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The Relationship Between Knowledge and Sexual Behavior Among Adolescents

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Abstrak

Remaja merupakan kelompok yang rentan terhadap perilaku seksual berisiko akibat kurangnya pengetahuan terkait kesehatan reproduksi. Penelitian ini bertujuan untuk menganalisis hubungan antara tingkat pengetahuan dan perilaku seksual pada siswa kelas 10 di SMA B Ponorogo. Penelitian ini menggunakan desain analitik kuantitatif dengan pendekatan potong lintang. Sampel berjumlah 133 siswa yang dipilih melalui teknik simple random sampling. Pengumpulan data menggunakan kuesioner terstruktur yang mencakup pengetahuan (kategori: kurang, cukup, baik) dan perilaku seksual (berisiko atau tidak berisiko). Analisis data dilakukan menggunakan statistik deskriptif dan uji chi-square dengan tingkat signifikansi $p < 0.05$. Hasil penelitian menunjukkan bahwa sebagian besar responden memiliki tingkat pengetahuan yang baik (72,9%) dan sebagian besar melakukan perilaku seksual tidak berisiko (96,2%). Temuan ini menunjukkan bahwa tingkat pengetahuan yang baik cenderung berhubungan dengan perilaku seksual yang lebih aman. Meskipun demikian, sebagian kecil remaja masih menunjukkan perilaku berisiko, yang mengindikasikan adanya faktor lain di luar pengetahuan yang dapat memengaruhi perilaku seksual. Penelitian ini menegaskan pentingnya pendidikan kesehatan reproduksi yang komprehensif, keterlibatan orang tua, serta dukungan tenaga kesehatan untuk memperkuat perilaku seksual yang sehat pada remaja.

Kata Kunci : *Pengetahuan, Perilaku Seksual, Remaja*

Abstract

Adolescents are considered a vulnerable population due to their increased likelihood of engaging in risky sexual behaviors associated with inadequate reproductive health knowledge. This study aimed to examine the relationship between knowledge levels and sexual behavior among tenth-grade students at Senior High School B, Ponorogo. A quantitative analytic design with a cross-sectional approach was employed. A total of 133 students were selected using simple random sampling. Data were collected through a structured questionnaire assessing knowledge (categorized as poor, moderate, or good) and sexual behavior (risky or non-risky). Descriptive statistics and the chi-square test were used for data analysis with a significance level of $p < 0.05$. The findings showed that most respondents had good knowledge levels (72.9%), and the majority reported non-risky sexual behavior (96.2%). These results indicate that higher knowledge levels tend to be associated with safer sexual practices. However, the presence of a small proportion of students engaging in risky behaviors suggests that factors beyond knowledge may contribute to sexual decision-making. This study highlights the importance of comprehensive sexuality education, strengthened parental involvement, and the role of health workers in supporting healthy sexual behavior among adolescents.

Keywords: Knowledge, Sexual Behavior, Adolescents

INTRODUCTION

Adolescence is a critical developmental stage marked by rapid physical, psychological, and social transitions that influence decision-making, including sexual behavior. During this period, adolescents begin to explore sexuality, often without adequate preparation or support, making them vulnerable to risky behaviors and negative reproductive health outcomes (Kemigisha et al., 2018; Nubed & Akoachere, 2016). Research has shown that sexual and reproductive health knowledge plays an essential role in shaping attitudes and guiding safe behaviors among young people (Guan, 2021). However, in many settings, adolescents still have limited access to accurate and comprehensive sexual health information, leaving them reliant on peers or media sources that may provide incomplete or misleading content.

Inadequate sexual health knowledge is associated with increased sexual risk-taking, including early sexual debut, inconsistent condom use, and poor understanding of sexually transmitted infection (STI) prevention (Amu & Adegun, 2015; Shamu et al., 2020). Conversely, adolescents with good levels of knowledge tend to adopt healthier attitudes and demonstrate safer sexual practices (Kwon & Id, 2021; Susanti et al., 2021). Despite this, variations in access to school-based sex education, parental communication, and cultural norms continue to create disparities in adolescent sexual behavior across regions (Hall et

al., 2019; Matijasevich, 2021). These variations suggest that knowledge alone may not fully predict adolescent behavior, yet it remains one of the most consistently reported factors influencing safer choices.

