

## CHAPTER 4

### RESULTS AND DISCUSSION

The chapter presents the findings of the two groups pretest-posttest experimental design which aimed to examine the effects of the cognitive adjustment program on parental attitudes toward child rearing and potential for child physical abuse. The research findings are presented as follows:

- Part I Demographic and family characteristics of the sample
- Part II The comparisons of parental attitudes toward child rearing and potential for child physical abuse between baseline and post-test of the experimental and control groups
- Part III The comparisons of parental attitudes toward child rearing and potential for child physical abuse at post-test between the experimental and control groups

#### Part I: Demographic and Family Characteristics of the Sample

##### *Demographic Characteristics of the Sample*

A large percentage of the subjects in the experimental group were female (79.25%). The average age of the subjects was 33.26 years; most were married (83.02%). All of subjects were Buddhist. Nearly half of the subjects completed

secondary school (45.28%) and were employed (49.06%). The majority of subjects reported never consumed alcohol (62.27%), never smoked (79.24%), and never gambled (84.91%). A small percentage had been abused either by family member (9.43%) or outsider (3.77%).

In the control group, the majority of the subjects were female (77.78%) and were Buddhism (90.48%). Their average age was 31.22 years; most were married (82.54%). Less than half of the subjects completed secondary school (46.03%) and were employed (46.03%). Most of them reported never smoked (80.95%), never gambled (71.43%), and never been abused in their childhood (88.89%), whereas nearly half of them reported never consumed alcohol (49.21%).

The two groups were similar in almost every aspect of the demographic characteristics, only religion showed significant difference ( $p < .05$ ); six of the subjects in control group were Muslim (Table 1). Moreover, alcohol consumption history showed borderline difference ( $p = .062$ ) (Table 1).

Table 1

*Demographic Characteristics of the Experimental and Control Groups*

Demographic characteristics	Experimental (N = 53)		Control (N = 63)		Statistic test value	p-value
	n	%	n	%		
Parent's age (year)						
M ± SD	33.26 ± 8.05		31.22 ± 6.86		1.474	.143 <sup>t</sup>
(Range)	(21-52)		(20-48)			
20-29	19	35.85	25	39.68		
30-39	22	41.51	30	47.62		
> 40	12	22.64	8	12.70		
Parent's gender						
Female	42	79.25	49	77.78		1.00 <sup>b</sup>
Male	11	20.75	14	22.22		
Religion						
Buddhism	53	100.00	57	90.48		.031 <sup>b*</sup>
Muslim	0	0.00	6	9.52		
Marital status						
Married	44	83.02	52	82.54	1.684	.431 <sup>a</sup>
Widowed/ Divorced/ Separated	8	15.09	7	11.11		
Single	1	1.89	4	6.35		
Educational level						
Primary school	15	28.30	19	30.16	3.018	.389 <sup>a</sup>
Secondary school	24	45.28	29	46.03		
Diploma	7	13.21	12	19.05		
Bachelor degree or higher	7	13.21	3	4.76		

Note. <sup>t</sup> = t- test; <sup>a</sup> = Chi-square test; <sup>b</sup> = Fisher's Exact test, \* = Significance at .05

Table 1 (continued)

Demographic characteristics	Experimental (N = 53)		Control (N = 63)		Statistic test value	p-value
	n	%	n	%		
<b>Occupation</b>						
Employee	26	49.06	29	46.03	6.921	.140 <sup>a</sup>
Merchant/Self-employed	12	22.64	25	39.68		
Agriculture	6	11.32	2	3.17		
Housewife	6	11.32	6	9.53		
Government officer/ State enterprise employee	3	5.66	1	1.59		
<b>Alcohol consumption history</b>						
Never consumed	33	62.27	31	49.21	5.567	.062 <sup>a</sup>
Currently consumed	11	20.75	9	14.29		
Consumed in the past	9	16.98	23	36.50		
<b>Smoking history</b>						
Never smoked	42	79.24	51	80.95	.076	.963 <sup>a</sup>
Currently smoked	7	13.21	8	12.70		
Smoked in the past	4	7.55	4	6.35		
<b>Gambling history</b>						
Never gambled	45	84.91	45	71.43	3.219	.200 <sup>a</sup>
Gambled in the past	6	11.32	15	23.81		
Currently gambled	2	3.77	3	4.76		
<b>Abusive childhood experience</b>						
Never	46	86.80	56	88.89	3.233	.357 <sup>a</sup>
Ever by family member	5	9.43	6	9.52		
Ever by outsider	2	3.77	0	0.00		
Ever by both family member and outsider	0	0.00	1	1.59		

