

The Urgency of Sexual Education for South Kalimantan Adolescents in Preventing Premarital Sexual Behavior: A Literature Review

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Abstract: Premarital sexual behavior among adolescents in South Kalimantan is a serious problem that requires attention, as it has an impact on social aspects and reproductive health. At this stage, adolescents are vulnerable to risky behavior because this phase is a transition to adulthood characterized by rapid biological and emotional development and a high level of curiosity. A lack of understanding about sex education, the influence of social media, and a lack of communication with parents also contribute to this behavior. This study aims to review the urgency of sex education for adolescents in South Kalimantan as a means of preventing premarital sexual behavior and to analyze its contribution to increasing adolescents' awareness and responsibility for reproductive health. The method used is a *literature review* by analyzing various relevant national and international journal articles, using the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) approach in the data selection process. The results of the study show that comprehensive sex education is effective in improving adolescents' knowledge, morals, and decision-making skills, thereby reducing the tendency for premarital sexual behavior. This study concludes that sex education is of high urgency in shaping healthy and responsible adolescent behavior. Therefore, collaboration between the government, educational institutions, and parents is necessary to implement comprehensive sex education that is in line with local cultural values.

Keywords: Adolescents, Sexual Education, Premarital Sexual Behavior, South Kalimantan, Reproductive Health.

Introduction

Premarital sexual behavior among adolescents is a complex public health issue that requires serious attention. In South Kalimantan, data from the South Kalimantan Provincial Office of Women's Empowerment, Child Protection, and Family Planning (2024) shows that the birth rate among adolescents aged 15–19 years is still quite high, especially in Tapin Regency (0.370), Kotabaru (0.358), and Tanah Laut (0.353). This condition reflects the low level of understanding among adolescents about reproductive health and the importance of sex education, as well as limited access to accurate and comprehensive information. This is supported by research conducted by Saripah & Nadhirah (2020), which found that many adolescents do not receive adequate sex education

due to limited access to information and taboo perceptions from the community. According to Afifah (2020), the phenomenon of premarital sexual behavior is often triggered by sexual urges, curiosity, and the desire to obtain emotional and physical satisfaction through activities such as holding hands, kissing, hugging, and having sexual intercourse before marriage.

Data from the National Population and Family Planning Agency (BKKBN) shows that more than 2,181 adolescents in South Kalimantan have had sexual relations outside of marriage for various reasons, including to channel sexual urges (26%), because of love (17%), and for pleasure (17%). This behavior not only has social implications but also increases the risk of sexually transmitted infections,

HIV/AIDS, unwanted pregnancies, and maternal mortality.

The 2024 Banjarbaru City Health Profile Report shows that HIV cases in Banjarbaru are still found in various age groups. A total of 74 HIV cases were recorded throughout 2024, with the highest proportion in the 25–49 age group (60.8%), followed by the 20–24 age group (21.6%), and 1 case (1.4%) in the 15–19 age group. Based on gender, males accounted for 74.3% of cases, while females accounted for 25.7% (Banjarbaru City Health Office, 2024). These data show that adolescents remain a vulnerable group that requires serious attention in HIV prevention efforts. Adolescents' low understanding of reproductive health and limited access to accurate information can increase the risk of unsafe sexual behavior.

Comprehensive sexuality education plays an important role in equipping adolescents with the right knowledge, skills, and values related to interpersonal relationships and reproductive responsibility (WHO, 2020). However, the low implementation of reproductive health education in schools and within the family environment is one of the main factors causing the prevalence of risky sexual behavior among adolescents (Saripah & Nadhirah, 2020). Various studies in Indonesia show that most adolescents still have limited knowledge about the reproductive system and do not fully understand the risks and consequences of premarital sexual behavior (Amir et al., 2022). This condition emphasizes the importance of the role of parents, educators, and educational institutions in providing appropriate guidance related to adolescent reproductive health, as research shows that family communication, teacher support, and school intervention are significant protective factors in preventing risky sexual behavior (Fentahun et al., 2012).

This article aims to analyze the urgency of sex education as a preventive measure in tackling premarital sexual behavior among adolescents in South Kalimantan. Through a literature review, this study is expected to provide a comprehensive overview of the role of sex education in shaping the attitudes and behaviors of adolescents who are responsible for their reproductive health.

Materials And Method

Type of Research

This study uses a literature study method (literature review). A literature study is defined as a research design that serves to collect relevant data sources related to a specific topic. The aim is to describe or explain the core content based on the information that has been collected (Farrukh & Sajjad, 2023).

