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Original Article

The Relationship Between HIV/AIDS Knowledge and Dating Behavior Among Senior High School Students

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Abstract

The WHO reported that approximately 39.0 million people were living with HIV at the end of 2022, with 1.3 million new infections and 630,000 deaths due to HIV-related illnesses in the same year. One of the factors contributing to risky dating behavior among adolescents is a lack of knowledge about HIV/AIDS, leading to limited understanding of its consequences. This study aimed to analyze the relationship between HIV/AIDS knowledge and dating behavior among eleventh-grade students. A quantitative descriptive correlational method with a cross-sectional approach was used. The sample consisted of 70 respondents selected through purposive sampling. The research instruments included the HIV-KQ-18 questionnaire and the SBQ, both of which have been tested for validity and reliability. The results showed that 17.1% of respondents had low knowledge levels, while 18.6% engaged in risky dating behaviors. The Spearman's rho test indicated a significant relationship between HIV/AIDS knowledge and dating behavior ($p = 0.000$; $r = 0.697$). Thus, there is a strong and positive relationship between HIV/AIDS knowledge and adolescent dating behavior. These findings imply the need for structured reproductive health education programs in secondary schools, such as regular counseling sessions and integration of HIV/AIDS content into the curriculum, to reduce risky dating behaviors among adolescents.

Keywords: HIV/AIDS; Knowledge; Dating Behavior

Introduction

Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells and weakens the immune system, while Acquired Immune Deficiency Syndrome (AIDS) is a collection of symptoms resulting from HIV infection. By the end of 2022, an estimated 39.0 million people were living with HIV, with 1.3 million new infections and 630,000 deaths caused by HIV-related illnesses (World Health Organization, 2023).

In Indonesia, particularly in West Java, HIV/AIDS cases remain high. Data from the West Java Provincial Health Office (Ministry of Health, 2022) show that Subang, Bandung, and Bekasi are the regions with the highest reported cases. Low levels of knowledge about HIV/AIDS are one of the factors contributing to risky sexual behaviors among adolescents during dating.

Adolescents are the most vulnerable group because they are in a stage of psychosocial transition, involving identity exploration and intense interpersonal relationships, yet often with limited reproductive health knowledge. Systematic reviews indicate variations in adolescents' HIV/AIDS knowledge levels in Indonesia: some studies report good knowledge, while the majority fall into the moderate to low categories (Ulandari, 2023).

The phenomenon of dating behavior also requires attention. A national survey reported that more than 56.5% of adolescent girls in Indonesia have had dating experiences, with physical behaviors ranging from holding hands to kissing, and a small proportion even reporting premarital sexual intercourse (Santika, 2023). Influencing factors include age, limited information about puberty, lack of communication with parents or teachers, and peer influence (Agnes Lexi, 2023).

A study conducted in Papua found that most adolescents had low levels of knowledge (55.2%) about HIV/AIDS, with only 20.1% demonstrating high knowledge. This situation is worsened by limited health education and restricted access to adolescent-friendly health services (Nurwati, 2019).

The gap between adolescents' knowledge of HIV/AIDS and their risky dating behaviors is a critical issue that needs to be examined. Dating—often perceived as a normal activity by adolescents—can serve as a gateway to

risky sexual behaviors, ultimately increasing vulnerability to HIV/AIDS infection. Therefore, this study is important to explore the relationship between HIV/AIDS knowledge and dating behavior among senior high school students.

Method

This study used a quantitative descriptive correlational design with a cross-sectional approach, aimed at determining the relationship between HIV/AIDS knowledge and dating behavior at a single point of measurement. The research was conducted at a senior high school from May to July 2024, with a population of 240 eleventh-grade students. A sample of 70 respondents was selected using purposive sampling based on criteria of readiness and completeness in filling out the questionnaire.

The instruments used were the HIV Knowledge Questionnaire (HIV-KQ-18), consisting of 20 Guttman-scale items ($\alpha = 0.831$) to measure knowledge, and the Sexual Behavior Questionnaire (SBQ), consisting of 27 Likert-scale items ($\alpha = 0.979$) to assess dating behavior.

Data were collected by distributing the questionnaires directly after obtaining permission from the school. Ethical principles were upheld by obtaining informed consent from respondents, ensuring confidentiality of identity, and maintaining anonymity and data security. This study received ethical approval from the Health Research Ethics Committee (KEPK) of STIKes Dharma Husada Bandung in 2024. Univariate analysis was used to describe the distribution of variables, while bivariate analysis employed Spearman's rho correlation test with a significance level of $\alpha = 0.05$.

Results

Based on Table 3.1, the univariate analysis shows that the majority of respondents had a moderate level of knowledge about HIV/AIDS, totaling 71.4%.

