Sexual and Reproductive Health Communication between Parents and High School Adolescents in Vientiane Capital, 2019

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Abstract

Background: Adolescent health has become a priority on the global health agenda. Parent-adolescent communication regarding sexual and reproductive health issues helps to reduce adolescent risk-taking sexual behaviors. The aim of this study was to describe the situation of SRH communication, and to determine the factors associated with SRH communication between high school students and their parents in Vientiane Capital.

Methods: A multistage sampling technique was applied. A self-administered questionnaire was implemented among a sample of 384 high school students aged 14-17 in Vientiane Capital. SRH communication in this study was recorded as the frequency with which adolescents discussed with their parents at least four topics on SRH issues during a six months period prior to the interview. Data were entered and analyzed using Epi Data software version 6.0 and STATA software version 14.2.

Results: The main result was that slightly higher than one fifth of the students (21.3%) communicated with parents on SRH issues. The multivariate logistic regression model showed that male adolescents (AOR = 2.1; 95% CI : 1.2-3.5), urban school locations (AOR = 0.2; 95% CI : 0.1-0.5), mature aged fathers (AOR = 1.7; 95% CI: 1.0-2.9), positive attitudes towards general communication with parents (AOR = 2.2; 95% CI: 1.1-4.2) and accessibility to multiple SRH information sources (AOR = 5.2; 95% CI: 2.4-11.4) were significantly associated with adolescent-parent communication on SRH issues (P-value < 0.05).

Conclusion: This study showed that student-parent communication on SRH issues was low, so policy makers should develop programs to improve SRH communication skills in all schools and encourage open discussion among family members, especially with respect to the

participation of adolescent girls. In addition, the positive attitudes of students and multiple sources of SRH information were also important factors in improving SRH communication.
Keywords: sexual reproductive health, communication, adolescents, Vientiane Capital;

Background

Adolescent health has become a priority on the global agenda with the added focus on addressing the adolescent health in low and middle-income countries so as to reach the SDGs from now until 2030 [1]. Adolescence is defined as the period of life between 10 and 19 years of age [2]. It represents a period of life characterized by significant physical, cognitive, emotional and social changes [3]. It is a transitional period from childhood to adulthood [4]. Traditionally in Laos, as in many Asian cultures, sexual behaviour before marriage is considered highly inappropriate, but this did not restrict behaviour. With respect to sex education in the family, parents tend to focus on abstinence[5] because Laos has one of the highest adolescent pregnancy rates among the countries in the region, with 83 in 1000 adolescent girls aged 15-19 being pregnant[6]. About 3.6% of women had given birth by age 15 [7], and more than 1 in 10 girls aged 15-19 have begun childbearing [8]. In addition, abortion is common in Vientiane Capital, with over 20% of sexually active young women reported to have had an abortion [9]. The new cases of HIV among youths aged 15-24 years in Vientiane Capital was 16.7%, 18.8% and 15.9% in each respective year for 2010, 2011 and 2012 [10].

Thus, it is very important for parents to be able to communicate openly with and give accurate and correct advice about SRH to their children as they become more sexually aware and active [11, 12]. However, many youths do not feel comfortable when discussing reproductive health with their parents such as physical changes at puberty, the menstrual cycle, wet dreams, birth control pills and condom use [13, 14]. When young people feel estranged from family, they may become involved in risky sexual behaviors at an early age such as premarital sex, multiple sex partners and unwanted pregnancies that affect health outcomes including teenage pregnancy, abortion and STDs including HIV/AIDS [15, 16].

However, when parents support the values of their children, adolescents more often develop positive, healthy attitudes about themselves [17]. Studies have shown that only 20%, 30.6%, 36.9% and 40.7% of adolescents in Lesotho, China, northwest Ethiopia and southern Ethiopia respectively, had discussed SRH issues with their parents [14, 18-20]. The barriers to discussing these topics with parents for adolescents included the parents' lack of knowledge, negative attitudes and socio-cultural taboos [21].

