

Prevalence of Premarital Sexual Intercourse and its Associated Factors: a cross-sectional study among adolescents in Malaysian Secondary School

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To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v8-i6/4513>

DOI:10.6007/IJARBS/v8-i6/4513

Published Date: 08 July 2018

Abstract

This study was done to examine the prevalence of sexual intercourse among secondary school students aged 13 to 17 years in Muallim District in the state of Perak, Malaysia. This is a cross-sectional survey involving 1,200 adolescent students in Malaysian secondary school. Data were collected using a translated and self-administered questionnaire. The results showed that 7.4% of the total sample was reported that they have had sexual intercourse. The analysis also demonstrated that the proportion of male adolescent students (9.9%) who ever had sexual intercourse was higher compared with female adolescent students (3.8%). The mean age of having this sexual activity was 16 years. This study also indicated that there were differences in some demographic variables in terms of adolescent involvement in this sexual activity. In this case the significant difference between in the group can be seen in the gender, age and marital status of the parents. In relation to this, significant differences between the groups can be observed in gender, age and marital status of the parents. The survey findings revealed that this sexual activity was significantly associated with watching pornographic videos/films, involving with midnight activities, influenced by peers/friends, drugs, drinking alcohol and lack of parent control. As a conclusion, the prevalence of sexual intercourse among Malaysian adolescents was relatively low compared to developed countries. As this problem is increasing therefore earlier action to address this problem is necessary.

Keywords: Adolescents, Premarital Sexual Intercourse, Associated Factors

Introduction

Premarital sexual intercourse is sexual activity practiced before marriage and it is prohibited in some cultures and sinful for some religions. In Malaysia, Ahmad et al. (2014) had analysed data collected by the Global School-based Student Health Survey (GSHS) indicated 8.3% of Malaysian students aged 12 to 17 engaged in such kind of sexual activity. However, studies in several other states in Malaysia showed a different outcomes. Lee et al. (2006) conducted a

study in Negeri Sembilan demonstrated a prevalence of 5.4%, while a study conducted in Pulau Pinang by (Anwar, 2010) reported a prevalence of 12.6%. These reports reflected that the proportion of premarital sexual intercourse among school adolescents is inconsistent. Probably there is a difference in terms of proportion of this activity between states in Malaysia.

The prevalence of this sexual activity has been reported steadily increasing among school adolescents worldwide. Several studies in developed countries such as the United States, Europe and the United Kingdom have been reported that the prevalence continued to increase among high school students. This scenario also happened in Southeast Asian countries such as Thailand, Vietnam and the Philippines (Che Anuar, 2015).

Malaysia is quite a unique country with multicultural population comprises of 3 main ethnics, Malays, Chinese and Indians and each of them has its own way of life as well as their views on the sexuality of their teenagers are different. In addition to this, each of them has its own culture as well as prohibition of social promiscuity of their teenagers. In Malaysia, most of the Malays are Muslims, the Chinese are Buddhists, about 10% of the population is Christian, which comprises of several ethnic groups such as Chinese and Indians. The majority of Indians are Hindus. In addition, Malaysian society is characterized by the diversity of socio-economic status (SES) of the family. This situation can also affect the way of life and social interaction of children which affects their child's sexual intercourse.

Some people in the Malaysian society still regard the topic on sexuality is a taboo to be discussed. However, today some people have dared to bring the society to discuss openly on the basis of their concern that the issue has caused an illegal pregnancy, HIV / AIDS and other negative effects. Nevertheless, the number of sexual activity among adolescents is still increasing and it is difficult to curb (Barmania & Aljunid, 2016).

Various factors were associated with premarital sexual intercourse among school adolescents in Malaysia. Previous studies in Malaysia showed that watching pornography and midnight activities are the among the salient risk factors of premarital sexual intercourse among the adolescents (Ahmad et al., 2014). Consequently, some of the individual risk factors such as smoking, drinking alcoholic beverages, and taking drugs can increase the number of the sexual activity (Liu et al., 2006; Lee et al., 2006; Wong et al., 2009). Some studies abroad showed that demographic factors are associated with the sexual activity. For example, studies in the Nigeria showed sexual activity among adolescents depending on ethnicity, age, and residence location either in urban or rural areas (Folayan et al., 2015). While in Thailand and the Philippines, family structures play a role in teen sex activities where youths living with single parent have higher rates of sexual activity than those who live with both parents (Ayodele, 2012). In Kenya, the most important predictor in sex activity among male adolescents was the use of alcohol, drugs, or tobacco (Boys, 2015). This finding is similar to several research findings in the United States (Thompson et al., 2014). Thus it is a priority to explore in a systematic study to determine the most important predictors that influence sexual activity among considering various environmental factors.

