



Analysis of Factors Associated with Premarital Sexual Behavior among Adolescents

Qonita^{1*}, Novrita Tri Yulvia²

¹ Bachelor's Degree in Midwifery, Bina Bangsa University, Serang City, Banten Province, Indonesia

² Midwifery Professional Education Study Program, Bina Bangsa University, Serang City, Banten Province, Indonesia

ARTICLE INFO

Article Type:
Research

Article History:
Received: 23 August 2025
Accepted: 29 September 2025
Published: 30 September 2025

***Corresponding author**
Email: niitaqonita88@gmail.com

ORIGINAL ARTICLE

ABSTRACT

Adolescence is a critical developmental stage marked by rapid physical and psychological changes, making young people particularly vulnerable to reproductive health problems. In Indonesia, one of the most pressing issues is the high prevalence of unintended pregnancies. The 2019 Performance and Accountability Survey (SKAP) reported that 17.5% of pregnancies were unintended, while 19.6% of adolescents aged 14-19 years had experienced unintended pregnancies. The 2018 Basic Health Research (Riskesdas) also noted that 46.4% of adolescent girls aged 15-19 years had experienced pregnancy. These figures highlight adolescents' susceptibility to risky premarital sexual behavior. This study aimed to analyze factors associated with premarital sexual behavior, focusing on family income, parental education, and media exposure. A cross-sectional analytic study was conducted among 77 students of Senior High School X, selected through cluster random sampling. Data were collected using a structured questionnaire and analyzed with the Chi-Square test at a 95% confidence level. The results revealed significant associations between family income ($p = 0.001$), parental education ($p = 0.038$), and media exposure ($p = 0.001$) with premarital sexual behavior. Adolescents from lower-income families and with less-educated parents were more likely to engage in premarital sexual activity. Internet exposure was the strongest factor, associated with higher-risk behaviors such as oral sex and sexual intercourse.

Keywords: Adolescent Behavior, Premarital Sex, Correlational Analytic, Cross-Sectional.

ABSTRAK

Masa remaja merupakan fase perkembangan yang ditandai oleh perubahan fisik dan psikologis yang cepat, sehingga membuat remaja rentan terhadap masalah kesehatan reproduksi. Di Indonesia, salah satu isu yang menonjol adalah tingginya angka kehamilan tidak diinginkan. Survei Kinerja dan Akuntabilitas Program (SKAP) tahun 2019 melaporkan bahwa 17,5% kehamilan di Indonesia tidak direncanakan, sementara 19,6% remaja usia 14-19 tahun pernah mengalami kehamilan tidak diinginkan. Riset Kesehatan Dasar (Riskesdas) 2018 juga mencatat bahwa 46,4% remaja putri usia 15-19 tahun pernah mengalami kehamilan. Data tersebut menunjukkan tingginya kerentanan remaja terhadap perilaku seksual pranikah. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang berhubungan dengan perilaku seksual pranikah pada remaja, meliputi pendapatan keluarga, pendidikan orang tua, dan paparan media. Penelitian ini menggunakan desain analitik cross-sectional dengan jumlah sampel 77 siswa SMA Negeri X yang dipilih melalui cluster random sampling. Data dikumpulkan menggunakan kuesioner terstruktur dan dianalisis menggunakan uji Chi-Square dengan tingkat kepercayaan 95%. Hasil penelitian menunjukkan adanya hubungan signifikan antara pendapatan keluarga ($p = 0,001$), pendidikan orang tua ($p = 0,038$), dan paparan media ($p = 0,001$) dengan perilaku seksual pranikah. Remaja dari keluarga berpendapatan rendah dan berpendidikan rendah lebih berisiko melakukan aktivitas seksual pranikah. Paparan internet merupakan faktor paling berpengaruh, dengan kecenderungan lebih tinggi terhadap perilaku berisiko seperti seks oral dan hubungan seksual. Perilaku seksual pranikah pada remaja dipengaruhi oleh faktor ekonomi, pendidikan, dan media. Upaya pencegahan perlu melibatkan keluarga, pendidikan kesehatan reproduksi di sekolah, serta regulasi pemerintah terhadap akses media yang tidak sesuai.