Research Method

Data collection for this study was conducted through literature searches using several national and international academic databases. The process of searching, selecting, and evaluating articles followed the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) guidelines developed and updated through PRISMA 2020 by Page et al. (2021). These guidelines direct the stages of literature screening, starting from *identification*, *screening*, *eligibility*, to *inclusion*, so that the data selection process is systematic, transparent, and replicable. This approach allows researchers to identify and analyze empirical research results on sex education and premarital sexual behavior among adolescents, particularly in relation to the socio-cultural context of South Kalimantan.

a. Literature Collection Strategy (Identification)

Articles were searched on three main portals, namely Google Scholar, ResearchGate, and ScienceDirect. The keywords used included "sexual education," "adolescent sexual behavior," "sexual education," "premarital sexual behavior," and "adolescent reproductive health," using Boolean operators (AND/OR) (Booth et al., 2021). This stage is the *identification* process, in which all relevant articles are collected according to the research topic. The articles found are examined for relevance through their titles and abstracts before entering the next screening stage.

b. Article Search Access (Screening & Eligibility)

Articles that passed the initial selection then went through the *screening* stage, which involved filtering based on the suitability of the title, abstract, and availability of the full text. Articles

that were irrelevant, duplicated, or did not meet the methodological criteria were excluded. Next, the *eligibility* stage is carried out, which is an assessment of suitability through reading the full text to ensure that the article meets research quality standards. Studies in the form of opinions, essays, non-empirical reports, and general review articles are excluded from the list of candidates.

c. Time Range and Literature Selection Results (Inclusion)

The time range of the articles analyzed was 2011–2024. During the *identification* process, 4,490 articles were found. After removing 1,120 duplicate articles, 3,370 articles remained. Through the title and abstract *screening* stage, 180 articles remained for further review. At the *eligibility* stage, a methodological quality assessment was carried out so that only 20 articles met the *inclusion* criteria and were used in the final analysis of this study. The complete selection process flow can be seen in Figure 1.

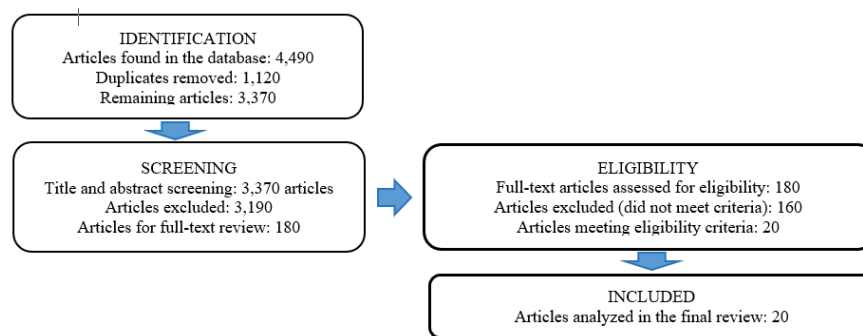


Figure 1. PRISMA flow diagram for the data extraction process.

Results And Discussion

Results

Based on the PRISMA diagram and selection procedure described in the methods section, the literature review process was carried out through the stages of identification, screening, eligibility, and inclusion. From an initial search of 4,490 articles, the process of removing duplicates and screening titles and abstracts resulted in 180 articles for further review. After full-text evaluation based on methodological criteria and topic relevance, 20 articles were found to meet the inclusion criteria and were used in the results

analysis. These articles then became the basis for compiling research findings on the urgency of sex education for adolescents in South Kalimantan.

The results of the review of the 20 scientific articles are presented in two tables that describe the information about the articles that have been studied. Table 1 explains the year of publication, article title, and article index. Table 2 describes the author's name, research method, and research findings related to the impact of sex education on adolescents and premarital sex behavior. This was done to facilitate the achievement of relevant research results.

Table 1

No	Year of Publication	Journal Name	Journal Index
1	2019	Journal of Health Sciences	Sinta 4
2	2022	Educational Heritage: Scientific Journal of Education	National
3	2022	Tambusai Health Journal	Sinta 4
4	2024	Journal of Public Health	Sinta 2
5	2012	Ethiopian Journal of Health Sciences	Scopus Q2

