	3.3	0	0.0	
Diarrhea					.275
No	24	80.0	19	63.3	
Yes	6	20.0	10	33.3	
No response	0	0.0	1	3.3	
Infectious disease					.160
No	28	93.3	25	83.3	
Yes	1	3.3	4	13.3	
No response	1	3.3	1	3.3	
Living with both parents					.075
Yes	28	93.3	25	83.3	
No	0	0.0	3	10.0	
No response	2	6.7	2	6.7	
<i>Mother's characteristics</i>					
Mother's age (in years)					.732
18-24	3	10.0	5	16.7	
25-29	11	36.7	8	26.7	
30-34	9	30.0	9	30.0	
35-44	5	16.7	7	23.3	
No response	2	6.7	1	3.3	
Marital status					.296
Married	30	100.0	27	90.0	
Divorced	0	0.0	1	3.3	
No response	0	0.0	2	6.7	
Educational attainment					.605
Diploma or higher	17	56.7	15	50.0	
Below diploma	13	43.3	15	50.0	

(continued)

Table 1. (continued)

Variable	Experimental group (n = 30)		Comparison group (n = 30)		P-value
	Number	%	Number	%	
Occupation					1.000
Formal employed	16	53.3	16	53.3	
Informal employed	14	46.7	14	46.7	
Avg. working hours per week					.014
≤40h	10	33.3	3	10.0	
>40h	10	33.3	18	60.0	
No response	10	33.3	9	30.0	
Household's characteristics					
Income per capita (per month, in Vietnamese Dong)					.990
≥5 000 000	7	23.3	6	20.0	
<5 000 000	20	66.7	17	56.7	
No response	3	10.0	7	23.3	
Family size					.380
≤3 persons	13	43.3	9	30.0	
>3 persons	17	56.7	19	63.3	
No response	0	0.0	2	6.7	
Residential area					.301
Ward	29	96.7	27	90.0	
Commune	1	3.3	3	10.0	

Table 2. Result of Paired T-Test Comparing Means of Pre- and Post-Test Outcomes Within the Experimental Group.

Experimental group (n = 30)	Mean	Std. deviation	Std. error mean	P-value
Knowledge of child development	-2.33333	1.66782	0.30450	.000
Pre-test	9.7667	2.86095	0.52234	
Post-test	12.1000	2.00603	0.36625	
Practice to promote child development	-2.03333	1.97368	0.36034	.000
Pre-test	47.0000	5.55226	1.01370	
Post-test	49.0333	4.25468	0.77679	
Positive parenting practice	-1.50000	4.32913	0.79039	.068
Pre-test	43.5333	7.98159	1.45723	
Post-test	45.0333	5.58003	1.01877	

majority of mothers spent >40h (60.0%) in comparative group ($P \leq .05$).

Taking household's characteristics into consideration, majority of households having income per capita below 5 000 000 Vietnamese Dong in both groups (66.7% for experimental, 56.7% for comparative group). Majority of households having more than 3 family members in both experimental (56.7%) and comparative (63.3%) group. Most households were residential in wards in both groups (96.7% in experimental, 90.0% in comparative group).

Comparing the Outcomes Within the Experimental Group

As seen from Table 2, it is shown that after participating the Positive Program to Promote Child Development, mother's knowledge of child development was significantly improved ($P \leq .001$) from averaged score of 9.77 to 12.10. Similarly, the mean of mother's practice to promote child development significantly increased ($P \leq .001$) at post-test by 2.03 (from 47.00 to 49.03). The mean of

Table 3. Cross-Tabulation for Child Development Pre- and Post-Test Within Experimental Group.

Experimental group (n = 30)	Suspected delayed development	Normal development	Total
Pre-test	30 100.0%	0 0.0%	30 100.0%
Post-test	19 63.3%	11 36.7%	30 100.0%
Pearson Chi-Square (within experimental group)		P-value = .000	

Table 4. Results of Independent-Samples T-Test Comparing Mean Differences Pre- and Post-Test Between Experimental and Comparative Group.

Between groups (n = 30)	Mean	Std. deviation	Std. error mean
Knowledge of child development		P-value = .002	
Experimental group	2.3333	1.66782	0.30450
Comparative group	-0.0333	0.99943	0.18247
Practice to promote child development		P-value = .141	
Experimental group	2.0333	1.97368	0.36034
Comparative group	1.9333	3.88572	0.70943
Positive parenting practice		P-value = .404	
Experimental group	1.5000	4.32913	0.79039
Comparative group	1.4667	5.30279	0.96815

mother's positive parenting practice also increased at post-test but not significantly.

