CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This last chapter presents the discussion and conclusion of the study. Implications and recommendations of the findings are discussed. Finally, limitations of this study are raised.

Discussion

The discussion of the findings of the research for development of the sexual and reproductive health program for early adolescents is divided into three topics: 1) The development of sexual and reproductive health education program; 2) Workable relationship: Partnership strategies; 3) Integrating the SRH education program into schools

The Development of Sexual and Reproductive Health Education Program

In reviewing the development of the SRH education program, three components are discussed:1) stakeholders 2) outcome-program (contents and learning methods) and 3) evaluation of the program

1. Stakeholders

The results of this study show that the participation of all significant stakeholders -the early adolescents, families, communities and schools including state and private agencies- is an important factor in creating an environment favorable to building the capacity of early

adolescents to be important agents of change in promoting sexual and reproductive health among teenagers.

Providing an opportunity for every party to be involved in the sexual and reproductive program development from the initial stages of planning to the stages of implementing. piloting and evaluating the program made this program successful and resulted in a sense of ownership of the program among those who joined the program development. This, eventually, will lead to sustainable change when the program is implementing in schools on a serious and continuously basis. This process by which all stakeholders participate in promoting the sexual and reproductive health of early adolescents demonstrates the resultant power which lead to change and represents the highest success of this study. Howell, Flaim, and Lung (1992) noted that an effective program does not consist of a passive transfer of information. Rather, it involves the participants in an interactive manner with an emphasis on skill building that is enhanced by effective communication and frequent feedback. Participation, in turn, relates to the principle of "ownership" that is, that people have a sense of responsibility for and control over promoting changes in their behavior and health status. In this study, youth involvement in all aspects of program implementation, and the promotion of young peoples' rights was applied. This was to ensure protection of youth against neglect and exploitation and to guarantee to them their basic sexual and reproductive rights including development and full participation in social, cultural, educational and other endeavors necessary for their individual growth and development.

The process of participation of the family by involving parents to join the group of developers of this program was aimed at reducing the conflicts and obstacles in teaching sex

education to early adolescents and also to build the capacity and empower parents to create an environment favorable to the promotion and development of sexual and reproductive health for early adolescents. Regarding participation at the society and community level, the schools were enlisted to take part in the program as they have an important roles in molding appropriate behavior and cultivating the ideas and values of early adolescents. As early adolescents spend most of their time in school that is the primary place for them to receive correct knowledge and information about sex. Having the schools involved is a tactic for developing the resources of sexual and reproductive health knowledge for the students and also for building the capacity of the participants who are responsible for this issue in school, whether the teachers or students, to disseminate the knowledge more effectively. Including the school administrators and local policymakers ensures implementation of this program into schools through the support of policy and administrative planning.

In this study, community resources were also enlisted in the form of the participation of youth leaders in the community whose capacity for disseminating the knowledge about sexual and reproductive health was developed. These youths also gained additional skills and self-confidence and were employed by the process of developing program content, learning methods and teaching materials and being leading trainers/facilitators to impart the knowledge effectively. Broader involvement was achieved by the participation of other important parties, which included health workers, state agencies, and NGOs who work in the area of sexual and reproductive health promotion in young people and also the press. This group of people acted as a social agents for change since their participation in critiquing and expressing opinions about the developed program helped create new points of view and

broader dissemination. This supported the implementation of the program, resulting in the exchange of information, the idea for applying this program in their agencies and building a network of cooperation to promote sexual and reproductive health in young people, particularly early adolescents.

It has been shown that to promote the health of teenagers, they must be included in the process of developing the program. (Egger, Spark, Lawson, & Donovan, 1999). This study emphasized the participation of early adolescents to develop their capacity and enhance their power. It also found that capacity building in early adolescents by the process of group experience exchange promoted awareness and reflection on their own actions. Brainstorming, planning, and learning how to work together in the activity of sharing the sexual and reproductive health information with their friends enabled the students to develop their self-awareness and their ability to assess their own capacity. They were empowered to apply the knowledge for their own benefits and disseminate it to their friends, families and communities. The findings are in line with a study entitled "The Network of the Leading Youths for Sexual and Reproductive Health Focusing on the Involvement of Youths, Families and Schools (Fongkaew, Jantarawijit, Suchaxaya, Parisanyakul, Chuto, Rutchanagul & et al, 2002) which found that teenagers who have their capacity developed could be leaders by changing the way they take care of their own sexual and reproductive health and be able to convince their friends to avoid and reduce sexual risk behaviors.