Based on above issues, this paper presented a study on the prevalence of premarital sexual intercourse among Malaysian secondary school adolescents and factors affecting this sexual activity. The related data is very interesting to study because the unique background is not available in other countries. Of course, this study is expected to provide information to various parties, especially the Ministry of Education, the Department of Social Welfare, the Malaysian Social Institute, the Ministry of Women, Family and Community Development in the effort to reduce or eliminate this problem.

Methods

Based on the objective of the study, the research design chosen to carry out this study is a cross sectional survey which was started in January 2018 to April 2018. This study was conducted at seven schools in which four were located in the towns of Tanjong Malim, Slim River, Tapah and Bidor where these places can be regarded as urban areas. The other three are located at Federal Land Development Authority (FELDA) namely Sungkai, Behrang and Besout. FELDA is a Malaysian government agency established to address the relocation of rural population to new areas with the aim of promoting smallholders to plant more cash crops. All these places are located in Muallim district in the state of Perak.

The population of the study consists of adolescent students aged 13 to 17 years that attending secondary school (Form One to Form Five). A total of 1200 respondents were selected as a sample of the study of the total population of 3,600 students. Once the sample size has been determined, the researcher uses quota sampling method as a technique to obtain a proportionate number of respondents based on the demographic background.

Data were collected using "Sexual Behaviour Questionnaire" developed by Scandell et al. (2003), a self-administered structured questionnaire.. The questionnaire was translated using back translation process where the original item was in English was translated into Bahasa Malaysia (the local language) and re-translated into English to ascertain the accuracy of the translation. The questionnaire has been piloted at one of the schools in Tanjong Malim, before they are used in the field, to ensure the validity and reliability of the items. Unclear items have been revised before questionnaires are finalized and printed. Subsequently, the researchers sought permission from the State Education Department, school management and all selected respondents. To ensure maximum reactions, students are assured that the collected information will be treated confidentially with great emphasis on the ignorance of the questionnaire feedback. To maximize the confidentiality of the responses, teachers were not allowed together during the survey and no discussion was allowed.

In addition, the questionnaires consist of several sections that include respondents' socio-demographic characteristics that include age, gender, education level, ethnicity and religion. The other is a question related to sexual behaviour which is the experience of respondents about doing sexual intercourse. The questionnaire also included the questions related to the factors that were possibly related to the adolescent sexual behaviour.

Since the collected data is parametric therefore the chi-square (χ^2) test is suitable to be used to determine whether there is a significant difference between one or more groups of the respondents. Factors related to the premarital sexual intercourse among the school adolescents were analysed using Bivariate and Multiple logistic regression. The statistical analysis was performed using Statistical Package for Social Sciences (SPSS) version 21. The overall model to predict the probability of premarital sexual intercourse was statistically significant at ($P < 0.05$).

Results

Table 1 presented an analysis of adolescent involvement with premarital sexual activity based on their demographic background. Researchers had collected 1,200 questionnaires despite distributing it more than that amount. Subsequently, the questionnaires were sorted according to the background of the respondents. Questionnaires which did not receive feedback from the respondents were removed from the analysis of this study. By gender, 43.6% of the respondents were female, 56.4% were male. The analysis showed that the mean age was 15.3 years (median 15). In terms of ethnic groups that

participated in the study, there were 41.8% Malay, 37.5% Chinese, 18.6% Indian and 1.9% from other ethnic groups (especially indigenous people) reflecting ethnic peculiarities in Malaysia. By religions, 43.5% were Muslim, 26.3% Buddhist, 12.9% Christian, 15.4% Hindu and 1.9% were those from other religions. Accordingly, this study also taken into account differences of family SES where respondent from high SES were 41.7%, 29.3% medium SES and low SES was 28.9%. In addition, 69.8% are those who lived with both parents and 20.1% live with single parent. In terms of location, 46.4% were from urban areas whereas 53.6% from rural areas. Data on demographic diversity is important in this study when the analysis involves identifying the differences in the groups for each variable.

