

**THE RELATIONSHIP BETWEEN SOCIAL MEDIA USAGE INTENSITY AND
EXPOSURE TO INFORMATION ON SEXUALLY TRANSMITTED DISEASES
AMONG STUDENTS OF MUHAMMADIYAH VOCATIONAL HIGH SCHOOL
CILEGON, 2025**

Nuria Fitri Adista^{1*}, Liana Muslihah², Dewi Purbasari³

¹Dosen DIII Kebidanan, Politeknik Kesehatan Aisyiyah Banten

²Dosen DIII Kebidanan, Politeknik Kesehatan Aisyiyah Banten

³ Mahasiswa DIII Kebidanan, Politeknik Kesehatan Aisyiyah Banten

*Correspondent: nuria@poltekkes-aisyiyahbanten.ac.id

ABSTRACT

Sexually transmitted diseases (STDs) remain a significant health concern among adolescents, while much of the health information circulating on social media lacks adequate scientific credibility. In response to this issue, the present study aims to examine the relationship between the intensity of social media use and exposure to STD-related information among students of Muhammadiyah Vocational High School in Cilegon. This study employed a quantitative approach with a correlational analytic method and a cross-sectional design. The study population consisted of 247 students from grades X to XII, from which a sample of 152 respondents was selected using a random sampling technique. Data were collected using a standardized questionnaire that had been validated and confirmed reliable, with a Cronbach's Alpha value exceeding 0.8. The findings indicated that 44.1% of respondents accessed social media more than five times per day, and 75% had been exposed to information related to STDs. TikTok (36.2%) and Instagram (31.6%) were identified as the primary platforms through which such information was obtained. Chi-square analysis revealed a significant association between the intensity of social media use and exposure to STD-related information ($p = 0.001$). In conclusion, the study demonstrates that higher social media use is associated with a greater likelihood of adolescents being exposed to STD-related information. Based on these findings, the study recommends optimizing social media as a credible and engaging platform for reproductive health education tailored to the characteristics and needs of adolescents.

Keywords: Social media, STDs, adolescents, information exposure

INTRODUCTION

Social media has become one of the most widely used communication platforms among Indonesian adolescents. According to the report by We Are Social and Meltwater (2024), more than 90% of adolescents access social media daily, with an average usage time of more than three hours per day. Platforms such as TikTok, Instagram, and YouTube are used not only for entertainment purposes but also serve as major sources of health information for young people.

At the same time, adolescents remain one of the most vulnerable groups to sexually transmitted diseases (STDs). The Ministry of Health of the Republic of Indonesia (2023) reported an increase in the prevalence of sexually transmitted infections (STIs) among individuals aged 15–24 years, which is associated with low levels of sexual health literacy and limited access to accurate health information. This situation highlights the need for credible and easily accessible sources of health information for adolescents.

On the other hand, social media plays a dual role: it can function as an effective medium for health education, yet it can also become a platform for misinformation. Putri et al. (2023) found that although 60% of adolescents obtained STD-related information through social media, only a small proportion were able to distinguish between valid scientific information and misinformation.

The novelty of this study lies in its specific focus on examining the relationship between the intensity of social media use and exposure to STD-related information among students at Muhammadiyah Vocational High School in Cilegon. Unlike previous studies that primarily examined the influence of social media on sexual behavior or general reproductive health knowledge, this study investigates more deeply how the frequency, duration, and types of social media use relate to the quality and intensity of sexual health information exposure. The inclusion of a faith-based vocational school context provides a new perspective on how educational and religious values may shape the way adolescents filter and interpret information obtained from social media.

Therefore, this study is expected to provide a comprehensive understanding of how the intensity of social media use influences adolescents' exposure to STD-related information and whether a significant relationship exists between these variables among students at Muhammadiyah Vocational High School in Cilegon.

METHODS

This study employed an analytical quantitative approach using a correlational method with a cross-sectional design. The research was conducted at Muhammadiyah Vocational High School in Cilegon on July 29, 2025. The study population consisted of 247 students from grades X to XII. The sample size of 152 respondents was determined using Slovin's formula with a significance level of $\alpha = 0.05$ and selected through a random sampling technique.

