

Analysis of parental communication and sexual risk behavior among adolescents based on gender

Yanna Wari Harahap¹, Nurlaila², Irawati Harahap³, Adi Antoni⁴, Ahmad Safii Hasibuan⁵,
Suryati⁶

^{1,5,6}Program Studi Ilmu Kesehatan Masyarakat, Fakultas Kesehatan, Universitas Aafa Royhan, Indonesia

²Program Studi Kewirausahaan, Fakultas Bisnis dan Pendidikan Terapan, Universitas Aafa Royhan,
Indonesia

^{3,4}Program Studi Keperawatan, Fakultas Kesehatan, Universitas Aafa Royhan, Indonesia

ARTICLE INFO

Article history:

Received Oct 8, 2025

Revised Nov 4, 2025

Accepted Nov 17, 2025

Keywords:

Adolescents

Gender

Parental Communication

Risky Sexual Behavior

ABSTRACT

Adolescents are a group that is highly vulnerable to risky sexual behaviors. One of the factors influencing such behaviors is communication between parents and children. Good communication can serve as a protective factor against unhealthy sexual behavior. This study aims to analyze the influence of parent-child communication on risky sexual behavior among adolescents, as well as its differences based on gender. The study employed an analytical quantitative design with a cross-sectional approach. The sample consisted of 120 male and female adolescents selected through proportional random sampling. Data were collected using standardized questionnaires that had been tested for validity and reliability. Analysis was conducted using Pearson correlation and Independent t-test with a significance level of 0.05. The results showed a significant negative correlation between parental communication and risky sexual behavior ($r = -0.65$; $p < 0.001$). The better the communication between parents and adolescents, the lower the level of risky sexual behavior. Gender differences were also observed, where female adolescents demonstrated higher communication scores and lower risky sexual behavior compared to males ($p < 0.001$). Effective communication between parents and children plays a crucial role in preventing risky sexual behaviors among adolescents. Strengthening family communication through reproductive health education programs involving active parental participation is essential.

This is an open access article under the [CC BY-NC](#) license.



Corresponding Author:

Yanna Wari harahap,
Program Studi Ilmu Kesehatan Masyarakat,
Universitas Aafa Royhan,
Jl. Raja Inal Siregar, Batunadua Julu, Kec. Padangsidempuan Batunadua, Kota Padang Sidempuan,
Sumatera Utara, 22733, Indonesia
Email: yanna.wari@gmail.com

INTRODUCTION

The adolescent period is a transitional phase marked by physical, psychosocial, and cognitive changes that influence reproductive health and sexual behavior. During this stage, adolescents

begin to explore sexual identity, form romantic relationships, and access information from various sources, which—if not well managed—can increase the risk of harmful sexual behaviors such as early sexual initiation, unprotected sex, and multiple partnerships (World Health Organization, 2018; Patton et al., 2016). Adolescence represents a critical stage in reproductive health development, as it is during this period that individuals experience physical, psychological, and social changes that shape their sexual behaviors (Kebede et al., 2023).

Recent data show that adolescent reproductive health problems remain high at both global and national levels. Globally, in 2023, around 13% of young women gave birth before the age of 18, with an adolescent birth rate (ages 15–19) of approximately 39 per 1,000 females (UNICEF, 2024). A cross-national study among adolescents aged 12–15 reported varying prevalence rates of sexual intercourse, multiple partners, and condom use between countries (Jing et al., 2023). In Indonesia, data from 2020 indicate that 0.4–0.5% of adolescents aged 10–14 had been married, and among those aged 15–19, the birth rate was 21.26 per 1,000 females. According to the Indonesian Central Statistics Agency (2023), the adolescent population aged 10–19 years reached 44.2 million. The Indonesian Health Survey (SKI, 2023) revealed that 64.4% of female adolescents (aged 10–19 years) reported having experienced pregnancy. The National Commission for Child Protection and the Ministry of Health (2019) stated that 62.7% of Indonesian adolescents had engaged in premarital or casual sex. Meanwhile, data from the Coordinating Ministry for Human Development and Cultural Affairs (2021) showed that 2% of female adolescents aged 15–24 years and 8% of males in the same age group reported having had premarital sex, with 11% of them experiencing unintended pregnancies. The survey further reported that among adolescents who first engaged in sexual activity at ages 15–16, 59% were female and 74% were male. Unintended pregnancies often result in abortion or early marriage.