6	2018	Journal of Basic Education	Sinta 3
7	2021	Journal of Applied Guidance and Counseling	Sinta 3
8	2015	Journal of Adolescent Psychology	National
9	2022	Educational Heritage - Scientific Journal of Education (JIK)	National
10	2021	The Canadian Journal of Human Sexuality	Scopus Q2
11	2024	Journal of Reproductive Health Education	National
12	2022	Journal of Character Education	Sinta 2
13	2022	Journal of Research Innovation	Sinta 5
14	2023	Journal of Reproductive Health	Sinta 3
15	2019	Journal of Educational Sociology	Sinta 4
16	2020	Journal of Educational Psychology and Counseling	Sinta 2
17	2021	Journal of Health Education	National
18	2022	JUARA Sports Journal	Sinta 4
19	2020	Public Health Journal	National
20	2024	Journal of Social Sciences and Education	Sinta 4

After presenting Table 1 regarding the Year of Publication, Article Title, and Article Index, Table 2 below describes the author's name, research

method, and research findings related to the impact of sex education on adolescents and premarital sex behavior.

Table 2.

No	Author	Method	Findings
1	Afifatul Muarifah et al. (2019)	Quantitative – Correlational	Sexual education knowledge is significantly related to adolescent sexual behavior. Adolescents with good knowledge show higher self-control, are better able to refuse sexual advances, and are not easily influenced by peers. The study emphasizes the need to integrate sexual education from junior high school to high school.
2	Amir, Azhaari Aziizah; Fitri, Rahmadhani; Zulyusri (2022)	Literature Review	Positive perceptions (88.3%) of sexual education make adolescents more capable of avoiding risky behaviors. Sexual education has been proven effective in increasing adolescents' awareness of the risks of early pregnancy and STDs. However, cultural stigma makes implementation still weak. Many adolescents obtain misinformation from social media, increasing the risk of premarital sexual behavior.
3	Arimbi Prashintya Simawang et al. (2022)	Systematic Review	Sex education that involves the roles of family and peers is effective in preventing premarital sex. Good family communication and a positive peer environment have been proven to reduce the risk of risky sexual behavior, including preventing unwanted pregnancies among adolescents in Indonesia, and are relevant to be applied in South Kalimantan.
4	Fariana, Y. R. N., Novita, A., & Nina, N. (2024)	Quantitative	Psychosocial factors such as low self-esteem, peer influence, and social media consumption play a major role in premarital sexual behavior. The study emphasizes that sex education must include emotional aspects and self-esteem building so that adolescents are able to make healthy decisions.
5	Fentahun, N., Mamo, A., & Asres, G. (2012)	Mixed Method	Gradual sex education increases adolescents' readiness to understand puberty changes, reduces anxiety, and decreases risky behavior. Parental and teacher involvement increases program effectiveness.
6	Helmi, S. &	Experiment	Lectures and discussions have been proven to improve

	Paramastri, R. (2018)		understanding of reproductive concepts and sexual behavior boundaries. Students are able to identify risks and refusal skills. Parents become more open in communication after attending educational sessions.
7	Ipah Saripah et al. (2021)	Mixed Method (Survey & FGD)	Positive perceptions of sexual education among adolescents (74.44%), indicating that comprehensive education helps prevent premarital sex.
8	Lestari, W. D., Rahayu, E., & Wahyuni, R. (2015)	Survey	Exposure to pornography influences an increase in risky sexual behavior, such as sexting, petting, and premarital sex. Comprehensive sex education is recommended as a preventive measure against the negative effects of media.
9	Nurul Afifah (2022)	Descriptive Case Study	Reproductive education increases adolescents' knowledge before and after intervention and prevents sexual risks.
10	Nurgitz, R., deJonge, S., & Mahoney, C. (2021)	Quantitative Survey	Sex education improves self-efficacy, interpersonal communication skills, and satisfaction in healthy relationships. Adolescents become better able to make decisions based on knowledge rather than social pressure.
11	Nisrin, I., Hidayat, F., & Kurniawati, A. (2024)	Qualitative – Contextual	Sex education is effective when tailored to family values and local norms. A family-based approach facilitates discussions about the body, boundaries, and sexual risks without triggering parental resistance.
12	Rachmayanti, E. (2022)	Qualitative	Teachers usually limit sex education to biological aspects. As a result, students lack understanding of moral, emotional, and social aspects. Sex education that only teaches anatomy is not able to significantly prevent premarital behavior.
13	Rina Andriani et al. (2022)	Literature Review	Sex education reduces the risk of early pregnancy, STDs, and premarital behavior through increased sexual literacy.
14	Rodiana, R. (2023)	Quantitative	Sex education information is the biggest factor in preventing risky behavior (OR = 51.958). Adolescents with access to accurate information tend to reject sexual advances, have a better perception of risk, and are more aware of health consequences.
15	Rochadi, R. (2019)	Qualitative	Peers play a role as sources of information and influences on sexual behavior. Good sexual education can protect adolescents from peer pressure and help them make more independent decisions.
16	Saripah, S. & Nadhirah, N. (2020)	Survey	11.4% of adolescents engage in unhealthy sexual behavior. Lack of sex education and weak family roles are the main factors. Adolescents need proper education to reduce risky behavior.
17	Saripah et al. (2021)	Mixed Method	Adolescents' perceptions of sexual education in South Kalimantan are positive (74.4%). However, only 65.79% of parents provide reproductive education. School sexual education remains important because families are not yet optimal.
18	Sari, U., Moedjiono, A. I., & Bustan, M. N. (2022)	SDKI Analysis	Male adolescents in Kalimantan tend to engage in premarital sexual behavior due to peer pressure and media exposure. Structured sex education can reduce the prevalence of such risky behavior.
19	Sulastri, I. & Astuti, E. (2020)	Pre–Post Test	Reproductive health education improves adolescents' knowledge and attitudes toward STDs and the risks of sexual intercourse. After the intervention, adolescents were better able to recognize safe behaviors.
20	Suranto, S., Lestari, N. A., & Yusuf, M. (2024)	Literature Review	Teenagers more often obtain sexual information from online media (42.3%) than from teachers and parents. This shows the need for digital education and media literacy interventions.