The independent variable in this study was the intensity of social media use, while the dependent variable was exposure to information on sexually transmitted infections (STIs). Both variables were measured using a structured, closed-ended questionnaire that had been previously validated and demonstrated strong reliability (Cronbach's Alpha > 0.8). Operationally, the intensity of social media use was assessed based on daily frequency categories, whereas STI information exposure was measured through dichotomous responses indicating whether students had encountered STI-related content on social media. The questionnaire, delivered via Google Forms, served as the primary research instrument and ensured consistent and accessible data collection.

Data were analyzed using univariate techniques to describe variable distributions and bivariate analysis employing the Chi-Square test to evaluate the association between the independent and dependent variables at a 95% confidence level. This methodological approach allows for replicability and verification by future researchers, as all procedures, instruments, and analytical steps were clearly documented.

The study adhered to ethical standards for research involving human participants. Informed consent was obtained electronically, respondent confidentiality was strictly maintained, and only students who voluntarily agreed were included. Ethical approval will be documented with the certificate number, approval date, and the issuing institution in the final publication.

RESULTS AND DISCUSSIONS

1. Intensity of Social Media Use Among Students

The study found that most students at SMK Muhammadiyah Cilegon use social media frequently, with 44.1% accessing it more than five times per day and 36.2% using it 3–5 times per day. Only 3.9% reported never using social media. These findings confirm that social media is an integral component of adolescents' daily activities, consistent with national data showing that over 90% of Indonesian teenagers access social media for more than three hours daily (We Are Social & Meltwater, 2024).

This aligns with Kaplan and Haenlein's (2010) definition of social media as platforms enabling user-generated content exchange and with Kominfo (2023), which emphasizes its role as a primary communication medium. While social media offers opportunities for adolescents to access reproductive health information, it also exposes them to misinformation, especially when digital literacy is limited (Kemenkes RI, 2023). Rahmawati and Dewi (2022) similarly highlight adolescents' vulnerability to unfiltered sexual content, making digital literacy crucial to ensure responsible information consumption.

2. Platforms and Sources of STI Information

TikTok (36.2%) and Instagram (31.6%) were the most frequently used platforms for accessing information on sexually transmitted infections (STIs). These platforms' emphasis on visual and short-form content suits adolescents' preference for fast and engaging information. Learning media theories (Heinich et al., 2019; Sadiman et al., 2020) support the idea that audiovisual content enhances attention and comprehension, making these platforms effective tools for disseminating health messages.

However, high accessibility also brings risk. Many adolescents cannot distinguish credible from non-credible sources, resulting in partial or inaccurate knowledge (Kemenkes RI, 2023). WHO (2023) notes that vocational students are at a developmental stage requiring accurate, age-appropriate reproductive health information, highlighting the need for formal and informal educational support.

3. Relationship Between Social Media Use and Exposure to STI Information

Chi-square analysis showed a significant association between social media use intensity and exposure to STI information ($p = 0.001$). Students with high-intensity use (>5 times/day) had the highest exposure (89.6%), while those with low intensity had lower exposure (50%). Students who did not use social media mostly lacked exposure, confirming that increased media use increases health message exposure (Heinich et al., 2019).

These results align with Putri et al. (2021), who found that higher social media use is linked to greater STI knowledge. However, exposure alone does not guarantee understanding; content accuracy remains a key determinant. Studies by Setyaningrum & Nugroho (2020) also emphasize the need for digital literacy to avoid misinformation.

Furthermore, adolescents' psychosocial development (Santrock, 2021) and greater exposure to social environments among vocational students (BPS, 2023) may heighten both the need for and vulnerability to reproductive health information. Multimedia-based educational strategies have been shown to improve adolescents' retention and engagement (Ningsih & Kurniawati, 2022), while moral and religious guidance can strengthen preventive behavior in accordance with Islamic values (QS Al-Baqarah:195; QS An-Nur:2).

