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ORIGINAL ARTICLE

Challenges and obstacles of mother-daughter sexual communication among Thai rural communities: an exploratory study

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ABSTRACT

This qualitative study explores the challenges and obstacles of mother-daughter sexual communication among Thai rural communities. In-depth interviews were conducted with the selected group of 33 dyads of mothers-daughters. Focus group discussions (FGDs) were also conducted among five healthcare providers (HCPs) and school teachers. The interviews and FGDs were audiotaped and transcribed verbatim. The data were analyzed using content analysis. The results found that mothers had insufficient sexual knowledge and lack communication skills. Most mothers never talked about safe sex, birth control, and condom use in the family. They thought their daughters were too young to learn about safe sex. They were afraid that it might guide their daughters to have sexand thought that their daughters will learn about sex when they marry, and sex education is not a parental duty. Mothers' beliefs on sex issues are not to be discussed openly, even in the family. Persons who talk about sex were sensual people.

Daughters addressed the fact that the mothers were seldom present and didn't show love by words or manner. They still blame and hit daughters for a severe argument. Besides, parents' quarrels created a bad family climate and made daughters unhappy to talk with their parents. Daughters still never talk about safe sex, birth control, and condom use with their mothers. Furthermore, the content of sex education in the family was based on maternal experiences. Most of the teaching and learning patterns of sex education in school were lectures, and the contents were physiology development and sexual desire. The challenges and obstacles of mother-daughter sexual communication were poor maternal sexual knowledge, maternal attitudes toward sexual communication, mother-daughter relationship, and family atmosphere. These findings will be used for developing the mother-daughter dyads' relationship model to prevent pregnancy in early adolescence.

Key words: sexual knowledge, sexual communication, attitudes toward sexual communication, mother-daughter relationship, family climate

INTRODUCTION

The World Health Organization (WHO) defines sex education as "teaching and learning about a variety of topics related to sex and sexuality including bodily development, relationships, emotional, along with skill-building to help children and young people communicate about and make informed decisions regarding sex and their sexual health".[1,2] Sex education is composed of a board information toward sex, sexuality, values, beliefs, cultures and how to enhance appropriate skills in maintaining a good relationship with the opposite sex. It helps people to maintain their sexuality to fit with their developmental background[2]. It aims at supporting and protecting sexual development. It gradually equips and empowers children and young people with knowledge, skills, and positive values to understand and enjoy their sexuality.[3]

Sex education programs help young people take steps to protect their sexual health, including delaying premature sex until they are mature, have sex less often, and safe sex practices by using condoms and modern contraception to prevent unintended pregnancy when they become sexually active.[2,4] WHO and United Nation Economic and Social Commission Organization (UNESCO) recommended sex education should be given to them as early as possible during their childhood to enhance their understanding and skills to prevent improper sexual behaviors, STDs, HIV/AIDS as well as teenage pregnancy and sexual violence.[3,5]

The situation of sexual health problems among youths in the UK in 2014 indicated 29% of 16–24-year-olds had had sex with someone of the opposite sex before the age of 16.[6] In the Caribbean Global School-Based Student Health Survey (GSHS), 56% of girls and 79% of boys on average had sex before the age of 14 and reported multiple partners.[7] The median age at first intercourse was 16 (15-18) years in Denmark, 17 (16-18) years in Norway, and 17 (15-18) years in Sweden.[8] According to the GSHS surveys, on average 38% of adolescents (13-15 years of age) did not use a condom during last sexual intercourse. In the British and Dutch Overseas Caribbean Territories studies, approximately 28% of females and 42% of males (11-24 years of age) had not used a condom during first intercourse. In the study in St. Eustatius, where 31% of girls reported they had been pregnant, it should be noted that only 18% of girls who reported multiple partners used a condom during their last sex.[7] Early intercourse carries increased risks of sexually transmitted diseases and unwanted pregnancies, which may result in long term health and social disadvantages.

The world statistics of adolescent birth rate in 2018 was 44 per 1,000 girls aged 15–19 years. The adolescent fertility rate (births per 1000 women aged 15–19 years) is highest in the WHO African Region (118 per 1,000) and in low-income countries (110 per 1,000) compared with a global average of 47 per 1,000 over the period 2000–2008. In the WHO African Region, fertility is high at all ages and adolescent pregnancies are common, mostly because marriage occurs at young ages. By contrast, in the WHO Region of the Americas, many adolescent pregnancies occur outside marriage. Young adolescents are more likely to experience complications during pregnancy and childbirth than adult women and are at greater risk of pregnancy-related death. The infants of adolescent mothers are also at higher risk of mortality and morbidity.[9]

Concerning Thailand statistics between 2014 and 2018, the annual birth rate among the age group 15-19 years old were 47.9, 44.8, 42.5, 39.6, and 35.0 per 1,000 respectively. The recent information

was greater than the rate found in 2000, which was 31.1 per 1,000 for the same age group. Moreover, the recent statistics of childbirth rates among girls aged 10-14 years old were 1.6,1.5,1.4, 1.3, and 1.2 per 1,000 of the same age groups, compared to 0.55 per 1,000 in the year 2000. The trend of teenage pregnancy was dramatically increased compared to the last two decades. The mean average age of first sexual intercourse among females was 15 years old, with only 20-30% indicated of using condoms when having sex.[10] Adolescent females are the vulnerable groups and victims of sexual health problems.

