

## ORIGINAL ARTICLE

# Determinants of Premarital Sexual Behavior Among the Late Adolescents in Pahang, Malaysia

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## ABSTRACT

**Introduction:** Premarital sexual behaviour remains an important sexual and reproductive health issue among adolescents in Malaysia. It is also a prohibited act and considered sinful among the Muslims community. This study aimed to identify the determinants of premarital sexual behaviour among the late adolescents age group in Pahang, Malaysia. **Methods:** An observational study was conducted among eligible late adolescents, which were recruited using probability sampling method. Only those aged 18 to 19 years old, and previously attended the public secondary schools in Malaysia were included, with non-Malaysian, married and those who were absent during the data collection day were excluded. Data was collected using a valid and reliable set of questionnaires measuring the personal (demographic profile, knowledge and attitude), behavioural (premarital sexual behaviour and high-risk activities) and environmental (subjective norms and perceived parental communication) factors. Multiple logistic regression analysis was conducted to identify the determinants of premarital sexual behaviour. **Results:** A total of 390 adolescents aged 18 and 19 years old participated in this study, with 82.3% of respondents reported never had premarital sexual behaviour. Multiple logistic regression showed that the male and engagement in high-risk activities had higher odds in premarital sexual behaviour respectively (AOR =11.649, 95% CI: 3.615,37.536, p <0.001; AOR=19.224, 95% CI: 7.820,47.262, p <0.001). **Conclusion:** Male gender and engagement in high-risk activities remained important risk factors towards the ongoing concern related to premarital sexual behaviour among adolescents in Malaysia. Failure to address this issue should be explored and improve accordingly.

*Malaysian Journal of Medicine and Health Sciences* (2023) 19(4):117-123. doi:10.47836/mjmhs19.4.18

**Keywords:** Premarital sexual behaviour, Late adolescents, Determinants, Malaysia

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## INTRODUCTION

Adolescence is a critical stage of human development involving the period of transition from childhood into adulthood (1). It refers to individuals aged between 10 to 19 years old, during which various physiological and social changes occur (2), and commonly linked to high-risk behaviours.

The practice of premarital sex among adolescents is not uncommon and have been reported in numerous research (3,4). Premarital sexual behaviour has been referred to sexual desire before marriage, ranging from performing the less intimate relationships to performing sexual intercourse (5). However, it is the involvement in sexual intercourse that put the adolescents at higher risk of reproductive diseases such as sexually transmitted infections including HIV and AIDS, unwanted

pregnancies, abortion, drug use, and psychological disorders that lead to decreased confidence, stress, and depression (6). The risks of sexually transmitted diseases (STDs) such as Human Immunodeficiency Virus (HIV) (4,10) and unintended pregnancy (11) were linked to the poor decision-making skills and knowledge on the potential risks related to unsafe or unprotected sexual intercourse (7-9) among adolescents. According to a report by UNICEFF (12), about 2.2 million of the adolescents worldwide suffered with HIV, with more than half were female adolescents. Furthermore, about 16 million births occurred among female adolescents aged 15 to 19 years old around the world annually (13). The immature physiological and reproductive systems of the female adolescents may put them at risk of morbidity and mortality, with girls aged under 16 years were reported to have four times higher likelihood of dying during pregnancy or delivery compared to those older (14).

Numerous factors were reported to determine adolescents' involvement in premarital sexual behaviour, which include knowledge (15,16), attitude (17) and

self-efficacy (18,19) related to sexual and reproductive health (SRH) as well as, availability and accessibility of SRH services (20), environmental related factors such as housing and neighbourhood (21), related laws and policies (22), media influence and cultural norms (23). All these factors are interrelated, with the presence of more risk factors increase the likelihood of premarital sexual engagement among adolescents. The involvement of the adolescents in premarital sex behaviour also leads to other problems of social ills such as baby dumping. According to Md. Shahid et al. (24), approximately 472 cases of baby dumping were reported in Malaysia, between 2005 and June 2011, with an average of 4,500 adolescents got pregnant out of wedlock each year. Furthermore, data from the National Registration Department in 2013 recorded a total of about 53,000 of 510462 births were registered under illegitimate child status or child born out of wedlock (25).