Previous studies in different countries have demonstrated the importance of strengthening sexual knowledge to reduce risky behaviors, but findings remain mixed regarding the magnitude of its influence among early adolescents and high school populations (Li et al., 2017; Rudgard et al., 2023). In Indonesia, research on this topic is still developing, and many adolescents obtain information primarily from peers rather than health professionals, increasing the likelihood of misinformation. Although studies such as Rahma (2019) and Susanti et al (2021) highlight the association between sex education and behavioral outcomes, evidence from rural or semi-urban senior high schools is still limited. This creates a need for more context-specific research that examines how varying levels of knowledge influence sexual behavior in different adolescent groups.

Based on these gaps, the present study aims to analyze the relationship between knowledge and sexual behavior among tenth-grade students at Senior High School B, Ponorogo. Understanding this association is essential for informing targeted school-based sexual education, supporting preventive interventions, and providing evidence for stakeholders to strengthen adolescent reproductive health programs. The findings are expected to contribute to a clearer understanding of how knowledge levels correspond to behavioral risks among Indonesian adolescents.

RESEARCH METHOD

This study employed a quantitative analytic research design with a cross-sectional approach to measure the relationship between knowledge and sexual behavior among adolescents at a single point in time. The study aimed to determine the association between knowledge and sexual behavior among tenth-grade students at Senior High School B, Ponorogo. The population consisted of all tenth-grade students, and a total of 133 respondents were selected using a simple random sampling technique, in which every eligible student had an equal probability of being selected. Data were collected through a structured, self-administered questionnaire that included a knowledge section categorized into poor, moderate, and good, as well as a sexual behavior section that classified respondents into risky or non-risky behavior groups.

All research instruments were reviewed and validated for clarity and content relevance prior to use. The collected data were analyzed using descriptive statistics to present respondent characteristics, knowledge levels, and sexual behavior categories. Furthermore,

the chi-square (χ^2) test was performed to examine the relationship between knowledge and sexual behavior, with a predetermined significance level of $p < 0.05$.

RESULTS AND DISCUSSION

Table 1. Respondents' Characteristics Based on Class, Gender, Religion, and Sources of Information

Characteristics	Category	Frequency (n)	Percentage (%)
Class	Natural Sciences 1 (NS 1)	15	11.3
	Natural Sciences 2 (NS 2)	13	9.8
	Natural Sciences 3 (NS 3)	15	11.3
	Natural Sciences 4 (NS 4)	17	12.8
	Natural Sciences 5 (NS 5)	14	10.5
	Natural Sciences 6 (NS 6)	14	10.5
	Social Sciences 1 (SS 1)	16	12.0
	Social Sciences 2 (SS 2)	14	10.5
	Social Sciences 3 (SS 3)	15	11.3
Gender	Male	41	30.8
	Female	92	69.2
Religion	Christian	1	0.8
	Islam	132	99.2
Sources of Information	Peers	43	32.3
	Parents	23	17.3
	Health workers	67	50.4

The results showed that respondents were distributed across various classes, with Natural Sciences 4 (NS 4) having the highest proportion at 12.8%, indicating a relatively even distribution across study programs. Most respondents were female (69.2%), showing that the sample was predominantly composed of female students. In terms of religion, almost all respondents were Muslim (99.2%), reflecting the dominant religious background of the student population. Regarding sources of information, health workers were the most frequently reported source (50.4%), followed by peers (32.3%), while parents contributed the least (17.3%), suggesting that adolescents relied more on professional and peer sources than on parental guidance for information related to sexual health.