Table 1

Socio-demographic background of Respondents and their Sexual Experience

Respondent Background	No. of Respondent	Sexual Experience		p-value
		Never had	Ever had	
Overall Respondents	1200 (100%)	1,114 (92.6%)	86 (7.4%)	
Gender				
Male	677 (56.4%)	611 (90.1%)	66 (9.9%)	0.001
Female	523 (43.6%)	503 (96.2%)	20 (3.8%)	
Age				
13	160 (13.3%)	155 (96.9%)	5 (3.1%)	0.005
14	299 (24.9%)	291 (97.3%)	8 (2.7%)	
5	342 (28.5%)	326 (95.3%)	16 (4.7%)	
16	185 (15.4%)	155 (83.8%)	30(16.2%)	
17	215 (17.9%)	188 (87.4%)	27 (12.6%)	
Ethnic Group				
Malays	502 (41.8%)	470 (93.6%)	32 (6.4%)	0.062
Chinese	450 (37.5%)	412 (92.7%)	38 (8.4%)	
Indians	225 (18.6%)	210 (93.4%)	15 (6.6%)	
Others	23 (1.90%)	22 (95.7%)	1 (4.3%)	
Religion				
Muslim	522 (43.5%)	488 (93.5%)	34 (6.5%)	0.318
Buddhist	315 (26.3%)	292 (92.7%)	23 (7.3%)	
Christian	155 (12.9%)	140 (90.3%)	15 (9.7%)	
Hindu	185 (15.4%)	172 (93.0%)	13 (7.0%)	
Others	23 (1.9%)	22 (95.7%)	1 (4.3%)	
SES				
High	501 (41.7%)	467 (93.2%)	34 (6.8%)	0.636
Moderate	352 (29.3%)	325 (92.3%)	27 (7.7%)	
Low	347 (28.9%)	322 (92.8%)	25 (7.2%)	
Parent Marital Status				
Both parent	837 (69.8%)	821 (98.1%)	16 (1.9%)	0.001
Single parent	242 (20.1%)	180 (74.4%)	62 (25.6%)	
Both parent died	121 (10.1%)	113 (93.4%)	8 (6.6%)	
Residence				
Urban	557 (46.4%)	505 (90.7%)	52 (9.3%)	0.652
Rural	643 (53.6%)	609 (94.7%)	34 (5.3%)	

Table 1 also showed the prevalence of premarital sexual intercourse among adolescents school based study sample. The results showed that 7.4% of total study samples were reported having had sexual intercourse. Furthermore, the results of the analysis seemed to be a higher proportion of male students (9.9%) compared with female students (3.8%) who had had sexual intercourse. The results also showed that there were significant differences between male and female students who had had sexual intercourse at $p < 0.05$.

In this regard, Table 1 demonstrated the results of the adolescent involvement with premarital sexual activity based on the age of 13 to 17 years. The results of the analysis indicated that the highest proportion they ever had sexual intercourse was at the age of 16 years. The result also showed that this activity increased from age 13 to 16 years old but declined at age 17. Referring to the chi-square test (χ^2) proved that there was a significant difference between age groups at $p < 0.05$.

Table 1 presented the result of analysis of premarital sexual intercourse with ethnic groups. The result showed that only 6.4% Malay adolescents were reported involved with such sexual activity while Chinese adolescents were 8.4% and Indian adolescents 6.6%. Only 4.3% of adolescents from other ethnic groups admitted that they were involved with the activity. The result of the chi-square test showed there was no significant difference between the adolescents of ethnic groups that they ever had sexual intercourse at $p < 0.05$.

Referring to the adolescents from various religions, Table 1 shows that 6.5% Muslim adolescents reported to have had sexual intercourse while Buddhist adolescents 7.3%, Christian adolescents 9.7% and Hindu adolescents 7.0. Only 4.3% of school adolescents from other religious groups admitted that they were involved with this activity. The result of the chi-square test showed there was no significant difference between the religious groups that they ever had sexual intercourse at $p < 0.05$. In term of family SES and premarital sexual intercourse, Table 1 showed a total of 6.8% of adolescents of high SES family admitted that they had sexual intercourse. Meanwhile, adolescents from moderate SES family 7.7% and adolescents from the low SES family 7.2% were involved with the activity. The results of chi-square (χ^2) test showed that there was no significant difference between SES groups that they ever had sexual intercourse at $p < 0.05$. Regarding relationship location of residence respondents and premarital sexual intercourse, Table 1 revealed that 9.3% of the sample in urban areas reportedly involved with such sexual intercourse. Meanwhile, 5.3% of rural sample reported having had sexual intercourse like this. The results of chi-square (χ^2) test showed that there was no significant difference between respondent's residence and premarital sexual intercourse at $p < 0.05$.

