# CHAPTER 4

## RESULTS

This chapter presents the findings of the experimental research which aimed to examine the effects of the School-based CBT for Thai Adolescents with Depression program on depressive symptoms, negative automatic thought, and social and adaptive functioning among mild to moderate depressed adolescents. Findings of this study are presented in the four following sections.

Part I Demographic Characteristics of Participants

Part II Testing Hypothesis I: Comparison of depressive symptoms scores at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.

Part III Testing Hypothesis II: Comparison of negative automatic thought scores at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.

Part IV Testing Hypothesis III: Comparison of social and adaptive functioning scores at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.

Part V Intervention Evaluation

*Part I: Demographic Characteristics of Participants*

*Demographic Characteristics of Participants*

The participants in this study were mild to moderate depressed adolescents, living in the Central part of Thailand. Initially, 74 participants met the criteria (37 participants in both the intervention and the control group). At the end of the study, it was found that only seventy participants (35 participants in the control group and 35 participants in the intervention group) fully participated in both group. Two participants in the intervention group were unable to complete the program because they joined in the school band at the time of the intervention program. Two participants in the control group refused to participate in the program. Additionally, these participants were under the same matching criteria. The attrition rate of both groups was 10.80%.

The findings revealed that the ages ranged between 15 and 16 both in the control and the intervention groups. The mean age in the control group was 15.51 (SD = 0.51) and in the intervention group was 15.57 (SD = 0.50) years old. The depressive symptoms scores (CES-D scores) ranged between 16 and 24 both in the control and the intervention groups. The mean CES-D scores in the control group was 19.51 (SD = 2.68) and in the intervention group was 19.73 (SD = 2.51). Participants in the control and the intervention groups reported a mean GPA of 2.71 (SD = 0.56) and 2.63 (SD = 0.57), respectively.

The independent t-tests were used to test the difference between the age, depressive symptom scores, and GPA of participants in the control and the intervention groups. No significant differences on age, depressive symptom scores, and GPA variables in any aspect were found between the control and the intervention groups (Table 1).

Table 1

*Comparison of the demographic characteristics by Group*

| Demographic Characteristics | Control group (n = 35) | Intervention group (n = 35) | t | df | p value |
|---|---|---|---|---|---|
| Age (year) | | | | | |
| Range | 15-16 | 15-16 | | | |
| Mean (SD) | 15.51(0.51) | 15.57(0.50) | -0.47 | 68 | 0.43 $^{ns}$ |
| CES-D score | | | | | |
| Range | 16-24 | 16-24 | | | |
| Mean (SD) | 19.51(2.68) | 19.73(2.51) | 0.14 | 68 | 0.88 $^{ns}$ |
| GPA in school | | | | | |
| Range | 1.50-3.65 | 1.54-3.81 | 0.58 | 68 | 0.75 $^{ns}$ |
| Mean (SD) | 2.71(0.56) | 2.63(0.57) | | | |

*Note.* $^{ns}$ = no significant

Approximately, 25.70% of both the intervention group and the control group were male whereas there were 74.30% in both groups were female. All of the participants in the control group and the intervention group religion were Buddhism (100%). The majority of participants in the control group had household income more than or equal 20,001 Baht/month (71.40%) while participants in the intervention group had household income more than or equal 20,001 Baht/month (48.60%).

The chi-square analysis was used to test the difference between the demographic characteristics of gender, religious, and household income of the participants in the control and the intervention groups. No significant differences on gender, religious, and household income variables in any aspect were found between the control and the intervention groups. The demographic characteristics of the participants in both groups are presented in Table 2.

Table 2

*Comparison of the demographic characteristics by Group*

| Demographic Characteristics | Control group N (%) | Intervention group n (%) | $\chi^2$ | df | p value |
|---|---|---|---|---|---|
| Gender | | | | | |
| Male | 9 (25.70%) | 9 (25.70%) | 0.00[b] | 1 | 1.00 [ns] |
| Female | 26 (74.30%) | 26 (74.30%) | | | |
| Religion | | | | | |
| Buddhism | 35 (100%) | 35 (100%) | 0.00[a] | - | - [ns] |
| Household Income (baths/month) | | | | | |
| ≤ 20,000 | 10 (28.60%) | 18 (51.40%) | 3.81[b] | 1 | 0.054 [ns] |
| > 20,001 | 25 (71.40%) | 17 (48.60%) | | | |

*Note*. [a] No statistics are computed because religion is constant.
[b] 0 cells (.0%) have expected count less than 5., [ns] = no significant

Regarding participants' characteristics as illustrated from Table 1 and 2, the control group and the intervention group showed no statistically difference in demographic characteristics.