According to the Center of Health Data of Nakhon Sawan Province in 2018, the birth rate among girls aged 15-19 years old in Phayuha Khiri district was 41.7 per 1,000 which was one of the top 5 districts with a considerably high level. Khao Tong sub-district presented the rate of 41.38 per 1,000 of the same age group and stands for the highest rate of Phayuha Khiri district.[11]

Adolescent pregnancy is still an important problem in rural communities because many students lack understanding and awareness about contraception and lack the communication and negotiation skills that they need in their sexual lives. Most teachers rely on lectures as their comprehensive sex education (CSE) teaching method, which does not provide opportunities for students to ask questions or develop their analytical thinking skills. Only a minority of teachers make use of activity-based pedagogy.[12]

With regard to the traditional norms and values of Thai society, Thai women have been expected to keep virginity until marriage and to remain monogamous with her husband.[13] However, at present the sexual norms have changed, and the signs of change are emphasis on more acceptance of the pre-marital sexual relationships of young women,[13] which may lead to premature sexual relationships among Thai girls.[14] The changes in social norms and contexts can affect an adolescent's sexual behaviors. They often embark on a sexual relationship without contraceptive use to prevent unintended pregnancy.[15] Sex is taboo and forbidden to discuss openly in the public sphere among young girls in rural Thai communities. Sexuality is considered as a private issue and not to be discussed openly even within their families.[13,16] Most of the Thai parents were embarrassed to give sufficient information about sexual relationships to their children[17] because the majority of them lack knowledge and confidence. Previous findings on parent-adolescent communication about sex in urban Thai families have indicated that parents were most likely to talk with their teens about physiological changes during puberty such as menstruation, wet dreams, and personal hygiene to take care of the genital organs.[18] However, they seldom talk about sex-related issues, such as having sexual relations, dating, and courtesy, safe sex practices by contraceptive and condom use. Sexual relationships were considered an offensive issue, and Thai adolescents became afraid to open up and ask for advice from their families or society about their sexual relationships. They are fearful of being scolded, blamed, and punished.[16,19,20] Most of the parents thought their children should avoid having sex until they become adults and can earn money themselves.[19]

Insufficient sexual knowledge and lack of communication skills to handle the conversation about sexual issues in response to the needs of the children were limitations of Thai parents in delivering key messages on sexual and reproductive health aspects to fit the unmet needs of the teenagers. Thus, the parents delegate their responsibility for sex education to the teachers.[19,21] The national curriculum for sex education mainly emphasizes physiological change during puberty, menstruation, fertilization, personal hygiene, sexually transmitted diseases, and HIV/AIDS.[12] Some topics such as sexual

violence, life skills to avoid premarital sex, and safe sex by contraceptive use as well as termination of pregnancy are seldomly discussed.[12, 22] A survey of United Nations Fund for Population Activities (UNFPA) in 2016 on sex education programs in Thai schools[12] also demonstrated a teaching-based style by the teachers rather than participatory learning experiences of students to enhance sexual and reproductive health knowledge or to promote life skills to prevent premarital sex and encourage safe sex practices. The UNFPA survey also indicated the unmet needs in school sex education due to low experience level and confidence of school teachers in dealing with participatory learning by brainstorming and sharing experiences on problem solving, role play and coaching strategy. Teaching sex education depends on the context of each school and the attitude of both administrators and teachers.[12]

As there were unmet needs from both parents and teachers, sex education among adolescents was limited. About 50% of adolescents obtained sexual information from peers and pornographic media. Sexually explicit media exposure predicted early sexual activity, unsafe sex, and multiple sexual partners.[23] Adolescents did not know how to protect themselves from sexual risk conditions. The sexual problems among Thai adolescents are still unsolved. Several studies indicated key factors on unmet needs of sex education among female Thai adolescents comprised of lack of mother-daughter sexual communication,[19] poor maternal sexual knowledge and attitude,[15,20] traditional belief of sexual communication,[16] poor mother-daughter relationship, and poor family climates.[19]

It is necessary to provide Sex education at an early age of the child before adolescence, especially during the prepuberty period. The mother is the most suitable person to provide sexual knowledge and to monitor the sexual behaviors of her daughter. In families, the role of mothers is more pronounced than those of other members, and adolescents learn healthy behaviors through maternal guidance.[24] Mother-daughter sexual communication can occur if a mother and daughter have a good relationship with each other. The characteristics of their sexual communication such as honesty, openness, receptiveness, reinforcement during early adolescence, are related to a later age of first sexual intercourse,[25] and reduced sexual risk behaviors.[26,27] Open-minded and responsive communication of parents is a key communication dimension. The associations among the quality of parent-adolescent communications about dating, sexual intercourse, and adolescents' engagement have been studied. If the parents harangue their child about dating and sex, it may increase the incidence of sexual intercourse in adolescents.[28]

THE CONTEXTS OF SEXUAL COMMUNICATION AMONG THAI RURAL COMMUNITIES

Phayuha Khiri district is one of the rural communities located 32 kilometers from the city. It consists of 11 subdistricts. More than half of the community people are agriculturists. In the majority of families, parents are staying together with their children. The parents always prepare breakfast for their children before they go to work while the children go to school. Some children are staying with their grandparents due to the seasonal migration of the parents to work in other provinces. Generally, when having dinner together, the parents and child communication consists of discussion regarding a child's learning, homework, examination, or how to deal with friends.