2. Outcome-program

2.1) Content

The content of the program parties includes several topics relevant to the main element or structure of the so-called "Comprehensive Sexuality Education Program" or "Abstinence-Plus Sexuality Education Program". These programs can prevent premature sex, encourage abstinence and adjust behavior of teenagers who have been sexually active to have safe and responsible sex to protect themselves from sexually transmitted diseases and unwanted pregnancy. According to the World Health Organization (WHO), sex education based on an abstinence-only program cannot delay sexual relations among teenagers, so it supports the "comprehensive" or "abstinence-plus" sexuality education program.

Those programs include the following main concepts: 1) human and sexual development 2) relationships 3) sexual behaviors 4) sexual and reproductive health 5) personal and life skills 6) society and culture (UNESCO PROAP, 1998). In past sex education preparation in Thailand, the framework of these main concepts has been used to set the core values of life and family education for teaching in schools. After considering the findings on needs regarding content for the sexual and reproductive health program as requested by early adolescents, parents and teachers, it is clear that they are related to the characteristics of the comprehensive or abstinence-plus sexuality education program and cover all elements associated with the main topics, though slightly different. The core content desired by key stakeholders in providing sexual and reproductive health education for early adolescents included four core concepts of

include 1) Human and sexual development 2)Relationship 3) Sexual health and rights and 4) Gender

2.2) Learning method

The researcher found that the research assistants including parents and teachers understand and realize the necessity for sex education but they are not confident taking the role of educator for their children. Letting senior students teach sex education to younger students may be a good idea but the parents and teachers were not sure whether senior students could perform the duties properly. If taught incorrectly, it may be, like the Thai proverb says, "showing a hole to squirrel" and perhaps lead children to experiment with sex. Previous studies have found that the most effective way to give sexual and reproductive health education is to apply the participatory learning method offering knowledge, attitude adjustment, essential skills enhancement and; importantly, the improvement of learners' capacity to help themselves and others. This yields the highest success (UNFPA 2000). Media and teaching materials have also looked at seriously. It is generally now accepted that well-designed and well-implemented media based on sound communication principles like the edutainment approach and developed in close cooperation between health and media professionals have had sustainable impact in health promotion (Donovan, Leivers, 1993; Reid, 1996). The teaching-learning style called peer education is another choice that enables children and teenagers to access sexual and reproductive health information effectively.

'Participatory Learning' is a learning process that recognizes the ability of the learner to be self-direct, while facilitators assist in the learning process. Participatory learning is very effective for adolescents because their cognitive abilities are up into the formal operational stage of cognitive development (School Health Division, 1997). Participatory learning is also the most effective method in children-centered study as it enables students to think, exchange and reflect on their experiences and thoughts with the peer group. In this way, children do not only learn the subject skills and knowledge but also improve their other life skills such as working in a team, building good leadership and followership ability and creating harmony in the group. The transfer of knowledge, skills, values and attitudes about sexuality to early adolescents has been a sensitive issue and a problem for educators/teachers, especially those who do not understand the real meaning of sex education and sexual and reproductive health. Meanwhile, Thai society has regarded sex as a private matter not to be discussed openly. Parents are expected to act as the initial knowledge source for their children, but to the contrary, the findings are that early adolescents prefer to get knowledge about sex from senior students because they can ask questions without fear of being scolded. Asking adults about sex, would be viewed as improper. From the adults' perspectives, having senior students teaching younger students or friends teach friends would be a good method as children of the same age understand each other better. However, they felt the senior students must be well trained so that students were not led to experiment with sex. This is in line with the literature review which states that for children during puberty, it is uncomfortable for them to talk about sex

with their parents whom they consider models of appropriate behaviors only (Graber & Archibald, 2000). The idea of peer education, thus, is another option that has been applied to teaching sexual and reproductive health. Peer education means training and building the capacity of young people to be capable of transferring knowledge and essential skills as well as rights, values and attitudes to their friends. It is in accordance with the findings showing that the application of participatory learning method and peer education principles to impart the knowledge led to the cooperation and interest of the early adolescents who joined this pilot program. It also built the capacity of teenagers to successfully extend the knowledge they gained to their schools and communities. Building the capacity of teenagers to be peer-educators was essential for developing the sexual and reproductive health program. Recognizing teenagers as an asset of the community and improving their capacity as a trainers helped make the transfer of knowledge effective.