*Part II: Testing Hypothesis I*

*Hypothesis I: The mean score of depressive symptoms among Thai adolescents with depression receiving the school-based cognitive behavior therapy program is significantly lower than those receiving school nurses' usual care at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.*

*Research Finding*

The first testing of the hypothesis involved seventy participants in the control and the intervention groups who completed all four administrations of the depressive symptoms. For comparison of the two groups' mean scores of depressive symptoms, over the 16-week period, at pre-program (week 0), week 6, post-program (week 12), and four weeks after the completion (week 16), multivariate analysis of variance (MANOVA) was utilized to test for the effect across the control and the intervention groups.

To evaluate the main effects and the interaction for each group and time, it was found that for depressive symptoms there were a significant group and time interaction, ($F = 5.09$, $p = .002$). This interaction was a result of the two groups

having similar levels of depressive symptoms scores at pre-intervention. However, this interaction showed a main effect of group that the depressive symptoms scores in the school-based CBT intervention group were statistically significant lower than those of the control group (F = 33.09, p = <.001). Additionally, this interaction showed a main effect of time at all times of evaluation (F = 9.12, p = <.001). The finding is depicted in Table 3.

Table 3

*The main effects and interaction of the control and the intervention group on depressive symptoms*

| Variable/ Group | Time of Evaluation | | | | | | | | F | p value |
|---|---|---|---|---|---|---|---|---|---|---|
| | Time 1 | | Time 2 | | Time 3 | | Time 4 | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | | |
| Control (n=35) | 19.74 | 2.52 | 21.26 | 5.13 | 20.20 | 5.86 | 19.26 | 5.74 | 1.02 | 0.39$^{ns}$ |
| Intervention (n=35) | 19.66 | 2.57 | 18.54 | 4.99 | 15.83 | 4.91 | 12.91 | 6.13 | 13.63 | <.001*** |

*Note.* Time 1 = Baseline assessment
Time 2 = Six weeks after the beginning of intervention
Time 3 = Immediately post-intervention
Time 4 = Four weeks post-intervention
**p<.01, ***p<.001

Regarding the main effect significant difference of depressive symptoms between the control and the intervention groups, the comparison of mean scores in the control group was non-significant differences over time. In addition, the control group was found to have more depressed than the intervention group over time. The finding revealed that the depressive symptoms score of the intervention

group was significantly decreased than the control group over time. The finding is illustrated in Table 4.

Table 4

*Comparison of the mean scores on depressive symptoms in the control and the intervention groups at Time 1, Time 2, Time 3, and Time 4*

| Group | Time of Evaluation | | | | | | | | Group effect | | Time Effect | | Group* Time effect | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Time 1 | | Time 2 | | Time 3 | | Time 4 | | | | | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | F | p | F | P | F | p |
| Control (n=35) | 19.74 | 2.52 | 21.26 | 5.13 | 20.20 | 5.86 | 19.26 | 5.74 | 33.90 | <.001 *** | 9.12 | <.001 *** | 5.09 | .002 ** |
| Inter-vention (n=35) | 19.66 | 2.57 | 18.54 | 4.99 | 15.83 | 4.91 | 12.91 | 6.13 | | | | | | |

*Note.* $^{ns}$ = not significant, ***p<.001

For depressive symptoms, there was a statistically significant group and time interaction, F = 5.09, p = .002. Simple effects test were conducted to probe the interaction. The simple effects of group at each level of time were first examined. For Time 1, no statistically significant differences were found in depressive symptoms of the control group (M = 19.74) and the intervention group (M = 19.66), F = .02, p = .89. For Time 2, the control group (M = 21.06) was significantly more depressed than the intervention group (M = 18.54), F = 5.03, p = .03. For Time 3, the control group (M = 20.20) was significantly more depressed than the intervention group (M = 15.83), F = 11.45, p = .001. For Time 4, the control group (M = 19.26) was significantly more depressed than the

intervention group (M = 12.91), F = 19.97, p = <.001. Therefore, the results presented in Table 5 of depressive symptoms revealed significant differences between the control group and the intervention group for Time 2, Time 3, and Time 4.