SRH communication may protect adolescent children from SRH issues, but there is little research on what helps adolescents initiate conversation about SRH matters with their parents [22]. The significance of this study is that it will help to design appropriate interventions and programs to support adolescents and improve open discussions on SRH to minimize many SRH problems and provide the skills to prevent different adverse SRH issues for adolescents. In Vientiane Capital, the important problem of young students was engaging in sexually risky behavior [23]. Therefore, this research was done to study adolescent-parent communication on SRH issues to reduce many of the problems resulting from sexually risky behavior in Vientiane Capital.

Methods

Study design and setting

This study employed a cross-sectional design with multi-stage sampling technique. First, it selected one school from 14 public high schools in four urban districts (Chanthabouly, Sikhottabong, Sisattanak and Xaysettha) and one school from five public high schools in one rural district (Sangthong) by random sampling. Therefore, the urban-based Lao-Viet High School and the rural-based Parkton High School were selected. Next, proportional sampling was used to select the number of classes in each grade. Finally, all students in the selected classes were invited to participate in the study.

Participants

The population size was 950 adolescent students in grades 9 to 12 at the Lao-Viet High School and the Parkton High School. The sample size was 384 which was determined using the single population proportion formula when considering the following assumptions $p = 0.5$ (it was hypothesized that the percentage frequency of outcome in the population was 50% for the estimated proportion of students communicating on SRH issues with parents); $d = 0.05$ (a confidence level of 95% and a margin of error of 5%); $Z (\propto/2) = 1.96$ (a significance level of 5% ($\alpha = 0.05$)). To this was added a 10% non-response rate and 1.3 design effect.

Measurements

The independent variables included socio-demographic factors, the attitudes of students and SRH information sources. The socio-demographic factors included age, grade, sex, school location, parent's marital status, living arrangement, father's age, father's education, father's occupation, mother's age, mother's education and mother's occupation.

The questionnaire about attitudes towards general and SRH communication was developed according to the Parent-Adolescent Communication Scale [16, 24]. Each question was

answered on a four-point Likert Scale of attitude statements ranging from strongly disagree (recorded as 1), disagree (recorded as 2), agree (recorded as 3) and strongly agree (recorded as 4). However, there were four negative questions which were answered with strongly disagree (recorded as 4), disagree (recorded as 3), agree (recorded as 2) and strongly agree (recorded as 1).

The attitudes towards general communication with parents constituted 15 questions. A summated composite score had a minimum score of 15 and a maximum score of 60. The actual scores were classified into two groups as follows: scores of 15-27 (<60%) were regarded as the respondents indicating a negative attitude and scores of 28-60 (>60%) were regarded as their displaying a positive attitude. The attitudes towards SRH communication with parents included 22 questions. A summated composite score had a minimum score of 22 and a maximum score of 88. Actual scores were classified into two groups as follows: scores of 22-39 (<60%) were regarded as the respondents indicating a negative attitude and scores of 40-88 (>60%) were regarded as their showing a positive attitude.

The dependent variable for the questionnaire was measured by the frequency communication between adolescents and parents on SRH issues by incorporating the eight questions related to SRH communication with the father and eight questions related to SRH communication with the mother. This was assessed using a Likert Scale of eight items/topics with responses ranging from never = 0 times per six months (recorded as 0), rarely = 1 time per six months (recorded as 1), sometimes = 2 times per six months (recorded as 2) to often more than 2 times per six months (recorded as 3) which was derived from the weighted Topics Measure of Family Sexual Communication Scale [25, 26]. The items included physical changes at puberty, menstrual cycles/wet dreams, premarital sex, multiple sex partners, unwanted pregnancies, birth control pills, condom use, STDs/HIV/AIDS. Responses to each of these eight items were classified into two groups: No = (never and rarely) = 0 and Yes = (sometimes and often) = 1. Then, a summated composite score was produced through totaling all items, and the Cornbrash's alpha for the internal consistency was 0.903. For the purpose of this analysis, parent-adolescent SRH communication was regarded as existent if the adolescents and their parents discussed at least four of eight SRH topics sometimes or frequently [27].