Note. <sup>a</sup> = Chi-square test

*Family and Children Characteristics of the Sample*

In the experimental group, two-thirds of subjects were mothers (66.04%). Over half of them had no an assistant for raising their child (50.94%) and had only one child in their household (54.70%). More than half of the subjects resided in a nuclear family (52.83%). More of their children were male (56.60%) and there were almost no child health problem (98.11%). Nearly half of the subjects had a family income of 5,001 - 10,000 baht per month (49.06%) and reported sufficient earnings to manage daily living expenses, but inadequate income for saving. In addition, two-thirds (66.04%) of them had no other financial support.

Most subjects of the control group were mother (73.02%). More than half of them had no an assistant for raising their child (55.56%), their child were male (55.56%), and resided in a nuclear family (50.80%). Almost subjects had a child with no health problem (98.41%) and nearly half had two children in their home (47.62%). Less than half of them had a family income of 5,001 - 10,000 baht per month (44.44%), while over half reported sufficient income but inadequate for saving (52.38%). Most subjects had no other financial support (76.19%). When compared between the two groups, there were no significant differences in family and children characteristics (Table 2).

Table 2

*Family and Children Characteristics of the Experimental and Control Groups*

Family and children characteristics	Experimental (N = 53)		Control (N = 63)		Statistic test value	p-value
	n	%	n	%		
<b>Relationship with child</b>						
Mother	35	66.04	46	73.02	4.754	.093 <sup>a</sup>
Father	9	16.98	14	22.22		
Relatives	9	16.98	3	4.76		
<b>Child rearing assistance</b>						
No assistant	27	50.94	35	55.56		.709 <sup>b</sup>
With an assistant	26	49.06	28	44.44		
<b>Number of children in household</b>						
1	29	54.70	26	41.27	2.396	.302 <sup>a</sup>
2	18	34.00	30	47.62		
3 or more	6	11.30	7	11.11		
<b>Child's gender</b>						
Male	30	56.60	35	55.56		1.000 <sup>b</sup>
Female	23	43.40	28	44.44		
<b>Child health status</b>						
No health problem	52	98.11	62	98.41		1.000 <sup>b</sup>
With health problem	1	1.89	1	1.59		
<b>Type of family</b>						
Nuclear family	28	52.83	32	50.80		.854 <sup>b</sup>
Extended family	25	47.17	31	49.20		
<b>Family income (Baht/month)</b>						
≤ 5,000	9	16.98	11	17.46	2.710	.873 <sup>a</sup>
5,001 – 10,000	26	49.06	28	44.44		
>10,000	18	33.96	24	38.10		

Note. <sup>a</sup> = Chi-square test; <sup>b</sup> = Fisher's Exact test

Table 2 (continued)

Family and children characteristics	Experimental (N = 53)		Control (N = 63)		Statistic test value	p-value
	n	%	n	%		
Sufficiency of income						
Sufficient but no saving	26	49.06	33	52.38	.228	.973 <sup>a</sup>
Sufficient and saving	11	20.75	11	17.47		
Insufficient but no debt	11	20.75	13	20.63		
Insufficient with debt	5	9.44	6	9.52		
Other financial support						
No	35	66.04	48	76.19		
Yes	18	33.96	15	23.81		.302 <sup>b</sup>

Note. <sup>a</sup> = Chi-square test; <sup>b</sup> = Fisher's Exact test

To eliminate the potential bias, demographic characteristics were tested for difference between subjects who completed the program ( $N = 116$ ) and those who dropped out ( $N = 10$ ). No differences were found on gender, religion, marital status, occupation, alcohol consumption history, smoking history, gambling history, and abusive childhood experience. However, the two groups were significantly different in terms of age ( $p < .05$ ) and educational level ( $p < .01$ ) (Appendix L: Table L1).