Table 5

*Simple effects on depressive symptoms between the control and the intervention groups at Time 1, Time 2, Time 3, and Time 4 interaction.*

| Variable | Time | Control | | Intervention | | F | df | p value |
|---|---|---|---|---|---|---|---|---|
| | | M | SD | M | SD | | | |
| Depressive Symptoms | Time 1 | 19.74 | 2.52 | 19.66 | 2.57 | .02 | 1 | .89 $^{ns}$ |
| | Time 2 | 21.26 | 5.13 | 18.54 | 4.99 | 5.03 | 1 | .03* |
| | Time 3 | 20.20 | 5.86 | 15.38 | 4.91 | 11.45 | 1 | .001** |
| | Time 4 | 19.26 | 5.74 | 12.91 | 6.13 | 19.97 | 1 | <.001*** |

Note. $^{ns}$ = not significant, * p<.05, **p<.01, ***p<.001

With regards to each point of evaluation, it was found that the depressive symptoms scores of the intervention group were equal to the control group at baseline (Time 1). However, the depressive symptoms scores of the intervention group decreased from Time 1 to Time 4 as illustrated in Figure 3.

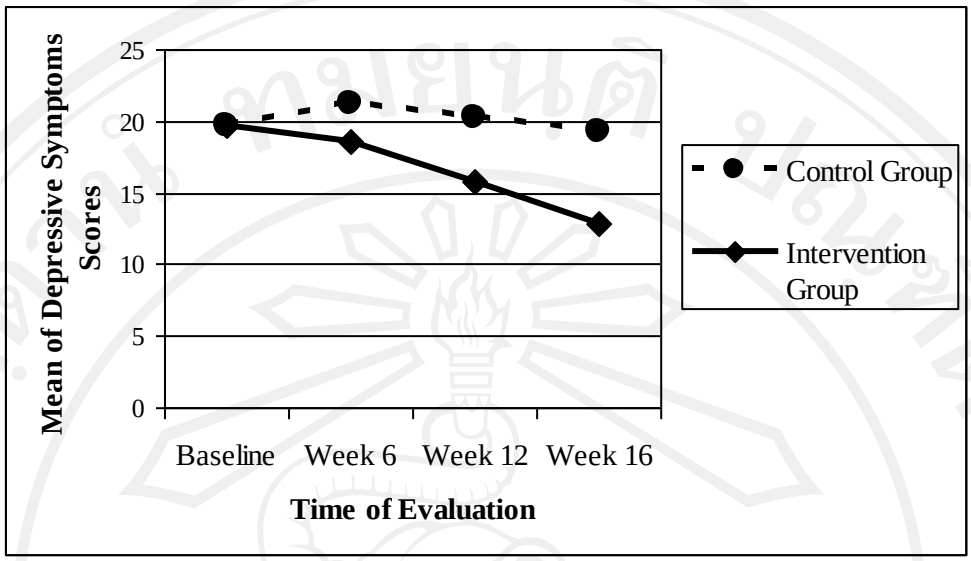


*Figure 3*. Mean depressive symptom scores in relation to the school-based CBT group and usual care group across treatment. The graph shows the main effect in relation to group and time interaction.

*Part III: Testing Hypothesis II*

*Hypothesis II: The mean score of negative automatic thought among Thai adolescents with depression receiving the school-based cognitive behavior therapy program is significantly lower than those receiving school nurses' usual care at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.*

To evaluate the main effects and the interaction for each group and time, it was found that for negative automatic thought there was only a significant group and time interaction. Thus, the finding revealed the influence of the group and time interaction on the negative automatic thought between the two groups ($F = 4.25$, $p = .006$). The finding is depicted in Table 6.

