

The Social and Emotional Learning Intervention Program for Reducing Risky Sexual Behaviors in Upper High School Students

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ABSTRACT

The purpose of this research was to develop the social and emotional learning intervention program for reducing risky sexual behaviors in upper secondary school students in Thailand. The intervention program was assigned to the purposively chosen students in Bangkok. The students which have risky sexual behaviors were selected and the sample (n = 60) was divided equally into two groups, the experimental group (n = 30) and another was in control group (n = 30). The developed social and emotional learning intervention program consisted of concept, six intervention activities which were Dealing with stress, Teenage Love, Self-belief, Health counselling, Emotional management through Board Games, Camping and evaluation. The intervention program duration was nine weeks. The finding showed the effect of applying the intervention program which can lower risky sexual behaviors in experimental group at the .05 level of significance and also lower than students in control group at .05 the level of significance as well.

Keywords: school health, social and emotional learning, sexual behaviors

INTRODUCTION

For many years, the integration of inappropriate foreign cultures have rooted unhealthy changes in sexual values and behaviors for the Thai youths. These values are frequently conflicting with the refined Thai cultures and traditions. For example sexual relationship and appearance of sexual behavior is more common in the public area like the community or in school. Previous studies indicate that freedom and curiosity are key personalities of youngsters. These two features often influence their self-confidence, value, and courage, which result in behavior construed as sexual risks. Today, the average age of Thai teenagers having sex for the first time is lowering. In the year 2009, Thai youths who had sex for the first time were reported at the age of 15-16 years. Places for their first-time sex relations were their own home or friend's residence. A recent survey in Thailand points that students in upper high school (Grade tenth-twelfth) tend to have sexual intercourse without using condom more than before and the rate of STIs (Sexually Transmitted Infections) among upper high school students are on the rise. These behaviors are the cause of teenage abortion and STIs in Thailand which are at the highest rank in Southeast Asia. (Control, 2011; Ministry of Public Health Thailand, 2011; Pothisita, 2004).

SEL is a learning process that enhance mental health of the learners. Many techniques and methods are used to provide many dimensions of mental health including social skills, emotional quality, life skills, and decision-making skills. The Collaborative for Academic, Social, and Emotional Learning has provided five social and emotional learning components: 1) Self-awareness, 2) Self-management, 3) Social awareness, 4)

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Responsible decision-making, and 5) Relationship skills. These components help learners gain the ability to manage their emotions, to be attentive and considerate to others, to be responsible for their own decisions, to develop positive relationships with others, and to cope with situations effectively. The previous studies also reveal that social and emotional learning can promote the development of learners' physical and mental health. Moreover, it can shield them from substance abuse, social isolation, and other risks (CASEL, 2010; Doll, 1998; Greenberg, 2003; Kenneth W. M., 2008).

Thus, the researcher is interested in developing the social and emotional learning intervention program for reducing risky sexual behaviors as well as guiding teachers in promoting activities to improve students' health with social and emotional learning concepts that are qualified for upper high school students' reduction of sexual risky behaviors.

RESEARCH GOALS

The goal of this research was to develop the intervention program by using the social and emotional learning concept which has five elements: 1) Self-awareness 2) Self-management 3) Social awareness 4) Responsible decision-making 5) Relationship skills for reducing risky sexual behaviors in upper high school students in Thailand. In achieving this goal, the effects of the intervention program were studied after applied to students in order to improve the intervention program.

PARTICIPANTS

The social and emotional learning intervention program was managed in a secondary school in Thailand. The school was selected by random sampling. The student in 10th -12th grade took a stress test and risky sexual behaviors tests (knowledge, attitude and behaviors test). Only 60 students who exemplified moderate stress and moderate or high risky sexual behaviors were chosen for this experiment. Then, the students were divided randomly into two groups; experimental group (n = 30) and control group (n = 30). The group which participated in the intervention program were called "The experimental group" another group which were not joined the intervention program were called "The control group"

There was no significant difference in stress score and risky sexual behaviors score in the pretest between experimental group and control group ($p > 0.05$).

ETHICS

The Ethics Committee of Chulalongkorn University approved of the intervention program. Written consent forms were collected from every participants.

METHODS

The Development of Social and Emotional Learning Intervention Program and Appliance

The development of the social and emotional learning intervention program was divided into 4 phases .In the first phase, the theories, frameworks and researches related to Social and Emotional Learning concepts were studied for developing the intervention program. During the second phase, all of the theories and literatures were collected from the first phase and were categorized into a concept, activity and evaluation. The health promotion program was sent to 7 experts to check for the content validity. After the index of congruence met its standard, the intervention program was used for the experimental phase. The third phase is the experimental phase. In this phase, the intervention program was applied as an after school program. Students in experimental group attended the intervention program for nine weeks and after the intervention program was ended they took the sexual behavior tests again to see the effects of the intervention program. The last phase is the social and emotional learning intervention program development phase. The results of the intervention program from the third phase were collected and analyzed after applied to the experimental group then the intervention program was improved and corrected. The **Figure 1** shows the flowchart of development of social and emotional learning intervention program and appliance.

