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Factors Associated with Premarital Sex Prevention Behaviors among Grade XI Students in Maliana, Timor-Leste

Jenivia Maria da Costa Man[1], Kesaktian Manurung[2], Mido Ester J. Sitorus[3], Donal Nababan[4], Agnes Purba[5]

[1, 2, 3, 4, 5] Master of Public Health Study Program, Faculty of Pharmacy and Health Sciences, Sari Mutiara Indonesia University

Author's Email Correspondence (*): jeniviamaria.dcman@gmail.com (082162094895)

ABSTRACT

Premarital sexual activity among adolescents is an important public health concern because it may contribute to HIV/AIDS, sexually transmitted infections (STIs), and unintended pregnancy. Maliana, Timor-Leste, has reported increasing HIV/AIDS cases and a high rate of early pregnancy. This study analyzed factors associated with premarital sex prevention behavior among Grade XI students at Dom Martinho da Costa Lopes Senior High School, Maliana, Timor-Leste. A quantitative cross-sectional study was conducted among 234 Grade XI students selected through simple random sampling. Data were analyzed using univariate analysis, bivariate analysis with the Chi-square test, and multivariate logistic regression. Bivariate analysis found significant associations between premarital sex prevention behavior and attitude (p<0.001), family role (p=0.002), peer influence (p<0.001), and social media/internet use (p<0.001). Knowledge (p=0.107), sociocultural factors (p=0.110), and socioeconomic factors (p=0.545) were not significantly associated with prevention behavior. Multivariate analysis identified social media use as the dominant factor associated with premarital sex prevention behavior (OR=4.372). Students with inappropriate social media use were 4.372 times more likely to demonstrate poor premarital sex prevention behavior. Premarital sex prevention behavior among Grade XI students was associated with attitudes, family roles, peer influence, and social media/internet use. Social media use was the strongest associated factor. School-based sexual health education, parental involvement, positive peer support, and digital-health literacy interventions are recommended to strengthen adolescents' preventive behavior.

Keywords: *Social media; adolescent behavior; premarital sex prevention; Timor-Leste*

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INTRODUCTION

Adolescents are a group undergoing many physical, psychological, and social changes, including beginning to experience romantic relationships. During this period, they are also vulnerable to risky sexual behavior because they are still in the identity-seeking stage and are often influenced by their environment, peers, and the media. A lack of knowledge about reproductive health makes adolescents more easily involved in irresponsible premarital sexual behavior.

International data show that premarital sexual behavior among adolescents is still quite high. The 2023 YRBS survey in the United States found that 32% of adolescents had engaged in premarital sexual intercourse, with almost equal rates among males and females. In the Asia-Pacific region, including Timor-Leste, high rates of premarital sexual activity among adolescents have also been found, indicating that this issue is an important reproductive health problem and requires serious attention.

In Timor-Leste itself, data show concerning levels of premarital sexual activity and adolescent pregnancy. Bobonaro District, especially Maliana, is among the areas with a high number of HIV/AIDS cases. In addition, data from the Ministry of Health also show a high number of pregnant women under the age of 19 in several districts, including Bobonaro. This condition illustrates the need for stronger preventive efforts against risky sexual behavior among adolescents.

Premarital sexual behavior among adolescents is influenced by various factors, such as knowledge, attitudes, socioeconomic conditions, culture, family, peers, and social media. A lack of knowledge about reproductive health can increase the risk of harmful behavior, whereas strong family support and a positive social environment can serve as protective factors. Conversely, peer influence and inaccurate information from media can push adolescents toward risky behavior.

Various previous studies have also shown that peer factors, family support, sources of information, and knowledge are associated with premarital sexual behavior. These findings confirm that prevention of this behavior needs to be carried out through effective reproductive health education. Appropriate education can help adolescents understand the risks, develop healthy attitudes, and make wiser decisions.