Table 6

*The main effects for group and time interaction of the control and intervention group on negative automatic thought*

| Group | Time of Evaluation | | | | | | | | Group effect | | Time effect | | Group* Time effect | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Time 1 | | Time 2 | | Time 3 | | Time 4 | | | | | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | F | p | F | p | F | p |
| Control (n=35) | 22.86 | 17.53 | 33.23 | 16.73 | 34.11 | 17.37 | 32.54 | 17.49 | 3.49 | .063 ns | 1.35 | .258 ns | 4.25 | .006 ** |
| Inter-vention (n=35) | 33.51 | 16.15 | 32.09 | 17.50 | 24.77 | 13.92 | 21.69 | 14.36 | | | | | | |

Note. $^{ns}$ = no significant, **p<.01

For negative automatic thought, there was a statistically significant group and time interaction, F = 4.25, p = .006. Simple effects test were conducted to probe the interaction. The simple effects of group at each level of time were first examined. For Time 1, no statistically significant differences were found in negative automatic thought of the control group (M = 26.86) and the intervention group (M = 33.51), F = 2.73, p = .103. For Time 2, no statistically significant differences were found in negative automatic thought of the control group (M = 33.23) and the intervention group (M = 32.09), F =.08, p = .781. For Time 3, the control group (M = 34.11) was significantly more scores of negative automatic thought than the intervention group (M = 24.77), F = 6.17, p = .015. For Time 4, the control group (M = 32.54) was significantly more scores of negative automatic thought than the intervention group (M = 21.69), F = 8.06, p = .006. The results presented in Table 7. Therefore, there were significantly lower negative automatic thought scores in the intervention group than the control group at Time 3 and Time 4.

Table 7

*Simple effects between the control and the intervention groups at Time 1, Time 2, Time 3, and Time 4 interaction.*

| Variable | Time | Control | | Intervention | | F | df | p value |
|---|---|---|---|---|---|---|---|---|
| | | M | SD | M | SD | | | |
| Negative Automatic Thought | Time 1 | 26.86 | 17.53 | 33.51 | 16.15 | 2.73 | 1 | .10 $^{ns}$ |
| | Time 2 | 33.23 | 16.73 | 32.09 | 17.50 | 0.08 | 1 | .78 $^{ns}$ |
| | Time 3 | 34.11 | 17.37 | 24.77 | 13.92 | 6.17 | 1 | .01* |
| | Time 4 | 32.54 | 17.49 | 21.69 | 14.36 | 8.06 | 1 | .006** |

Note. NAT = Negative Automatic Thought
$^{ns}$ = no significant, *p<.05, **p<.01

With regards to each point of evaluation, it was found that the negative automatic thought scores of the intervention group were higher than the control group at baseline (Time 1). However, the negative automatic thought scores of the intervention group slightly decreased from Time 1 to Tome 2, Time 2 to Time 3, and Time 3 to Time 4. While as the negative automatic thought scores of the control group slightly increased from Time 1 to Tome 2, Time 2 to Time 3, and slightly decreased from Time 3 to Time 4. Figure 4 illustrates the four time periods for the scores.

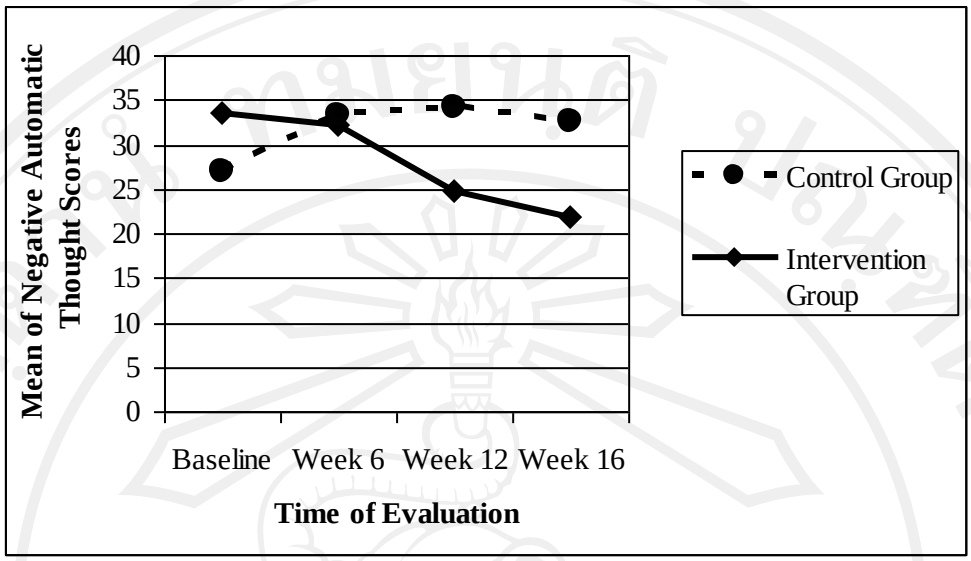


*Figure 4*. Mean negative automatic thought scores in relation to the school-based CBT group and usual care group across treatment. The graph shows the main effect in relation to group and time interaction.