The traditional practices of mother-daughter sexual communication among rural Thai communities are not spoken loudly in the family or public sphere. The person who talks about sex is considered obscene. Parents dare not speak or inform their children how to prevent pregnancy or how to use contraceptive pills. Most parents feel embarrassed to discuss sex with their children and this was an obstacle for parents to provide sufficient sex education in the family. While within the family, traditional sexual attitudes, socialization, and individual experiences prevent parents from opening their minds to deliver key sexual messages to their children. The reason for the absence of mother-daughter sexual communication is still poorly understood, especially among rural Thai families. There is also a challenge to improve mother-daughter sexual communication in the future.

STUDY OBJECTIVES

We conducted an exploratory study using both in-depth interviews and focus group discussions (FGDs) to explore the challenges and obstacles of mother-daughter sexual communication that may lead to develop effective strategies to handle the problems to prevent teenage pregnancy in Thai rural communities. Key informants are recruited from those who can share their experiences and viewpoints regarding mother-daughter sexual communication, comprised of mother-daughter dyads, healthcare providers (HCPs), and school teachers. The communication Theory of Berlo DK[29] is applied in this study to explore the challenges and obstacles of mother-daughter sexual communication among rural Thai communities. The communication theory[29] defined communication as a process to transmit information, ideas, emotions, attitudes, and skills from one person to another. This theoretical model is comprised of four elements of the communication process, source, message, channel, and receiver. The mother is a source of information that depends upon maternal communication skills, maternal sexual knowledge, and attitude as well as cultural beliefs. Messages are sexual information to enhance the daughter's life skills to abstain from premarital sex and to monitor the daughter's sexual risk behaviors to prevent teenage pregnancy. Channels can be sent through observation, discussion, and practices. While the daughter is a receiver which depends on her relationship with the mother and family climates. Moreover, challenges and obstacles concerning the cultures and contexts of rural Thai communities were also explored. Fruitful findings from this study would be used as baseline information to strengthen existing services to enhance good relationships and effective communication between mother and daughter to prevent teenage pregnancy in rural Thai communities.

METHODS

Study design and setting

A qualitative study was conducted between March and May 2017. In-depth interviews were used to explore the data from mother-daughter dyads at home in 11 subdistricts of Phayuha Khiri district, Nakhon Sawan Province, Thailand. While focus group discussions (FGDs) were conducted among HCPs and school teachers at Mahidol University Nakhon Sawan Campus on another day separate from the in-depth interview. Each key informant received an explanation of the objectives of the data collection and was asked to sign the informed consent form to allow tape recording during the interviewing or FGD process.

Population and recruitment of samples

The study population was comprised of those who were residing in sub-districts of Phayuha Khiri district, Nakhon Sawan Province. The samples were recruited from those who were willing to share their viewpoints on mother-daughter sexual communication in the community, maternal knowledge and attitude on sex education, maternal communication skills, traditional beliefs of mothers toward sexual communication, challenges, and obstacles of the mother-daughter communication process. These samples comprised of three groups as follows:

The first group were thirty-three mother-daughter dyads where the daughters were aged between 11-13 years residing together in sub-districts of Phayuha Khiri district, Nakhon Sawan Province. The daughters were purposively selected based on the inclusion criteria of having stayed together with their mothers for at least one year and were willing to participate in this study. While among mothers, the inclusion criteria were; have stayed in the community at least one year, graduated at least primary school, be able to read and write, and were willing to participate in this study.

The second group comprised three HCPs who were involved directly in the teenage pregnancy prevention program in communities by providing mentoring support to the mothers to monitor their children's risk behaviors.

The third group were two school teachers who were responsible for school sex education and monitored the child's behaviors at school.

Procedures of data collection

The in-depth interviews and FGDs were conducted by using a semi-structured interview, with open-ended questions following the interview guidelines, based on the main themes and subthemes, to explore the challenges and obstacles of mother-daughter sexual communication. Each interview took place at the key informants' home for approximately 60 minutes. Thirty-three dyads of mothers and daughters were interviewed separately to avoid any invalidity concerns. The in-depth interview topics among mothers and daughters comprised socio-demographic characteristics, knowledge on sex education, attitude towards sexual communication, traditional beliefs on sexual communication, sexual communication skills, mother-daughter relationships, family climate, key messages on sexual communication, challenges and obstacles during sexual communication process. The FGDs were conducted among HCPs and school teachers for informing the provision of routine service, sex education, obstacles, and challenges to conduct sex education activities in the community and school. A detailed explanation of the themes explored by each sub-group of key informants is summarized in Table 1.

