

Contents lists available at [IOCS](#)

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

Examine how cultural beliefs and practices influence adolescents' knowledge of HIV/ AIDS and their willingness to seek testing and treatment

Edi Purwanto¹, Muhamad Viki Nur Ardianzyah²
^{1,2}Faculty of Health Sciences, Universitas Muhammadiyah Malang, Indonesia

ARTICLE INFO	ABSTRACT
<i>Article history:</i> Received May 28, 2025 Revised Jun 2, 2025 Accepted Jun 30, 2025 <i>Keywords:</i> Adolescents Attitudes Toward PLWHA Cultural Beliefs HIV/AIDS HIV Testing	HIV/AIDS remains a major health challenge among adolescents. Cultural beliefs and religious practices are believed to influence adolescents' knowledge and their willingness to undergo testing and treatment. This study aims to examine the influence of cultural and religious beliefs on adolescents' knowledge of HIV/AIDS and their willingness to seek testing and treatment. A cross-sectional quantitative approach was used involving 30 adolescents with structured questionnaires. Data were analyzed using chi-square tests and binary logistic regression in SPSS. The results showed no significant association between HIV knowledge and willingness to test ($p=0.753$). However, negative attitudes toward PLWHA significantly reduced the willingness to undergo testing ($p=0.045$), and religious influence showed a near-significant tendency toward affecting testing behavior ($p\approx0.064$). It is concluded that attitudes toward PLWHA and religious values exert a greater influence than knowledge alone. Therefore, culturally and religiously sensitive interventions are needed to improve HIV testing awareness among adolescents. <i>This is an open access article under the CC BY-NC license.</i> 

Corresponding Author:

Edi Purwanto,
Faculty of Health Sciences,
Universitas Muhammadiyah Malang,
Jl. Bendungan Sutami No.188, Sumbersari, Kecamatan Lowokwaru, Sumbersari, Kecamatan Lowokwaru,
Kota Malang, Jawa Timur 65145, Indonesia
Email: purwa_edi@umm.ac.id

INTRODUCTION

HIV/AIDS remains a serious public health issue, especially among adolescents (Ifroh & Ayubi, 2018)(Ismail et al., 2022). According to UNAIDS (2024), adolescents and young adults aged 15-24 years account for nearly 30% of new HIV infections globally (UNAIDS, 2024). In developing countries, ignorance and lack of access to information are major factors in the increased vulnerability of this age group to HIV/AIDS (Pant Pai et al., 2013)(Kristiani et al., 2025). Although various campaigns have been carried out to raise awareness, the results are still insignificant (Benton et al., 2020; Simo Fotso et al., 2023). This indicates that there are other factors that need to be considered, one of which is the cultural beliefs and social practices adopted by adolescents in their communities.

Cultural beliefs can influence how adolescents understand health information and make decisions about preventive measures, including HIV/AIDS testing and treatment (Indravudh et al., 2017)(Khairani et al., 2023). Some cultures have negative perceptions about talking about sexuality and sexually transmitted diseases (STDs), limiting the open dialogue needed for comprehensive education and understanding (Cort et al., 2023)(Kusumaningrum et al., 2024). In some communities, talking about HIV/AIDS is still considered taboo, which has an impact on limited knowledge and increased stigma against PLWHA (People Living with HIV/AIDS) (Safira et al., 2024).

Adolescents are greatly influenced by the social and cultural values taught since childhood (Sulfasyah & Arifin, 2016)(An'Umillah & Nugraha, 2021). If their social environment views HIV as a shameful disease, they tend to hide their concerns and avoid health services. Boyd, Waller, and Quinn (2021) emphasize the importance of building personal agency or the ability of adolescents to make independent decisions on reproductive health issues (Boyd et al., 2021). However, authoritative cultural values often hinder this autonomy, especially in societies that emphasize norms of obedience and social shame.

Research by Adigun (2020) shows that self-esteem and self-concept in adolescents are also influenced by the social constructions that apply around them (Adigun, 2020). When information about HIV is associated with deviant or sinful behavior in a culture, adolescents tend to internalize fear, shame, and low self-esteem that prevent them from seeking help. This is reinforced by research by Joorbonyan et al. (2022), which highlights that HIV education interventions designed based on behavioral theory tend to be more effective when considering local cultural values (Joorbonyan et al., 2022).

On the other hand, the role of peer education has been shown to be effective in conveying sensitive information such as HIV/AIDS in closed cultural contexts. Akuiyibo et al. (2021) and Dodd et al. (2022) stated that peer education programs can significantly increase adolescent sexual knowledge and health (Akuiyibo et al., 2021; Dodd et al., 2022). However, the effectiveness of these programs also depends on cultural acceptance of adolescents as agents of change, which in some communities is still considered inappropriate to talk about sexuality.