*Part IV: Testing Hypothesis III*

*Hypothesis III: The mean score of social and adaptive functioning among Thai adolescents with depression receiving the school-based cognitive behavior therapy program is significantly higher than those receiving school nurses' usual care at six weeks, immediate upon the completion of intervention, and four weeks after the completion of intervention.*

To evaluate the main effects and the interaction for each group and time, it was found that for social and adaptive functioning, there was only a main effect for group. Thus, there was statistically significant difference of social and

adaptive functioning between the control group and the intervention group. The finding is depicted in Table 8.

Table 8

*The main effects and interaction of the control and intervention group on social and adaptive functioning.*

| Group | Time of Evaluation | | | | | | | | Group effect | | Time effect | | Group* Time effect | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Time 1 | | Time 2 | | Time 3 | | Time 4 | | | | | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | F | p | F | p | F | p |
| Control (n=35) | 67.11 | 6.61 | 65.29 | 8.61 | 65.29 | 8.12 | 66.11 | 8.38 | 4.34 | .038* | 1.64 | .179ns | 2.51 | .059ns |
| Inter-vention (n=35) | 65.11 | 6.82 | 67.23 | 7.34 | 67.94 | 7.89 | 71.31 | 8.97 | | | | | | |

Note. Social Functions = Social and Adaptive Functioning
ns = no significant, *p < .05

Regarding the main effect significant difference of social and adaptive functioning between the control and the intervention groups, the comparison of mean scores in the control group was non-significant differences over time. While in the intervention group was more improved social and adaptive functioning than the control group over time. In addition, the finding revealed that the social and adaptive functioning score of the intervention group was significantly increased than the control group over time. The finding is illustrated in Table 9.

Table 9

*Comparison of the mean scores on social and adaptive functioning in the control and the intervention groups at Time 1, Time 2, Time 3, and Time 4*

| Variable/ Group | Time of Evaluation | | | | | | | | F | p value |
|---|---|---|---|---|---|---|---|---|---|---|
| | Time 1 | | Time 2 | | Time 3 | | Time 4 | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | | |
| Social and Adaptive Functioning | | | | | | | | | | |
| Control (n=35) | 67.11 | 6.61 | 65.29 | 8.61 | 65.29 | 8.12 | 66.11 | 8.38 | 0.42 | .74 $^{ns}$ |
| Intervention (n=35) | 65.11 | 6.82 | 67.23 | 7.34 | 67.94 | 7.89 | 71.31 | 8.97 | 3.81 | .01* |

Note. $^{ns}$ = no significance, *p < .05

With regards to each point of evaluation, it was found that the social and adaptive functioning scores between the control and the intervention group was of statistically non-significant difference (p = .22) at baseline (Time 1). However, the social and adaptive functioning scores of the intervention group increased from Time 1 to Time 4. While as the social and adaptive functioning scores of the control group slightly decreased from Time 1 to Tome 2, no change scores from Time 2 to Time 3, and slightly increased from Time 3 to Time 4. It is noticeable that the social and adaptive functioning scores of the intervention group appeared to be higher than the control group from Time 2 Time 4 as illustrated in Figure 5.