Table 2. Distribution of Respondents Based on Knowledge Level and Sexual Behavior

Variables	Category	Frequency (n)	Percentage (%)
Knowledge Level	Poor	4	3.0
	Moderate	32	24.1
	Good	97	72.9
	Total	133	100.0
Sexual Behavior	Risky	5	3.8
	Non-risky	128	96.2
	Total	133	100.0

The results indicated that most respondents had a good level of knowledge (72.9%), while 24.1% demonstrated a moderate level of knowledge, and only 3.0% had poor knowledge. This showed that the majority of adolescents possessed an adequate understanding of sexual and reproductive health. Regarding sexual behavior, the findings revealed that 96.2% of respondents engaged in non-risky sexual behavior, whereas only 3.8% were classified as having risky behavior. Overall, these results suggested that adolescents generally had good knowledge and tended to practice safe or non-risky sexual behaviors.

DISCUSSION

Knowledge Level

The findings of this study showed that the majority of adolescents possessed a good level of knowledge regarding sexual and reproductive health, which aligns with numerous previous studies demonstrating that adolescents who receive adequate educational exposure tend to have better awareness and understanding. Similar findings were reported by Kemigisha et al (2018) who found that early adolescents in Uganda showed improved sexual health knowledge when exposed to structured information sources. Likewise, Guan (2021) demonstrated that university students with access to comprehensive reproductive health information displayed higher knowledge scores and more informed attitudes. These findings support the idea that educational settings play an essential role in enhancing adolescents' knowledge and shaping their understanding of sexual health.

The results of this study also align with theoretical frameworks explaining the link between knowledge and behavior. The Knowledge Attitude Behavior (KAB) model suggests that knowledge forms the cognitive foundation influencing attitudes and subsequently behavioral outcomes, such as sexual decision-making and risk-avoidance (Li et al., 2017).

Research on school-based sexuality education similarly highlights that increased knowledge is associated with reductions in risky sexual practices and improvements in protective behaviors among adolescents (Hall et al., 2019). Moreover, Matijasevich (2021) emphasized that insufficient knowledge is a key determinant of risky adolescent behaviors, including sexual activity without adequate protection. Based on these theoretical and empirical insights, the high level of knowledge among respondents in this study reflects the importance of structured and accessible educational support.

From the researcher's perspective, the dominance of good knowledge among the students indicates that adolescents are increasingly exposed to reliable information sources, particularly health workers, who were identified as the primary source of information. This suggests that community and school-based health initiatives have been effective in providing accurate and relevant reproductive health information. However, the presence of adolescents with moderate and poor knowledge levels highlights disparities in information access and possible cultural or communication barriers, as reported in earlier studies from Indonesia and other developing regions (D et al., 2021; Susanti et al., 2021). Therefore, the researcher believes that enhancing comprehensive sexual health education, strengthening parental involvement, and ensuring consistent information delivery may further improve adolescents' knowledge and support healthier decision-making in the future.

Sexual Behavior

The findings of this study showed that the majority of adolescents demonstrated non-risky sexual behavior, which is consistent with previous research indicating that many adolescents tend to delay sexual engagement or practice safer behaviors when exposed to adequate education and support. Studies conducted in various contexts, such as China, South Africa, and Indonesia, similarly reported that adolescents with strong awareness and access to information tend to avoid risky behaviors, particularly those associated with early sexual debut or unprotected intercourse (Li et al., 2017; Rahma, 2019; Rudgard et al., 2023). Additionally, Kemigisha et al (2018) found that improved sexual knowledge among younger adolescents often resulted in more cautious attitudes and lower engagement in high-risk activities. These consistent findings suggest that adolescents generally demonstrate responsible behavior when provided with adequate guidance and knowledge.

Theoretical perspectives further support the observed relationship between knowledge and behavioral outcomes. According to the Knowledge–Attitude–Behavior framework, informed adolescents are more likely to form positive attitudes toward protective sexual practices, which ultimately reduces engagement in risky sexual behaviors.