Table 1 Descriptive of sample selection and number of samples enrolled in each group

Key informants	Sample size	Selection criteria	Themes to explore
Mothers	33	• Stayed in the community for at least one year • Graduated at least primary school and be able to read and write • Willing to participate in this study	• Sexual communication practice • Challenges and Obstacles of mother communication about sex

Key informants	Sample size	Selection criteria	Themes to explore
Daughters	33	• Stayed together with their mothers for at least one year • Willing to participate in this study.	• Sexual communication practice • Challenges and Obstacles of daughter communication about sex
Healthcare providers	3	• Having a role in adolescent care in the Health Promoting Hospital at least one year	• Provision of routine service • Obstacles to sex education in the community
School health teachers	2	• Having a role in student healthcare in the school at least one year	• Sex education and obstacles to conduct sex education activities in school

Data Analysis

Data were transcribed and translated from notepaper and an audio recorder. After data were collected, researchers underwent a data reduction process to identify the main themes and sub-themes. Content analysis was used to identify, analyze, and report themes within the local context. Similar contents were grouped into categories, and related categories were grouped into themes and sub-themes.

Theoretical Framework

The researcher applied The communication Theory of Berlo DK[29] to guide how to explore the challenges and obstacles of mother-daughter sexual communication. This model comprised four elements of communication, source, message, channel, and receiver.

The source is an essential component of the communication process; the mother is a source of sexual knowledge which is close to the daughter. Mothers who knew about sex education had a positive attitude toward sexual communication that changes upon current situations, had good relations with their daughters, and could disseminate key messages well to the daughters.

Messages are sexual information appropriated to the daughters' age, such as sexual development, birth control, or how to prevent pregnancy—empowering them to improve their sexual health to deal with sexual risk behaviors. Furthermore, mothers' positive attitudes toward sex and beliefs to communicate with their daughters were also discussed.

Channels can be sent through observation, discussion, and practices. In happy family climates, relaxed conversation, and a good relationship with their mother made daughters more likely to consult their mother about daily life issues ever sexual issues.

The receivers are daughters; it is a fact that, daughters prefer to search for sexual health information on the internet or through peers.[16] Thus, a positive relationship and family climate affect sexual communication. Another reason for non-sexual discussion with mothers is the mother's lack of awareness and communication skills.[20, 31]

Communication about sex between mothers and daughters is a transitional process, and it is two-way communication. They act as both receivers and senders that accept each other's opinions. Positive communication can be a useful tool in pooling members in the family together and helping them learn to support each other. The mother ought to realize what sexual contents are appropriate for talking with their daughters in the context of their sexual development.

In the Traditional Thai context, women are embarrassed and ashamed to discuss sex with others.[19] Besides, those who know a lot about safe sex will be viewed as having more experience of sex and might be stigmatized by the

neighborhood in the community. The negative attitude and traditional cultures on sex is the major noise obstructing mothers and adolescents talking about sex with each other—furthermore, the majority of mothers are lacking in both sexual knowledge and communication skills in dealing with the conversation with their daughters. [16,19,20]

ETHICAL CONSIDERATION

The researchers invited all mothers and daughters to give written consent for their participation, and their mother was asked for written permission for their daughters to participate in the study. The researcher informed the objectives, method of data collection, the use of the results, and they were free to withdraw from the study at any time. All participants had opportunities to ask questions before giving informed consent. All personal data was kept confidential and was not mentioned in the presentation of results. Ethical approval was obtained from the Ethical Review Committee for Human Research Faculty of Public Health, Mahidol University (MUPH 035/2017).

RESULTS

Socio-demographic characteristics of mothers and daughters. A total of 33 pairs of mothers and their daughters participated in this study. All of them were Buddhist and lived in the same household. Daughters' age was between 11-13 years old and studying in primary school grade 5-6 to secondary school grade 1. One-third of girls received 20-39 baht pocket money per day. The minimum daily pocket money was 10 baht, and the maximum was 80 baht, with the median daily pocket money was 40 baht.

The maternal age ranged from 29 to 54 years old, with a mean average of age 42.0 years (SD 5.7). Most of them were married. Nearly half of them (45.5%) had completed primary school, while 24.2% had completed secondary school. All of them were Buddhist. According to the occupation, nearly half of them (48.5%) were agriculturists. Family monthly income ranged from 2,000 to 15,000 baht. The median family monthly income was 6,000 baht.

Challenges and obstacles of mother-daughter communication to prevent sexual risk behaviors

The analysis of the challenges and obstacles of mother-daughter communication followed the communication theory. The results were presented from mothers and daughters' similar and differing viewpoints, HCPs, and school teachers. There were four elements of identity from the data that reflect the mothers' and daughters' communication about sex. The findings are summarized based on the four components of communication theory as follows:

Mother (Source or Sender):

1) Poor maternal knowledge of sex education

Parents are the fundamental educator to instill norms and values in the children. The best sex education method is starting a sexual conversation early and continuously with age-appropriate information as the child grows. Mothers should have sufficient sexual knowledge and be bold enough to educate their daughters.