Discussion

Based on articles that passed all stages of the PRISMA selection process, from identification to inclusion, a collection of methodologically sound and relevant studies was obtained. The analysis of the twenty articles was conducted by examining the patterns of findings, the depth of empirical data, and the suitability of the social context in each publication. Through this synthesis process, several key points emerged consistently as the basis for discussion, namely the role of sexual knowledge, the influence of family and peers, cultural barriers, the role of digital media, and the effectiveness of sexual education models. These themes were not compiled subjectively, but were the result of consistent findings in articles that had been selected through the identification, screening, eligibility, and inclusion stages. Thus, the following discussion describes thematic conclusions supported by data from systematically selected literature.

1. The Impact of Knowledge on Adolescent Sexual Behavior

A synthesis of twenty articles shows that sexual knowledge is the strongest predictor in preventing premarital sexual behavior. Quantitative research by Afifatul Muarifah et al. (2019) and Safitri (2021) shows that adolescents with high knowledge have lower sexual intentions and stronger ability to refuse invitations. Rodiana (2023) reinforces this finding by noting an odds ratio of 51.958, making knowledge a dominant factor in protecting adolescents from risky behavior.

Theoretically, these findings align with the Health Belief Model, which places risk perception and benefits as outcomes of knowledge levels. However, a number of studies (e.g., Fariana et al., 2024; Nurgitz et al., 2021) emphasize that knowledge needs to be accompanied by attitude formation, self-efficacy, and interpersonal skills. This shows that knowledge is an important foundation, but it is not sufficient if it is not integrated with socio-emotional aspects.

2. The Role of Family, Peers, and Social Environment

Almost all studies confirm that family support plays a significant role in reducing premarital sexual behavior. A study by Arimbi Prashintya Simawang et al. (2022) shows that family-based sex education can reduce the risk of unwanted pregnancies. However, Saripah et al. (2021) reveal that only about 65.79% of parents provide sex education to their teenage children, indicating a gap in family communication.

The role of peers is also important. Fariana et al. (2024) and Rochadi (2019) state that peer pressure is a dominant risk factor, but peers who have received education can actually become positive agents of information. This is in line with Bandura's Social Learning Theory, which explains that adolescent behavior is greatly influenced by social models and the need to be accepted by the group.

The interconnectedness between family and peers reinforces that sex education is effective when it targets the social context of adolescents, not just individual knowledge.

3. Cultural Challenges, Stigma, and Local Norms

In the context of South Kalimantan, various studies (e.g., Amir Azhaari Aziizah et al., 2022; Saripah et al., 2021) found that strong cultural stigma makes discussions about sexuality taboo, so teachers and parents only teach basic biological aspects. This model of sex education contradicts the principles of Comprehensive Sexuality Education (CSE), which emphasizes moral, psychosocial, relational, and emotional aspects.

Research by Nisrin et al. (2024) also shows that parental resistance can be reduced when sexuality education is linked to family values and local norms. This proves that a culture-based approach is far more effective than a generic approach without context.

This cultural challenge indicates that sex education in South Kalimantan requires a model that is sensitive to the religious values and social structure of the Banjar community.