This study revealed some interesting points for consideration. For one thing, the necessity of promoting right knowledge, understanding and attitudes about sexual and reproductive health for educators is a priority. After obtaining correct knowledge and understanding, the educators would not regard teaching sex education as obscene and/or humorous. In addition, senior students as peer-educators were good at encouraging early adolescents' attention, enthusiasm and acceptance of the information taught.

There is another interesting point regarding giving the knowledge about sexual and reproductive health to their friends in schools and communities. It was found that

early adolescents without experience of sex had difficulty promoting an awareness of right and proper values and attitudes towards sex and transferring the knowledge about readiness to have sex and masturbation, etc. Also, they got embarrassed when teaching to their friends. That caused the transfer of knowledge to be ineffective, impeding the promotion of awareness. Senior students were able to transfer the knowledge more comprehensively and better promote awareness. This is possibly due to the context of Thai society in which children are expected to obey and respect elder people. Early adolescents are in the initial stage of learning about their sexual development, so their limited experience could render them unable to teach their friends.

Peer education or having youth leaders give the knowledge about sexual and reproductive health has been practiced continuously in Thailand, including the development of courses for factory workers by the AIDS project of the Thai Red Cross (1998), for female teenagers in Thailand by the AIDS Division (1998), and the Friend Corner Project by the Reproductive Health Division, the Ministry of Public Health (2000). In Chiangmai, a project was created to prevent HIV/AIDS in teen students (Srisuphun, Seneratana, Fongkaew, Potjananmart, & Soparat, 2001), and later, a study was conducted to build a network of youth leaders for sexual and reproductive health promotion. These studies concluded that having friends teach friends is an effective way of giving knowledge about sexual and reproductive health since friends have great influence in changing the attitudes and behaviors of teenagers. However, none of the studies focused on early adolescents. It can be

concluded however, based on the findings of this study, that senior students would be the most appropriate to transfer the knowledge about sexual and reproductive health to early adolescents who could take leading roles in extending the knowledge to their friends as well.

The edutainment approach means increasing the use of the media for health promotion to achieve social change objectives (Eager, Spark, Lawson, & Donovan, 1999). In this study, media and teaching materials were developed by using the edutainment approach, which aims to reach young teens and have impact on them. The primary advantage of edutainment is the ability to attract the attention of people who might otherwise deliberately avoid messages that appear in an obvious educational form (Eager, Spark, Lawson, & Donovan, 1999). This is accordance with the findings from this study, which showed that information alone is insufficient to arouse emotions and motivate people to cease unhealthy behavior and bring about desired behavior changes. The edutainment approach offers a favorable learning environment and promotes learning accomplishment on issue related to sexual and reproductive health among early adolescents.

3. Evaluation of the program

Giving knowledge about sexual and reproductive health by implementing the developed program can enhance the knowledge and promote right attitudes for early adolescents. It is clear that children joining the pilot program have previously received little or no the knowledge/information about sexual and reproductive health, even though the Ministry of Education has set up guidelines for organizing the

curriculum of sex education under the name "Family Life Education" to teach students over a period of 12 years from Prathom 1 to Mathayom 6. The guideline lays out a main concept plan and instructs the schools to apply the curriculum in teaching early adolescents in the class of sex education. Children are taught only information focusing on the physical changes and sexual development. Other issues of the interest to the children are taught in Mathayom 2, which is too late in opinion of the children themselves, as well as their parents and teachers. The content is much less through than in the program developed in this study. When the test on knowledge and attitudes about sexual and reproductive health was conducted, the scores after the program were higher compared to those before the program with statistical significance.