Based on a preliminary study at SMA Dom Martinho da Costa Lopes Maliana, it was found that some Grade XI students did not yet understand premarital sexual behavior. Therefore, the researcher considered it necessary to examine the factors associated with adolescent behavior in efforts to prevent premarital sex at the school. This study is expected to serve as a basis for developing more effective reproductive health education for adolescents.

METHODS

This quantitative analytic study used a cross-sectional design to examine factors associated with premarital sex prevention behavior among male and female Grade XI students at Dom Martinho da Costa Lopes Senior High School, Maliana, Timor-Leste, in 2026. The population comprised 564 students from 12 Grade XI classes: six Natural Sciences and six Social Sciences classes. A sample of 234 students was selected using simple random sampling, with the sample size determined using Slovin's formula at a 5% margin of error. Data were collected using a structured questionnaire assessing knowledge, attitudes, sociocultural and socioeconomic factors, family roles, peer influence, social media use, and premarital sex prevention behavior. Questionnaire validity was tested among 30 students at SMA 4 Dili; all items met the validity criterion, with calculated correlation coefficients exceeding the r-table value of 0.361 at the 5% significance level.

Reliability was assessed using Cronbach's alpha among the same 30 respondents. All study variables had Cronbach's alpha values greater than 0.60 and were considered reliable. Data analysis was performed in three stages. Univariate analysis described respondents'

characteristics and the distribution of each study variable. Bivariate analysis used the Chi-square test to identify associations between independent variables and premarital sex prevention behavior. Variables with relevant associations were subsequently included in multivariate logistic regression analysis to determine the most dominant factor associated with premarital sex prevention behavior.

RESULTS

Univariate Analysis

Univariate analysis was carried out by presenting the frequency distribution, which included respondent characteristics and the research variables: knowledge, attitude, sociocultural factors, socioeconomic status, family role, peers, and social media (the internet).

Table 1.
Frequency Distribution of Respondents' Age (N=234)

Age	N	%
14-15	60	25,6%
16-18	169	72,2%
19-20	5	2,1%

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

The majority of respondents were in the 16–18 age range (72.2%), followed by those aged 14–15 years (25.6%), and a small proportion aged 19–20 years (2.1%). This distribution shows that the respondents were dominated by adolescents in the age group corresponding to secondary school age.

Table 2
Frequency Distribution of Respondents' Gender (N=234)

Gender	n	%
Male	80	34,2%
Female	154	65,8%

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

The majority of respondents were female (65.8%), while males accounted for 34.2%,

indicating that female participants dominated this study.

Table 3
Frequency Distribution of Respondents' Living Status (N=234)

Living Status	n	%
Family	215	91,9%
Rented Room	19	8,1%

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

The majority of respondents lived with their families (91.9%), while a small proportion lived in boarding houses or rented rooms (8.1%).

Table 4
Frequency Distribution of Respondents' Internet Access (N=234)

Internet Access	n	%
Yes	195	83,3%
No	39	16,7%

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

The majority of respondents had internet access (83.3%), while 16.7% did not, indicating that most respondents were connected to the internet network.

Table 5
Frequency Distribution of Knowledge, Attitude, Sociocultural Factors, Socioeconomic Status, Family Role, Peers, Social Media (Internet), and Adolescent Behavior (N=234)

Number	Research Variabels	n	%
	Knowledge		
1	Good	64	27,4%
2	Poor	170	72,6%
	Attitude		
1	Positive	68	29,1%
2	Negative	166	70,9%
	Sociocultural		
1	Good	60	25,6%
2	Poor	174	74,4%
	Socioeconomic		
1	Good	58	24,8%
2	Poor	176	75,2%
	Family Role		
1	Playing a role	70	29,9%

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2	Not playing a role	164	70,1%
	Peers		
1	Yes	63	26,9%
2	No	171	73,1%
	Social Media (Internet)		
1	Yes	54	23,1%
2	No	180	76,9%
	Adolescent Behavior		
1	Good	89	38%
2	Poor	145	62%

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

Most respondents were in the unfavorable category across nearly all variables, as indicated by poor knowledge (72.6%) and negative attitudes (70.9%), as well as unfavorable external factors such as sociocultural conditions (74.4%), socioeconomic status (75.2%), and parental role (70.1%). Peer support (73.1%) and social media exposure (76.9%) were also low, in line with the majority of respondents showing poor behavior (62%).