Mothers expressed that they had insufficient knowledge of birth control, especially injectable contraceptives, emergency contraceptive pills, and condoms. Some of them did not know how to wear a condom, and they have never touched one before. Also, some of the

mothers did not know about emergency contraceptive pills and the other modern contraceptive products for birth control. Mothers taught their daughters to follow their past experiences. For daughters, they learned about sexual related issues from teachers.

"I don't have enough sexual knowledge, I know about body change, such as buddy and menstruation. About birth control, I know only injectable contraceptive because I used this method to prevent pregnancy. (Mother Nee, Age 52)

This difficulty was confirmed by the daughters, who expressed a lack of knowledge on sexual related issues among their mothers. They obtained sex education from school but not from their parents.

"I learned about sexual development, menstruation, and that sexual intercourse leads to pregnancy from my teacher. I seldom talk to my mother; we talk about my friend; my study never talks about sex. My father talks to me about boyfriends if I have a boyfriend, he will hit me." (Daughter Oil, Age12)

2) lack of communication skills

Mothers were daring to talk about sexual issues. They did not know when and how to start communicating about sex with their daughters.

"I daren't to talk about sexual relations or birth control, I don't know how to use the word or the sentence. I used to teach her to wear sanitary napkin when she is on a period." (Mother Torn, age 40)

3) Negative attitude towards sexual communication,

Thai families had a negative attitude toward sex issues especially sexual relationships, which were considered an offensive issue. Some key findings of negative attitude to sex such as;

3.1) Not suitable to teach sex to early adolescents

Most mothers never talk about sex with their daughters. They asserted that their daughters were still too young, and innocent to understand birth control and condom use and they have no boyfriend. Some daughters don't want to talk about their boyfriend with their mothers.

"I never talk about boyfriends or sexual relationships, because my daughter is too young, she has no relationship behavior with young men. She has no risk. I dare not speak. I don't know how to start. I think she learned from her friend." (Mother Aom, Age 29)

"I never talk with my mom about my boyfriends, only talk about physical development, especially menstruation and buddy. I am afraid to blame, scold, and punish." (Daughter Mind, Age 11)

3.2) Lead to enthusiasm in sex

Mothers were afraid that if they talked about birth control or having sex, it might guide their daughters to have sex. Some mothers could not decide how and when to start to talk about having sex or pregnancy prevention.

"I do not want to talk too much about contraceptives, especially emergency contraceptive pills. I am worried if she uses it… it is not her time…I am afraid she will buy for testing." (Mother Aorn, Age 45)

3.3) Sex will be learned about after marriage

Most mothers and daughters had talked together about physical development, practice while they have menstruation, and never talk about safe sex, birth control, and condom use. More than half of them never talk about watching porn clips, not staying with a boyfriend in a private place, and drinking alcohol will induce sexual arousal. Nearly half of them never talk about the changes in sex temper that attend to the boy, and how to reject to have sex.

Mothers believe girls should remain virgins before marriage and disagree that their daughters should have sex before marriage. The girls will learn to have sex when they marry.

"I forbid her to have a boyfriend. I don't know how to tell her about sex. When she asked me, I told her you would see by yourself when you marry. (Mother Toom, Age 50)

3.4) Sex education is not a parental duty

Many mothers asserted that sex education is the teachers' duty, and they assured that their daughters have to learn about sex in school. About one-third of daughters expressed they never talk about safe sex in family.

"Sex education should be arranged in school. We never talk about sex in the family, only about her study and her friends. (Mother Malee, Age 45)

"We never talk about safe sex in the family." (Daughter Bam, Age 11)

4) Traditional beliefs on sexual communication.

Talking about sexual relationships was forbidden, especially in women, and not to be discussed openly even in families. Some mothers never talk about sex because they were taught that sex matters were embarrassing.

4.1) No talk of sex in the family

In traditional Thai culture, parents feel that it is impolite to discuss sex openly with their daughters, and sexual matters are taboo subjects. Daughters' perspectives have differed from mothers in that some daughters would like their mothers to become a good counselor.

"Sex issues are not open; I never start talking about sex with my daughter in the family. I dare not speak and wait for her to start or ask me. I don't know how to start. I think she may learn by herself. (Mother Kwan, Age 46)

"I'm not shy to talk about sex with my mom because of our closeness, but I prefer to talk and share experiences with my friends about menstruation, relationships with boyfriends." (Daughter Karn, Age 12)

4.2) Persons who talk about sex were sensual person

Some mothers dare not talk about sex, and they were afraid to blame someone around them even to speak with their daughter.