Risky sexual behavior among adolescents has broad implications for both reproductive health and socio-economic well-being. Medical consequences include increased rates of adolescent pregnancy with associated risks (such as obstetric complications, anemia, and low birth weight infants), as well as higher incidences of sexually transmitted infections with long-term effects (World Health Organization, 2022; UNFPA Indonesia, 2022). Socio-economic consequences include school dropouts, reduced employment opportunities, and social stigma that lower the quality of life for adolescents and their families (UNICEF Indonesia, 2023; Ayuandini et al., 2023). Therefore, evidence-based promotive and preventive efforts are essential to reduce the health and social burden of adolescent sexual behaviors.

Several determinants of adolescent reproductive health behavior are interrelated, including limited reproductive knowledge, exposure to explicit sexual media, peer influence, gender norms (such as masculinity expectations), access to adolescent health services, and the quality of parent-child communication. Meta-analyses and quantitative studies from 2018–2024 indicate that lack of effective communication with parents and low parental supervision are strongly correlated with increased risky behaviors (Widman et al., 2016; Ayu et al., 2023). Additionally, cross-national studies have found that exposure to sexual content on the internet and social media is associated with early sexual initiation and unprotected practices (Jing et al., 2023; World Health Organization, 2022). Interactions among these factors—such as male adolescents receiving less family communication while being exposed to permissive masculinity norms—can increase vulnerability to risky behaviors (Klu et al., 2022).

Communication between parents and adolescents regarding sexual and reproductive health issues is often cited as a protective factor that can reduce the risk of unhealthy sexual behaviors such as premarital sex, early pregnancy, and sexually transmitted infections (Ayu et al., 2023; A Febrina & Mulyono W, 2021). Several studies in Indonesia have shown that more open parent-child communication and emotional support from families are associated with better reproductive knowledge and lower risk of engaging in unsafe sexual behaviors (Cindy Wahyu Agustina et al., 2024; Agus Sri Banowo & Haristio Maulana, 2021). Furthermore, research in several

developing countries highlights that cultural barriers, taboos, shame, and lack of parental skills to discuss reproductive health often serve as major obstacles to effective parent-adolescent communication (Kebede et al., 2023; Rachmawati, 2023). Although many studies have shown correlations between parent-adolescent communication and adolescent sexual behavior, the findings are not always consistent, and there remains a gap in the literature regarding how such communication affects adolescents based on gender and specific risk aspects (Widman et al., 2016; Agus Sri Banowo & Haristio Maulana, 2021). This study aims to fill this gap by analyzing how parental communication influences risky sexual behavior among adolescents and by examining differences based on adolescents' gender.

The relevance of these findings is directly linked to the reproductive health education programs currently being implemented by the Indonesian government, such as the *Program Generasi Berencana (GenRe)*, *Pusat Informasi dan Konseling Remaja (PIK-R)*, and the *Adolescent-Friendly Health Services (PKPR)*. These programs aim to promote responsible reproductive health behaviors, delay early marriage, and prevent unintended pregnancies through education and counseling. However, current evidence suggests that while such programs have improved adolescents' access to information, the integration of family-based approaches—especially parental communication—remains limited. Strengthening parent-adolescent communication within these national initiatives can enhance their effectiveness by reinforcing the messages delivered in schools and community health centers, thus creating a more comprehensive and culturally sensitive framework for adolescent reproductive health promotion.

RESEARCH METHOD

This study employed an analytical quantitative design with a cross-sectional approach. The objective of the research was to analyze the relationship between parental communication and risky sexual behavior among adolescents, as well as to examine differences based on gender. The study population consisted of high school (or equivalent) students. The sample was selected using proportional random sampling, with a total of 120 male and female adolescents who agreed to participate in the study.