Table 3.1. Distribution of HIV/AIDS Knowledge Among Eleventh-Grade Adolescents (n = 70)

Category	f	%
High	13	18.6
Moderate	46	65.7
Low	11	15.7

Table 3.2. Distribution of Dating Behavior Among Eleventh-Grade Adolescents (n = 70)

Category	n	Correlation coefficient (r)	*ρ-value*
Knowledge of HIV/AIDS x Dating behavior	70	0,697	0.000

Based on Table 3.2, the univariate analysis shows that the majority of respondents were in the moderate category of dating behavior, totaling 65.7%.

Table 3.3. Relationship Between HIV/AIDS Knowledge and Dating Behavior Among Eleventh-Grade Adolescents (n = 70)

Category	f	%
Good	8	11.4
Fair	50	71.4
Poor	12	17.1

Based on Table 3.3, the results show a significant relationship between HIV/AIDS knowledge and dating behavior among eleventh-grade adolescents, with a p-value of 0.000 (< 0.05) and a correlation coefficient of r = 0.697. These findings indicate a strong and positive relationship between the two variables.

Discussion

The results of this study show a significant and strong relationship between HIV/AIDS knowledge and dating behavior among eleventh-grade adolescents. These findings indicate that adolescents with lower levels of knowledge tend to engage in riskier dating behaviors, while better knowledge contributes to healthier behavioral control. This aligns with health behavior theory, which posits that knowledge is an essential factor in shaping an individual's attitudes and behaviors (Notoatmodjo, 2019).

This study reinforces findings reported by Mulyaningrum (2020), who also found a significant relationship between HIV/AIDS knowledge and sexual behavior among high school adolescents. However, behavioral determinants are highly contextual and influenced by external factors such as cultural norms, family roles, communication with parents or teachers, and exposure to mass media (Agnes Lexi, 2023; Nurwati, 2019).

At the secondary school level, health education is typically delivered only during student orientation programs, which do not reach all adolescent age

groups. As a result, although the majority of respondents in this study had adequate knowledge (71.4%), this was not sufficient to prevent risky dating behaviors such as kissing or hugging. This indicates a gap between knowledge and practice, consistent with findings by Ulandari et al. (2023), who reported that cognitive knowledge does not always translate into preventive behaviors.

These findings provide new insights that psychosocial factors—such as peer pressure, curiosity, and the perception that physical intimacy in dating is normal—play a major role in shaping adolescent dating behavior (Anom, 2019; Torondek, 2019). Therefore, efforts to improve adolescent knowledge should be integrated with strategies that strengthen attitudes, moral values, and social skills to help them resist risky behaviors.

In terms of generalizability, the results are relevant for secondary schools in semi-urban settings, but caution is needed when applying them to areas with different socio-cultural conditions, such as major urban centers or remote rural regions. The strength of this study lies in its use of standardized, valid, and reliable instruments—HIV-KQ-18 and the SBQ—which enhance the credibility of the findings.

However, the study has several limitations. The cross-sectional design does not allow for definitive conclusions about causal relationships. Additionally, the use of purposive sampling and a relatively small sample size of 70 students limits the generalizability of the results. Another limitation is the use of self-report questionnaires, which may introduce social desirability bias, as respondents may provide answers they believe are socially acceptable. Moreover, this study did not measure other variables such as family support, peer influence, or access to digital information, all of which have theoretical and empirical relevance in shaping adolescent behavior.

Despite these limitations, the study offers important practical implications. Continuous health education interventions in schools are needed, not limited to orientation programs, and should involve counseling teachers, health personnel, and families. Programs may include peer education, focus group discussions, and integration of HIV/AIDS topics into the curriculum. These findings can also serve as input for schools and local health offices in

designing strategies to prevent risky sexual behaviors through cross-sectoral policies that emphasize increased knowledge, attitude strengthening, refusal skills, and moral development among adolescents.

Overall, this study underscores that enhancing HIV/AIDS knowledge through school-based health education—supported by families and health professionals—is a strategic approach to preventing risky dating behaviors among adolescents. Such interventions are expected to help adolescents internalize knowledge into healthy attitudes and behaviors, ultimately contributing to HIV/AIDS prevention at the community level.

Conclusion

This study shows that the majority of eleventh-grade adolescents have a moderate level of knowledge about HIV/AIDS, and most exhibit dating behaviors within the moderate category. Further analysis confirmed a strong and significant relationship between HIV/AIDS knowledge and dating behavior ($p = 0.000$; $r = 0.697$). These findings emphasize that increasing knowledge is an important factor in preventing risky dating behaviors among adolescents.

The implications of this study provide empirical evidence that can serve as a foundation for schools, health professionals, and families to design more systematic reproductive health education programs. Adequate knowledge is expected to equip adolescents with the ability to make healthier decisions in interpersonal relationships and reduce the risk of HIV/AIDS exposure.

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Conflict of Interests Statement

The researcher declares that there is no potential personal or institutional conflict of interest in the conduct of this study or in the preparation of this article.

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