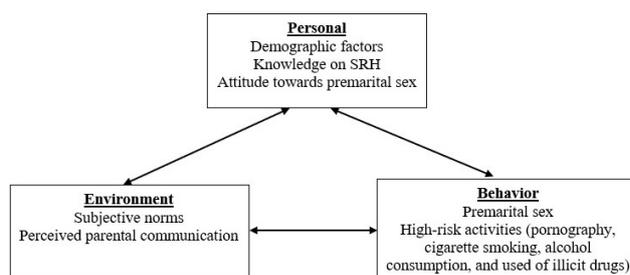
While it is a common practice in many western countries, sex before marriage or premarital sex is prohibited in some cultures and sinful in some religions such as Islam. As a Muslim majority population country, Malaysia has a strong and stringent of Islamic foundation and Islamic Law, with the relationship between husband and wife is the only accepted form of sexual relation in Islam. Nevertheless, the proportion of adolescents engaged in premarital sex have been alarming, resulting in unwed pregnancy and abortion, particularly among the Malay adolescents. According to the National Health Morbidity Survey (NHMS), the prevalence of school going adolescents who have had sex in Malaysia had steadily increased between 1996 and 2017, involving both male and female adolescents (26). In view of the many negative impacts of premarital sex, this study aimed to identify the underlying factors influencing adolescent’s involvement in premarital sex. The late adolescents were selected as the sampling population in view of the sensitivity of SRH issues being discussed among school going adolescents in Malaysia, as well as the disapproval from the related ministry.

**MATERIALS AND METHODS**

A cross-sectional study was conducted in Kuantan, one of the 11 districts in the state of Pahang, Malaysia, which is the capital city of Pahang. A total of 390 adolescents from 14 tertiary education centres, ranging from community colleges and polytechnic to universities were sampled using stratified probability proportionate to size (PPS) sampling, with eligible adolescents from each stratum were recruited by simple random sampling technique according to the pre-determined proportion. The inclusion criteria include those who aged 18 to19 years old, and previously attended a public secondary school in Malaysia to ensure exposure towards the sexual and reproductive health (SRH) education curriculum and program implemented by the Ministry of Education. Meanwhile, those who were non-Malaysian,

married and absent during the data collection day were excluded from the study.

Data was collected between January and March 2020, using valid and reliable self-administered questionnaire. The variables of concerned were identified according to the constructs of the Social Cognitive Theory (SCT), categorized as personal, behavioural, and environmental factors. Personal factors include demographic profile, knowledge, attitude, and high-risk activities (Fig. 1). Premarital sex and high-risk activities were the variables categorized under behavioural factors, with subjective norms and perceived parental communication were categorized under the environmental factors.



**Figure 1: Theoretical Framework for Determinants of Premarital Sexual Practices based on the SCT Constructs**

The measurement of premarital sexual behaviour was based on the practice of sexual intercourse, having multiple sexual partners, practicing unprotected sex and masturbation, which were individually measured using 5-point likert scale ranging from 0 to 4 (0 = never, 1 = rarely, 2 = sometimes, 3 = most of the time and 4 = always). To measure the prevalence of individual item, scale 0 was considered as “NO” and scales 1,2,3 and 4 were considered as “YES”. Meanwhile, the measurement of total premarital sexual behaviour was based on the presence of ‘Yes’ for any of the four items, and individuals with ‘NO’ for all four items were considered did not have any premarital sexual behaviour. The reported cronbach’s alpha value for premarital sexual behaviour was 0.81. On the other hand, four indicators were included to measure high-risk activities which were pornography, cigarette smoking, alcohol consumption, and used of illicit drugs. These items were individually measured using 5-point likert scale ranging from 0 to 4, with 0 = never, 1 = rarely, 2 = sometimes, 3 = most of the time and 4 = always. The cronbach’s alpha value for high-risk activities was 0.78.

Knowledge related to SRH was assessed based on the 12 items questionnaire adapted from the Illustrative Questionnaire for Surveys with Young People (27), with correct response was given score 1, and 0 was given for incorrect or unsure response. The cronbach’s alpha value for the knowledge section was 0.76. On the other hand, attitude was measured using the Brief Sexual Attitude Scale (BSAS) consisting of 10 items (28), which were measured using 5-point likert scale ranging from

0 to 4 (0 = strongly agree, 1 = agree, 2 = undecided, 3 = disagree and 4 = strongly disagree). The cronbach's alpha value for attitude was 0.89. Meanwhile, items generated to measure subjective norms and perceived parental communication were adapted from the Illustrative Questionnaire for Surveys with Young People (27), which was also measured using 5-point likert scale ranging from 0 to 4 (0 = strongly agree, 1 = agree, 2 = undecided, 3 = disagree and 4 = strongly disagree), with cronbach's alpha value of 0.71 and 0.78 respectively for subjective norms and perceived parental communication.