Prior studies have shown that individuals who possess greater understanding of sexually transmitted infection (STI) risks, pregnancy consequences, and prevention strategies demonstrate more responsible decision-making (Amu & Adegun, 2015; Nubed & Akoachere, 2016). Moreover, research highlights that risky sexual behaviors in adolescence are often associated with insufficient parental communication, peer pressure, and lack of access to health services (Matijasevich, 2021; Shamu et al., 2020). In this context, the very low proportion of students who engaged in risky behavior in this study reflects the protective influence of adequate knowledge, supportive environments, and reliable information sources.

From the researcher's perspective, the predominance of non-risky sexual behavior suggests that preventive strategies implemented through school programs, peer education, and health worker involvement have been largely effective in shaping adolescents' choices. The high exposure to health workers as a primary source of information may also have strengthened students' understanding of the consequences of risky behavior, thereby reducing engagement in unsafe practices. However, the presence of a small proportion of adolescents exhibiting risky behavior indicates that gaps remain, potentially due to peer influence, curiosity, lack of parental supervision, or limited depth of understanding despite general awareness, as noted in previous studies in Indonesia and other regions (D et al., 2021; Shamu et al., 2020; Susanti et al., 2021). Therefore, the researcher recommends enhancing interactive and continuous sexual health education, strengthening peer-led interventions, and improving communication between adolescents and parents to reduce the likelihood of risky sexual behavior further.

Knowledge Level and Sexual Behavior

The findings of this study demonstrated that adolescents with higher levels of sexual health knowledge were more likely to engage in non-risky sexual behavior. This pattern is consistent with previous evidence showing that knowledge plays a protective role in shaping adolescent sexual decision-making. For example, Amu & Adegun (2015) found that adolescents with a better understanding of sexually transmitted infections demonstrated safer sexual practices. At the same time, similar trends were also reported among young adolescents in Uganda, where increased knowledge was associated with more cautious behavior (Kemigisha et al., 2018). Furthermore, studies conducted in China and Cameroon also emphasized that adequate sexual knowledge reduces misconceptions and encourages responsible behavior among adolescents (Li et al., 2017; Nubed & Akoachere, 2016). These findings support the factual observation that knowledge serves as a foundational

determinant of healthy sexual choices.

Theoretically, the association between knowledge and behavior aligns with behavioral change models, including the Health Belief Model and Social Cognitive Theory, which suggest that informed individuals are more capable of evaluating risks and adopting preventive actions. Evidence from Beijing and South Africa highlights that adolescents with comprehensive sexual knowledge possessed more positive attitudes toward safe sexual practices, suggesting that knowledge enhances cognitive readiness for behavioral self-regulation (Guan, 2021; Shamu et al., 2020). Additionally, studies on sexuality education indicate that school-based programs significantly improve students' understanding of sexual health, which in turn reduces their engagement in risky sexual activities (Hall et al., 2019; Li et al., 2017). These theoretical insights reinforce the premise that increasing knowledge enhances adolescents' perceived susceptibility and the benefits of safe sexual behavior, ultimately affecting their behavioral choices.

From the researchers' perspective, the strong dominance of good knowledge levels in this study indicates that the dissemination of information, whether through schools, health workers, or digital sources, has been relatively effective. However, the small proportion of students engaging in risky sexual behavior suggests that knowledge alone may not fully eliminate unsafe practices. This aligns with Rahma (2019), who argued that psychological, social, and environmental factors may influence behavior despite adequate knowledge. Moreover, factors such as parental communication, socio-cultural norms, and access to supportive environments have been identified as protective mechanisms against risky behavior (Rudgard et al., 2023; Yimer, 2019). Therefore, while knowledge remains a crucial predictor, the researcher believes it must be supported by consistent sexuality education, parental involvement, and youth-friendly health services to strengthen adolescents' ability to maintain safe sexual behavior.

CONCLUSION

This study concluded that most adolescents demonstrated good knowledge and predominantly engaged in non-risky sexual behavior, indicating a positive association between knowledge and safer sexual practices. However, the majority of students showed responsible behavior, a small number still engaged in risky activities, suggesting that knowledge alone is insufficient and must be reinforced through comprehensive sexuality education, parental support, and consistent guidance from health professionals to optimize healthy sexual behavior among adolescents.

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