This research also reveals that sex education must focus on promoting right attitudes while giving necessary knowledge and skills to create a value shift in early adolescents. This tends to lead them to express the proper sexual behaviors rather than simply giving them the necessary knowledge and skills. The researcher made this assumption based on data gained after follow-up conversation to assess the program users by asking about the changes in terms of thoughts and values after attending the program. Most adolescents felt that their thinking had changed. They used to think there was nothing wrong in new generation teenagers having premature sex and that is was normal to do so. However, after joining the program, they felt differently about Thai teenagers' sexual values, and gave consideration to what characteristics new generation teenagers should possess. The lessons from the

reflection of their own thoughts and those of the peer group made them shift their values system so they could be the kind of teenagers they admire and respect. However, it is necessary to conduct a longitudinal study to follow the behaviors of this group of young people, though several studies have been conducted to assess the existing programs of sex education for teenagers. They showed that every program effectively enhanced the knowledge level and created right attitudes for teenagers but these programs still have some problems in effecting behavior change (Rosen, 2001). Moreover, no studies have been conducted to evaluate the effectiveness of programs emphasizing promoting right sexual values and the suitable expression of sexual behaviors especially among teenagers and young people.

Workable relationship: Partnership strategies

The processes of this research include a working tactic of youth-adult partnership. The major concepts of participation, capacity building, ownership of knowledge and empowerment, which are all important elements of participatory action research, are the core of developing the sexual and reproductive program. From the lessons learned after working with several significant parties in developing the sexual and reproductive program for early adolescents, it was found that making understanding and promoting the awareness of the participation and partnership working method for all parties is a priority and it needs to be accomplished from the beginning stages. Further, all parties must share the belief in common that they all have the capacity and ability to work together, no matter whether they are adults or children. Thus, the participatory working tactic applied in this study would take a lot of

time especially in the initial stages of working. Moreover, all parties must have a common commitment to work for this study throughout the process in order to attain success.

According to a study by the National 4-14 Council (1997) on adults' attitudes towards children, they could be divided into 3 types 1) "youth as objects" 2) "youth as recipients" and 3) "youth as partners". It noted that real working partnership is difficult to occur especially between adults and children as in the attitude type of "youth as partners". Adults and youth WORKING as partners is an important feature of achieving an effective program for teenagers and youths (Davis, 1999, Steven, 1997). However this concept is difficult within hierarchical context of Thai society in which adults are influential over children. Children are expected to respect, obey and follow along with the adults' opinions. They would be viewed as aggressive if they express too many opinions. Even though children's opinions are now increasingly accepted, it is rare to find adults who would view youths as partners, especially -10 year- olds, who are still children in the view of most adults. However, this study offered a new point of view for adults to have towards children especially early adolescents. It is proof that the working method of real partnership can be materialized and it serves as a model of partnership for working in the context of Thai society.

Early adolescents have greater capacity than adults realize and the adults joining this study gained a new point of view of working with children. Based on this, the researcher feels that real partnership depends on the feelings of those who work together rather than other theories or measurements to indicate partnership. If every party thinks that he already shows his needs, opinions and capacity fully and the atmosphere of trust, respect and

confidence in working together is built, this would simply lead to full cooperation and push the work to be eventually successful.

The features or style of working in participation and partnership applied in this research might differ from the traditional idea that every party must meet to express their opinions and needs and seek a common agreement. The participatory working process of developing this program required creating the gradual acceptance and agreement by working with each group individually at first. The early adolescents worked in their group to fully express their needs and opinions whereas the adults worked together to represent their ideas about the thoughts and needs of early adolescents. The researcher acted simply as a coordinator and a medium to present the information of each group in order to exchange points of view and opinions with one another. Each group would know the opinions and thoughts of the other, reflect on the information and have chance to exchange opinions in the final stage and meeting. The working style of gradual and common acceptance between children and adults on a step- by -step basis would reduce the feelings of imbalance of power among children while gradually reducing the feelings of superiority among adults.