Collected data was analysed using the IBM SPSS Statistics version 25. Descriptive analysis was conducted for all variables. Multiple logistic regression was conducted to develop predictive model for premarital sexual behaviour, with significance level was set at 0.05.

The study was approved by the Research Ethical Committee Universiti Putra Malaysia (Reference no.: JKEUPM-2019-337). Approval from individual tertiary education centres, as well as oral and written consents were obtained from individual eligible respondents prior to data collection.

## RESULTS

The demographic profile of the respondents is presented in Table I. Majority of them were 19 years old (77.9%), Malay (99.5%), female (70.5%), Muslims (99.5%), father (61.0%) and mother (57.7%) with tertiary education and were staying with both parents (90.3%).

Meanwhile, Table II shows the distribution of each premarital sexual behaviour, with majority of the respondents practiced masturbation (17.7%). In total, there was 82.3% never had any premarital sexual behaviour.

Simple logistic regression analysis revealed six factors significantly associated with premarital sexual behaviour, which are age, gender, attitude score, high-risk activities, subjective norms, and parents' communication (Table III). The multiple logistic regression model shows gender and high-risk activities are significantly predict premarital sexual behaviour among the late adolescents in Kuantan, Pahang, with male adolescents have 11 times higher likelihood to engage in premarital sexual activity than the female counterpart (AOR =11.649, 95% CI: 3.615,37.536,  $p < 0.001$ ). Moreover, adolescent who were involve in high-risk activities such as pornography and substance used like cigarette smoking, alcohol or illicit also have higher odds to engage in premarital sexual activity (AOR=19.224, 95% CI: 7.820,47.262,  $p < 0.001$ ).

**Table I: Demographic and background characteristics of respondents (N = 390)**

Variables	n (%)	mean± SD
<b>Age</b>		
18 years	86 (22.1)	
19 years	304 (77.9)	
<b>Gender</b>		
Female	275 (70.5)	
Male	115 (29.5)	
<b>Ethnicity</b>		
Malay	388 (99.5)	
Non-Malay	2 (0.5)	
<b>Religion</b>		
Muslim	388 (99.5)	
Non-Muslim	2 (0.5)	
<b>Fathers' education level</b>		
Secondary and below	152 (39.0)	
Tertiary and higher level	238 (61.0)	
<b>Mothers' education level</b>		
Secondary and below	165 (42.3)	
Tertiary and higher level	225 (57.7)	
<b>Family arrangement</b>		
Staying with both parents	352 (90.3)	
Staying with either one parent	38 (9.7)	
<b>SRH knowledge</b>		8.85±1.726
<b>Attitude score</b>		18.84±2.533
<b>High-risk activities</b>		5.06±1.744
<b>Subjective norms</b>		9.81±2.749
<b>Perceived parental communication</b>		12.31±3.432

**Table II: Distribution of each premarital sexual behavior (N = 390)**

Items	n (%)	
	No	Yes
Ever experience sexual intercourse	371 (95.1)	19 (4.9)
Ever had multiple partners	379 (97.2)	11 (2.8)
Ever had unprotected sex	376 (96.4)	14 (3.9)
Masturbation	321 (82.3)	69 (17.7)
<b>Premarital Sexual Behavior</b>		
No	321(82.3)	
Yes	69 (17.7)	

## DISCUSSION

Masturbation or genital sexual self-stimulation was found to be the commonest premarital sexual behaviour among the late adolescents who participated in this study. Compared to adult masturbation which commonly criticized, childhood and teenage masturbation differs greatly across cultures, with some cultures accept or even promote masturbation throughout childhood and teenage years, while others, at any age, condemn this