Statistical analysis

The data were entered, and cleaned using Epi Data software version 6.0. The data were analyzed using STATA version 14.2. Descriptive statistics was used to describe the numbers and percentages of the dependent and independent variables. Then, the bivariate analysis was performed between the independent variables, and the dependent variable. The variables in the

bivariate analysis found to be significant at p-value < 0.05 were entered into the multivariable logistic regression model. In the multivariate analysis, standard data analysis techniques were applied. Variables having p-value < 0.05 in the multivariate analysis were taken as significant predictors. Crude and adjusted odds ratios with their 95% confidence intervals were calculated and presented in texts and tables.

Ethical approval

The ethical approval was obtained from the Research Ethics Committee of the University of Health Sciences in the Lao PDR and the ethical review board for biomedical research at Hanoi University of Public Health in Vietnam. Participants were informed about confidentiality and verbal consent was obtained. Subsequently parental consent was obtained for those participants aged less than 18 years. Written consent from parents and written assents from adolescents were obtained after explaining the design, the objectives and benefits of the study. Respondents were clearly informed that their participation was voluntary.

Results

In total, 384 students aged 14-17 in grades 9 to 12 were enrolled into the study. About 63% of the respondents were from an urban district and slightly higher than half were females, in addition the mean age of respondents was 15.7. The reported mean age of their fathers was 47.2 and 40.6% of their fathers had graduated from the tertiary education level. Their fathers were mostly employed as government staff or private businesses. In addition, the mean age of their mothers was 42.6 and 41.9% of mothers had graduated from high school or vocational college. The majority of mothers were housewives (Table 1).

Table 1: Socio-demographic characteristics of students and their parents in Vientiane Capital

Variable	Total (n=384)	
	Number	Percentage (%)
Age		
14 - 15 years old	158	41.1
16 - 17 years old	226	58.9
Sex		
Female	230	59.9
Male	154	40.1
School location		
Rural	142	37
Urban	242	63
Marital status of parents		
Together	327	85.2
Separated/Divorced	57	14.8
Living arrangement		
Both parents	316	82.3
Mother only or father only	47	12.2
Relative or friend	21	5.5
Age of father		
47 years or below	206	53.6
Above 47 years old	178	46.4
Father's education		
Primary	87	22.7
High school/Vocational	141	36.7
Tertiary	156	40.6
Father's Occupation		
Unemployed	18	4.7
Employee (private/govt)	182	47.4
Other jobs	184	47.9
Age of mother		
42 years or below	176	45.8
Above 42 years old	208	54.2
Mother's education		
Primary	133	34.6
High school/Vocational	161	41.9
Tertiary	90	23.5
Mother's Occupation		
Housewife	104	27.1
Employee (private/govt)	103	26.8
Other jobs	177	46.1

Adolescent-parent communication on SRH issue

About 21.3% of students had discussed at least four topics for SRH issues with their parents during the six months prior to the survey. Of these students, male adolescents discussed the topics more frequently with their parents than female adolescents (29.2 % versus 16.1%).

Moreover, male participants also discussed SRH issues with their father and their mothers more often than female participants. These results highlight that boys talk more than girls to both their parents about SRH issues. However, more adolescent boys and girls talk with their mothers than with their fathers (Table 2).

Table 2: Communication on SRH issues between adolescents and parents in Vientiane Capital

SRH communication	Male (n=154)	Female (n=230)	Total (n=384)
	Number (%)	Number (%)	Number (%)
Discussed with father			
Mean ± SD = 3.7 ± 4.5; Median = 2; Min = 0; Max = 20			
No	108 (70.1)	203 (88.3)	311 (80.9)
Yes	46 (29.9)	27 (11.7)	73 (19.1)
Discussed with mother			
Mean ± SD = 5.6 ± 5.0; Median = 5; Min = 0; Max = 22			
No	98 (63.6)	163 (70.9)	261 (67.9)
Yes	56 (36.4)	67 (29.1)	123 (32.1)
Discussed with parent			
Mean ± SD = 9.4 ± 8.8; Median = 7; Min= 0; Max = 42			
No	109 (70.8)	193 (83.9)	302 (78.6)
Yes	45 (29.2)	37 (16.1)	82 (21.3)

Attitudes of students towards general and SRH communication with parents

About 70.8% of both male and female students had positive attitudes towards and accepted the importance of maintaining discussion about general matters with their parents. Moreover, 94.1% of students had positive attitudes towards and accepted the importance of discussing SRH issues with their parents (Table 3).