Regarding family and children characteristics, there was no evidence of any bias across the completed program or dropped out groups (Appendix L: Table L2).

Part II: The Comparisons of Parental Attitudes Toward Child Rearing and Potential for Child Physical Abuse Between Baseline and 16 Weeks after Entering the Program of the Experimental and the Control Groups

*Differences in Parental Attitudes Toward Child Rearing and Potential for Child Physical Abuse Between the Experimental and Control Groups at Baseline*

Regarding the parental attitudes toward child rearing, most subjects in both the experimental and control groups showed high-risk for abusive parents in 4 of 5 aspects only one aspect reported medium risk for abusive parents at baseline as reported by the AAPI-2 Parenting Profile (Appendix L: Table L3). The mean score of parental attitudes toward child rearing of the experimental group was nearly similar to that of the control group at baseline ( $M = 119.66, SD = 12.19$  VS  $M = 118.63, SD = 9.66$ , respectively) (Table 3). In terms of potential for child physical abuse, the mean score of potential for child physical abuse of the experimental group was relatively different to that of the control group at baseline ( $M = 258.25, SD = 71.12$  VS  $M = 256.53, SD = 64.38$ , respectively) (Table 3). The baseline scores of the parental attitudes toward child rearing and potential for child physical abuse between the experimental and control groups were compared using the independent sample t-test. Results showed that there were no statistically significant differences between the two groups (Table 3).



Table 3

*Differences in Parental Attitudes Toward Child Rearing and Potential for Child Physical Abuse Between the Experimental (N=53) and Control Groups (N=63) at Baseline*

Dependent variables	Possible score	Experimental group M ± SD (Range)	Control group M ± SD (Range)	Statistic test-value	p-value
Parental attitudes toward child rearing	40-200	119.66 ± 12.19 (95-148)	118.63 ± 9.66 (98-143)	.495	.622 <sup>t</sup>
Potential for child physical abuse	0-486	256.53 ± 64.38 (167-427)	258.25 ± 71.12 (166-419)	-.136	.892 <sup>t</sup>

Note. <sup>t</sup> = t- test

The objective of this study was to test the hypothesis that the program encouraged better parental attitudes toward child rearing and lower potential for child physical abuse compared to before entering the program. To examine the differences of parental attitudes toward child rearing and potential for child physical abuse between baseline and 16 weeks after entering the program between the experimental group and the control group, the paired t-test was analyzed.

*Comparison of Parental Attitudes Toward Child Rearing Between Baseline and 16 Weeks after Entering the Program of the Experimental and Control Groups*

At 16 weeks after entering the program, the mean scores of parental attitudes toward child rearing in the experimental group had significantly increased ( $M = 126.62$ ,  $SD = 13.22$ ) compared to the baseline ( $M = 119.62$ ,  $SD = 12.15$ ). For the control group, there was a slight change in the mean of parental attitudes toward child rearing from the baseline ( $M = 118.63$ ,  $SD = 9.66$ ) compared to the mean at 16 weeks of the program ( $M = 119.21$ ,  $SD = 11.56$ ) but the change was not statistically significant. A significant improvement on parental attitudes was observed in the subjects of the experimental group ( $D = 6.96$ ,  $p < .001$ ), whereas it was not found in the subjects of the control group ( $D = 0.58$ ,  $p = .331$ ) (Table 4).