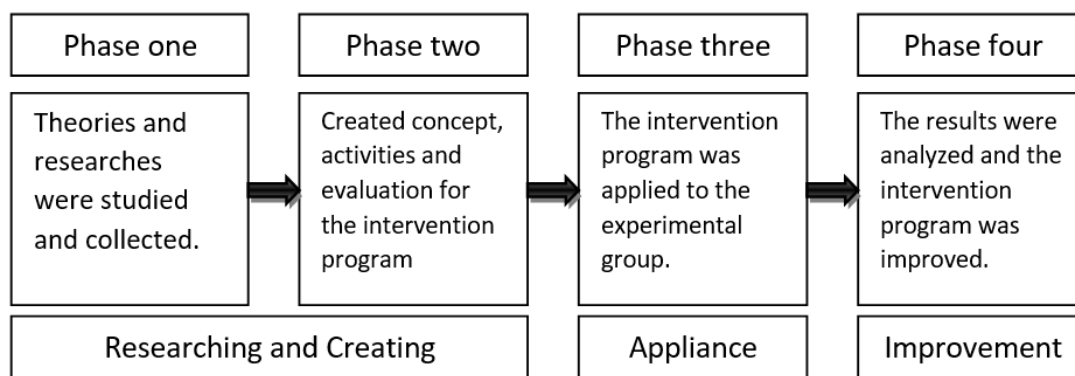


Figure 1. The development of social and emotional learning intervention program and appliance

Table 1. The appliance of social and emotional learning intervention program

Week	Activities					
	Dealing with stress	Teenage Love	Self-belief	Health counselling	Emotional management through Board Games	Camping
1. Day1	✓					
Day2				✓		✓
2. Day3		✓				
Day4				✓		✓
3. Day5			✓			
Day6				✓		✓
4. Day7						✓
Day8				✓		✓
5. Day9						✓
Day10				✓		✓
6. Day11						✓
Day12				✓		
7. Day13						✓
Day14				✓		
8. Day15						✓
Day16				✓		
9. Day17						✓
Day18						✓

The social and emotional learning intervention program was use as an after school program. The duration of the intervention program is nine weeks. Students in the experimental group had to participate in the intervention program twice a week as shown in **Table 1**.

Risky Sexual Behaviors Test

All the participants in this research were required to take risky sexual behaviors tests (knowledge, attitude and behaviors test) to evaluate their sexual behavior before and after participated in the intervention program. In the sexual behavior knowledge test, there were twenty questions with four multiple choices. The sexual behavior attitude test has fifteen questions which ask students' opinion about sexual behaviors and the sexual behaviors test also has fifteen questions asking about students' sexual behaviors. All the sexual behavior tests had great validity and reliability, the IOC were rate by seven experts as 0.95, 0.98 and 0.97 and the reliability were analyzed as 0.83, 0.82 and 0.81 respectively in the three tests. Only for those who had medium or high risky sexual behavior in each test were chosen to participate in the intervention program. The criteria of sexual behavior scores were shown in **Table 2**.

Table 2. The criteria of sexual behavior scores

Tests	Score	Criteria
Sexual Behavior Knowledge	0-10	High risky sexual behavior
	11-15	Medium risky sexual behavior
	16-20	Low risky sexual behavior
Sexual Behavior Attitude and Risky Sexual Behaviors	0-20	Low risky sexual behavior
	21-40	Medium risky sexual behavior
	41+	High risky sexual behavior

Table 3. The objectives of six activities in the social and emotional learning intervention program

Activity	Objective of activity	Social and emotional objective
1. Dealing with Stress	To provide the students with the knowledge about stress and how to manage stress properly	1) Self-awareness 2) Self-management 3) Social awareness
2. Teenage Love	To promote the students to perceive the nature of problems and impacts of inappropriate sexual behaviors	1) Self-awareness 2) Social awareness and 3) Relationship skills
3. Self-belief	To induced the students to see the value in themselves	1) Self-awareness 2) Self-management 3) Responsible decision making
4. Health counselling	To provide the students with the guidance on the health promotion according to their age	1) Self-awareness 2) Self-management 3) Social awareness
5. Emotional management through Board Games	To promote the thinking process, planning strategy, systematic thoughts.	1) Self-management 2) Responsible decision making 3) Relationship skills
6. Camping	Comprised of various sub-activities such as sexual knowledge guidance, adventure and recreational activities. These activities help establish the self-learning process and promote all essential skills such as thinking, knowledge and practice skills.	1) Self-awareness 2) Self-management 3) Social awareness 4) Responsible decision making 5) Relationship skills