Kata Kunci: Perilaku Remaja, Seks Pranikah, Analitik Korelasional, Cross Sectional.

INTRODUCTION

Adolescent reproductive and sexual health is a global concern, with early sexual initiation and unintended pregnancies contributing to serious health and social consequences. The World Health Organization (WHO) estimates that approximately 21 million girls aged 15-19 years in developing countries become pregnant each year, with nearly half of these pregnancies unintended (WHO, 2024). A global review further highlighted that about 16 million adolescent girls give birth annually, representing 11% of all births worldwide (Holness, 2015). In Indonesia, the 2019 Performance and Accountability Survey (SKAP) reported that 17.5% of pregnancies were unintended, while 19.6% of adolescents aged 14–19 years had experienced unintended pregnancies (BKKBN, 2019). These figures indicate that premarital sexual behavior remains a key driver of adolescent reproductive health problems.

Adolescence is a transitional period characterized by biological, psychological, and social changes that may predispose individuals to risky sexual behavior (Hegde, Chandran, & Pattnaik, 2022; Belfiore et al., 2024; Mastorci et al., 2024). Limited self-control, inadequate reproductive health knowledge, and the lack of comprehensive sexual education make adolescents vulnerable to sexual exploration without considering long-term consequences (Widarini et al., 2019). The United Nations Population Fund (UNFPA) has emphasized that insufficient sexual education is one of the strongest predictors of adolescent pregnancy and risky sexual practices worldwide (United Nations Population Fund (UNFPA), 2025).

One crucial issue in adolescent reproductive health is premarital sexual behavior (Nursanti et al., 2022; Sejati, Mufida, & Wulandari, 2024). The curiosity and emerging sexual drive typical of adolescence may trigger risky behaviors. Limited skills in processing sexual information and weak parental or institutional support increase susceptibility to such behaviors. This situation is further exacerbated by social norms that do not fully support comprehensive sexual education, pushing adolescents to seek information from unreliable sources (Widarini et al., 2019).

Multiple factors are associated with premarital sexual behavior among adolescents. Environmental influences, such as peer pressure, family socioeconomic conditions, and exposure to media, play significant roles. International studies have shown that adolescents with poor parental communication and greater exposure to online sexual content are at higher risk of engaging in premarital sex (United Nations Children's Fund, 2021). These determinants interact to shape attitudes and behaviors, with media often acting as a stronger socializing agent than family or school if left unchecked.

Senior high school students represent one of the most vulnerable groups, as they are in a phase of identity exploration and often rely on peers and media as their primary sources of information. Previous studies in Indonesia have identified associations between pornography exposure, limited parental communication, and low reproductive health knowledge with premarital sexual behavior (Al Mutoharoh et al., 2023). Findings from global contexts reinforce this pattern, showing that adolescents with unrestricted access to media are more likely to normalize risky sexual practices (United Nations Children's Fund, 2021).

Based on this gap, the present study was conducted among students of one public senior high school (SMA Negeri X) to analyze the relationships between family income, parental education, and media exposure with premarital sexual behavior. Unlike prior research that mainly emphasized knowledge and peer influence, this study uniquely focuses on socioeconomic and media-related determinants in the Indonesian school context. The findings are expected to provide evidence for designing preventive strategies and reproductive health education programs tailored to adolescents' needs, particularly in the school environment.

RESEARCH METHODS

This study employed a cross-sectional correlational study design to examine the relationships between family income, parental education, and media exposure with premarital sexual behavior among adolescents. A cross-sectional correlational study allows for the simultaneous collection of data at one point in time while identifying potential associations among variables.

The research instrument used was a structured questionnaire on premarital sexual behavior, adapted from previous validated instruments with modifications to suit the study

context. The questionnaire consisted of four domains: (1) demographic characteristics (6 items), (2) family socioeconomic background (4 items), (3) media exposure (6 items), and (4) premarital sexual behavior (10 items). Responses on premarital sexual behavior were measured using a Likert scale ranging from “never” (1) to “often” (4). Content validity was established through expert judgment from three public health and reproductive health specialists. The questionnaire’s internal consistency reliability was confirmed with a Cronbach’s alpha coefficient of 0.82, indicating acceptable reliability.