Table 4

*Comparison of Parental Attitudes Toward Child Rearing Between Baseline and 16 Weeks after Entering the Program of the Experimental (N=53) and Control Groups (N=63)*

Parental attitudes toward child rearing	Baseline M ± SD	16 weeks M ± SD	D	t	p-value
Experimental group	119.66 ± 12.19	126.62 ± 13.22	6.96	5.259	.000
Control group	118.63 ± 9.66	119.21 ± 11.56	0.58	-.439	.331

Note. <sup>t</sup> = t- test

*Comparison of Potential for Child Physical Abuse Between Baseline and 16 Weeks after Entering the Program of the Experimental (N=53) and Control Groups (N=63)*

To evaluate the effects of the program on the potential for child physical abuse, the child abuse potential scores at baseline were compared to those at 16 weeks after entering the program. Results showed that there was a statistically significant decrease of subject's potential to physically abuse their child in the experimental group ( $D = 18.19, p < .05$ ) at 16 weeks after entering the program compared to the baseline. Whereas the control group, the mean score of potential for child physical abuse after entering the program was not statistically significant decreased ( $D = 11.98, p = .098$ ) (Table 5).

Table 5

*Comparison of Potential for Child Physical Abuse Between Baseline and 16 Weeks after Entering the Program of the Experimental (N=53) and Control Groups (N=63)*

Potential for child physical abuse	Baseline M ± SD	16 weeks M ± SD	D	t	p-value
Experimental group	256.53 ± 64.38	238.34 ± 80.40	18.19	2.053	.022
Control group	258.25 ± 71.12	246.27 ± 89.99	11.98	1.304	.098

Note. <sup>t</sup> = t- test

Part III: The Comparisons of Parental Attitudes Toward Child Rearing and Potential  
for child physical abuse Between the Experimental and Control Groups  
at 16 Weeks after Entering the Program

Another objective of the study was that the program stimulated a significant improvement in parental attitudes toward child rearing and reduction in potential for child physical abuse for subjects in the experimental group compared to those in the control group at 16 weeks after entering the program. To determine whether significant differences in the dependent variables due to the effect of intervention or the initial difference between two groups, an analysis of covariance [ANCOVA] was conducted to examine any difference between both groups. As there were a significant difference of religion and a borderline difference of alcohol consumption history between the experimental and control groups reported at baseline ( $p < .05$  and  $p = .062$  respectively) (Table1), additional analyses were conducted for determining covariates following two questions: 1) Is religion related to parental attitudes toward child rearing and potential for child physical abuse of subjects? and 2) Is alcohol consumption history related to parental attitudes toward child rearing and potential for child physical abuse of subjects? Prior to additional analysis, parental attitudes toward child rearing and potential for child physical abuse were categorized using mean and standard deviation into three levels, low, medium, and high-risk for abusive parents. Then, a cross tabulation was run. Results revealed that religion and alcohol consumption history were not related to parental attitudes toward child rearing and potential for child physical abuse (Appendix L: Table L3, L4, L5, L6). Nevertheless, the small sample size of this study may not be sufficient to examine the associations between religion

or alcohol consumption history and parental attitudes toward child rearing or potential for child physical abuse. Additionally, one of the assumptions for ANCOVA is that the covariate should be a continuous variable (Munro, 2005). Therefore, religion and alcohol consumption history were eliminated from the analysis, only the pretest score was entered into the analyses as covariate.

*Comparison of Parental Attitudes Toward Child Rearing Between the Experimental and Control Groups at 16 Weeks after Entering the Program*

The difference in parental attitudes toward child rearing between the experimental and control groups was analyzed. The pretest score of parental attitudes was entered as a covariate. The result of ANCOVA analysis showed that after controlling for baseline of parental attitudes, there was a significant difference at the 16<sup>th</sup> week follow-up. In other words, the subjects in the experimental group demonstrated better attitudes toward parenting than the control group with a small effect ( $F[1, 113] = 13.95, p < .001, \eta^2 = .110$ ) (Table 6). The effect size for parental attitudes toward child rearing was also calculated (Appendix M).