Table 3: Attitudes towards general and SRH communication with parents

Variable	Male (n=154)		Female (n=230)		Total (n=384)	
	number	percentage	number	percentage	number	percentage
Attitudes towards general communication with parents						
Negative attitudes	45	29.2	67	29.2	112	29.2
Positive attitudes	109	70.8	163	70.8	272	70.8
Attitudes towards SRH communication with parents						
Negative attitudes	8	5.2	15	6.5	23	5.9
Positive attitudes	146	94.8	215	93.5	361	94.1

Accessibility to SRH information sources

The main sources of SRH information for adolescents were health facilities because they received good information from them. In addition, the Internet was cited as the second most important source of SRH information due to the fact that the Internet was easy to access for SRH information (Table 4).

Table 4: Reasons for accessibility to SRH information sources

Reasons for accessing source	School	Health facility	Youth center	Internet	Television	Radio	Newspaper	Magazine
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Easy to access information	73 (39.9)	91 (33.4)	52 (31.9)	98 (41.9)	57 (39.6)	31 (34.1)	42 (38.1)	39 (36.8)
Always good information	68 (37.2)	133 (48.9)	74 (45.4)	84 (35.9)	60 (41.7)	46 (50.5)	54 (49.1)	54 (50.9)
Comprehensive information	13 (7.1)	27 (9.9)	22 (13.5)	31 (13.2)	16 (11.1)	11 (12.1)	11 (10.0)	10 (9.5)
Easy to understand information	17 (9.3)	17 (6.3)	13 (7.9)	15 (6.4)	7 (4.8)	3 (3.3)	3 (2.8)	3 (2.8)
Free information	12 (6.6)	4 (1.5)	2 (1.3)	6 (2.6)	4 (2.8)	0 0.0	0 0.0	0 0.0
Total	183 (47.7)	272 (70.8)	163 (42.4)	234 (60.9)	144 (37.5)	91 (23.7)	110 (28.6)	106 (27.6)

Note: N = number, (%) = percentage

Factors associated with SRH communication between students and their parents

The multivariate logistic regression model showed that male adolescents (AOR=2.1; 95% CI: 1.2-3.5), urban school locations (AOR=0.2; 95% CI: 0.1-0.5), mature aged fathers (AOR=1.7; 95% CI: 1.0-2.9), positive attitudes towards general communication with parents (AOR=2.2; 95% CI: 1.1-4.2) and accessibility to many sources of SRH information (AOR=5.2; 95% CI: 2.4-11.4) were significantly associated with adolescent-parent communication on SRH issues (p-value < 0.05)(Table 5).

Table 5*:* Bivariate and multivariate analysis of factors associated with SRH communication between students and their parents in Vientiane Capital

Variable	SRH communication with parent		COR (95% CI)	AOR (95% CI)	p-value
	No (n=302)	Yes (n=82)			
	N (%)	N (%)			
Sex					
Female	193 (83.9)	37 (16.1)	1	1	
Male	109 (70.7)	45 (29.3)	2.1 (1.2-3.3)	2.1 (1.2-3.5)	0.006**
School location					
Rural district	104 (73.2)	38 (26.8)	1	1	
Urban district	198 (81.8)	44 (18.2)	0.6 (0.3-1.0)	0.2 (0.1-0.5)	<0.001**
Age of father					
47 years or below	172 (83.5)	34 (16.5)	1	1	
Above 47 years old	130 (73.1)	48 (26.9)	1.8 (1.2-3.1)	1.7 (1.0-2.9)	0.03*
Attitudes towards general communication with parents					
Negative attitudes	97 (86.6)	15 (13.3)	1	1	
Positive attitudes	205 (75.4)	67 (24.6)	2.1 (1.1-4.1)	2.2 (1.1–4.1)	0.01*
Accessibility to SRH information sources					
One source	114 (93.4)	8 (6.6)	1	1	
> 1 source	188 (71.8)	74 (28.2)	5.6 (2.5-13.9)	5.2 (2.4-11.4)	<0.001**