Table 3 reveals the result of cross-tabulation applied for comparing child development within experimental group before and after the implementation of the program. The result suggests that the proportion of children detected as suspected developmental delayed was significantly lower ($P \leq .001$) after the implementation of the program (63.3%) than that proportion before the program was implemented (100.0%).

Comparing the Outcomes Between the Experimental and Comparative Group

The findings from Table 4 suggest that the mean difference of knowledge of child development before and after the program in experimental group (2.33) was significantly higher ($P \leq .01$) than the mean difference in comparative group (-0.03). On the other hand, the mean differences of practice to promote child development and positive parenting practice was nearly the same between experimental and comparative group.

The comparison of child developmental status between experimental and comparative groups before and after the program implementation is illustrated in Table 5. All the children determined as suspected developmental delayed from the first phase were selected, thus there were 100.0% of children were suspected developmental delayed in both

groups before implementation of the program. Due to the identical distributions of both groups pre-test, result of post-test is taken for comparison to identify whether child development is different between experimental and comparative groups. Result suggests that the percentage of children who had normal development in experimental group was 36.7% and significantly different from that percentage in comparative group, which was only 13.3% ($P \leq .05$).

Discussion

Maternal Knowledge of Child Development

Maternal knowledge of child development was found to be significantly improved in mothers within experimental group as well as the mean difference of knowledge of child development in experimental group was significantly higher than the mean difference in comparative group after the program. The sessions including traditional teaching method and group discussions engage mothers' attentions and let mothers relate to their real-life situations. The knowledge covers many aspects of child development including developmental domains, developmental milestones, influences on child development, and developmental promoting activities that helps the mothers understand the overall idea about child development. Moreover, by getting support through social media, the participated mothers received additional materials and resources about the knowledge of child

Table 5. Cross-Tabulation for Child Development Pre- and Post-Test Between Experimental and Comparative Groups.

Between groups (n = 30)	Suspected delayed development	Normal development	Total
Pre-test			
Experimental group	30 100.0%	0 0.0%	30 100.0%
Comparative group	30 100.0%	0 0.0%	30 100.0%
Post-test			
Experimental group	19 63.3%	11 36.7%	30 100.0%
Comparative group	26 86.7%	4 13.3%	30 100.0%
Pearson Chi-Square (between groups, post-test)		P-value = .037	

development as well as the encouragement to learn. This indicates that the participating in the program might contribute to the higher mean difference in experimental group. The improved knowledge of child development among the mothers after the experiment is congruent with previous studies. Fox and Hennick¹⁸ suggested the improved knowledge and perception of children's behaviors in parents after participating in the parenting program. Similarly, a study from Thailand by Nanthamongkolchai et al¹⁹ also found the significant increase in mothers' knowledge of child development after they participated in the training program. The study by Al-Hassan and Lansford²⁰ suggested that the significant improvement in parenting knowledge in the experimental group while the improvement in the control group was insignificant. Another study by Aboud et al²¹ also showed the better performance in knowledge of child developmental milestones among mothers in intervention group than those in control group.

Maternal Practice to Promote Child Development

The improved practice to promote child development among the mothers was possibly influenced by the Positive Parenting Program to Promote Child Development. The introduced developmental promoting activities combining with the understandings about child development helped the mothers promote their children's development more properly. The introduced developmental promoting activities were domain-specific and selected based on the local context so the activities should be easily adapted and applied for Vietnamese parents. Besides, the handbooks were provided so the mothers could refer to the promoting activities at home at any time. Moreover, the mothers participated in a group discussion which helps them relate to real context and discuss problem solving. The supports through social media also played important role to encourage and engage the

mothers to apply the practices and to give constant advice whenever the mothers need. The improvement of practice to promote child development is similar with previous findings. A study by Nanthamongkolchai et al¹⁹ suggested the improved parenting practice in the experiment group after participating in parenting program. Another study by Yousafzai et al²² showed the better responsive caregiving behaviors among the mothers who received parenting training sessions.