Bivariate Analysis

To examine the relationship between knowledge, attitudes, sociocultural factors, socioeconomic status, parental role, peers, and social media (internet) with adolescent behavior in efforts to prevent premarital sex, the statistical test used to analyze the relationship between the variables in this study was the chi-square test.

Table 6
Cross-tabulation of the relationship between knowledge and adolescent behavior in efforts to prevent premarital sex

Knowledge	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Good	19	(29,7)	45	(70,3)	64	(100)	**0,017**	**0,721**
Poor	70	(41,2)	100	(58,8)	170	(100)		**0,475-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**1,095**

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Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was no significant relationship between knowledge and adolescent behavior (p=0.107), with a PR value of 0.721 (95% CI: 0.475–1.095), although the proportion of poor behavior remained dominant in both knowledge groups.

Table 7
Cross-tabulation of the relationship between attitudes and adolescent behavior in efforts to prevent premarital sex

Attitude	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Positive	40	(58,8)	28	(41,2)	68	(100)		**1,993**
Negative	49	(29,5)	117	(70,5)	166	(100)	**0,000**	**1,465-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**2,711**

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was a very significant relationship between attitudes and adolescent behavior (p < 0.001), with a PR of 1.993 (95% CI: 1.467–2.711), indicating that positive attitudes were associated with better behavior.

Table 8
Cross-tabulation of the relationship between sociocultural factors and adolescent behavior in efforts to prevent premarital sex

Sociocultural	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Good	28	(46,7)	32	(53,3)	60	(100)		**1,321**
Poor	61	(35,1)	133	(64,9)	174	(100)	**0,110**	**0,950-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**1,866**

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was no significant relationship between sociocultural factors and adolescent behavior (p = 0.110), with a PR of 1.321 (95% CI: 0.950–1.866), although the tendency toward poor behavior was higher in the group with unfavorable sociocultural factors.

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Table 9
Cross-tabulation of the relationship between socioeconomic status and adolescent behavior in efforts to prevent premarital sex

Socioeconomic	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Good	24	(41,4)	34	(58,6)	58	(100)		**1,120**
Poor	65	(36,9)	111	(63,1)	176	(100)	**0,545**	**0,780-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**1,609**

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was no significant relationship between socioeconomic status and adolescent behavior (p = 0.545), with a PR of 1.120 (95% CI: 0.780–1.609), although the proportion of good behavior was slightly higher in the group with better socioeconomic status.

Table 10
Cross-tabulation of the relationship between family role and adolescent behavior in efforts to prevent premarital sex

Family Role	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Playing a Role	37	(52,9)	33	(47,1)	70	(100)		**1,667**
Not Playing a Role	52	(31,7)	112	(68,3)	164	(100)	**0,002**	**1,216-2,285**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

Relationship between family role and adolescent behavior (p = 0.002), with a PR of 1.667 (95% CI: 1.216–2.285), indicating that a good family role was associated with better adolescent behavior.

Table 11
Cross-tabulation of the relationship between peers and adolescent behavior in efforts to prevent premarital sex

Peers	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Yes	24	(66,7)	21	(33,3)	63	(100)		**2,426**
No	47	(27,5)	124	(72,5)	171	(100)	**0,000**	**1,798-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**3,273**

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was a very significant relationship between peer influence and adolescent behavior (p < 0.001), with a PR of 2.426 (95% CI: 1.798–3.273), indicating that peer influence was associated with better behavior.