**significant association (p<0.05)*
***significant association (p<0.01)*

Discussion

Parents are important role models in adolescents' lives. They can directly or indirectly transmit values, traditions and lifestyles to their children. Positive family communication helps teens develop the values, security, and sense of worth that can lead to healthy decision-making. Students like to pose questions to their parents, but SRH issues are difficult topics to discuss in the family, so this study assessed the high school adolescents' communication with their parents about sex and reproductive health, the frequency of this communication and the responses to SRH topics from the adolescents' perspective as expressed in the questionnaire.

This study showed that less than 1 in 4 adolescents discussed SRH issues regularly with their parents, which indicates that SRH issues may be difficult for parents to discuss with their children. The determining issue was the socio-cultural context which prevented parents from discussing sexual matters with their adolescents, especially younger female adolescents. Also, parents who are not close to their teenage children or who do not communicate with them regularly may find it particularly difficult to approach SRH issues with them, a finding which

is similar to other studies. In many African communities, sexual conversations are deemed a taboo subject [22], which is consistent with the findings of this study in that parents limit themselves to safe topics and students often do not discuss sexual issues with parents.

The teenage years are marked by profound changes in the lifecycle, during which adolescents may encounter a range of SRH issues such as early pregnancy, abortion, and STDs including HIV. During adolescence, teenagers may engage in health risking behaviors because they think that they are not vulnerable. Their decision-making skills can be improved by providing them with appropriate and timely advice. Hence, parents can be a vital source of information for adolescent children and support them in making appropriate decisions about their SRH.

This study indicated that both male and female adolescents were more comfortable discussing SRH issues with mothers than with fathers. One reason for this is that the study showed than many mothers were housewives, thus they often had more time to spend with their children whilst the fathers were at their workplace. Mothers were also perceived to be better at listening than fathers. Therefore, parents may need more knowledge and to consult healthcare workers so as to be better able to listen to and understand adolescents. It is particularly important to overcome embarrassment and shame when adolescents and adults talk to each other about SRH issues. Adolescents feeling ashamed about their lack of SRH knowledge and parents not having time lead to the adolescents not discussing SRH issues openly with their parents. This is a finding which is similar to other studies. In many African communities, sexual conversations are deemed a taboo subject [22]

The study showed that male adolescents are more likely to have discussed SRH issues with their parents than female adolescents. This might be because boys feel less embarrassment than girls when discussing SRH. It may also be because male adolescents stay at home less and like to go to bars and nightclubs and are more likely to have pre-marital sex and/or multiple partners. Thus, parents may wish to talk more to their sons about condoms, to prevent unwanted pregnancies. On the other hand, parents may not like to think of their adolescent daughters having sex, and thus, their daughters may feel embarrassed and ashamed to talk about such issues with their parents. The study in southern Ethiopia found that female students were more likely to communicate with their parents than male students, which might be due to the fact that females spend more time in the home where they can easily access their parents [14].

Adolescents with older fathers, were more likely to discuss SRH issues as found in a previous study in Unguja-Zanzibar, Tanzania, which mentioned that older parents with higher education were more likely to communicate with their adolescent children [27].This may be due to the

fact that older parents were more experienced in communicating and were more open to talking with their adolescent children than younger parents. Adolescents who have positive attitudes about communication with their parents were more likely to discuss SRH issues than those who had negative attitudes towards such communication. More than half the respondents identified that it was important to discuss SRH issues with their parents, particularly if they are good listeners. Thus, skills such as listening are very important and motivate sons and daughters to talk with their parents. The attitudes of adolescents are also important, as they must feel comfortable and confident to talk to their parents about SRH issues. In southern Ethiopia, students who perceived the importance of discussing RH issues with their parents were more likely to discuss RH issues with their parents compared to those who did not perceive the importance of such discussion [14].