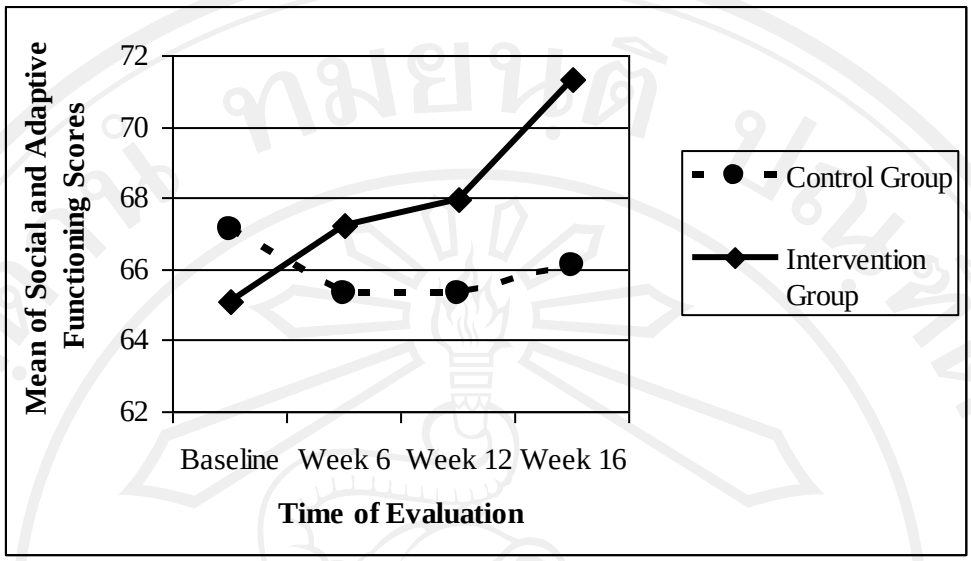


*Figure* 5. Mean social and adaptive functioning scores in relation to the school-based CBT group and usual care group across treatment. The graph shows the main effect in relation to groups.

*Part V: Intervention Evaluation*

*Intervention Evaluation from Adolescents with Depression*

In this part, the responses of twelve participants in two groups (six participants per group) who participated in this study were obtained and described from focus group discussion on the effectiveness of the school-based cognitive behavioral therapy program. The main purpose of focus group discussion, conducted at the end of the intervention, was to evaluate the opinions of participants towards the intervention. The findings revealed participants felt that they benefited from participation in the intervention group. The benefits expressed by participants could be classified as value and effects of information presented in the program on depressive symptoms, thoughts, and social and

adaptive functioning, skills acquisition, satisfaction with program management: steps, lengths of sessions, overall 12 weeks, and suggestions about the program.

*Value and effects of information presented in the program*

Participants perceived and reflected the value and effects of the program that they were improved after participating in the program. The improvement involved decreasing in the levels of depressive symptoms that they exhibited before attending the program. In addition, participants reported the improvement of negative automatic thoughts and social and adaptive functioning as they expressed.

*Depressive symptoms improvement*

Depressive symptoms are manifestations that cover negative affect (blues, depressed, lonely, cry, sad), positive affect (good, hopeful, happy, enjoy), somatic complaints (appetite, sleep), and interpersonal difficulty (unfriendly, dislike) (Radloff, 1977). After the program was initiated, participants expressed that their somatic complaints were lessen such as sleeping problems and fatigue because they knew how to control, and monitor, and manage their negative mood related to their physical symptoms as well as increase their enjoyable pleasant activities.

*"I'd ever tired during the day because I couldn't sleep at night. I wanted to sleep during school hours. The school was boring. When I learned to observe*

*my daily mood and activities and I knew what caused I felt low. I learned how to change it. I increased pleasurable activities I like to do during the day such as talking or eating lunch with my friends. I felt better and I can sleep at night." (I.D. 6)*

Some participants expressed the improvement of negative affect they felt less sad and lonely because they can solve their problems with school works and can schedule time to do things. Some examples are presented below.

*"I felt less depressed because I can complete my school works on time. Anyway, it's not all works but I felt better. If my parents asked me I did my homework, I'd say 'Yes, I did'." (I.D. 5)*

*"I am getting better. I can arrange time to do things. I can stay home after school and I can consider what to do to lessen from depressed mood." (I.D. 7)*

One participant demonstrated less negative affect from psychoeducation about the knowledge of depression he gains from group.

*"I like to be in this group because I didn't feel I'm alone. More, I don't feel bad because Ajarn Jeab (investigator's name) taught there's other people go through the same thing as me and they improved after using skills from the program." (I.D. 10)*

*"It feels really good to know more about connection of low mood and thought and our actions to it. I feel I have power to manage them." (I.D. 4)*

*Thought improvement*

Negative automatic thought is stream of unrealistic (distorted) and dysfunctional appraisals or interpretations-meanings individuals take from both internalizing and externalizing difficulties in adolescents from moment to moment. Negative automatic thoughts cover physical threat, social threat, personal failure, and hostility. Participants expressed that they learned more awareness of both negative and positive thoughts. They can investigate and identify which negative thoughts they have most often or which thoughts induced the problems and caused depressive symptoms. They learned to think positively about others and themselves. They learned to change negative thoughts and to control their feelings by developing positive, rational counter-thoughts for their negative thoughts. As few participants stated "*Now I can notice my negative thoughts and I know I can think differently. When I feel down I think differently, I feel better*."