Table 12
Cross-tabulation of the relationship between social media (internet) and adolescent behavior in efforts to prevent premarital sex

Social Media (Internet)	Adolescent Behavior				Total		P value	OR 95% CI Lower-Upper
	Good Behavior		Poor Behavior					
	n	%	n	%	n	%		
Yes	39	(72,2)	25	(27,8)	54	(100)		**2,600**
No	50	(27,8)	130	(72,2)	180	(100)	**0,000**	**1,950-**
Total	**89**	**(38,0)**	**145**	**(62,0)**	**234**	**(100)**		**3,467**

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

There was a very significant relationship between social media use and adolescent behavior (p < 0.001), with a PR of 2.600 (95% CI: 1.950–3.467), indicating that social media use was associated with better behavior.

Multivariate Analysis

To identify the factor most strongly associated, a multivariate analysis was performed using multiple logistic regression. The multiple logistic regression test had a p-value < 0.25.

Table 13
Final results of the logistic regression analysis (Final Model)

Variable	P-Value	Odds Ratio (OR)	95% CI
Attitude	0,003	2,720	1,419 – 5,213
Peers	0,017	2,408	1,167 – 4,969
Social Media	0,000	4,372	2,034 – 9,399

Source: Primary data of SMA Dom Martinho Da Costa Lopes, Maliana, Timor-Leste, 2026

Social media is the most dominant factor associated with adolescent behavior in premarital sex prevention ($p < 0.001$; OR = 4.372; 95% CI: 2.034–9.399), with approximately a 4.37-fold higher risk of poor behavior.

DISCUSSION

Addition to the Introduction or Conceptual Framework

Theoretical Framework

This study was guided by several complementary theoretical perspectives to explain adolescent behavior in preventing premarital sexual intercourse. Bloom's Taxonomy was used to explain the development of knowledge from remembering and understanding information to applying, analyzing, and evaluating health-related information. In this study, knowledge was considered an important cognitive factor, but knowledge alone was not assumed to be sufficient to produce preventive behavior.

The Stimulus–Organism–Response (S–O–R) framework was used to explain how external stimuli, including family communication, peer influence, sociocultural conditions, socioeconomic circumstances, and social media exposure, may influence adolescents' internal cognitive and emotional processes and subsequently shape their behavior.

The Health Belief Model was used to explain the role of perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy in motivating adolescents to prevent premarital sexual behavior. Lawrence Green's behavioral framework was used to classify knowledge and attitudes as predisposing factors, family and peer

support as reinforcing factors, and socioeconomic conditions and access to information as enabling or contextual factors.

These frameworks provide an integrated basis for understanding adolescent preventive behavior. They also explain why improving knowledge alone may not be sufficient when adolescents continue to experience negative peer pressure, limited family communication, unfavorable social media exposure, or inadequate access to reliable reproductive-health information.

Overview of the Research Variables

Respondents Knowledge

Based on the univariate analysis, the majority of respondents had poor knowledge regarding the risks and prevention of premarital sexual intercourse. This finding indicates that many students may not have received sufficient, structured, and age-appropriate reproductive-health information through the school or family environment.

From the perspective of Bloom's Taxonomy, the result should not be interpreted as proving that respondents were located at a specific cognitive level. Rather, it suggests that many respondents had not yet demonstrated adequate understanding and application of reproductive-health information in relation to preventive decision-making. Knowledge may provide an important cognitive foundation, but it does not automatically develop into preventive behavior.

Within the S–O–R framework, inadequate or ineffective information delivery may function as a weak stimulus, resulting in limited cognitive and emotional processing among adolescents. When information is incomplete, difficult to understand, or not connected to real-life situations, adolescents may have difficulty analyzing risk and applying preventive strategies. The finding is also consistent with the Health Belief Model, which suggests that knowledge must be accompanied by an adequate perception of susceptibility, severity,

benefits, and self-efficacy. Adolescents may understand that premarital sexual behavior has potential consequences but may not perceive themselves as personally vulnerable or may lack confidence in refusing pressure and avoiding risky situations.