However, relationship between parental marital status and premarital sexual intercourse of the adolescents showed different findings. Table 1 showed only 1.9% of adolescents living with both parents reported that they ever had that such sexual activity while 25.6% were from those who lived with single parent and 6.6% of adolescents living with alternative parent. Therefore, Chi-square (χ^2) test showed that there was a significant difference between parental marital status of adolescents and premarital sexual intercourse of the adolescent at $p < 0.05$.

Table 2 is the result of an analysis of bivariate multiple logistics regression which explains what are the environmental factors that influence premarital sexual intercourse adolescent students. The analysis showed that the significant factors associated with the sexual activities comprised of watching pornographic videos/films ($\beta = 0.515$, $t = 27.845$, $p < 0.0001$), involved with midnight activities ($\beta = 0.283$, $t = 15.740$, $p < 0.0001$) and influence by peers/friends ($\beta = 0.186$, $t = 13.963$, $p < 0.0001$). Likewise, higher level of drugs that stimulated

sex ($\beta = -0.133$, SE = .147, $p < 0.0001$), drinking alcohol ($\beta = 0.115$, SE = .131, $p < 0.005$), lack of parent control ($\beta = 0.098$, SE = .155, $p < 0.01$) and low of self-efficacy ($\beta = 0.094$, SE = .125, $p < 0.005$) were factors that contributed to premarital sexual activities.

Table 2
Result of Bivariate Regression Analysis

Predictive Factors	β	Beta	t	p-value
Watching pornographic videos/films	0.515	0.682	27.845	0.000
Involved with midnight activities	0.283	0.450	15.740	0.000
Influence by peers/friends	0.186	0.408	13.963	0.000
Drugs that stimulate sexual activity	-0.133	0.390	13.234	0.000
Drinking alcohol	0.115	0.385	13.152	0.002
Lack of parent control	0.098	0.398	13.525	0.005
Low Self-efficacy	0.094	0.392	13.759	0.009
Low self-esteem	-0.093	0.344	13.868	0.116
Lack of Knowledge of sexual health	0.029	0.329	12.922	0.502
Lack of family communication about sex	0.020	0.314	12.759	0.576
Low income families	0.009	0.279	-6.322	0.613
Low religious belief	0.008	0.264	-5.739	0.768
Location of residence	0.005	0.244	6.133	0.948
Ethnicity	0.001	0.241	-6.342	0.995

Discussion

This study showed that the prevalence rate of premarital sexual intercourse was 7.3%. The findings show that it was slightly lower than the finding of nationwide study conducted by Ahmad et al. (2016) which was 8.3% and a study in the state of Pulau Pinang (Anwar, 2010) which was 12.6%. However, the finding of this study was higher compared to a study done in the state of Negeri Sembilan (Lee et al., 2006) which was 5.4%. This finding explains that the prevalence of this sexual activity in Malaysia is inconsistent and this study also denying the views that this rate of sexual prevalence continues to increase as debated by various parties. The difference proportion rate may be due to the location of the study. As we know, Malaysia has 14 states and each state has different population composition. After all, the every state has its own administrative system in which each has a government head either Sultan or Governor and some of them are Islamic-oriented. We can observe the religious-oriented states imposing strict laws on anyone who commit illegal sexual intercourse. In this regard, the problem of sexual activity such as this is found to be lower than those states that are more

focused on physical development. High sexual problem is due to rapid modernization and social changes in the state itself (Lee et al., 2006).

If compared with overseas countries we can observe the proportion rate of prevalence of premarital sexual study is still lower than those of countries such as Cambodia which was 11.9%, Mongolia which was 15.4% (Ahmad et al., 2014), Thailand which 15 %, Brazil 33%, Great Britain which was 60% and USA which was 50% (World Health Organization, 2009).