Data Analyses

All the data from the tests were stored before and after the experiment and were analyzed by the Statistical Package for the Social Science for Window (SPSS). All data was double checked to abstain any errors. The results of applying the intervention program were evaluated at pre-intervention and post-intervention. The evaluation was done before and after participation in the intervention program. In the experimental group, the score of risky sexual knowledge, attitude and behaviors were performed by a t-test for dependent sample. The score of risky sexual knowledge, attitude and behaviors between the control group and the experimental group were performed by a t-test for independent sample. All the data were statistically significant (p -value < 0.05).

RESULTS

The Developed Social and Emotional Learning Intervention Program

The Intervention program was based on social and emotional learning concept which composed of the five elements; 1) Self-awareness 2) Self-management 3) Social awareness 4) Responsible decision-making 5) Relationship skills, together with the six learning activities including 1) Dealing with stress 2) Teenage Love 3) Self-belief 4) Health counselling 5) Emotional management through Board Games 6) Camping and evaluation .This intervention program meets the standard of the quality control by the experts as its index of congruence (IOC) is 0.87. The duration of the health promotion program was eight weeks. The objectives of six activities is shown in **Table 3**.

Table 4. The results of applying The social and emotional learning intervention program on experimental group

	Max Score	n	Pre-test		Post-test		t	p
			\bar{X}	SD	\bar{X}	SD		
Sexual Behavior Knowledge	20	30	13.77	2.40	16.50	1.83	-4.83	0.00*
Sexual Behavior Attitude	75	30	40.23	5.56	53.83	6.25	-8.99	0.00*
Risky Sexual Behaviors	60	30	35.47	4.59	29.00	4.29	5.60	0.00*

*The difference of mean scores between pre-test and post-test was statistically significant ($p < 0.05$).

Table 5. The comparison of average scores after applying The social and emotional learning intervention program between experimental group and control group

	Experimental Group (n=30)		Control Group (n=30)		t	p
	\bar{X}	SD	\bar{X}	SD		
Sexual Behavior Knowledge	16.50	1.83	14.43	1.54	-4.71	*0.00
Sexual Behavior Attitude	53.83	6.25	38.70	4.99	-10.36	*0.00
Risky Sexual Behaviors	29.00	4.29	42.57	6.12	9.93	*0.00

*The difference of mean scores between experimental group and control group was statistically significant ($p < 0.05$)

The Results of Applying the Social and Emotional Learning Intervention Program in Experimental Group

A comparison of pretest and posttest average scores on stress, sexual behavior knowledge, sexual behavior attitudes, and risky sexual behaviors from the experimental group is shown in **Table 4**.

Table 4 indicates that the average scores of sexual behavior knowledge and sexual behavior attitudes of the experimental group are at a level of statistical significance (p -value < 0.05) after receiving the intervention program. The pretest average score on sexual behavior knowledge is 13.77, whereas the posttest is 16.50. The pretest average score on sexual behavior attitudes is 40.23, while the posttest is 53.83.

The average scores of risky sexual behaviors of the experimental group of students are at statistical significance level (p -value < 0.05) after receiving the intervention program. The pretest average score on risky sexual behaviors is 35.47, while the posttest is 29.00.

The Comparison of Applying the Social and Emotional Learning Intervention Program between Experimental Group and Control Group

A comparison of pretest and posttest average scores on sexual behavior knowledge, sexual behavior attitudes, and risky sexual behaviors between the experimental group and the control group that did not receive the intervention program is shown in **Table 5**.

Table 5 reveals that the posttest average scores of risky sexual behaviors of the experimental group of students who received the intervention program are at statistical significance level of .05 lower than those of the control group that did not receive the health promotion program. The posttest average score on risky sexual behaviors for the experimental group is 29.00 compared to 42.57 of the control group.

The posttest average scores of sexual behavior knowledge and sexual behavior attitudes of the experimental group of students who received the intervention program are at the statistical significance level of .05 higher than those of the control group. The posttest average score on sexual behavior knowledge of the experimental group is 16.50 compared to 14.43 for the control group. The posttest average score on risky sexual behaviors for the experimental group is 53.83 compared to 38.70 for the control group.