The study population comprised all grade X and XI students of SMA Negeri X, totaling 318 students. The sample size was calculated using Slovin’s formula with a 10% margin of error, yielding 77 respondents. The 10% margin was selected to balance statistical precision with feasibility in terms of time and resources. Respondents were recruited using cluster random sampling. The inclusion criteria were: (1) grade X and XI students aged 15–18 years, (2) willing to participate and provide informed consent, and (3) capable of completing the questionnaire independently. The exclusion criteria were: (1) grade XII students, (2) students unwilling to participate, and (3) incomplete questionnaire responses.

Data collection was conducted in classrooms after obtaining permission from the school administration. Questionnaires were distributed and collected by trained research assistants, ensuring that students’ responses remained confidential. Prior to data collection, the purpose of the study was explained, anonymity and confidentiality were guaranteed, and written informed consent was obtained from each respondent. This study protocol was reviewed and approved by the Health Research Ethics Committee of STIKes Karya Persada Kediri.

Data analysis was carried out using the Chi-Square test to examine associations between independent and dependent variables at a 95% confidence level ($p < 0.05$). Assumptions of the Chi-Square test were verified, including expected frequency counts. The strength of associations was measured using the contingency coefficient (cc), with interpretation categories as follows: very weak (0.00–0.19), weak (0.20–0.39), moderate (0.40–0.59), strong (0.60–0.79), and very strong (0.80–1.00) (Cohen, 1988).

RESULTS

Table 1. Relationship between Household Head Income and Premarital Sexual Behavior among Adolescents (n=77).

Household Income	Hugging	Kissing	Oral Sex	Sexual Intercourse	Total
	n (%)	n (%)	n (%)	n (%)	n (%)
High (> Rp 850,000)	19 (55.9)	7 (20.6)	6 (17.6)	2 (5.9)	34 (100)
Low (< Rp 850,000)	9 (20.9)	19 (44.2)	12 (27.9)	3 (7.0)	43 (100)
Total	28 (36.4)	26 (33.8)	18 (23.4)	5 (6.5)	77 (100)

Description: Chi-Square test, $p = 0.001$; Contingency coefficient = 0.45 (moderate association)

The data in Table 1 show a significant relationship between household head income and premarital sexual behavior among adolescents ($p = 0.001$) with a moderate level of association (contingency coefficient = 0.45). Adolescents from households with high income (> Rp 850,000) most frequently engaged in hugging (55.9%), while fewer reported more intimate behaviors such as kissing (20.6%), oral sex (17.6%), and sexual intercourse (5.9%). In contrast, adolescents from low-income households (< Rp 850,000) showed higher involvement in more intimate behaviors such as kissing (44.2%), oral sex (27.9%), and sexual intercourse (7.0%). This suggests that lower household income is associated with a higher likelihood of engaging in riskier premarital sexual behaviors, possibly due to socioeconomic stress, lower parental supervision, or limited access to sexual education.

Table 2. Relationship between Household Head Education and Premarital Sexual Behavior among Adolescents (n=77).

Education Level	Hugging	Kissing	Oral Sex	Sexual Intercourse	Total
	n (%)	n (%)	n (%)	n (%)	n (%)
Elementary	18 (51.4)	10 (28.6)	5 (14.3)	2 (5.7)	35 (100)

Junior/Senior HS	7 (22.6)	14 (45.2)	7 (22.6)	3 (9.7)	31 (100)
Higher Education	3 (27.3)	2 (18.2)	6 (54.5)	0 (0.0)	11 (100)
Total	28 (36.4)	26 (33.8)	18 (23.4)	5 (6.5)	77 (100)

Description: Chi-Square test, $p = 0.038$; Contingency coefficient = 0.32 (weak association)