One participant expressed she understood her negative thought that was distorted. Thus, she replaced her negative thought with a realistic thought. This method solved the problem with her boyfriend caused she felt better.

*"When my boyfriend didn't call back a couple times, I assumed he had another girl and felt mad. This is a jumping to conclusion that I assumed without checking the evidence. I used recognizing and talk back realistic thought to solve my understanding with my boy friend." (I.D. 11)*

One participant expressed her negative thought (black and white) towards her teacher. She changed her negative thought with a positive and realistic thought. Then her issue was solved.

*"I changed my attitude towards my English teacher. She wasn't pure biases. I can see that her suggestions were right sometime. It relieved my pressure when I changed my black and white thinking. In addition, English is necessary for the university entrance examination in the next 2 years. I have to try more to pass it." (I.D. 9)*

*Social and adaptive functioning improvement*

Social and adaptive functioning is the degree to which an adolescent fulfills key social roles in his or her life. Social and adaptive functioning cover school performance, peer relationships, family relationships, and home duties/self care. The improvement of social and adaptive functioning was expressed by participants.

One participant used communication skills to solve relationship problem with his mother. In addition, he increased pleasant activities to readjust activities at home.

*"I talked with my mom more. I knew from the program that I should express my feeling to my mom in the right way. So, after I tried using new speaking skills I better understood my mom, we better understood each other. I felt better. Now, I don't stay alone in my room after school. I helped my mom*

*take care my younger brother. I felt more positive in my home situations." (I.D. 2)*

Another participant stated that he withdraws from friends and pleasurable activities he used to do when he depressed. After he applied increasing pleasant activities, relaxation, and restructuring thought, his relationship with friends was improved and he increased rate of doing enjoyable activities.

*"I joined a football team with my friends as before. Although my friends laughed my clumsy skills, I used deep breath relaxation 3 times before I told them I would try more. I felt happier with them because I changed my thoughts more positive with them. I have more friends now." (I.D. 1)*

Learning strategies of communication, assertive, and compromising helped participants to cope with the problems that are related to the lack of social and adaptive functions resulted from their depression. These practices help solve-problems and build healthy relationship. One participant stated the use of assertive skill, "*I gained my courage to talk with my teacher when I think I'm right in an appropriate way. I did get assertive method to ease my situation.* "

*Additional Value and effects of information presented in the program*

Participants valued researcher for helping them to feel better. One participant said *"Teacher Jeab (the investigator's name) was very warm, helpful, and knowledgeable. Teacher understands us. Skills I practiced changed my life." (I.D.1)* Another value is psycho-education that helped participants enhanced and accepted their depression, as one participant said, "*I got information about*

*depression. I checked my symptoms I found many symptoms occurred in me such as crying, being alone, not joining school activities. More important I knew that depression can occur in anyone and I can combat it. I can treat myself if I learn practice skills from the program. I felt better when I knew this. Now, I get on better with my school*." *(I.D. 10) Another participant stated "The program taught helpful things to use in daily life. It prepared me to fight with problems."*

*Skills Acquisition*

Participants demonstrated examples of how they applied skills learned in the school-based CBT program to their daily life. These skills were mood monitoring, realistic counter-thought, assertive skill, communication skill, and compromising and problem solving.

Mood monitoring is a form to record situations, events, and thoughts that are connected to feeling daily. Participants became to understand the connections between emotions and thoughts in their own context, sufficiently to become aware and see what is working best for them. The participants' sense awareness of controlling their behavior and changing their depression increased while practicing mood monitoring. As one participant stated, "*I recorded my daily mood by using mood monitor form. The record told me that everyday I had both bad and good feeling. Although I had bad feeling more than good feeling, practicing mood monitor record helped me better understand my mood changes and aware of it. I know ways to control my mood." (I.D. 9)*

Realistic counter-thought is the technique to challenge negative automatic thoughts by using contradictory evidence, Socratic questioning, role playing and role reversing and generate a list of realistic and positive thoughts to "talk back to" negative automatic thoughts. They practiced to think realistic and positively about others and themselves. These techniques helped adolescents to control and change or replace their negative automatic personal thoughts and negative automatic non-personal thoughts of other people and things with the realistic and positive automatic thoughts (Clarke, Lewinsohn, & Hops, 2000).