Therefore, comprehensive reproductive-health education is needed. Educational interventions should not focus only on delivering information, but should also develop adolescents' risk-analysis skills, decision-making abilities, communication skills, refusal skills, and confidence in seeking reliable information. These interventions should be provided through schools, families, peer educators, and responsible digital media platforms.understanding and risk analysis skills.

Respondents Attitudes

Based on the univariate analysis, the majority of respondents had a negative attitude (70.9%), indicating a low affective tendency in assessing the risks of premarital sexual behavior. Theoretically, attitude as a closed response is influenced by cognitive and affective aspects and is related to perceived susceptibility and severity in the Health Belief Model. Low risk perception leads to weak preventive motivation among adolescents. This finding is consistent with previous studies showing that attitudes and individual perceptions play an important role in adolescent sexual behavior, including the influence of social pressure. This condition indicates the need for interventions that not only increase knowledge, but also shape attitudes to strengthen the intention to prevent risky behavior.

Respondents Sociocultural

Based on the univariate analysis, the majority of respondents had poor sociocultural conditions (74.4%), indicating that the role of local values and norms as protective factors against risky sexual behavior was not yet optimal. In the perspective of the S-O-R theory, culture acts as an external stimulus; however, taboo and less open communication patterns hinder adolescents' understanding of risk. In line with the Health Belief Model, cultural

barriers such as shame limit adolescents' perceived susceptibility and self-efficacy in preventing risky behavior. This finding is supported by previous studies showing that unsupportive cultural norms can hinder adolescent cognitive development. Therefore, a local wisdom-based approach is needed to improve adolescents' understanding and risk analysis skills.

Respondents Socioeconomic

Based on the univariate analysis, the majority of respondents had poor socioeconomic status (75.2%), indicating limited access to resources that support adolescent development. In Lawrence Green's theoretical framework, this condition is an enabling factor that can hinder access to productive activities and effective health education. Such limitations may affect adolescents' ability to make decisions related to risky behavior. This finding is consistent with previous studies showing that low socioeconomic conditions can hinder adolescents' cognitive development. Therefore, interventions are needed that not only focus on education, but also on improving access and skills to support healthier behavior.

Respondents Family Role

Based on the univariate analysis, the majority of respondents had a poor family role (70.1%), indicating communication barriers between parents and adolescents regarding premarital sex issues. The family, as the primary educational unit, has not functioned optimally, influenced by taboo culture and low reproductive health literacy, so communication tends to be limited to prohibitions without explanation. This condition contributes to adolescents' low ability to understand and prevent risky behavior. This finding is consistent with previous studies emphasizing the importance of family communication in shaping adolescent behavior. Therefore, interventions are needed to strengthen the role of parents in educating and accompanying adolescents.

Respondents' Peers

Based on the univariate analysis, the majority of respondents had non-supportive peers (73.1%), indicating social pressure that encourages risky sexual behavior. Adolescents' high conformity to group norms causes them to tend to follow behaviors considered normal in order to avoid social rejection. When peer group perceptions are misguided, those values are more easily adopted than values from adults, thereby weakening decision-making ability and self-control. This finding is consistent with previous studies showing that negative peer norms can hinder cognitive development and healthy adolescent behavior. Therefore, peer education–based interventions are needed to improve adolescents' ability to resist group pressure and prevent risky behavior.

Respondents Social Media (Internet)

Based on the univariate analysis, the majority of respondents showed unfavorable social media exposure (76.9%), indicating that the use of technology more often increases risk than provides educational benefits. Low digital literacy and the lack of supervision make adolescents vulnerable to inaccurate information and content that normalizes risky behavior. This condition can hinder adolescents' cognitive development and decision-making ability. This finding is consistent with previous studies that emphasize the negative impact of uncontrolled digital information flows. Therefore, interventions are needed through the provision of accurate educational content and guidance to improve adolescents' digital literacy.