The independent variable was parental communication, while the dependent variable was risky sexual behavior. Gender was used as a distinguishing variable. Data were collected using a questionnaire that had been tested for validity and reliability. A high parental communication score indicated good communication, whereas a high sexual behavior score indicated a higher level of sexual risk; conversely, lower scores reflected lower or non-risky sexual behavior among adolescents. Data collection was conducted through self-administered questionnaires completed directly by respondents under the supervision of the researcher. Before completing the questionnaire, participants were provided with an explanation of the study and signed an informed consent form.

Data analysis was performed using SPSS version 26. Univariate analysis was used to describe respondent characteristics and variable distributions. Bivariate analysis employed Pearson correlation tests and Independent t-tests to examine relationships and gender-based differences. The level of statistical significance was set at $p < 0.05$.

RESULTS AND DISCUSSIONS

The results of this study examined parental communication and risky sexual behavior among adolescents based on gender. The analysis included descriptive findings and tests of the relationship between parental communication and risky sexual behavior, as well as the relationship of both variables with gender. The results are as follows:

Table 1. Parental communication by gender

Variable	Parent Communication		
	Mean	SD	Min-Max
Gender			
Man	54,9	9,8	29 – 72
Female	61,8	8,7	34 – 74

The analysis showed that male adolescents reported slightly lower levels of communication with their parents, whereas female adolescents demonstrated better parental communication. The results indicate that the higher the parental communication score, the better the quality of communication between parents and adolescents, and vice versa.

Parental communication has consistently been found to reduce the risk of adolescent sexual behavior, as open communication facilitates understanding of the consequences of sexual actions and helps adolescents make better decisions. For example, a meta-analysis by Ayu et al., (2023) showed that parental monitoring and communication were significantly associated with a decrease in risky sexual behaviors among adolescents in Indonesia; adolescents who had good parental communication tended to delay sexual initiation and use protection methods more consistently. A cross-sectional study in Indonesia also supported this finding—such as *Parent Communication Patterns and Risk Sexual Behavior in Late Adolescents* by Ayu et al., (2023), which found a negative correlation between parental communication patterns and risky sexual behavior among late adolescents. Moreover, in an international context, a study in Zambia by Isaksen et al., (2020) reported that adolescent-parent communication on reproductive health issues was associated with safer sexual practices and higher awareness of sexual risks. Therefore, reproductive health interventions should strengthen the family communication component as a protective mechanism against risky sexual behaviors.

Nevertheless, the effects of parental communication are not always direct or constant; there are moderating variables that influence the strength of its impact. For instance, adolescent age, local culture, self-confidence, and perception of social norms mediate the communication–sexual risk relationship. Determinants of communication among adolescents in Ghana showed that male adolescents were less likely to talk with their parents compared to females, and that factors such as parental education and emotional closeness influenced the frequency and quality of communication (Klu et al., 2022). Barriers such as embarrassment, parents' lack of knowledge about reproductive health content, and cultural taboos were also identified in a systematic literature review on parent-adolescent communication in Indonesia Susanti et al., (2025). By understanding these moderators, intervention programs can be designed more effectively by tailoring communication approaches and materials to the specific context of adolescents.

Practically, the results of this study indicate that it is not only the *amount* of communication that matters, but also its *quality*—for instance, how parents convey messages, how openly they listen, and whether the communication occurs in a supportive environment. A cross-sectional study conducted in Andalas by Sri Banowo and Maulana (year of publication) showed that comfortable and stigma-free communication between parents and adolescents was associated with more responsible sexual behavior. Interventions should train parents in empathetic communication skills, age-appropriate language use, and proper timing for discussing sexuality issues. Parental social awareness and education on reproductive health topics are also essential to ensure that messages are accurate, relevant, and acceptable to adolescents. With such approaches, parental communication can serve as a powerful tool in preventing risky sexual behaviors among adolescents.