One participant stated the use of counter-realistic thought, "*The story of coach A and B really directed to my past. I agreed with the story that most people often coach themselves as coach A that focused on what went wrong rather than what we achieved from that. I used contradictory evidence and Socratic questioning to elicit a clear and more positive and realistic thinking. My negative thoughts were lessen." (I.D.8)*

Social and adaptive functioning skills are the appropriate skills participants practiced such as social interaction, assertion, communication skills, and problem solving. The feedback of using social and adaptive functioning skills in the CBT group helped participants to notice the good things they did and pointed out some areas that need improvement. This training helped participants to gain control in social and adaptive functioning situations.

One participant expressed the use of assertive skill in an appropriate way by changing non-assertive behavior to assertive behavior and helped better his situation with school teacher, feel better, more confident, and less depressed, "*Assertive skill role play helped me a lot. I gained my courage to talk with my*

*teachers when I thought I'm right in an appropriate way. I did get assertive method to ease my situation.*" *(I.D. 11)*

Another participant expressed the use of communication skills to make friends and join social activities. Before attending the program she depressed and withdrew from friends and her enjoyable activities. After practicing conversation and friendly skills in social situations, the feedback and role-playing helped her to recognize how to begin, joining, and leaving from social group activities. So, she improved her social and adaptive functioning with her friends as well as new friends and felt comfortable and better impression with self in joining with friends, *"I did the method of finding and starting communication with new friends and joining friend's activity. Before attending the program, I just didn't like I could talk to my friends. I felt like my friends and new friends thought 'I'm strange'." (I.D. 1)*

Moreover, one participant expressed the use of compromising and problem-solving to solve the problem with her mother and improve her duties at home. She practiced to see how realistic or unrealistic of her mom's request and try to understand her request. She learned steps of problems and compromising by positive, specific, feelings expression, brief, and not accuse. These skills are essentials for resolving her mom's complaints and preventing minor conflicts from becoming serious between her mom and her. They help to maintain good relationship and harmony in her family, *"When my mom blamed me I didn't help with the house works and compared me with her relatives' sons, I listened to her and tried to understand her points. Then, I negotiated with her to solve the*

*problem by using brain storming method. We helped finding solutions. The solutions did work." (I.D. 4)*

One participant stated the value of homework practicing. There are homework assignments between sessions. These homework help adolescents to learn new skills and practice these skills lead to better depressive symptoms, negative thoughts, and social and adaptive functioning, "*I think homework helped me more understand myself and events in my life. So, I know my unreasonable thoughts which caused me sad and practiced to modify and changed them*." *(I.D. 3)*

*Satisfaction with Program and Suggestions*

Participants satisfied and agreed that the program helped them. They had improvement from their depressive symptoms, had less negative thoughts, and functioned well with family, friends, and schools. In addition, they expressed their satisfaction and suggestions with the program sessions in three aspects: the length of the session, frequency of program session, and overall program session as presented below.

*The length of the session (an hour):* Most participants expressed positive acceptance with 1 hour session. However, some participants suggested increasing the time for each session.

"*I want a longer time because I feel good with the group and I got the answer from the group*".

"*The time should increase because I think each session finish too fast*".

*Frequency of program sessions (once a week):* Most participants expressed that it should be more than one session a week. They wanted more time to practice skills.

*"I suggest 2 times a week".*

*"I think it should be more than one session a week".*

*"I want more time to practice skills."*

*Overall 12 weeks:* All participants expressed that the overall 12-week was appropriate.

*"I felt that 12 weeks was a good length because I learned many things and enough to see my change."*

Participants also stated that they want to share the program with others adolescents. One participant stated *"I suggest to provide this program to other teens both depressed and non-depressed."* However, two participants suggested they want to have some sessions of the program with their parents such as communication skill, problem solving, assertive, and negotiation. One participant stated "*My mom didn't change the way she communicates with me even though I did change myself. I think it will be helpful if she attends the group and practice some skills.*"