The style of partnership working in this study is flexible in terms of roles and duties and involves several parties working together in each step. When considering the level of parties, it could be separated into the individual level and group level. The individual level is comprised of early adolescents who joined to express their needs regarding the sexual and reproductive health program in various contexts while the group level consisted of those who took part in the program implementation. Promoting sexual and reproductive health and preaching to early adolescents about appropriate sexual behaviors successfully must rely on

the principle of working "with" children not "for" children and must take their various needs into account because their concerns and perceptions vary by demographic and socioeconomic characteristics, sex and circumstances. They are addressed most effectively by a combination of intervention that promotes healthy development. Programs tend to be effective when the diverse characteristics and needs of adolescents in different contexts and situations are recognized. In addition, children themselves must clarify how they want to view themselves and what they want to learn to change or prepare themselves. There are no principles or theories that are as effective as the participation of children which will lead children to change their behaviors (Huff &Kline, 1999). Teenagers are the best ones to reflect on the results gained from this program.

Integrating the SRH Education Program in School Setting

The findings showed that the preparation of sexual and reproductive health for early adolescents is very important and needed by direct stakeholders- the early adolescents themselves and the adults close to them. To maximize the effectiveness of that preparation, children must be prepared and the environment improved to favor the promotion of sexual and reproductive health. This is in accordance with the literature review recommending that the preparation of sexual and reproductive health for teenagers must be conducted in various forms in which it can offer health information and knowledge, give advice and provide comprehensive services that are user-friendly and accessible to teenagers and surroundings built to favor sexual and reproductive health promotion. Therefore, many problems stemming from the lack of correct information and risky sex behaviors among teenagers can

be subsequently prevented. (Klofkorn, 1999).

However, the sexual and reproductive health programs currently implemented have been mostly focused on mid-adolescents and those who have risky behaviors or already have the problems (Senderowitz, 2000). Early adolescents have been paid little attention on this issue, possibly due to the idea that sex education is a sensitive issue and because talk about sex is shameful for some groups of people in Thai society. In addition, those who are responsible for teaching sex education are not well-prepared to teach it and some people believe that it is not the right time in their lives for Thai early adolescents to learn about sexuality-related issues. Therefore, there are few programs designed for preparing early adolescents to promote their sexual and reproductive health. This is in contrast to the findings of this study that sex education should be seriously taught to early adolescents (age 10) as children of this age long for information about sexual and reproductive health and think that they need to receive it. Early adolescence is the period of the beginning of changes in physical and sexual development that lead to mental and emotional changes. These changes cause teenagers worry, concern and stress as reflected in their expression of the need for sexual and reproductive health information that keep pace with their development. The parents and teachers' needs are also consistent with the children's needs, as they realize that children must have this knowledge.

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Conclusions of the findings

This participatory action research is aimed at developing a sexual and reproductive health program for Thai early adolescents. It is an education program developed from the needs and real participation of three major groups of stakeholders including early adolescents, parents and teachers. The researcher believes that all stakeholders have the capacity but lack the chance to take part in the expression of their needs. This study is aimed at enabling early adolescents to take care of their sexual and reproductive health appropriately as they grow and development and to give parents a chance to act as a network for supporting their children's education. It is also aimed at empowering early adolescents to help themselves and others and at establishing the participation of the human resources within the communities -seniors youth leaders and policy-making administrators, especially in the educational institutes- in order to push ahead with the concrete and sustainable implementation of the program.

In developing this program by the working method of youth-adult partnership, the principal operating concepts were participation, capacity-building, ownership of knowledge and empowerment. The process of development was comprised of 8 steps: 1) Establishing contact 2) Conducting needs assessment using group reflection process as the main method 3) Analyzing and interpreting data 4) Organizing reflection sessions 5) Preparing trainers (micro-teaching; two sessions) 6) Piloting the program by organizing a training camp 7) Evaluating the program 8) Organizing a workshop for critiquing the program and advocating policy. Each step is briefly summarized as follows:

- The educational institutes in Chiangmai Province willing to join this study amounted to 10 schools including both small- and large-sized, as well as public and private schools located in both urban and rural areas.
- 2. General characteristics of the developers of the sexual and reproductive health program

-The representative teachers from 10 schools in Chiangmai who joined the panel for conducting the research totaled 25 teachers of which the majority was female. The lowest education level was B.A. Most of these teachers taught the guidance course.