Table 6

*Comparison of Parental Attitudes Toward Child Rearing Between the Experimental and Control Groups at 16 Weeks after Entering the Program (N=116)*

Source	SS	df	MS	F	p-value	$\eta^2$
Between group	1280.91	1	1280.91	13.95	.000	.110
Covariate						
Pre-parental attitudes	7006.60	1	7006.60	76.33	.000	.403
Error	10372.16	113	91.78			
Total	18961.95	115				

*Comparison of Potential for Child Physical Abuse Between the Experimental and Control Groups at 16 Weeks after Entering the Program*

The difference of potential for child physical abuse between the experimental and control groups was analyzed. Pretest score of potential for child physical abuse was entered as a covariate. The result of ANCOVA analysis showed that after controlling for baseline of potential for child physical abuse, there was no significant difference at the 16<sup>th</sup> week follow-up ( $F[1, 113] = .272, p = .603$ ) (Table 7).

Table 7

*Comparison of Potential for Child Physical Abuse Between the Experimental and Control Groups at 16 Weeks after Entering the Program (N=116)*

Source	SS	df	MS	F	p-value	$\eta^2$
Between group	1250.24	1	1250.24	.27	.603	.002
Covariate						
Pre-potential for child physical abuse	318724.99	1	318724.99	69.31	.000	.380
Error	519633.30	113	4598.52			
Total	840168.50	115				

## Discussion

The overall objective of this study was to examine the effects of the cognitive adjustment program on parental attitudes toward child rearing and potential for CPA among parents of 1-6 year old children. Results from this study demonstrated that after the intervention program, subjects in the experimental group had significantly better parental attitudes toward child rearing ( $p < .001$ ) and lower potential for CPA ( $p < .05$ ) than before entering the program. Notably, subjects in the experimental group had significantly better parental attitudes toward child rearing ( $p < .001$ ), but they did not show a significant decrease on potential for CPA ( $p = .603$ ) at 16 weeks follow up compared to subjects in the control group.

Findings from an analysis of covariance ensured the effects of this intervention program on parental attitudes toward child rearing and potential for CPA. Based on the conceptual framework used in this study, the SIP model of CPA, parental attitudes toward child rearing are considered as pre-existing schemata that influence the parental cognitive process (Milner, 2000). If biased or distorted parental cognitions contribute to increase abusive parenting practice or potential for CPA, adjustment in parental cognitive process would be expected to reduce potential for CPA or abusive parenting practice. This study is consistent with other studies regarding child abuse prevention that focused on changing or modifying parental cognitions (Bugental et al., 2002; Fennell & Fishel, 1998; Leung, Sanders, Leung, Mak, & Lau, 2003).

With regard to parental attitudes toward child rearing, this intervention program demonstrated significantly improved parental attitudes toward child rearing compared to the baseline and those in the control group at 16 weeks follow up. Undoubtedly,



the intervention program of this study was explicitly designed to adjust or reconstruct parental cognitions especially parental attitudes toward child rearing. By this means, the program emphasized the importance of changing bias parental attitudes in aspects of inaccurate parental perceptions toward child development, child behaviors, child physical abuse, and child rights. Subjects in the experimental group were taught how to appropriately perceive their child behaviors and child needs by using scenarios (stage 1). They were asked to interpret and evaluate child development, child needs, and child behaviors through sharing experiences and videotaped presentations (stage 2). They also were asked to demonstrate how to appropriately respond their child behaviors and child needs and how to use alternative child disciplinary techniques by using scenarios (stage3). Subjects were assigned to record their children behaviors and the way in which parental responses for monitoring parental behaviors (stage 4). According to the SIP model of CPA, inappropriate parental perceptions for child development and behaviors result in the negative interpretation and evaluation of the second stage (Milner, 2000). In addition, parents' negative interpretation and evaluation contribute to negative response selection (the third stage), and implementation and monitoring of their behaviors including CPA (the fourth stage) (Chilamkurti & Milner, 1993).