Table 2 demonstrates a significant relationship between the education level of the household head and premarital sexual behavior among adolescents ($p = 0.038$), with a weak association (contingency coefficient = 0.32). Adolescents whose parents had elementary education were more likely to report hugging (51.4%) and kissing (28.6%), while those whose parents had junior or senior high school education showed higher frequencies of kissing (45.2%) and oral sex (22.6%). Interestingly, adolescents whose parents had higher education were more likely to report oral sex (54.5%), though the total number in this group was relatively small ($n = 11$). Overall, the results indicate that parental education level influences adolescent sexual behavior, with lower education generally associated with earlier or less controlled premarital interactions. However, the weak correlation suggests that other factors, such as peer influence and media exposure, may play a stronger role.

Table 3. Relationship between Media Exposure and Premarital Sexual Behavior among Adolescents ($n=77$).

Media Type	Hugging	Kissing	Oral Sex	Sexual Intercourse	Total
	n (%)	n (%)	n (%)	n (%)	n (%)
Print	15 (65.2)	3 (13.0)	5 (21.7)	0 (0.0)	23 (100)
Electronic	6 (20.7)	16 (55.2)	3 (10.3)	4 (13.8)	29 (100)
Internet	7 (28.0)	7 (28.0)	10 (40.0)	1 (4.0)	25 (100)
Total	28 (36.4)	26 (33.8)	18 (23.4)	5 (6.5)	77 (100)

Description: Chi-Square test, $p = 0.001$; Contingency coefficient = 0.48 (moderate association)

The results in Table 3 reveal a significant association between type of media exposure and premarital sexual behavior among adolescents ($p = 0.001$), with a moderate level of association (contingency coefficient = 0.48). Adolescents who were mainly exposed to print media tended to engage in hugging (65.2%), while those exposed to electronic media reported higher frequencies of kissing (55.2%) and sexual intercourse (13.8%). Meanwhile, those exposed to the internet showed the highest proportion of oral sex behavior (40.0%), indicating that online content may have a stronger influence on more intimate or risky behaviors. These findings suggest that media exposure—especially to electronic and internet sources—plays a substantial role in shaping adolescents' premarital sexual behaviors, possibly due to easier access to explicit content and the influence of online social interactions.

DISCUSSION

The present study confirms that socioeconomic and environmental factors significantly contribute to adolescents' premarital sexual behavior. The results highlight that household income, parental education, and media exposure are interrelated determinants that shape adolescents' choices regarding sexual behavior.

The analysis revealed a moderate association between family income and premarital sexual behavior, with adolescents from lower income households more likely to engage in kissing, oral sex, and sexual intercourse compared to those from higher income families. This finding is consistent with previous research indicating that economic hardship may reduce parental capacity for supervision and guidance, thereby increasing adolescents' vulnerability to risky behaviors (Asnuddin & Haryono, 2020). In lower income families, adolescents may also have limited access to quality reproductive health education and youth friendly health services, further compounding the risk.

International studies support this observation. Romer et al., (1999) reported that in high-poverty settings, adolescents initiate sexual activity earlier and engage in higher-risk practices due to lack of parental monitoring and fewer structured activities. Similarly, WHO (2024) emphasized that adolescents from economically disadvantaged backgrounds are more likely to

face unintended pregnancies and unsafe sexual practices. These findings underscore that socioeconomic status not only influences material resources but also determines the quality of parental involvement and adolescent decision-making.

Parental education was found to be significantly related to premarital sexual behavior, although the strength of association was weaker than that of income and media exposure. Adolescents whose parents had only elementary education tended to engage more in hugging and kissing, which are considered lower risk forms of intimacy. Interestingly, oral sex was more prevalent among adolescents whose parents had higher education levels, though cases of sexual intercourse were not reported in this group. This pattern may reflect differences in parental communication styles. Parents with lower education may avoid or be unable to provide accurate sexual information, while parents with higher education may encourage more open discussions, but adolescents may also enjoy greater freedom in such households (Limbong & Sukarta, 2021).