With regards to gender differences in adolescent premarital sexual activity involvement, this study showed that there were great differences between male and female adolescents. Male adolescents were more likely to have sexual activity compared to female adolescents, which were 8.3% boys and only 2.9% girls. The proportion rate seem to be lower than the Global School-based Health Survey (GSHS) based on data collected data in 2012 and it showed that 9.6% were boys and 7.1% were girls reported having had sexual intercourse. Previous studies in Southeast Asia, Sub-Saharan African and developed countries reportedly adolescent sexual experience varies throughout but generally show a consistent state (Ahmad et al., 2014). Previous studies also showed that the rate of involvement of female adolescents increased significantly after the age of 17, after the completion of secondary school (Ahmadian et al., 2014). While in secondary school, studies show that many this adolescents were more focused on learning as a preparation to cope with main examinations such as Lower secondary Assessment (PT3) and Malaysian Certificate of Education (SPM). Studies of female youths suggest that 2% - 11% of Asian girl have had sexual intercourse by the age of 18 years (Che Anuar, 2015). Previous studies indicated that 12%-44% of sub-Saharan African girls by the age of 19 years (World Health Organization, 2009). In developed countries, most young women have had sex prior to the age of 20 years – 67% in France, 79% in Great Britain, and 71% in the USA (Ahmad et al., 2012). The imbalance proportion between gender in which boys were more sexually active than girls is due to the attitude and behaviour that were drafted by young people and society (Wepukhulu et al., 2012).

This study indicated the Malaysian adolescents involvement with premarital sexual intercourse began in the early stages of adolescence ie at age 13 and increased at age 16. This findings seem to be consistent with past studies such as Lee et al., (2006); Ahmadian et al., (2014) and Che Anuar (2015). In Malaysia, at that time the adolescent had just passed the first main examination in secondary school, Lower Secondary Assessment (PT3) and this situation them opportunity to socialize more freely.

Malaysia is a multiracial country and every of them practicing their own way of life. In Peninsular Malaysia, the major ethnic groups are Malays, Chinese and Indians and most likely the level of stress is also different between them. In Malaysia, most of the Muslim is the Malay community, Chinese are Buddhists and the Indians are Hindus. However, approximately 10% of the population is Christian, which consists of several ethnic groups such as Chinese and Indians. The majority of Indians are Hindus. Although, the result showed there was no significant difference between the ethnic groups of the adolescent students that had sexual intercourse but in this study, respondents of Chinese descent were found to be more likely to have engaged in sex as compared with the Malays and Indians. In contrast with a study done by Ahmad et al. (2014) respondents of Indian descent were found to be significantly associated to have engaged in sex as compared with the Malays and Chinese. However, there was insufficient data to explore the possible reasons regarding this matter.

The result of this study showed there was no significant difference between the SES groups and adolescent students who had experienced sexual intercourse. This study supports the study conducted by Isiugo-Abanihe & Oyediran (2004) who found the household socio-

economic status is not significant related to sexual intercourse. However, Wepukhulu et al., (2012) who conducted studies in Kenya indicated that household socio-economic status had a significant influence on the development of unfavorable attitude of the students towards premarital sexual intercourse. The study found that poverty or economic depravity in particular, has been strongly linked to premarital sexual activity among young girls. While studies conducted by Singh, Darroch & Frost (2001) in 5 developed countries (Canada, France, Great Britain, Sweden and the United States) showed that early sexual activity has little association with income, but young girls who have little education are more likely to initiate intercourse during adolescence than those who are better educated.

In this study, adolescents who lived with single parents had a higher rate of sexual intercourse than those who lived with biological parents and alternative parents. Several studies show that single parents show weakness in care and parenting stress and they did not provide protection for their children compared to children who live with both parents. Adolescents who live with single parents are more likely to be active to have sex compared to those who live with both parents (Wamoyi, Wight & Pieter Remes, 2015). On the contrary, those who grow up in a family of two parents are more likely to delay sexual activity or use contraception (Okigbo et al., 2015). In single-parent families, the absence of mother or father can contribute to parental difficulties in monitoring and controlling the activities of their children (Wamoyi, Wight & Pieter Remes (2015).