Respondents adolescent behavior in efforts to prevent premarital sex

Based on the univariate analysis, the majority of respondents showed poor premarital sex prevention behavior (62%), indicating significant vulnerability among adolescents. This finding reflects a gap between knowledge and action, where cognitive understanding has not yet translated into the adoption of healthy behavior. Within the behavioral theory and Health

Belief Model framework, this condition is influenced by the dominance of external barriers such as peer pressure, suboptimal family roles, and exposure to social media. This finding is consistent with previous studies showing that environmental factors play a greater role in shaping behavior than cognitive factors alone. Therefore, comprehensive interventions are needed that focus not only on increasing knowledge, but also on strengthening environmental support and adolescents' practical skills in preventing risky behavior.

The relationship between knowledge and adolescent behavior in efforts to prevent premarital sex among adolescents

The chi-square test results showed that knowledge was not significantly associated with adolescent behavior ($p = 0.107$; PR = 0.721; 95% CI: 0.475–1.095). Descriptively, adolescents with good knowledge were actually more likely to show poor behavior, whereas the group with poor knowledge had a relatively higher proportion of good behavior. This finding is consistent with several previous studies that also found no significant relationship between knowledge and behavior. Theoretically, knowledge is only an initial cognitive stage and does not necessarily become internalized into action. Within the frameworks of S-O-R, Bloom's Taxonomy, and the Health Belief Model, low perceived susceptibility and the dominance of external factors—especially social media exposure—can hinder the transformation of knowledge into behavior. This shows that adolescent behavior is influenced more by environmental factors than by knowledge alone.

The relationship between attitudes and adolescent behavior in efforts to prevent premarital sex among adolescents

The chi-square test results showed a significant relationship between attitude and adolescent behavior ($p < 0.001$), where adolescents with a positive attitude more often demonstrated good behavior (58.8%), while negative attitudes were dominated by poor behavior (70.5%). This finding is consistent with previous studies and is supported by an OR

of 1.993 (95% CI: 1.465–2.711), indicating that a positive attitude increases the likelihood of good behavior. Theoretically, attitude as a predisposition consists of cognitive, affective, and conative components that together shape readiness to act. Thus, a positive attitude plays an important role in encouraging better preventive behavior among adolescents.

The relationship between sociocultural factors and adolescent behavior in efforts to prevent premarital sex among adolescents

The chi-square test results showed that there was no significant relationship between sociocultural factors and adolescent behavior (p = 0.110; OR = 1.321; 95% CI: 0.950–1.866). Although there was a tendency for adolescents with a positive sociocultural background to have a greater chance of displaying good behavior, the relationship was not statistically significant. This finding is consistent with previous studies that reported similar results. In context, shifts in social values and limited access to information mean that cultural values do not always function as protective factors, so adolescent behavior is more influenced by environmental perceptions and peer-group trends than by existing cultural values.

The relationship between socioeconomic status and adolescent behavior in efforts to prevent premarital sex among adolescents

The chi-square test results showed that there was no significant relationship between sociocultural factors and adolescent behavior (p = 0.110; OR = 1.321; 95% CI: 0.950–1.866). Although there was a tendency for adolescents with a positive sociocultural environment to have a greater chance of displaying good behavior, the relationship was not statistically significant. This finding is consistent with previous studies that reported similar results. In context, changes in social values and limited access to information mean that cultural values do not always function as protective factors, so adolescent behavior is more influenced by environmental perceptions and social trends than by existing cultural values.

The relationship between family role and adolescent behavior in efforts to prevent

premarital sex among adolescents

The chi-square test results showed a significant relationship between family role and adolescent behavior (p = 0.002; OR = 1.667; 95% CI: 1.216–2.285). Adolescents with stronger family involvement showed better behavior more often (52.9%) compared with those who received less family support (31.7%). These findings are consistent with previous studies and confirm that the family is a primary agent in education, including sexual education. Theoretically, parental involvement through effective communication and guidance contributes to the formation of positive adolescent behavior, whereas a weak family role is associated with more dominant risky behavior. Therefore, strengthening the role of the family is an important factor in efforts to prevent premarital sexual behavior among adolescents.