**Table III: Factors of premarital sexual practices among late adolescents**

Variables	Simple logistic regression						Multiple logistic regression					
	Unadjusted B	SE	Crude OR	95% CI for OR		Pvalue	Adjusted B	SE	Crude OR	95% CI for OR		Pvalue
				Lower	Upper					Lower	Upper	
<b>Age</b>												
18 years	Ref.											
19 years	-0.884	0.288	0.413	0.235	0.726	0.002*						
<b>Gender</b>												
Female	Ref.											
Male	2.838	0.332	17.089	8.918	32.747	<0.001*	2.455	0.597	11.649	3.615	37.536	<0.001*
<b>Ethnicity</b>												
Malay	Ref.											
Non-Malay	1.549	1.421	4.706	0.291	76.169	0.276						
<b>Religion</b>												
Muslim	Ref.											
Non-Muslim	1.549	1.421	4.706	0.291	76.169	0.276						
<b>Fathers' education level</b>												
Secondary and below	Ref.											
Tertiary and higher level	0.514	0.267	1.671	0.990	2.821	0.055						
<b>Mothers' education level</b>												
Secondary and below	Ref.											
Tertiary and higher level	0.130	0.267	1.138	0.674	1.922	0.627						
<b>Family arrangement</b>												
Staying with both parents	Ref.											
Staying with either one parent	0.573	0.395	1.774	0.818	3.847	0.147						
<b>SRH knowledge</b>	0.014	0.078	1.014	0.870	1.181	0.862						
<b>Attitude score</b>	-0.192	0.044	0.825	0.756	0.900	<0.001*						
<b>High-risk activities</b>	2.842	0.385	17.147	8.055	36.501	<0.001*	2.956	0.459	19.224	7.820	47.262	<0.001*
<b>Subjective norm</b>	-0.105	0.050	0.900	0.816	0.992	0.034*						
<b>Parents' communication</b>	-0.106	0.041	0.899	0.830	0.974	0.009*						

\*p value <0.05, B= coefficient, SE= Standard error, OR= Odds Ratio, CI= Confidence interval, classification percentage=95.9%, Omnibus test (p<0.001), Cox and Snell R<sup>2</sup>=50.4%, Nagelkerke R<sup>2</sup>=83.0%, Hosmer and Lemeshow test (X<sup>2</sup> = 0.931, p = 0.920).

activity (29). According to Horne and Zimmer-Gembeck (30), who were also conducted a study among late adolescents on different sexual experiences, the practice of masturbation carries no risk of pregnancy or sexually transmitted infections, but instead may have benefits to sexual and emotional health of the adolescents. Positive relationships have been reported between adolescents' masturbation and self-esteem (31), as well as a history of masturbation during early adolescence and sexual satisfaction during young adulthood (32). Furthermore, masturbation in childhood and adolescence has been associated with positive sexual experiences in later in life and a healthy self-image among women (32). In an exploratory study by Hogarth and Ingham (33) on masturbation and sexual health among adolescent females aged 16 to 18, negative first sexual experiences were reported among those with negative or indifferent views about masturbation compared to those who held positive views of masturbation. Although it is a common sexual behaviour particularly among the western community, it remains a highly sensitive and stigmatized topic, as well as commonly underreported by adolescents, and regarded as a religious or cultural bizarre.

Compared to previous related local studies, the prevalence of masturbation in this study is higher than a study conducted by Abdul Manaf et al. (34), with a prevalence of 12.9 was reported among 1328 adolescents aged between 17 and 18 years old. In contrast a higher prevalence of masturbation had been reported in a study by Awaluddin et al. (35), using a secondary data collected in 2010, involving 21,438 unmarried adolescents aged 18 to 19 years old. However, the prevalence of masturbation, as well as the overall premarital sexual behaviour in this study may have been influenced by several factors. Firstly, the small proportion of male respondents, since masturbation is commonly reported among male compared to female, regardless of age (32). Secondly, the sample is also dominated by Malay and Muslims respondents, in which premarital sex is prohibited and negatively viewed, causing the increase likelihood of underreporting. Premarital sexual behaviour is regarded as delinquent behaviour based on the cultural and religious belief in Malaysia. Thirdly, based on the two factors previously mentioned, there is a possibility of social-desirability bias, which is a type of response bias, with respondents tend to answer questions in a manner that will be viewed

favourable by others (36). Additionally, the use of self-administered method gives the option of declaring or not declaring the truth about oneself. In a meta-analysis to examine the disclosure of sensitive behaviours across self-administered survey modes, the result revealed that computerized surveys led to significantly more reporting of sensitive behaviours than comparable surveys administered on paper, with strongest effect was observed for highly sensitive behaviours and surveys administered individually to respondents (37).