These findings resonate with research conducted in Kenya and Indonesia, where parental education was a key determinant of adolescents' sexual practices. A study by Wulandari et al., (2024) demonstrated that parental educational attainment influenced adolescent reproductive behavior through communication quality and control. Similarly, United Nations Population Fund (UNFPA) (2025) highlighted that globally, adolescents lacking parental guidance in reproductive health were more likely to seek information from peers or the internet, which may not always provide accurate knowledge. This suggests that parental education should be viewed not only in terms of formal schooling but also in its impact on reproductive health literacy and parenting styles.

The results indicated that media exposure particularly internet usage was the strongest determinant of risky premarital sexual behaviors. Adolescents exposed to internet-based media showed higher prevalence of oral sex and sexual intercourse compared to those primarily exposed to print or electronic media. This finding aligns with the cultivation theory, which posits that repeated exposure to media content shapes individuals' perceptions, making sexual behaviors appear normalized or socially acceptable (Aulia & Tan, 2020). The internet, in particular, provides adolescents with easy access to pornographic material, often without adequate parental control.

Similar findings have been reported in other studies. Kusumawardani et al. (2024) demonstrated a strong link between internet media exposure and premarital sexual behavior among high school students in Probolinggo, while Tyas & Setiyadi, (2023) showed that pornography exposure on social media doubled the likelihood of adolescents engaging in premarital sex (OR = 2.48). These results reinforce the idea that adolescents are highly impressionable to online content and that unfiltered access to sexually explicit material significantly increases behavioral risks. Internationally, United Nations Children's Fund (2021) emphasized that digital exposure is a major global challenge in adolescent health, highlighting the urgent need for media literacy education and parental involvement.

Taken together, the findings from the three tables illustrate a complex interplay between socioeconomic background, parental education, and media exposure in shaping adolescent sexual behavior. Economic disadvantage reduces parental control, low parental education limits effective communication, and media exposure provides alternative often harmful sources of information. These factors do not work in isolation but interact to heighten adolescents' risk of engaging in premarital sexual activity.

The implications of these findings are multifaceted. Preventive strategies must therefore address all three determinants simultaneously: improving family economic resilience, enhancing parental education and communication skills, and equipping adolescents with digital literacy to critically assess online information. Schools and policymakers play a crucial role in implementing comprehensive reproductive health education that incorporates these dimensions.

CONCLUSION

This study found that among adolescents in one public senior high school in Indonesia, family income, parental education, and media exposure were significantly associated with premarital sexual behavior, with moderate associations observed for income and media exposure, and a weaker association for parental education. These findings highlight the need for

strengthened reproductive health education in schools, improved parent child communication, and media literacy programs to guide adolescents in managing online exposure, while policymakers may consider stricter regulation of inappropriate content. However, as this study was limited by its cross-sectional design, relatively small sample size, and single-school setting, future research should employ larger, multi-site, and longitudinal studies to better clarify causal pathways and strengthen the evidence base.