This study indicated that premarital sexual activity was positively associated with watching pornographic videos and films. In Australia, watching pornography is common and frequent among young people from a young age (Lim et al., 2017; Che Anuar (2015) has conducted a study of 350 randomly selected school teens who find 65-80% of those who had watched pornographic videos. A study in Australia showed that rates of lifetime exposure to pornography were 73-93% for adolescent boys and 11-62% for adolescent girls in Australia (McKee 2011; Fleming et al., 2013). Træen & Daneback (2013) study on Norwegian youth concluded that watching pornography was associated with sexual activity and sexual experimentation often portrayed in pornography. There was also some evidence of an association between use of pornography and partner sex. Therefore, findings from previous studies suggest that premarital sexual activity was positively associated with watching pornography.

This research findings indicated that sexual intercourse was positively associated with involved with midnight activities. This finding is supported by Gonzalez (2009) most teenagers who always come out at night for the purpose of midnight activities tend to go to nightclubbing and in place appears to assist them establishing social network and sexual relationship. Not only that, nightclubbing was associated with both more frequent drinking alcohol and more frequent illegal substance use such as smoking and drug. Previous studies show that sexual risk behaviors increase in adolescents who use alcohol (4). In addition, as the frequency of substance use increases the likelihood of sex and the highest among students who use marijuana, cocaine, prescription drugs (such as sedatives, opioids, and stimulants) and other illicit drugs (McHugh, Nielsen & Weiss,, 2015). To reinforce this fact, a study by the 2017 National Youth Risk Behavior Survey (YRBS) in 2017 showed that 40% of high school students have ever had intercourse and 29% of high school students are currently sexually active. Of the students who are currently sexually active, 19% drank alcohol or used drugs before last sexual intercourse (Lipari, Williams & Van 2017). This fact proved that this study found that adolescent sexual intercourse was positively associated with taking drugs or substance use and drinking alcohol.

In addition, this study has shown that peer and friends influence have a significant association with premarital sex among adolescent students. This research finding is consistent with previous findings revealed that peer influence is one of the main factors affecting sexual activity of adolescents (Bingenheimer & Asante, 2015; Fearon, 2015; Cherie & Berhane, 2012; Widman et al., 2016). Having sexual intercourse among peers increased six times to have sexual intercourse in adolescents (Ahmad et al., 2014).

This study also showed that parental control was among the significant factors associated with premarital sexual intercourse among the adolescent students. This finding was in line with a study conducted on adolescent students in Ethiopia (Tura et al, 2012). Similarly, a study in Indonesia also showed that parenting influenced many aspects of child development, including premarital sexual among the adolescents (Suwarni et al., 2015). According to a study in the U.S. showed that parenting influenced many aspects of child development, including premarital sexual activity (Potter, 2017). This may be explained by the fact that parental control over adolescents has a significant impact on sexual intercourse. Furthermore, studies conducted in the US showed that the adolescents reported monitoring parental successful (with the right to know the presence of youth and outdoor activities) clearly indicated as to feel less appropriate to engage in intercourse, whereas adolescents reported more time uncontrolled tend to express feelings that encourage promiscuity (Ankomah, 2011). This situation probably related to the family structure, adolescents who lived with single parents who are said to have no control over their children and this study showed that there had significantly higher rates of sexual intercourse than those living with both biological parents. Wamoyi, Wight & Pieter Remes (2015) adolescents living with a single parent are more likely to become sexually active than those living with both parents. On the other hand, teenagers who grow up in two-parent families are more likely to delay sexual activity and use contraception (Okigbo, 2015). In single-parent families, the absence of a second adult may contribute to the difficulty among the parents in monitoring and controlling their teenagers activities (Wamoyi, Wight & Pieter Remes (2015)).

Conclusion

In conclusion, the prevalence of premarital sexual intercourse among Malaysian secondary school adolescents was relatively low compared with those adolescent students in South East Asian, Latin American and several developed countries. There were certain groups of the adolescents tend to be at higher risk of their engaging in the sexual activity and the problem should be addressed early by targeting the high-risk groups. The environmental problems should also be given attention such as watching pornographic videos, involving with midnight activities, peer and friends influence, substance (drug) use, drinking alcohol, lack of parental control and low self-efficacy which were found to the risk factors of premarital sexual intercourse among school adolescents. Various parties, the school, and local health bureau and stakeholders should work together to address the identified risky behaviours.

Acknowledgement

We would like to thank the Research and Innovation Management Centre, Sultan Idris Education University for providing the funds for this research.

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