The findings of this study also consistent with many previous related studies, with being male (38-40) and involved in high-risk activities such as pornography (34,35,41), smoking and intake of alcohol and drugs (38,41,42) put adolescents at higher risk of premarital sexual behaviour. In some part of the world with underlying cultural and religious belief of male supremacy, sexual adventures are socially acceptable among male than the female counterpart. In a study exploring the knowledge, attitudes and beliefs of the Greek-Cypriot adolescents regarding SRH and sexuality, 54% of the adolescents believed that it is acceptable for a man to have premarital relationship, but only 36% believed that it is acceptable for a woman to do so (43). This belief of sexual double standards contributes significantly towards more involvement among male as compared to female adolescents.

Additionally, parents have different approaches in managing their adolescents' offspring when it comes to sexual relationship. For example, in the Greek-Cypriot culture, contradictions and double standards do exist whereby parents seem to be tolerant or accepting premarital relationship of their sons better than their daughters (43). Furthermore, adolescence is a period of increasing importance for peer relationships, and increase susceptibility towards peer pressure, which frequently reported among male adolescents. Based on a systematic review on 26 articles conducted by McCoy et al. (44), two primary trends were identified to explain the gender differences in adolescent susceptibility to deviant peer pressure. The first trend was adolescent males appear to be more susceptible to peer influences that encourage risk-taking behaviours, which was consistent with the gender role socialization theory. The second primary trend suggested that there was no consistent gender difference in susceptibility to such peer influences. However, only two studies involved in the review suggested adolescent females to be more susceptible to deviant peer pressure compared to adolescent males, with the rest of the articles suggested the opposite.

The findings of this study also indicate the role of high-risk activities on the initiation of premarital sexual behaviour among adolescents. These include watching or reading pornography, smoking, as well as intake of

alcohol and drugs. The relationship between adolescents' high-risk activities and their sexual behaviours have been reported in tremendous number of local studies (34,35,38,41,42,45). According to the theory of problem behaviours, the engagement of adolescent in one type of risky behaviour often predisposes them to different ranges of high-risk activities (46).

Similarly, a study among sexually active in-school adolescents in Sub-Saharan countries also reported the predicting role of high-risk activities such as cigarette smoking, alcohol use, as well as the use of marijuana and amphetamine on sexual intercourse with multiple partners (9). The involvement of adolescents in high-risk activities has been linked with poor or lack of parental as well as family monitoring. Lack of parental support or family attachment was reported to associate with early initiation of sexual act (7,45), with the presence of family monitoring act as a protective factor against premarital sexual practices (38,42,47) among adolescents.

## CONCLUSION

The evidence suggests that premarital sexual behaviour remain an important sexual and reproductive health issue among adolescents in Malaysia, particularly among male adolescents and those engaged in high-risk activities. Nevertheless, the findings and discussion in this study indicate repetitive of findings obtained compared to previous similar local studies, indicating the ongoing issues related to engagement in high-risk activities among male adolescents in Malaysia, which may have been ineffectively addressed in the SRH curriculum. In view of its potential contribution towards premarital sex and the associated negative sequelae, the content, delivery method as well as the competency of the teachers to teach SRH in school should be evaluated and improved accordingly.

However, the findings of this study have to be seen in light of some limitations. Further exploration is also needed on the background characteristics of these at-risk adolescents, particularly the male adolescents, as well as the contributing factors towards their engagement in high-risk activities or behaviours, for a more focused strategy and initiative to be planned and implemented. The possibility of underreporting in the prevalence of premarital sexual behaviour, consideration to use online survey should be considered in future study, to obtain more accurate data representing the actual SRH problem among adolescents in Malaysia. Furthermore, the sample recruited did not include married adolescents and the men who have sex with men (MSM) community, as well as there were only two non-Muslims participated in the study, which may definitely affect the outcome obtained. Failure to effectively tackle and address the SRH issues among adolescents should be thoroughly explored.

## ACKNOWLEDGEMENTS

The authors would like to thank all the tertiary education centres for the approval given to collect the data, as well as all the adolescents who had participated in this study.

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