Tabel 2. Analyze risk sexual behavior based gender in adolescent

Variable	Risk Sexual Behavior		
	Mean	SD	Min-Max
Gender			
Man	20,4	7,1	12 - 36
Female	16,7	6,2	10 - 35

Male adolescents exhibited higher levels of risky sexual behavior, while female adolescents showed lower levels of such behavior. The findings indicate that the higher the score of sexual behavior among adolescents, the worse their sexual behavior, and vice versa.

Research has shown striking differences in parent-child communication based on gender, where adolescent girls often receive more intensive communication regarding reproductive topics and sexual risks compared to boys. A study by Cindy Wahyu Agustina et al., (2024) in the context of late adolescence in Indonesia found that patterns of parental communication vary by gender, with female adolescents reporting more frequent discussions on sexual issues than their male counterparts. Similarly, a study in Ghana by Klu et al., (2022) revealed that male adolescents are less likely to talk with either parent about sexual issues, both in terms of frequency and quality. Therefore, parental communication patterns are not universal but are influenced by gender stereotypes and social norms that shape differing roles and expectations for males and females.

Furthermore, these differences are also related to the comfort level of both parents and adolescents in discussing taboo topics. Research in Malang on parent-adolescent communication during the COVID-19 pandemic Maimunah et al., (2023) found that barriers such as embarrassment and fear of conflict were more frequently experienced by male adolescents. Islamic and conservative cultural norms in several regions of Indonesia also contribute to communication barriers, particularly with boys, as parents fear that discussing sexuality might be perceived as “encouraging” undesirable behavior. The study *“Java-Moslem Family Communication Regarding Sexual and Reproductive Health Issue”* Sari Kusuma dan Rizky Azizah Muslimah et al., (2018) reported that parents often avoid reproductive topics with their sons due to cultural taboos and the perception that boys should “learn from experience.”

In practical terms, these gender-based differences imply that reproductive health education interventions must be gender-sensitive. In other words, communication programs should be designed so that boys also feel safe and supported to ask questions and receive accurate information, rather than being passive recipients. Training for parents should include modules on how to build inclusive dialogue with both sons and daughters, as well as raising awareness that boys also need proper guidance. Schools and adolescent health institutions can collaborate to provide male-specific educational materials to reduce reliance on informal and potentially inaccurate sources of information.

Table 3. Analyze of parent communication with risk sexual behavior in adolescent

Variable	Mean (SD)	Min	Max	r	p-value
Parent Communication	58.6 (8.2)	29	74	-0.46	0.001
Risk Sexual Behavior	18.5 (5.1)	10	36		

There was a significant negative correlation between parental communication and risky sexual behavior among adolescents. The better the parental communication, the lower the likelihood of engaging in risky sexual behavior. The analysis revealed that parental communication was significantly and negatively associated with risky sexual behavior among adolescents ($r = -0.46$; $p = 0.001$). This means that the higher the intensity and quality of communication between parents and children, the lower the probability of adolescents engaging in risky sexual behaviors. This finding reinforces the crucial role of family communication in shaping healthy reproductive behaviors among adolescents.

The independent t-test results showed a significant difference between males and females in both parental communication and risky sexual behavior. Female adolescents had better communication with their parents (mean = 61.8) compared to males (mean = 54.9), while risky sexual behavior was higher among males (mean = 20.4) compared to females (mean = 16.7), with $p < 0.001$. These findings suggest that gender plays an important role in differentiating levels of family communication and patterns of adolescent sexual behavior. The finding that male adolescents have higher risky sexual behavior scores compared to females aligns with numerous national and international studies conducted between 2015 and 2025. In Indonesia, research by Cindy Wahyu Agustina et al., (2024) showed that male adolescents are more likely to engage in risky behaviors, such as premarital sexual activity, compared to females. Internationally, a study in Zambia by Isaksen et al., (2020) found that although reproductive knowledge may be similar across genders, male adolescents tend to engage in riskier sexual behaviors. Social factors such as masculinity norms, peer expectations, and media exposure that portray male sexual behavior as more permissible further reinforce these behavioral differences.