-The students joining this study were 10-14 years old and studied at Prathom 5-6 in private and public schools in the rural area, at Mathayom 1 in a large public school in a semi-urban area for students who lived out of town, and a large public school in the municipality for students who had domiciles in town and some who were from neighboring provinces but lived in a dormitory or with relatives. To recruit the participants, the simple random sampling method was applied by the teachers and researcher. Thus, the number of students joining the development of the sexual and reproductive health program was 108 students - 55 boys and 53 girls with an average age of 13.03 years. A majority of sample students studied at Mathayom 1 level with a good to excellent academic record, lived with both parents in families with income ranging from an uncertain level up to 200,000 baht per month. Most parents were blue-collar workers and had primary education.

-The representative parents totaled 30 people. Their children attended the 10 schools in Chiangmai with the average age at 44.3 years. Parents who joined the development of this program were mostly mothers, pink-collar workers with the highest

education level of a junior secondary education. 77.6 % of them had taught sex education to their children. The issues they thought most important included physical issues and ways of caring for sexual and reproductive health while the issues they thought least important were those regarding readiness to have sex and safe and responsible sex.

- 3. The content of the program is organized under four core concepts including 9 subtopics as follows:
 - 1. Human and Sexual Development
 - physiological and psychosocial changes: "Nobeta-Shisuka"
 - 2. Relationship
 - same sex and opposite sex friendship: "Friendship"
 - "Love, desire and responsibility"
 - 3. Sexual health and rights
 - taking care of sexual health: "Miracle tunnel" and "Male personal essential"
 - sexual values and behavior of teenagers in a rapidly changing society:

 "Generation X"
 - "Sexual feeling and control"
 - sexual and reproductive rights: "Know how to protect your rights"
 - 4. Gender includes gender role
 - gender role: "Who am I?"

The participatory learning method was applied and teaching materials were developed from the edutainment principle with the objectives of giving the correct knowledge and understanding to the program users, shifting their attitudes and values to a correct and appropriate understanding, and developing the skills essential for the sexual and reproductive health.

4. Imolementing the sexual and reproductive health program for Thai early adolescents enabled the researcher to conduct process and outcome evaluation which offered some interesting results as follows:

-After attending the training program, the participants gained better understanding about sexual and reproductive health and had more correct understanding and attitudes. The average scores on tests of their knowledge and attitudes about sexual and reproductive health before and after the program were different with the statistical significance level at 0.001 (t - 6.689* and -12.980* respectively)

-Participants in the program implementation reflected that it was very good and useful for early adolescents as most of the informations in the program had never before been taught to children of this age. All the lessons in the program are important to them and practical for their daily life.

- Before attending the program, most of the participants thought that it was normal for teenagers to have sex, but their thinking changed after they participated in the program.

Afterward, felt that having premature sex reflects the wrong values and is very dangerous.

They said they would never have sex until they are ready.

- This program taught early adolescents useful information which they can apply in a practical way in their daily life now and the future. They gained knowledge they had not had before and gained greater clarity about what they already knew but was not included in text books. The teaching style of the program promotes a more thorough understanding than simply reading books or studying in a class. The content and activities in teaching that "Prevention is better than cure.

Important issues and notes from the critiquing workshop

- Sex education is needed by the early adolescents and it does not "showing a hole to a squirrel" as some fear. In contrast, sex education closes that hole and offers correct suggestions. The school administrators and teachers are unanimous in their agreement that sex education is absolutely necessary in the teaching-learning plan. However, they are concerned over sex educators because providing incorrect and unclear knowledge could lead to inappropriate sexual behaviors. Therefore, sex educators must be well-prepared and trained to have positive attitudes and values towards teaching sex education and must have sufficient teaching skills to enable students to keep up with the currents of change in this new information age which is beyond borders.
- The integration of this program within the school system can be conducted through various forms of extracurricular activities and learner development activities.
- The program was developed and uses teaching methods based on the process of participation and edutainment. It offers clear and wholesome informations about sexual and reproductive health.