At the program completion, subjects in the experimental group indicated better parental perception, interpretation, and evaluation toward their child behaviors and child needs. For example, parents viewed a child asking the repeated questions many times as a common behavior and not bothersome or annoying. Additionally, parents exhibited more positive response selections toward their child behaviors. Through group educations and home visits, they learned optional nonviolent child disciplinary

techniques for dealing with undesirable behaviors of children. Such techniques included rule making, logical reasoning, distracting, and ignoring that should be used accordingly to child development and situation. Such strategies assisted parents to have optional techniques for dealing with undesirable behaviors of children. By this means, parents adopted alternative child disciplinary techniques and then adjusted how to manage their child behavior based on their experiences. It seems that subjects in the experimental group showed more preference in alternative child disciplinary techniques and gave less value on the use of physical punishment than before entering the program.

Regarding the educational techniques used in this study, group discussions and sharing experiences allowed subjects to learn from others' experiences and then led them to acquire some strategies to deal with challenging behaviors of children. Through videotaped presentations of a model, subjects learned how to increase positive relationships with children and to reduce harsh and inconsistent parenting practices. Moreover, a homework assignment of parental recording on child behaviors and responses they used made them rethought and reconstructed their attitudes toward child behaviors. Furthermore, positive feelings of being parents and positive reinforcement to continue parenting role were promoted by the researcher throughout program implementation. It can be noted that a set of learning activities consisted of value sharing in groups, scenarios analyses, videotaped presentations, homework assignment, and face to face discussion at home helped subjects gained more knowledge and improved their attitudes toward child rearing. Therefore, the intervention program implemented here was a specific effort to assist subjects in obtaining better parental attitudes toward child rearing.

Findings of this study are congruent with the study of Cowen (2001) who conducted a similar group education plus home visit for at-risk families. Results of Cowen's study showed significant improvements on parental attitudes compared to the baseline. Similarly, findings from this study are consistent with the results from the Family Nurturing Program of Palusci and colleagues (2008), in which their program showed a statistically significant increase in the mean score of parental attitudes toward child rearing. That is, the highest gains were noted in parental empathy towards children's needs and use and value of corporal punishment aspects while the lesser gains were found in parent-child family roles and children's power and independence aspects. Findings of this study are also consistent with the results of Britner and Reppucci (1997) who conducted a 12-week parent education program using parenting class plus individual discussion for at-risk teen mothers. Their program produced a statistically significant increase in mean score of parenting attitudes. In addition, the results of this study confirmed the study of Bugental and colleague (2002) that group education plus home visit intervention improved on parental attitudes and decreased harsh parenting. The similar results support the benefit of a combination of strategy utilized in this study.

As explained above, the cognitive adjustment program implemented in this study promoted significantly better parental attitudes toward child rearing, but this program was not successful in reducing the potential for CPA. A possible explanation is that the program covered three stages of parental cognitive process according to Milner's model, but activities designed to promote the parental ability to monitor and modify their behaviors (the fourth stage) may be inadequate to produce the desired changed in potential for CPA. Such final stage actually impact potential for CPA.

The findings of this study are consistent with previous child abuse prevention programs that failed to show significant decrease in potential for CPA or incidence of child abuse. For example, MacMillan and colleague (2005) conducted a home visitation by public-health nurses in prevention of the recurrence of CPA. They found no differences in child abuse potential score, parenting attitudes score, and recurrence of CPA between the experimental and control groups. Likewise, the Hawaii's Healthy Start Program using home visitation of Duggan and colleagues (2004) could not prevent child abuse or promote use of non-violent discipline. Similarly, Gessner (2008) conducted the Alaska's home visitation program for high-risk families by focusing on reducing the rates of child abuse. His program also showed little evidence in reducing child abuse rates.