Beyond social factors, psychological and environmental influences also play roles in strengthening or mitigating the relationship between gender and sexual behavior. The study *"Determinants of Communication..."* (2022) in Ghana identified that both age and gender significantly affect parent-adolescent communication, which in turn relates to sexual behavior—where younger male adolescents tend to be at higher risk when parental communication is weak. Psychological barriers such as impulsivity, the need for sexual exploration, peer support, and a lack of moral control or supervision are also frequently cited in the literature. These findings indicate that gender is not merely a moderate predictor but interacts with contextual factors such as culture and gender norms.

In practical terms, prevention efforts that focus solely on females or emphasize communication alone are insufficient. Intervention programs must include gender-specific strategies for males, incorporating sexual health literacy that acknowledges the social and cultural contexts driving masculine expectations. Schools, parents, and public policies must collaborate to deliver consistent messages and create open spaces for dialogue so that male adolescents feel equally supported and empowered to discuss reproductive health issues. With a cross-sectoral approach combining communication, education, and social norm transformation, the risks of sexual behavior among male adolescents can be more effectively reduced.

CONCLUSION

The study revealed a significant association between parental communication and adolescents' risky sexual behavior. Adolescents who maintain open and supportive communication with their parents tend to demonstrate healthier and more responsible sexual behaviors, whereas limited communication increases vulnerability to risk. Gender differences were observed, with females exhibiting better communication and lower engagement in risky sexual practices. These findings emphasize the crucial role of family communication as a protective factor in adolescent reproductive health. Practically, the results highlight the importance of developing family-based intervention programs that enhance parents' communication skills, confidence, and ability to discuss reproductive issues in culturally appropriate and age-sensitive ways. Integrating such programs into existing national initiatives—such as *GenRe*, *PIK-R*, and *PKPR*—can strengthen reproductive health education both at home and in the community. Strengthening parent-adolescent communication represents a strategic and sustainable approach to reducing risky sexual behaviors and improving youth health outcomes.

ACKNOWLEDGEMENTS

The researcher would like to express deepest gratitude to the Institute for Research and Community Service (LPPM) of Aufa Royhan University for the support, guidance, and facilities provided throughout the research process. Sincere appreciation is also extended to the school authorities who participated and granted permission for the implementation of this study, as well as to all teachers and students who willingly served as respondents. Without the cooperation, openness, and assistance of all these parties, this research would not have been successfully completed.