Implications for Nursing Practice

Nowadays, the nursing services of promoting sexual and reproductive health for early adolescents are increasing in the forms of giving advice, disseminating information and establishing a teenager- friendly clinic. However, those who receive these services are mostly teenagers who tend to have sexual risk behaviors or already have problems from those behaviors. The lessons learned from this study that will be applied in nursing practice are as follows:

- 1. Outreach services emphasizing preparing early adolescents are highly needed. The data from the sexual and reproductive health program for early adolescents which was developed from the needs of the target group enables nurses to have better and more correct understanding about the early adolescents' needs in this area and leads to planning and nursing practicing to promote health wholly and appropriately to age.
- 2. Nurses can apply the working style of participating with teenagers and adults in their work to promote health and create an environment favorable to the promotion of health in early adolescents. This study also provides new points of view and establishes a network to promote sexual and reproductive health, which would be very useful for nurses who work either in schools or communities.
- 3. The findings could be applied as a guideline for providing services for a sexual and reproductive health program that is actually consistent with the needs of early adolescents. Services that satisfy the target group's needs would encourage early adolescents to better access all health service sources especially those services of sexual and reproductive health. Providing services and knowledge for early adolescents is an essential task that the

government must undertake seriously and determinedly in order to prevent the problems related to sexual risk behaviors among teenagers. This would also lead to the formation of a database on sex education to be good media for teenagers. The arrangement of services for sexual and reproductive promotion should target not only early adolescents themselves, but should also consider parents and other contextual people and surroundings as well.

- 4. Nurses can apply the lessons gained from this study as a guideline for developing a program for parents in order to make understanding and adjust attitudes and perspectives about providing the knowledge about sexual and reproductive health to meet the early adolescents' needs. Parents could then promote an environment favorable to sexual and reproductive health promotion for early adolescents.
- 5. It is a guideline for nurses who work in schools to express the clear role of nurses in health promotion for early adolescents in schools, especially sexual and reproductive health.

Implications for nursing education

As the current system of nursing education focuses more on the health promotion than in the past, the implications of the study that are useful for nursing education are as follows:

- 1. Nurse educators can apply the findings to be a guideline for organizing the curriculum of health promotion for teenagers, especially early adolescents.
- 2. Nurse educators can provide clinical experiences for nursing students in creating a health promotion project which incorporates working in participation with schools and communities

- 3. The findings serve as a guideline for nursing students to apply in health promotion for early adolescents whereby they could create a plan for giving the knowledge and advice and teaching physical education focused on sexual and reproductive health for early adolescents in nursing practice at hospitals, schools and communities. Thus, they can plan and provide nursing services comprehensively and appropriately.
- 4. The activities for needs assessment in this study resulted in new fmethods that encouraged early adolescents to freely and openly express their opinions and needs. These methods could be applied to the learning-teaching arrangement in assessing the needs of service recipients.
- 5. It serves as a guideline for organizing extracurricular activities for nursing students to build their capacity for being leaders in giving the knowledge about sexual and reproductive health to early adolescents.

Implications for nursing research

The study can be applied as a guideline for developing nursing research as follows:

- It serves as a guideline for conducting research on other topics relevant to health promotion in early adolescents, focusing on the process of participatory action research and working in partnership with related parties.
- 2. It serves as a guideline for conducting research to develop a model of participatory working and of developing an effective knowledge program.
- 3. This study offers a new guideline in conducting the research to assess the needs of the target group. Earlier studies used questionnaires as the needs-assessment tool, but this

research used the activity of group reflection. By this method, the researcher gets indepth data and sees the basis of thinking of each person as well as the group's perspectives, leading to the adjustment of thoughts.

- 4. It serves as a guideline for developing the sexual and reproductive health program for other groups of young people such as teenagers in other communities, homeless children and those of different ages.
- 5. The study can be replicated and extended in the context of other societies and regions and be generalized to people in larger groups to produce a sexual and reproductive program that suits the needs. It also can widely and thoroughly promote the sexual and reproductive health of early adolescents.

Implications for policy advocacy

When considering the promotion of sexual and reproductive health in Thailand, young people's health is one of the indicators of the reproductive health of the population at large. Promoting good sexual and reproductive health depends on providing health knowledge and services that respond to the target group's needs. This study, thus, offers the tactics and methods for promoting awareness so that policy-making officials to comprehend the importance of such a program and are driven to act as significant parties who push ahead with the concrete and sustainable implementation of this program.