REFERENCES

- Al Mutoharoh, A., Djamal, N. N., & Tahrir, T. (2023). Premarital Sexual Behavior, Sexual Assertiveness, and Sex Guilt Among College Students. *Psymphatic: Jurnal Ilmiah Psikologi*, 10(2), 171-176. <https://doi.org/10.15575/psy.v10i2.30633>
- Asnuddin, A., & Haryono, H. (2020). Analisis Tingkat Pengetahuan dan Lingkungan Pergaulan dengan Perilaku Remaja Tentang Seks Pranikah. *Jurnal Kebidanan dan Keperawatan Aisyiyah*, 16(1), 87-95. <https://doi.org/10.31101/jkk.644>
- Aulia, D. L. N., & Tan, C. C. (2020). Peran PIK-R Dengan Perilaku Seks Pranikah Pada Remaja. *JKM (Jurnal Kebidanan Malahayati)*, 6(2), 249-254. <https://doi.org/10.33024/jkm.v6i2.2647>
- Belfiore, C. I., Galofaro, V., Cotroneo, D., Lopis, A., Tringali, I., Denaro, V., & Casu, M. (2024). A multi-level analysis of biological, social, and psychological determinants of substance use disorder and co-occurring mental health outcomes. *Psychoactives*, 3(2), 194-214. <https://doi.org/10.3390/psychoactives3020013>
- BKKBN. (2019). *Survei Kinerja dan Akuntabilitas Program (SKAP) tahun 2019*. Jakarta: BKKBN.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Routledge. <https://doi.org/10.4324/9780203771587>
- Hegde, A., Chandran, S., & Pattnaik, J. I. (2022). Understanding adolescent sexuality: A developmental perspective. *Journal of psychosexual health*, 4(4), 237-242. <https://doi.org/10.1177/26318318221107598>
- Holness, N. (2015). A global perspective on adolescent pregnancy. *International journal of nursing practice*, 21(5), 677-681. <https://doi.org/10.1111/ijn.12278>
- Kusumawardani, N., Ramani, A., & Cahyaningrat, D. B. (2024). Internet Media Exposure to Premarital Sexual Behavior in Students at SMAN 1 Dringu, Probolinggo Regency 2023. *Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education*, 12(1), 102–109. <https://doi.org/10.20473/jpk.V12.I1SP.2024.102-109>
- Limbong, T., & Sukarta, M. (2021). Premarital Sex Behaviour of Adolescents in Makassar, Indonesia. *Medico-Legal Update*, 21(1), 1143–1148. <https://doi.org/10.37506/mlu.v21i1.2472>
- Mastorci, F., Lazzeri, M. F. L., Vassalle, C., & Pingitore, A. (2024). The transition from childhood to adolescence: Between health and vulnerability. *Children*, 11(8), 989. <https://doi.org/10.3390/children11080989>
- Nursanti, D. P., Kumalasari, E. P., Setyaningsih, A., Siekmans, J., & Wabeke, V. (2022). Analysis of adolescent reproductive health knowledge on premarital sexual attitude. *Journal for Quality in Women's Health*, 5(2), 189-194. <https://doi.org/10.30994/jqwh.v5i2.160>
- Romer, D., Stanton, B., Galbraith, J., Feigelman, S., Black, M. M., & Li, X. (1999). Parental influence on adolescent sexual behavior in high-poverty settings. *Archives of pediatrics & adolescent medicine*, 153(10), 1055-1062. <https://doi.org/10.1001/archpedi.153.10.1055>
- Sejati, P. E., Mufida, R. T., & Wulandari, A. (2024). Barrier To Parents-Adolescent Communication On Sexual And Reproductive Health To Prevent Premarital Sexual Behaviour: A Qualitative Sistematic Review. *Journal for Quality in Women's Health*, 7(1), 28-36. <https://doi.org/10.30994/jqwh.v7i1.238>
- Tyas, A. C., & Setiyadi, N. A. (2023, September). Associations of Pornography Exposure on Social Media, and Peer Influence, with Pre-Marital Sexual Behavior in Students in Surakarta, Central Java, Indonesia. *The International Conference on Public Health Proceeding*, 8(1), 280–286. Retrieved from: <https://theicph.com/index.php/icph/article/view/2505>
- United Nations Population Fund (UNFPA). (2025). *The Real Fertility Crisis-The Pursuit of Reproductive Agency in a Changing World*. New York: UNFPA.

- United Nations Children's Fund. (2021). *The State of the World's Children 2021: On My Mind—Promoting, protecting and caring for children's mental health*. New York: UNICEF.
- Widarini, N. P., Tetradevi, F. S., & Emilia, O. (2019). Reproductive Health Promotion Through Traditional Art Media Reduced The of Premarital Sex Intention Among Adolescent Population in Gianyar, Bali. *Bali Medical Journal*, 8(3), 886–891. <https://doi.org/10.15562/bmj.v8i3.1562>
- WHO. (2024). *Adolescent Pregnancy*. Geneva: WHO. Retrieved from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>
- Wulandari, R., Aprianti, A., Ashari, A., & Waluyo, D. E. (2024). Exploring patterns and determinants of premarital sexual behaviour among Indonesian university students. *African Journal of Reproductive Health*, 28(6), 75-84. <https://doi.org/10.29063/ajrh2024/v28i6.8>