References

- A Febrina, & Mulyono W. (2021). Komunikasi orang tua-remaja tentang seksualitas dan dampaknya terhadap perilaku seksual di era digital. *Jurnal Kesehatan Masyarakat Andalas*, 15(2), 145-153.
- Agus Sri Banowo, & Haristio Maulana. (2021). Studi Cross Sectional Komunikasi Orang Tua Membentuk Perilaku Seksual Remaja. *Ners Jurnal Keperawatan*, 17(1), 47-53. <https://doi.org/10.25077/njk.v17i1.130>
- Ayu, E. J., Demartoto, A., & Prasetya, H. (2023). Effects of Parental Monitoring and Communication on the Prevention of Sexual Risk Behavior in Adolescents: Meta-Analysis. *Journal of Health Promotion and Behavior*, 8(3), 150-162. <https://doi.org/10.26911/thejhp.2023.08.03.01>
- Ayuandini, S., Habito, M., Ellis, S., Kennedy, E., Akiyama, M., Binder, G., Nanwani, S., Sitanggang, M., Budiono, N., Ramly, A. A., Humphries-Waa, K., Azzopardi, P. S., & Hennegan, J. (2023). Contemporary pathways to adolescent pregnancy in Indonesia: A qualitative investigation with adolescent girls in West Java and Central Sulawesi. *PLOS Global Public Health*, 3(10), e0001700. <https://doi.org/10.1371/journal.pgph.0001700>
- Cindy Wahyu Agustina, Sulistiawati, S., & Setyoboedi, B. (2024). Parent Communication Patterns And Risk Sexual Behavior In Late Adolescent. *Indonesian Midwifery and Health Sciences Journal*, 8(3), 211-219. <https://doi.org/10.20473/imhsj.v8i3.2024.211-219>
- Isaksen, K. J., Musonda, P., & Sandøy, I. F. (2020). Parent-child communication about sexual issues in Zambia: a cross sectional study of adolescent girls and their parents. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-09218-y>
- Jing, Z., Li, J., Wang, Y., & Zhou, C. (2023). Prevalence and Trends of Sexual Behaviors Among Young Adolescents Aged 12 Years to 15 Years in Low and Middle-Income Countries: Population-Based Study. *JMIR Public Health and Surveillance*, 9, e45236. <https://doi.org/10.2196/45236>
- Kebede, N., Bayou, F. D., Ayele, F. Y., Kefale, B., Mekonen, A. M., Dessie, A. M., & Tsega, Y. (2023). Prevalence and associated factors of early initiation of sexual intercourse among youth in Ethiopia: systematic review and meta-analysis. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-023-16968-y>
- Klu, D., Agordoh, P., Azagba, C., Acquah, E., Doegah, P., Ofosu, A., Ansah, E. K., & Gyapong, M. (2022). Determinants of communication on sexual issues between adolescents and their parents in the Adaklu district of the Volta region, Ghana: a multinomial logistic regression analysis. *Reproductive Health*, 19(1). <https://doi.org/10.1186/s12978-022-01402-0>
- Maimunah, S., Afiatin, T., & Febriani, A. (2023). Sexual communication between parents-adolescents during covid-19 pandemic in Malang. *Jurnal Ilmiah Psikologi Terapan*, 11(1), 7-12. <https://doi.org/10.22219/jipt.v11i1.18488>
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., Bonell, C., Kakuma, R., Kennedy, E., Mahon, J., McGovern, T., Mokdad, A. H., Patel, V., Petroni, S., Reavley, N., Taiwo, K., ... Viner, R. M. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423-2478. [https://doi.org/10.1016/S0140-6736\(16\)00579-1](https://doi.org/10.1016/S0140-6736(16)00579-1)
- Rachmawati, S. R. S. S. T. B. I. N. (2023). Faktor yang Mempengaruhi Kesehatan Reproduksi Remaja. 5(2), 2632-2640.
- Sari Kusuma dan Rizky Azizah Muslimah, R., Muhammadiyah Surakarta, U., Studi Ilmu Komunikasi, P., & Komunikasi dan Informatika Universitas Muhammadiyah Surakarta Jl Yani Tromol Pos, F. A. (2018). Java-Moslem Family Communication Regarding Sexual And Reproduction Health Issue. In *Jurnal Ilmu Komunikasi* (Vol. 7, Issue 2).
- Susanti, N. F., Octaliana, H., & Listya, E. P. (2025). Faktor-faktor yang Mempengaruhi Komunikasi Orang Tua-Remaja dalam Isu Kesehatan Seksual dan Reproduksi: Tinjauan Literatur Sistematis. *Media Kesehatan Politeknik Kesehatan Makassar*, 20(1), 180-191. <https://doi.org/10.32382/medkes.v20i1.1416>

- UNFPA Indonesia. (2022). *Annual report 2022: Reproductive health and adolescent fertility*.
- UNICEF. (2024). *Early childbearing and adolescent fertility statistics*. <https://data.unicef.org/topic/child-health/early-childbearing/>
- UNICEF Indonesia. (2023). *Situation of adolescents in Indonesia 2023*. <https://www.unicef.org/indonesia>
- Widman, L., Choukas-Bradley, S., Noar, S. M., Nesi, J., & Garrett, K. (2016). Parent-Adolescent Sexual Communication and Adolescent Safer Sex Behavior. *JAMA Pediatrics*, 170(1), 52. <https://doi.org/10.1001/jamapediatrics.2015.2731>
- World Health Organization. (2018). *Adolescent health and development*. <https://www.who.int/health-topics/adolescent-health>
- World Health Organization. (2022). *Adolescent pregnancy and reproductive health fact sheet*. <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>