"If someone talks about using condoms or sexual relationships, another person gossips about them that they are a bad girl and had sexual experience." (Mother Aorn, Age 45)

Daughter (Receiver):

1) Poor relationship with mother

During early adolescence, developmental change during puberty is associated with family relationships, home environment, and family roles. A good family relationship affects adolescent behaviors. From this study, the mother seldom shows love by words or manner. Mothers still hit their daughter in serious arguments. Mothers were found blaming, negative comparison attitude, sarcastic, and unfavorable behaviors did with their daughters. Daughters reported that about half of the mothers sometimes let them give their opinions; however, only one-fourth accepted daughter's different views. Eighteen daughters agreed that they were lazy, edgy, touchy, petulant, did not always obey their parents, were not interested in housework, addicted to the mobile phone, unreasonable, stubborn, and argued with parents.

1.1) Blame and rarely admire or encourage their daughters

Some mothers never express their admiration to their daughters.

"She is good at learning, I only just say good…. and never express in front of her so much… I never show my appreciation too much to her…afraid she will be spoiled. If she gets the first in class

with her exam, I will buy her something" (Mother Aoy, Age 41)

"Mother never appreciates me. If I do something unsuccessfully, there is no consolation. So, if I make a mistake, I will not tell my parents" (Daughter Tai, Age 13)

1.2) Punish by hitting

Some parents believe in the Thai proverb "Rak waw hi phuk, rak look hi thee" that if you love your cow, tie it up; if you love your child, beat him. There were six families used to hit their daughters. Daughters felt hurt, sorry, and thought that the mother did not love them.

"She argues with me when I teach her. I am very angry, and hit her with a birch." (Mother Pha, Age 42)

"My parents sometimes rebuke and hit me because I spend time playing a game on a mobile phone. I know that I fudge, but I don't like the punishment like this." (Daughter Preem, Age 11)

2) Poor family climates

The family climate that affects good communication is founded on trust expressing caring, appropriate humor, and laughter. Daily family activities of the participants were watching TV together, cooking, and having dinner together. The areas of daily family activities were the front yard of the house, space under the Thai house, or space in front of the TV. The reason that the family atmosphere is not fun is because of quarrels and insufficient income. Parents quarrel made daughters unhappy and not dare to communicate with their parents.

2.1) Parent quarrels made a serious family climate

Conflicts within the family also became an obstacle to sexual communication. Some daughters mentioned that parent quarrels made them unhappy, cry, and dare not to talk with their parents.

"My daughter never shows an inappropriate manner. There is no confrontation when we are angry. I know when I quarrel with her father, she gets stressed and cries sometimes." (Mother Nee, Age 47)

"Sometimes my parents' quarrel, I am not happy. At this time, I separate myself into my room and quiet. I want to define the agreement that my parents should not quarrel with each other. At a moment of conflict with my parents, I will stay silent and calm myself down. I don't like to hear the quarrels. (Daughter Preem, Age 11)

2.2) Insufficient income

Most of the families have a family monthly income of less than 10,000 Baht, and nearly half of them were agriculturists. Parents spent their time working in the field and sometimes they feel stress.

"I don't have enough money to support my family; I feel stressed and uneasy.

Sometimes I get moody and quarrel with my husband. The family atmosphere is unhappy." (Mother Ann, Age 42)

"Most of the time, the parents quarrel with each other. When parents were angry, I dislike to confront them and keep silent. They are pressing on their income and their work. I feel serious about my parent's low income, not enough to pay and to travel." (Daughter Kwankaw, Age 11)

Healthcare Providers

The data from FGD, and HCPs mentioned that they provided a routine service of visiting adolescent mothers after birth. They rarely set up sexual education in the workplace or community. There was no adolescent clinic. They rarely set up the project of preventing adolescent pregnancy. In some communities, condoms were distributed at village health volunteers' homes.

"Sexual communication in the rural communities is not accepted openly—there are negative attitudes about adolescents

who have condoms in their pockets or required condoms." (HCPs, Age 42)

"We set our priority to visit adolescent mothers after delivery and provide birth control for them as soon as possible. For the prevention aspect, we focus on small groups of teenagers on providing them knowledge on STDs and HIV/AIDs prevention." (HCP, Age 59)

"Some schools did not let healthcare teams provide sex education, especially birth control. The school administration prefers sexual abstinence and did not get condoms. (HCP, Age 59)

Teachers

The school teachers mentioned that lacking mother-daughter relationships appeared from a limit of time both were together. Anyway, mothers gave their reason as their time was mostly taken up to earn money under their hard-economic situation. Handling differences in the family found that they likely used emotional speech more than reason. Mothers had not enough sexual knowledge and communication skills to counsel their daughters. Furthermore, mothers could not follow and update the media and current adolescent behaviors that is quickly changing with the modern internet technologies.

Sex education in school is a problem as, some teachers disagree with putting condoms in the students' pockets, and they commented if students get condoms, they may try to have sex.

"The teacher, except health school teacher, disagrees with teaching about safe sex, especially putting condoms in the pocket. We should try enhance a positive attitude about sex education of the other subject teachers." (health school teacher, Age 55)

"I just have known the variety of condoms in this group." (health school teacher, Age 52)

Sex education (Messages)

In summary, key findings on the messages given by mothers to their daughters can be summarized as follows:

1.1 Sex education in the family. The content is based on mothers' experiences. Most of the content was physiology development, abstinence, rare discussion of birth control, or how to prevent pregnancy.