Implications for Ministry of Education

The program is designed for teaching-learning in schools mainly. It can be called a "School-based sexuality education program" with the school used as the setting for providing knowledge about sexual and reproductive health to early adolescents. Therefore, the application of this program would yield the maximum benefits for Thai early adolescents, the majority of whom are enrolled in the educational system due to the compulsory education policy. Therefore, this knowledge could reach most early adolescents and help teachers teach lessons that meet that group's needs. It is also in line with the plan for teaching sex education according to the Ministry of Education. The SRH education program can be integrated in the school setting as follows:

- 1. The content and learning methods can be applied by teachers in writing the teaching plan for the subject "Family life education"
- 2. It serves as a guideline for teachers to apply the program's activities appropriately within the context of their communities and to organize extracurricular activities in schools in keeping with the new policy, which is focused on child-centered learning which is also fun and interesting for students. Also it helps teachers to know more about sexual and reproductive health in early adolescents.
- 4. Peer education is generally regarded as the best practice for providing sexual and reproductive health education. Accordingly, the process of this study serves as a way to build the capacity of students to be competent youth leader trainers on issues related to sexual and reproductive health in schools.

5. In providing intensive sexual and reproductive health education in schools, the program provides a guideline to arrange concept mapping of the "Family life education" subject for student in grade 5-8.

Lessons learned

It is difficult to institute change in a relatively hierarchical and conservative society like Thailand. However, such change is possible with strong belief in and commitment to "working as partners".

- 1. One of the most valuable lessons learned from this study has been that involving many different groups, including early adolescents, schools, youth leaders, schools, families, and authorities, is important to the success of the program.
- 2. Collaborative projects require a minimum start-up organization period of six months.
- 3. Involving the stakeholders in all stages of the program, from identifying needs to implementation, gives the community a sense of ownership and makes the program on the whole, more effective and sustainable.
- 4. Involving the parents in the SRH education program development is possible but the project should not take too much of their time. Participation in the reflection process is the most practical way to raise their awareness and create critical dialogue with other stakeholders.
- 5. Most Thai adults have positive attitudes and show strong will in providing their children sex education. This is a good indicator for the possibility of transforming sex education in Thai society. The ways of providing accurate information are various. Some need to

teach by themselves directly, whereas others need materials such as qualified books and media to help them teach their children. However, both Thai parents and teachers need skills-building.

This program advocates:

- Core content of SRH education based on needs, concerns and involvement of all significant stakeholders
- Effective teaching-learning process in promoting adolescent SRH by using participatory techniques
- Practical way of integrating SRH education in school setting
- Equality between young people and adults in working as partners
- Creation of action for sex education at the policy level in Chiang Mai Province

Recommendations for further study

- -The participatory process of this study can be applied with other groups of children in other context such as mid-adolescents and late-adolescents as well as families and schools.
- This program should be implemented in more than just the 10 participatory schools to measure its effectiveness for general use, therefore, further study is needed to do so.
- -The process of developing this program should be replicated with early adolescents in other regions and contexts to ensure that their particular needs are met and to measure the diffrences in needs for sexual and reproductive health education by regions and contexts.
- -A longitudinal study of at least three years could be conducted to follow the attitudes, sexual values and sexual behaviors of students who participated in this program by making

an understanding with the schools and assigning a panel among them to further the study as they are in ready contact with the children and could follow the long-term results. It is suggested that a control group be included in the study.

-A study should be conducted to find a model for developing the capacity of early adolescents to be leaders in disseminating knowledge about sexual and reproductive health to their schools and communities.

-A study should be conducted to find a model for building the capacity of teachers and parents to be leaders in providing knowledge about sexual and reproductive health.

-A study should be conducted to develop the ready-to-use program for disseminating knowledge about sexual and reproductive health.

-A study should be conducted to find an effective model for providing the knowledge through local media in the form of edutainment directed at the target group in order to bring in a new dimension for teaching sex education in Thai society.

- A continuing study should be conducted to understand the impact of the project at the policy level in terms of actual integration of the SRH education program, and implementation of the recommended teaching-learning activities in schools.

Limitations of the study

This study has some limitations for generalizing the findings because the research scope developed a sexual and reproductive health program based on the needs of several relevant groups in Chiangmai province only. It is likely that other groups in other contexts

may need different forms of the program. The application of the findings could only yield the maximum benefit for early adolescents in the same context as Chiangmai.

In addition, piloting the program only once may be insufficient. The program needs replication and a continuous assessment in order to complete confidence in its effectiveness.



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