The study also showed that adolescents who received information about SRH from multiple sources were more likely to discuss these issues with their parents, a phenomenon which might be due to interest in SRH information motivating attempts to look for many sources. Thus, parents could be one source of SRH information for their adolescent children. Similarly, a study in northwest Ethiopia mentioned that students who had obtained SRH information were more likely to communicate about SRH issues with their parents than those who did not have SRH information. This could be explained by the fact that the respondents have some awareness and might be more eager to communicate on SRH issues and the information they received might prepare them to begin that communication [19]. Interestingly, adolescents who attended schools in the urban area were less likely to communicate with parents on SRH issues than those in the rural area. One reason might be the different teaching skills for SRH topics in school.

As with all studies, this study has limitations. Firstly, the sample is not representative of the adolescents in the Lao PDR and does not sufficiently address different contexts. Secondly, this study is a cross-sectional study, so it prevents us from being able to assess the temporal order of communication with parents or examine how communication patterns might change across time and relationships. Thirdly, adolescents in this study were limited to middle adolescents, aged 14 to 17. The other issue was that the responses from adolescents might be different from what their parents might really have perceived. Fourthly, our measure of sexual communication focused on several sexual risk and protective behaviors, but did not assess many other topics that theorists and scholars have described as being part of sexual health such as intimacy and sexual pleasure. In addition, recall bias might have occurred as the SRH communication might or might not have happened: remembering their experiences of SRH

communication with their parents during the previous six months may be inaccurate, so the adolescents' responses might be over reported or under reported.

Conclusion

This study shows that only slightly higher than one-fifth of students communicated with their parents on SRH issues, which is quite low. Moreover, the associated factors such as male adolescents, younger versus mature-aged fathers, positive attitudes of students towards general communication with parents and multiple SRH information sources were significantly correlated with SRH communication between adolescents and parents. These findings will contribute to a greater understanding about the situation of SRH communication between adolescents and their parents in Vientiane Capital, and in turn this will help program managers to design policies, plans and initiatives that support parents and adolescents to communicate more effectively with each other about SRH issues. Therefore, sex education should improve SRH communication skills in all schools, especially in student populations that have a high percentage of younger fathers. In addition, the programs should involve multiple sectors like health, education and youth services to provide many sources of information to change the negative attitudes of students towards SRH communication with parents to positive ones. Moreover, parents should focus on both male and female students equally in discussing SRH issues. In particular, parents should discuss SRH issues with girls because they will bear the burden of unplanned pregnancies. Further studies should be carried out from the parents' perspective to identify factors that affect the discussion of SRH issues between students and parents in other provinces of Laos. Qualitative research should be more in-depth in relation to the SRH topics discussed between parents and adolescents and the barriers to SRH communication between parents and adolescents.

Abbreviations

AIDS: Acquired Immune Defficiency Syndrome
HIV: Human Immuno-deficiency Virus
RH: Reproductive Health
SDGs: Sustainable Development Goals
SRH: Sexual Reproductive Health
STDs: Sexually Transmitted Diseases
STIs: Sexually Transmitted Infections
UN: United Nations

UNFPA: United Nations Fund for Population Assistance
WHO: World Health Organisation

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Authors' contributions

VV developed the research proposal, designed the instrument, collected data in the field sites, analyzed the data and wrote the draft manuscript. VL and VS contributed to the statistical analysis and interpretation of results. Finally, VL and VS made contributions to manuscript revision. All authors read and approved the final manuscript.

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Availability of data materials

This dataset analyzed during the current study is not publicly available due to the privacy policy imposed by the UHS, but may be available from the corresponding author on reasonable request.

Ethics approval and consent to participate

This study was approved by the National Ethics Committee for Health Research, Ministry of Health, Lao PDR and reviewed by the International Review Board of the Hanoi University of Public Health. All students who are included in the sample agreed to participate in the survey and signed the informed consent form.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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