The relationship between peers and adolescent behavior in efforts to prevent premarital sex among adolescents

The chi-square test results showed a highly significant relationship between peers and adolescent behavior (p < 0.001; OR = 2.426; 95% CI: 1.798–3.273). Adolescents with positive peer influence showed better behavior more often (66.7%) than those without it (27.5%). These findings are consistent with previous studies and adolescent development theory, which emphasize that peer groups serve as the main reference in shaping behavior. Positive peer support increases the likelihood of healthy behavior, whereas negative influence, curiosity, and the exchange of unverified information can encourage risky behavior. Therefore, peers play an important role in efforts to prevent premarital sexual behavior among adolescents.

The relationship between social media (the internet) and adolescent behavior in efforts to prevent premarital sex among adolescents.

The chi-square test results showed a significant relationship between social media use

and adolescent behavior (p < 0.001; OR = 2.600; 95% CI: 1.950–3.467). Adolescents with better social media use showed a higher proportion of good behavior (72.2%) compared with those who did not (27.8%). These findings are consistent with previous research and indicate that social media has a strong role in shaping adolescent behavior. Theoretically, social media can serve as both an information source and a stimulus that influences behavior; without adequate literacy and supervision, adolescents are vulnerable to exposure to negative content that encourages risky behavior. Therefore, wise and educational use of social media is key in efforts to prevent premarital sexual behavior among adolescents.

Dominant factors related to adolescent behavior in efforts to prevent premarital sex

The results of the multiple logistic regression analysis showed that social media, attitude, and peers simultaneously had a significant effect on adolescent behavior in the prevention of premarital sex. Social media was the most dominant factor (p < 0.001; OR = 4.372; 95% CI: 2.034–9.399), followed by attitude (OR = 2.720) and peers (OR = 2.408). These findings indicate that negative exposure to social media significantly increases the risk of unfavorable behavior. Theoretically, adolescent behavior is the result of the interaction between external factors (social media and peers) and internal factors (attitude). Therefore, effective interventions need to emphasize the educational use of social media as well as strengthening peer environments and fostering positive adolescent attitudes.

CONCLUSIONS AND RECOMMENDATIONS

Among Grade XI students at Dom Martinho da Costa Lopes Senior High School, Maliana, Timor-Leste, attitudes, family roles, peer influence, and social media use were significantly associated with premarital sex prevention behavior, whereas knowledge, sociocultural factors, and socioeconomic status were not significantly associated. Social media use was the dominant associated factor; students exposed to inappropriate content or using social media in risky, non-educational ways were more likely to demonstrate poor

prevention behavior. The school should integrate age-appropriate, culturally sensitive reproductive-health and digital-literacy education into classroom, counseling, and extracurricular activities and establish a peer-educator program with clear referral pathways to teachers, parents, and health services. Parents should promote open, supportive communication and provide appropriate supervision of social media use and peer environments. Health services and local authorities should collaborate with the school to offer confidential, adolescent-friendly education, counseling, and referral services addressing reproductive health, sexually transmitted infections, adolescent pregnancy, healthy relationships, mental health, and responsible digital-media use. Future studies should investigate additional factors, including parenting style, family communication, digital literacy, social media content exposure, internet-use duration, self-efficacy, and perceived sexual-health risk; qualitative, mixed-methods, and longitudinal studies are recommended. Because this study used a cross-sectional design, the observed associations should not be interpreted as causal relationships.