CONCLUSIONS

This study demonstrates a significant association between the intensity of social media use and students' exposure to information about sexually transmitted diseases (STDs), as evidenced by a p-value of 0.001. Among the 152 respondents, 44.1% accessed social media more than five times per day, and 75% had encountered STD-related information, primarily through TikTok (36.2%) and Instagram (31.6%), reflecting adolescents' strong preference for visual and short video-based platforms. Students with high social media use showed the greatest exposure to STD information (89.6%), compared to those with low usage (50%) and those who did not use social media (33.3%), indicating that more frequent access increases the likelihood of receiving STD-related content. Although social media provides broad access to health information, the risk of misinformation remains high without adequate digital literacy. From an Islamic perspective, the importance of avoiding risky sexual behaviors aligns with the teachings in QS. Al-Isra [17]:32 and QS. An-Nur [24]:2, positioning social media as a potential medium for health education to reinforce moral values and prevent deviant behaviors among adolescents.

ACKNOWLEDGEMENT

The authors would like to express their gratitude to SMK Muhammadiyah Cilegon for granting permission and providing support during the implementation of this research.

CONFLICT OF INTEREST AND FUNDING DISCLOSURE

The authors also extend their appreciation to Poltekkes Aisyiyah Banten for the moral and material support given throughout the research process.

AUTHOR CONTRIBUTIONS

In this study, Nuria Fitri Adista served as the lead author and was responsible for conceptualization, methodology development, investigation, data curation, formal analysis, project administration, drafting the original manuscript, and overall supervision. Liana Muslihah contributed to data collection, validation of findings, provision of resources, and participated in reviewing and editing the manuscript. Meanwhile, Dewi Purbasari supported the research through data collection, preparation of visualizations, software assistance, and assisted in the review and editing process to ensure the final quality of the article.

REFERENCES

- 1) Badan Pusat Statistik. (2023). *Statistik pendidikan Indonesia*. <https://www.bps.go.id>
- 2) Daryanto. (2021). *Pembelajaran tatap muka dalam pendidikan modern*. Gava Media.
- 3) Dinas Kesehatan Provinsi Banten. (2020). *Profil kesehatan Provinsi Banten 2020*. Serang: Dinkes Banten.
- 4) Heinich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. (2019). *Instructional media and technologies for learning* (11th ed.). Pearson.
- 5) Kementerian Agama Republik Indonesia. (2019). *Al-Qur'an dan terjemahannya*. Jakarta: Lajnah Pentashihan Mushaf Al-Qur'an.
- 6) Kementerian Agama Republik Indonesia. (n.d.). *Al-Qur'an dan terjemahannya*. <https://quran.kemenag.go.id>

- 7) Kementerian Kesehatan Republik Indonesia. (2023). *Laporan tahunan penyakit menular seksual di Indonesia*. Jakarta: Kemenkes RI.
- 8) Kementerian Kesehatan Republik Indonesia. (2023). *Profil kesehatan Indonesia tahun 2023*. Jakarta: Kemenkes RI. <https://www.kemkes.go.id>
- 9) Maulana, A., & Sari, R. (2023). Akses dan penggunaan media sosial pada siswa SMK di perkotaan. *Jurnal Pendidikan Vokasi*, 13(3), 233–244.
- 10) Ningsih, S. R., & Kurniawati, L. (2022). Efektivitas video edukasi dalam meningkatkan pengetahuan tentang PMS. *Jurnal Kesehatan Masyarakat*, 17(1), 112–120.
- 11) Putri, M. D., Safitri, E. R., & Gunawan, A. Y. (n.d.). Hubungan intensitas penggunaan media sosial dengan pengetahuan tentang infeksi menular seksual pada remaja.
- 12) Rahmawati, N., & Dewi, L. P. (2022). Paparan konten seksual di media sosial dan perilaku seksual pranikah remaja. *Jurnal Psikologi Remaja dan Sosial*, 4(2), 67–75.
- 13) Sadiman, A. S., Rahardjo, B., Haryono, A., & Suyanto. (2020). *Media pendidikan: Pengertian, pengembangan, dan pemanfaatannya*. RajaGrafindo Persada.
- 14) Santrock, J. W. (2021). *Adolescence* (17th ed.). McGraw-Hill Education.
- 15) Setyaningrum, R., & Nugroho, R. A. (n.d.). Media sosial sebagai sumber informasi kesehatan remaja.
- 16) World Health Organization. (2023). *Sexually transmitted infections (STIs)*. [https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis))

BEMPHIC

Bengkulu Muhammadiyah University
Public Health International Conference