Child Development

There was significant improvement in development among children within experimental group and the children with normal development were significantly higher in experimental group than those in comparative group after their mothers participating in the program. Though the Positive Parenting Program to Promote Child Development does not directly influence the development of the participated children, the children's improved development is assumed to be the result from mothers' better knowledge and practice. The activities of the program helped the mothers to increase awareness of how important the proper practice is to positively influence their children's development and to understand how to promote development of their children properly. The program did not only provide knowledge but also engage the mothers to apply the knowledge into daily practice through discussions to localize the concepts into Vietnamese context as well as solving conflicts resulting from social norms and traditional practice. Besides, the handbooks and the supports through social media constantly provided mothers the accessibility to the additional knowledge and advice of promoting practice at home. As receiving the activities of the program, the mothers in experimental group might recognize the important of promoting child development and understand how to promote their children's development more properly and were

encouraged to do so unlike the mothers in comparative group who only received the handbooks. The mothers who applied knowledge and practice gained from the training program in their daily context might contribute positively to their children's development. The findings agree with the study by Nanthamongkolchai et al¹⁹ which found the significant improvement of children's development in the experimental group as well as significantly higher normal development among children in experimental group than those in comparative group after their mothers attending the training program. The study by Yousafzai et al²² which enhanced mothers' responsive stimulation through community health workers, suggested the significant increase in children's cognitive capacity, and pro-social behaviors after the mothers receiving responsive stimulation training. Moreover, it also showed that the children who received responsive stimulation had significantly higher cognition, language, and motor skill than those did not receive responsive stimulation. The Incredible Years program conducted by Webster-Stratton et al²³ also found that the mothers attending the program had their children with significantly fewer conduct problems at home than control children.

Maternal Positive Parenting Practice

The mothers' positive parenting practice was not improved after participating the Positive Parenting Program to Promote Child Development due to various possible reasons. Firstly, even though the parenting program offered several activities focusing on promoting positive parenting practice, the concept of positive parenting was still new for the local mothers. Secondly, grandmothers sometimes play an important role in parenting since many children were taken care by not only their mothers but also their grandmothers. Therefore, parenting practices of many mothers were also influenced by the traditional parenting practices which were carried over by their older generation. Moreover, several mothers believed that it was too soon to apply several positive parenting practices on young children, such as setting rules or expectations for the children. Lastly, since the time between the end of the program and the evaluative assessment was short, the positive parenting might need further assessment to generate the potential improvement. It is evident that though there were noticeable increases of mothers who "sometimes" applied several practices and decreases of mothers who "never" applied those practices, the changes were modest overall (see in Appendix). Together with the changes of practice to promote child development, it emphasizes that there should be more time for the mothers to significantly change their practices.

The previous studies showed the contrary findings. A study conducted by Zubrick et al¹⁰ suggested the association between the positive parenting program and the significant

reductions in levels of dysfunctional parenting. Findings from the study conducted by Leung et al²⁴ indicated that the positive parenting program was effective in decreasing dysfunctional parenting style while improving parents' sense of competence. Another study from Bodenmann et al²⁵ reported that mothers had significant improvements in parenting and parenting self-esteem after participating in positive parenting program.

Conclusions

The study assessed the effectiveness of the program by comparing the maternal knowledge of child development, maternal practice to promote child development and maternal positive parenting practice, and child development within the experimental group and between experimental and comparison group before and after implementation of Positive Parenting Program to Promote Child Development.

The paired *t*-test result suggested that after participating the Positive Program to Promote Child Development, mother's knowledge of child development and practice to promote child development were significantly improved within the experimental group. On the other hand, the mother's positive parenting practice was found increased but not significantly. For child development, the cross-tabulation result suggested the significant lower proportion of children detected as suspected developmental delayed after the implementation of the program.

The findings of independent-samples *t*-test indicated that the mean difference of knowledge of child development before and after the program in experimental group was significantly higher than the mean difference in comparative group. Conversely, practice to promote child development and positive parenting practice had similar mean differences between experimental and comparative group. Cross-tabulation finding showed the significantly different percentage of children who had normal development in experimental group from that percentage in comparative group at post-test while percentage of normal development was identical in pre-test.

The Positive Parenting Program to Promote Child Development is recommended to promote mother's knowledge of child development and development of children aged 1 to 3 years. Further programs should include multiple evaluations at different times or extend the time between the end of the program and evaluative assessment to assess the long-term effects of the parenting programs on the outcomes, especially practice to promote child development and positive parenting practice which possibly need more time to generate the expected results. Due to lack of assessment in disadvantage population, furthers studies focusing on child development are expected to be conducted in rural area and address vulnerable population.

Appendix

Percentage of Positive Parenting Practice for Each Item Pretest and Posttest in Both Experimental and Comparison Groups.