1.2 Sex education in school. The curriculum is based on national policy, and integration with other subjects. Most of the teaching and learning patterns were lecture, and the contents were physiology development and sexual desire. Some schools did not let healthcare teams provide sex education, especially birth control. The school administration prefers sexual abstinence and students did not get condoms.

"I knew an excellent project such as the Teenpath project developed by the program for appropriate technology in health (PATH), but we did not apply for the school program. The content and method depends on the schools' administration." (School health teacher, Age 55)

Channels:

Mothers often command about sexual risk behaviors such as obey to go outside at night or going out with the opposite sex, consent to have sex, and wear revealing clothes. Most of the communication is talking face to face and sometimes the mother disagrees with their daughter and command. Daughters prefer to discuss daily life and friend issues with their mothers.

"My daughter consults me about her friends; I listen. I command her of sexual risk behaviors." (Mother Nee, Age 52)

"My mother forbids me to go out at night, obey going out with the opposite sex,

obey to have sex, and wear a revealing dress." (Daughter Id, Age 13)

From key findings toward four components of the sender, message, the receiver, and channel, we categorized them into the key themes and sub-themes as shown in Table 2 below.

Table 2 Challenges and obstacles of mother-daughter communication to prevent sexual risk behaviors

Four elements of communication theory	Categories of themes	Sub-theme categories
Mother (Source or sender)	1. Poor maternal knowledge on sex education	1.1 Parents have insufficient knowledge of birth control
	2. lack of communication skills	
	3. Negative attitude towards sexual communication	3.1 Not suitable to teach sex to early adolescents
		3.2 Lead to enthusiasm about sex
		3.3 Sex will be learned after marriage
		3.4 Sex education is not a parental duty
	4. Traditional beliefs toward sexual communication of mothers	4.1 No talk about sex in the family
		4.2 Persons who talk about sex were sensual person
Daughters (Receiver)	1 Poor relationship with mother	1.1Blame and rarely admired or encouraged
		1.2 Punish by hitting
	2 Serious family climate	2.1 Parent quarrels made a serious family climate
		2.2 Insufficient income
Sex education (Messages)	1 Content of the sex education in family	1.1 Physiology development and abstinence
	2 Content of the sex education curriculum in school and method of learning	2.1 physiology development and sexual desire
		2.2 Lecture more than activity
Channels	Command and discussion	1.1 sexual risk behaviors
		1.2 Daily life and friends

DISCUSSION

This study focused on four highlighted elements that follow the communication theory in the challenges and obstacles of mother-daughter communication to prevent sexual risk behaviors.

The first element was mothers as the source or sender, and the four themes of challenges and obstacles were 1) poor maternal knowledge on sex education 2) lack of communication skills 3) negative attitude towards sexual communication 4) traditional beliefs toward sexual communication.

Poor maternal knowledge on sex education was shown when mothers expressed that they had insufficient knowledge of injectable contraceptives, contraceptive implant, emergency birth-control pills, and condoms. They taught

their daughters to depend upon their own experiences. This result is similar to the previous findings, which found that most parents were afraid to provide sex education because of their unfamiliarity with teaching methods and their lack of knowledge.[30] Some studies showed that parents wanted to know more about an unplanned pregnancy, the developmental stages of teenagers, as well as some preventive measures that could prevent their teens from engaging in sexual risk behaviors. [20]

Besides the lack of communication skills, mothers were afraid to talk about sexual issues. They did not know when and how to start communicating about sex with their daughters. Similarly, the study in rural Namibia [31] found that many parents do not provide adequate sex education for their children because they do not know enough about sexuality, they do not know how to explain what they know, and they feel incompetent and embarrassed.

Negative attitude towards sexual communication is also one theme found to relate with the poor maternal communication with the daughter in the family. Mothers expressed that it is not suitable to teach sex to early adolescents because their daughters were too young and innocent to understand birth control and condom use. Mothers were afraid that if they talk about birth control, it might guide their daughters to have sex. The study of Sridawruang[19] found that many parents avoid talking about sex to their daughters because of their young age. It was not the time to educate them about sex. The parents fear that sex education might encourage experimentation with sex. Similar to the finding of Thinh[32] in rural Vietnam, the parents were very concerned that the children would experiment with sex if they were provided sexual knowledge and contraception. Mothers taught their daughters that they should remain virgins before marriage and forbade them to have sex. Parents tend to communicate on sexual topics when the children were older.[16] Some of the mothers told their daughters to know about sexual relationships when they get married. Furthermore, they asserted that they did not have a duty to provide sex education. Similar to the study of Sridawruang[19] which indicated that parents preferred and trusted teachers as the best sources of information. It was different from the study of Shin[30] which reported that more than 50% of the participants responded that primary sex education for young children should be the responsibility of the parents and that education should be started during the elementary school period.