BIBLIOGRAPHY

1. Anggraeni, D. (2024). The effect of reproductive health education on adolescents' knowledge and attitudes toward premarital sexual intercourse at SMAN 1 Sukanagara. Indonesian Scholar Journal of Nursing and Midwifery Science (ISJNMS), 3(09), 1427–1434. https://doi.org/10.54402/isjnms.v3i09.468
2. Aznidawati, Charli, Septi Maisyaroh, Ulina Panggabean, and Aminah Aatina. (2023). Factors associated with premarital sexual behavior among adolescents living in boarding houses in Kampung Panglong. 20(2), 175–182.
3. Basri B., Tambuala H. F., Badriah S., & Utami T. (2020). Comprehensive sexual education for the prevention of premarital sexual behavior among adolescents: Bandung City, West Java.
4. Bessie, V. H., Anakaka, D. L., & Mage, M. Y. C. (2024). Marital satisfaction in adolescent women with premarital pregnancy seen from the first five years of marriage. 6(1), 46–60.
5. Connell, R., & Pearse, R. (2021). Gender and sexuality in adolescence. Routledge.

6. Deswinda, D., Machmud, R., Yusrawati, Y., Indrapriyatna, A. S., & Bayhakki, B. (2020). Adolescent pregnancy prevention behavior in Indonesia: Internal and external factors influencing. Open Access Macedonian Journal of Medical Sciences, 8(E), 516–520. https://doi.org/10.3889/oamjms.2020.4946
7. Ferdyansah, M., & Lestari, H. (2024). Factors associated with sexual behavior among adolescents at SMA Negeri 1 Watubangga in 2023. Pengaruh Teman Sebaya, 46(1), 46–51.
8. Jennings, L., George, A. S., Jacobs, T., Blanchet, K., & Singh, N. S. (2019). A forgotten group during humanitarian crises: A systematic review of sexual and reproductive health interventions for young people, including adolescents, in humanitarian settings. Conflict and Health, 13(1), 15–17. https://doi.org/10.1186/s13031-019-0240-y
9. Mirani, N., Maulida, & Nala Ramadhani. (2022). Education on improving self-control toward free sexual behavior among adolescents at SMA Muhammadiyah, Langsa City. ABDIKAN: Jurnal Pengabdian Masyarakat Bidang Sains Dan Teknologi, 1(3), 400–406. https://doi.org/10.55123/abdikan.v1i3.841
10. Notoatmodjo, S. (2012). Health promotion and health behavior. Jakarta: PT Rineka Cipta.
11. Nuraini, N., & Sari, Y. M. (2023). Factors associated with premarital sexual behavior among adolescents in 2022. Journal of Healthcare Technology and Medicine, 9(1), 121. https://doi.org/10.33143/jhtm.v9i1.2792
12. Panghiyangani, R., & Erlyani, N. (2024). Reproductive health and adolescent sexual behavior (a review of physiology and psychology). ULM Press.
13. Reknowati, D., & Susanti, D. (2023). Factors associated with premarital sex behavior among adolescents at SMA Negeri 2 Sarolangun in 2022. Jurnal Ilmiah Universitas Batanghari Jambi, 23(1), 517. https://doi.org/10.33087/jiubj.v23i1.3210
14. Riya, R., & Ariska, L. (2023). Factors associated with premarital sexual behavior among adolescents. Jurnal Ilmiah Universitas Batanghari Jambi, 23(2), 2123. https://doi.org/10.33087/jiubj.v23i2.3478
15. Sahir, S. H. (2022). Research methodology. Medan: Penerbit KBM Indonesia.
16. Sudrajat, A., Ramadhan, G. E., et al. (2022). Factors associated with premarital sexual behavior among adolescents at SMAN 1 Kelam Permai, Sintang Regency, West Kalimantan Province. 1(5), 647–654. https://doi.org/10.55123/insologi.v1i5.1043
17. United Nations Population Fund, Asia Pacific Regional Office (UNFPA APRO). (2021). My body is my body, my life is my life: Sexual and reproductive health and rights of young

people in Asia and the Pacific.

18. Widyaningrum, S. T., & Muhlisin, A. (2024). Knowledge level about reproductive health and adolescents' attitudes toward free sex at SMA Sukoharjo. Holistik Jurnal Kesehatan, 18(2), 186–193. https://doi.org/10.33024/hjk.v18i2.270