Positive parenting practice	Experimental group (%)		Comparison group (%)	
	Pretest	Posttest	Pretest	Posttest
<i>Promote attachment</i>				
[P1] You understand your child's cues of food, play, rest, and comfort and satisfy his/her needs responsively				
Always	86.7	86.7	83.4	80.0
Sometimes	10.0	13.3	13.3	20.0
Never	0.0	0.0	3.3	0.0
Missing response	3.3			
[P2] You respond promptly and lovingly to your child's cries and emotional upsets				
Always	70.0	76.7	76.7	83.3
Sometimes	23.4	23.3	20.0	16.7
Never	3.3	0.0	0.0	0.0
Missing response	3.3		3.3	
[P3] You spend some time for your child providing positive attention, such as hugging, talking, laughing, playing, and cuddling.				
Always	90.1	90.0	90.0	93.4
Sometimes	3.3	10.0	6.7	3.3
Never	3.3	0.0	3.3	3.3
Missing response	3.3			
<i>Promote respect</i>				
[P4] You allow your child to make choices.				
Always	66.7	60.0	50.0	46.7
Sometimes	20.0	33.3	43.3	53.3
Never	10.0	6.7	0.0	0.0
Missing response	3.3		6.7	
[P5] You speak to your child using positive words, with soft voice.				
Always	80.0	80.0	80.0	73.3
Sometimes	16.7	20.0	20.0	26.7
Never	0.0	0.0	0.0	0.0
Missing response	3.3			
[P6] You pay attention in listening to your child when he/she speaks.				
Always	80.0	80.0	83.4	80.0
Sometimes	10.0	20.0	13.3	20.0
Never	3.3	0.0	3.3	0.0
Missing response	6.7			
<i>Promote proactive parenting</i>				
[P7] You set clear rules and expectations for your child's behaviors.				
Always	50.0	60.0	36.7	33.3
Sometimes	40.0	33.3	40.0	46.7
Never	6.7	6.7	16.6	16.7
Missing response	3.3		6.7	3.3
[P8] You demonstrate the expected behaviors to your child.				
Always	60.0	56.7	66.7	63.4
Sometimes	33.4	43.3	30.0	33.3
Never	3.3	0.0	3.3	3.3
Missing response	3.3			
[P9] You are flexible for your rules and expectations in special cases.				
Always	40.0	43.3	43.3	43.4
Sometimes	36.7	50.0	26.7	33.3
Never	20.0	6.7	26.7	23.3
Missing response	3.3		3.3	

(continued)

(continued)

Positive parenting practice	Experimental group (%)		Comparison group (%)	
	Pretest	Posttest	Pretest	Posttest
[P10] You try to get your child out of situation which may lead he/she to misbehave and offer alternative solutions for him/her (eg, if he/she fights with his/her friend when playing together, offer him/her to play something else).				
Always	60.0	53.3	46.7	46.7
Sometimes	26.7	36.7	46.7	50.0
Never	13.3	10.0	0.0	3.3
Missing response			6.6	
[P11] You prepare safe household objects for your child to explore. Place easily breakable objects out of your child's reach.				
Always	80.0	80.0	76.7	73.3
Sometimes	13.3	20.0	16.7	26.7
Never	6.7	0.0	3.3	0.0
Missing response			3.3	
<i>Promote empathetic leadership</i>				
[P12] You try to listen to your child and understand your child's needs or reasons behind his/her misbehaviors instead of yelling and showing anger to your child.				
Always	66.7	73.3	56.7	56.7
Sometimes	33.3	26.7	33.3	43.3
Never	0.0	0.0	0.0	0.0
Missing response			10.0	
[P13] You show to your child that you understand his/her feelings and you are on his/her side.				
Always	73.4	76.7	70.0	76.7
Sometimes	13.3	23.3	20.0	23.3
Never	13.3	0.0	3.3	0.0
Missing response			6.7	
[P14] You try to calm your child when he/she misbehaves and then give lesson addressing his/her misbehaviors whenever he/she shows willingness to listen to you.				
Always	63.4	56.7	70.0	63.3
Sometimes	33.3	43.3	20.0	36.7
Never	3.3	0.0	0.0	0.0
Missing response			10.0	
<i>Promote positive discipline</i>				
[P15] You understand that your child has underlying need when he/she misbehaves.				
Always	70.0	63.3	40.0	36.6
Sometimes	13.3	30.0	43.3	56.7
Never	16.7	6.7	6.7	6.7
Missing response			10.0	
[P16] You try to calm yourself down first before dealing with your child's misbehaviors.				
Always	60.0	60.0	63.3	56.7
Sometimes	36.7	36.7	26.7	40.0
Never	0.0	3.3	3.3	3.3
Missing response	3.3		6.7	
[P17] You suggest alternative options for your child to do when he/she is in a situation that leads to misbehaviors.				
Always	50.0	50.0	53.3	53.3
Sometimes	33.3	46.7	26.7	40.0
Never	16.7	3.3	13.3	6.7
Missing response			6.7	

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