DISCUSSION

The Development of Social and Emotional Learning Intervention Program

The social and emotional learning intervention program is composed of the five elements of social and emotional learning concepts: 1) Self-awareness 2) Self-management 3) Social awareness 4) Responsible

decision making 5) Relationship skills, together with the six learning activities: 1) Dealing with stress 2) Teenage Love 3) Self-belief 4) Health counselling 5) Emotional management through Board Games 6) Camping and evaluation. This intervention program meets the standard of the quality control by the experts as its index of congruence (IOC) is 0.87. The five elements of social and emotional learning concepts positively affected the students engaging in the intervention program. The students changed their knowledge and attitude for the better, and reduced their risky sexual behaviors. The result is in accordance with the research conducted by Marrell et al. (2008), concerning the evaluation on the students' knowledge of society, emotion and emotional disorders. The findings suggest that the score of the students' social and emotional knowledge was significantly higher. Their social and emotional disorders were significantly reduced ($p < 0.5$). Furthermore, Caldarella et al. (2009) studied the development of students in grade two regarding their social and emotional learning. The two independent variants were the social and emotional learning, the four dependent variants were desired covert behaviors, desired overt behaviors, demonstration of desired behaviors to others, and emotions. The scores of the students' desired covert behaviors, desired overt behaviors, and demonstration of desired behaviors to others were significantly higher than their own score before the experiment and was also significantly higher than the score of those in the control group ($p < 0.5$).

The first activity – “Dealing with stress”, is suitable for students since most of them suffered from stress that was physically, mentally and emotionally charged, as well as external factors which were socio-economic factors, academic competitions and expectations from parents. The experiment showed that stress truly relates to the student's risky sexual behaviors (Beth, 2001). When the students were less stressed, their risky sexual behaviors decreased accordingly.

The second activity, “Teenage Love” promoted the students to perceive the nature of problems and impacts of inappropriate sexual behaviors, such as, sexual intercourse during school age, inappropriate sexual behaviors to the opposite gender, and unprotected sex. This activity deployed the media in order to raise the students' awareness which resulted in a change in their attitude and a change in their sexual behaviors in accordance with the regime against risky sexual behaviors. The regime against risky sexual behaviors aims to promote the proper knowledge about sex to teenagers. This proper knowledge is the main factor that helps lower the potentially risky sexual behaviors in teenagers (Cartagena, 2006; Magnani, 2005; Roberts, 2005; Zamora, 2006)

The third activity, “Self-belief” enable the students to see the value in themselves. Several studies indicate that when ones realize the value and abilities they have, they tend to have less potentially risky sexual behaviors (Magnani, 2005; Nopparat, 2000; Samul, 2002). Therefore, the realization of value and abilities in one's self could help lower the potential of risky sexual behaviors.

The fourth activity, “Health promotion counseling”, provided the students with the guidance on health promotion according to their age, as well as suggestions for their sexual wellness, which helped lower their risky sexual behavior. This activity relates to the concept of the environmental development for promoting appropriate sexual behaviors by giving them sexual knowledge based on appropriate communication and guidance (Gallegos, 2007; Mbugua, 2007).

The fifth activity is “Emotional management through Board Games”. Go is a board game sport which promotes the thinking process, planning strategy, systematic thoughts, as well as the reflection for daily life concerns. The preventive way to reduce risky sexual behaviors in teenagers is to promote their analytical thinking (Cartagena, 2006; Magnani, 2005; Roberts, 2005; Zamora, 2006). The students were able to enhance their analytical thinking skills when attending the “Go and emotional management” activity.

The sixth activity, “Camping”, comprised of various sub-activities such as sexual knowledge guidance, adventure and recreational activities. These activities help establish the self-learning process and promote all essential skills such as thinking, knowledge and practice skills. The six activities of the health promotion program are in accordance with the Social and Emotional Learning concepts resulting in promotion of the students' self-awareness, self-management, social awareness, responsible decision-making and relationship skills. This could help lower risky sexual behaviors as stated in the research. The research focused on the evaluation of social, emotion and emotional disorders of the students (Merrell, 2008). It was found that the score of Social and Emotional Learning was statistically higher than before the experiment, and could significantly lower the social and emotional disorders ($p < 0.05$). The research involved with the development

of social and emotional learning of students in grade two regarding their social and emotional learning (Caldarella, 2009) .There were two independent variants which were the social and emotional learning and four dependent variants which were desired covert behaviors, desired overt behaviors, demonstration of desired behaviors to others, and emotions .The scores of the students 'desired covert behaviors, desired overt behaviors, and demonstration of desired behaviors to others are significantly higher than before the experiment ($p < 0.05$).

CONCLUSIONS

The social and emotional learning intervention program consisted of six activities: 1) Introduction to stress 2) Love in teenagers 3) Self-realization 4) Health promotion counselling 5) Go and emotional management 6) Camping and evaluation. This intervention program was significantly reduced upper high school students' risky sexual behaviors in Thailand.

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Disclosure statement

No potential conflict of interest was reported by the authors.

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