Another explanation might be related to the insufficient intensity and frequency of program implementation. Moreover, the media utilized in this program might not be powerful to alter the targeted behaviors or potential for CPA. The findings of this study are incompatible with study of Fennell and Fishel (1998) which conducted the Systematic Training for Effective Parenting Program using multiple strategies. They found that the program showed significantly lower potential for CPA. Different findings might be due to the intensiveness of the intervention program implemented. Fennell and Fishel's program intervened 9 weeks with weekly session, whereas this study conducted 4 monthly sessions of intervention. The findings of this study provide evidence that changing in parental attitudes toward child rearing alone does not necessarily alter the potential for CPA.

The findings of this study do not support those of Fraser and colleagues (2000) which found the significant change in child abuse potential after home visit intervention

for vulnerable families with newborns at the 7<sup>th</sup> month follow-up. However, they too found no statistically significant difference at the 18<sup>th</sup> month follow-up. These seemingly contradictory findings in the short-term may be due to the differences in the intervention. Fraser and colleagues' program was conducted as multidisciplinary work, while this study was implemented by a nurse researcher. Likewise, Fergusson, Grant, Horwood, and Ridder (2005) conducted a home visit program and measured outcomes at 6, 12, 24, and 36 months. They found that experimental group increased positive and nonpunitive parenting and reported a significantly lower rate of severe child physical assaults at 36 months follow up than the control group. Inconsistent findings may be due to the length of time for intervention.

Another explanation is that this study recruited subjects at-risk for CPA as measured by the Child Abuse Potential Inventory (Milner, 1986) to participate in the intervention. This intervention program may be inadequately robust for the at-risk group since the program was purposively designed to adjust parental attitudes and mediate the risk for CPA by improving parental capability to manage child rearing and/or child behavior problems. The researcher conducted a four-session intervention with parents and provided a universal information strategy to deal with difficulties in being parents. For the risk subjects, they may need a more intensive and special intervention. Additionally, they may require an intervention that involves collaboration among multidisciplinary team including physicians, nurses, social workers, and criminal investigators for dealing with extraordinary problems leading to CPA such as poverty, unemployment, marital conflict, alcoholism, or psychosis (Browne & Herbert, 1997).

According to the SIP model of CPA, stress and anger are considered as contextual factors that negatively influence the parental cognitive process (Rodriguez & Richardson, 2007; Schellenbach et al., 1991). Indeed, stress and anger can occur outside parenting or parent-child relationship problems. Family environment that is dynamic can be a significant source of stressor. During the program implementation, some subjects in the experimental group had family crisis events including spouse separation, marital conflict, and financial problems. These crisis events contributed to parental stress and were associated with impaired child rearing practice (Nanthamongkolchai, Isaranurag, Kaewsiri, & Potisubsuk, 2005) and linked with risk for CPA (Guterman & Lee, 2005). If parents do not have stress reduction and problem solving skills, their parental cognitive processes may be distorted and they may be unable to generate alternative solutions in child rearing situations and other problems in their life (Milner & Dopke, 1997). Such limitations may contribute to aggressive behaviors including CPA. Other stressful contexts of the experimental group subjects that were not observed may have served to mediate the change of potential for CPA in this study.

Although, this study did not produce a significant reduction on potential for CPA, qualitative data obtaining during home visits revealed that most subjects attempted to avoid coercive parenting practices. They started to use alternative disciplinary techniques such as ignoring, distracting, and reasoning to alter their child's behaviors. This showed that subjects in the experimental group are more likely to increase proper parenting practices and reduce harsh parenting behaviors.

In summary, this study was an initial effort at evaluation of child abuse prevention program in the Thailand. This intervention program served as the foundation for further research that applies the SIP model of CPA in Thai society. The findings from this study revealed a beneficial effect for parents and their child. Subjects in the experimental group expressed that they were satisfied with the program and desired to continually participate in the program. They felt free to talk about their difficulties of being parents or personal problems with the researcher. Within the Thai society, people usually go to meet health care providers when they get severely sick. Discussion about child rearing or parenting practices with health care providers rarely occurs. It can be claimed that this intervention program not only promoted parental attitudes toward child rearing but it also encouraged parental confidences, enhanced the quality of parenting practices, and improved parent-child relationships.