4. The Influence of Social Media and Exposure to Pornography

Social media is the element that most influences how adolescents view sexuality. Suranto et al. (2024) noted that 42.3% of adolescents obtain sexual information from online media, exceeding that from teachers and parents. Adolescents' unpreparedness in filtering information makes them vulnerable to misinformation and pornography.

Lestari et al. (2015) found that exposure to pornography correlates with risky sexual behaviors such as sexting, petting, and premarital sex. This is in line with the findings of Sari et al. (2022), which show that male adolescents in Kalimantan are more vulnerable to engaging in premarital sex due to digital media consumption and peer pressure.

Within the media theory framework, repeated exposure shapes normative perceptions, so digital literacy must be an integral part of sex education, especially in areas with high internet access such as South Kalimantan.

5. Effectiveness of Teaching Methods and Sexual Education Models

Findings from Helmi & Paramastri (2018) show that lecture-discussion methods improve interpersonal communication and refusal skills. These results are in line with Fentahun et al. (2012) and Nurgitz et al. (2021) in an international context, which show that gradual sex education reduces puberty anxiety and increases self-efficacy.

However, Rachmayanti's (2022) research shows that many teachers only focus on anatomy and reproduction, without touching on ethical, emotional, or relational aspects. This model does not reflect the principles of CSE, so students do not gain a comprehensive understanding of the meaning of "healthy sexual decisions." Thus, learning methods that involve interaction, value discussions, communication simulations, and self-reflection have proven to be more effective than lectures alone.

If all findings are analyzed within a broader theoretical framework, it appears that the effectiveness of sex education depends on the integration of three main complementary dimensions, namely the cognitive dimension, the

social dimension, and the cultural and media dimension. From a cognitive perspective, various studies such as Muarifah et al. (2019), Safitri (2021), and Rodiana (2023) consistently show that increased sexual knowledge plays a direct role in improving risk perception, understanding of consequences, and the ability of adolescents to make more rational decisions. These findings are in line with the main principle of the Health Belief Model, which explains that individuals are more likely to avoid risky behavior when they have a correct understanding of the dangers and benefits of preventive measures.

However, knowledge alone is not enough without support from the adolescent's social environment. Research by Simawang et al. (2022), Rina Andriani et al. (2022), and Fariana et al. (2024) confirms that family, peers, and other social relationships shape behavioral norms and influence adolescent self-regulation. This is in line with Bandura's Social Learning Theory, which states that adolescents tend to imitate the behavior of figures or groups they consider important. In other words, even though adolescents understand sexual risks cognitively, peer pressure or a lack of family communication can still push them toward risky decisions.

The third dimension, no less important, is the cultural and media dimension. Studies by Aziizah et al. (2022), Suranto et al. (2024), Lestari et al. (2015), and Sari et al. (2022) show that local norms, the stigma surrounding discussions of sexuality, and exposure to social media and pornography greatly influence the formation of adolescents' sexual perceptions and behaviors. In the context of South Kalimantan, which has high cultural and religious norms, sexual education that is not sensitive to local values tends to encounter resistance. Conversely, without adequate digital media literacy, adolescents will continue to be exposed to false or risky information from the internet. These findings are in line with media communication theories that emphasize that exposure to digital content can shape normative perceptions of sexual behavior.

Thus, these three dimensions are intertwined and cannot be separated in developing a truly effective sexual education concept. Weaknesses in

one dimension, such as a lack of family communication or cultural stigma, will weaken the impact of the increased knowledge provided in schools. Therefore, ideal sexual education must be comprehensive, involve families and communities, and be sensitive to the cultural context and digital media challenges faced by South Kalimantan adolescents today.

Conclusion

Based on a literature review of twenty articles analyzed, this study concludes that sex education is of high urgency as a preventive measure in tackling premarital sexual behavior among adolescents in South Kalimantan. Sex education plays an important role in providing a correct understanding of reproductive health, thereby helping adolescents recognize risks, consider consequences, and develop a more prudent attitude toward sexual behavior. In addition, comprehensive sex education can shape more responsible attitudes and behaviors in adolescents. The results of the literature review show that sex education not only increases knowledge but also supports the development of adolescents' ability to make safe and healthy decisions related to reproduction. This shows that sex education is an important component in building risk-aware and prevention-oriented behavior in adolescents. Thus, this study confirms that sex education has a significant contribution in creating adolescents who have a good understanding, positive attitudes, and responsible behavior towards their reproductive health. These findings are in line with the research objectives to provide a comprehensive overview of the urgency of sex education as a strategy to prevent premarital sexual behavior among adolescents in South Kalimantan.

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