Traditional beliefs toward sexual communication of mothers, confirmed that Thai traditional culture remains a major influencing factor among Thai rural people.[33] Thai society has its norms to not have discussion of sexual issues in families. This finding was supported by Sridawruang[19] who indicated that sexual communication in the family was a restriction imposed by Thai traditional cultures. The mothers felt embarrassed to speak about sex. If they spoke about sex-related issues with their children, they would appear strange to the other villagers. Thai families had a negative attitude towards sexual matters. Talking about sexual relationships, especially among women, was forbidden due to the values and the belief of Thai society, which considered the topic as something private, not to be discussed openly even within the families.[16]

The second element was daughters as a receiver, and two themes of challenges and obstacles were poor relationship with mother, and having a serious family climate.

Poor relationship with mother, the results showed daughters rarely talk to their mother about safe sex practices and

contraceptive use because the daughter is afraid to be punished by her mother. Mothers sometimes use the word implied blame, and rarely admire or encourage their daughters. Six families used to hit their daughters. They seldom use the positive conversation of appreciation or express affection by words or actions such as hug or kiss with daughters. For this reason, daughters felt hurt, sorry, and thought that their mothers did not love them. A few daughters used to consult their mothers about their boyfriends and sex issues. Shahhosseini[34] presented a qualitative study that in Iran, adolescents needed to be emotionally supported by their family (Emotional support: friendly relationship, honest relationship, no favoritism shown towards children), and they highlighted the importance of a positive, close relationship between parents and children. Adolescents who had a good or positive relationship with their parents were less likely to engage in various risk behaviors, such as smoking, drinking, fighting, or unprotected sexual intercourse.[35-37] The higher levels of mother-child connectedness, parental closeness, and parent-child shared activities were all protective of sexual initiation.[38, 39] Mother-daughter good relationship, mother's strong disapproval of her daughter having sex, and frequency of communication with the parents of her daughter's friends were associated with later sexual debut.[40]

Serious family climate referred to parental quarrels and insufficient income of the family. Parental quarrels made a stressful family climate and affected family relationships. The family environment appeared to be a significant factor in cultivating adolescents in providing close relationships, strong parenting skills, good communication, and modeling positive behaviors.[41] It is essential to remove negative stimuli in the family environment to reduce depression and running away from home.[42]

The third element was sex education as a message,

In Thailand, the sex education curriculum is implemented as a comprehensive sexuality education (CSE) that covers diverse topics. Most teachers relied on lectures as their CSE teaching method, which does not provide opportunities for students to ask questions or develop their analytical thinking skills. Only a minority of teachers make uses of activity-based pedagogy.[12] Teachers preferred to emphasize the risks and negative aspects rather than the positive aspects of sexuality and thought that teaching about the positive aspects of sexuality was unnecessary because the students would have to learn by themselves. Teachers were concerned that education about positive aspects of sexuality would encourage the students to have sex. Both vocational and general secondary teachers stated they would emphasize the dangers of sex and not mention any positive aspects, thinking that sexual pleasure would not be appropriate for the students' age. They try to speak in extreme terms to make the students afraid.[12]

A study in adolescents found that most students rated the statement "Thai families do not give correct knowledge about sex to their children" at a high level.[16] A qualitative study among Thai teens in Bangkok by Fongkaew[20] indicated teen girls are likely to keep secret their personal stories related to sexual matters because they do not want to be scolded, blamed, and punished by their parents. Meanwhile, adolescents acquired sexual related issues and contraception from teachers, peers, television, and the internet. Adolescents do not have enough skills to refuse to have sex and cannot be restrained against having sex.

The last element was a channel, mothers often command about sexual risk behaviors.

Mothers showed disapproval of daughters' sexual risk behaviors. Maternal disapproval of sexual risk behaviors, premarital sex, maternal discussion about fertility control, and the quality of the mother-child relationships may have an important effect on the adolescents' sexual activities.[43] Mother's strong disapproval of her daughter having sex was associated with later sexual debut.[44]

LIMITATIONS

The samples in the study include only early female adolescents in eleven sub-districts in Nakhon Sawan province, it cannot fully encompass the cultural diversity of the whole country and the samples cannot generalize to represent all Thai early female adolescents.

RECOMMENDATIONS

From the findings, we recommend local authorities, healthcare providers, and social workers who enrolled in the District Health Board (DHB) should strengthen good family relationships by involving both parents and daughters to participate in various community activities such as the Songkran Festival days, a Family day, Mother's Day and Father's Day. Healthcare providers and school health educators should collaborate and arrange a participatory learning experience to promote sexual knowledge and a positive attitude in communicating about sex among mothers in the community. Establishing networks of teachers and mothers and set the meeting program to develop parent-daughter relationships should be carried out. The activities of the program should be created by participating teachers, parents, and adolescents. School teachers should be trained to revise their sexual attitudes and promote a positive attitude toward condoms/sex education. They were reducing their prejudices towards students with sexual experience, including pregnant students. Emphasizing gender and sexual rights and promoting instruction that makes use of learners' critical thinking skills should be a priority

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