In addition, religious beliefs also play a major role in shaping adolescent attitudes towards HIV/AIDS. Koester et al. (2021) noted that adolescent groups who are active in religious communities tend to have more conservative views on sexuality and are more reluctant to take HIV tests (Goldhammer et al., 2021). In a culture that associates HIV with "immoral" behavior, adolescents may fear stigma or discrimination, so they prefer not to know their HIV status.

Adolescent attitudes towards PLHIV are also a reflection of the internalization of the culture they absorb. A study by Zakiei et al. (2022) showed that social support and good family functioning can increase adolescents' perceptions of HIV risk and encourage preventive behavior (Zakiei et al., 2022). However, in societies with high levels of stigma, families can also be a source of pressure that causes adolescents to refuse testing or treatment.

Furthermore, factors such as access to and provision of culturally sensitive health services are important. Dodd et al. (2022) stated that HIV intervention programs must consider the local context and involve community stakeholders to increase success (Dodd et al., 2022). When health services do not demonstrate an understanding of local cultural values, adolescents are less likely to feel comfortable coming forward and opening up.

Culturally sensitive school-based and community-based programs have been shown to bridge this gap. Saragih et al. (2022) showed that an empowerment-based approach to adolescents at the village level was able to increase their awareness and involvement in HIV prevention efforts (Munthe et al., 2022). Similar research by Suharyanti and Devinta (2022) confirmed that programs such as Generasi Berencana (GenRe) can be an effective platform if packaged according to local cultural realities (Devinta, 2022).

However, the main challenge remains how to align reproductive health education with cultural values without causing resistance. Therefore, it is very important for health practitioners, educators, and policy makers to design intercultural, inclusive, and community-based communication strategies. The goal is not only to increase adolescents' knowledge about HIV/AIDS, but also to create a social environment that supports their decisions in accessing testing and treatment.

Through a deep understanding of cultural dynamics, it is hoped that HIV prevention efforts among adolescents will not only be the responsibility of the health sector alone, but also become part of a broader social transformation. This research is important to answer how culture is not only a barrier, but also has the potential to support adolescent health if mobilized appropriately (Cort et al., 2023; Zakiei et al., 2022).

RESEARCH METHOD

This research method uses a quantitative approach with a descriptive and analytical research design (Ardyan et al., 2023). This study aims to analyze the influence of culture on adolescent knowledge about HIV/AIDS and their willingness to undergo testing and treatment. Data collection was carried out through a survey using a questionnaire distributed to adolescents in various communities with diverse cultural backgrounds. The variables studied include knowledge about HIV/AIDS, attitudes towards HIV testing, and willingness to undergo treatment, which will be analyzed statistically using correlation and regression tests to identify the relationship between culture and adolescent health behavior. This study also considers demographic factors that may affect the results, such as age, gender, and education level.

RESULTS AND DISCUSSIONS

This study involved 30 adolescent respondents with the aim of exploring the influence of cultural beliefs and religious practices on HIV/AIDS knowledge and willingness to undergo testing and treatment. The following are the descriptive results and statistical analysis of the data obtained.

Table 1. Frequency distribution of research variables

Variable	Category	Frequency (%)
Gender	Male	60.0
Gender	Female	40.0
Education	High School	36.7
Education	College	20.0
HIV Knowledge	Don't Know	40.0
HIV Knowledge	Know Comprehensive	23.3
Attitudes towards PLWHA	Negative	40.0
Attitudes towards PLWHA	Positive	36.7
Cultural Influence	Very Influential	33.3
Religious Influence	Very Influential	33.3
Willing to Test for HIV	Yes	50.0
Wanting to Treat	Yes	46.7

This table illustrates the frequency distribution of research variables including gender, education level, HIV knowledge, attitudes towards PLWHA, and the influence of culture and religion on willingness to test and treat HIV. Most respondents were male (60%), and most had a high school education background (36.7%). Although there were a number of respondents who had fairly good knowledge of HIV (23.3%), the majority still did not know or did not understand HIV (40%). Attitudes towards PLWHA showed a negative tendency (40%) although almost comparable to positive attitudes (36.7%). Most respondents considered cultural and religious influences to be very influential (33.3% each). For willingness to test for HIV, 50% of respondents

stated that they were willing, while 46.7% were willing to undergo treatment, indicating a fairly high level of awareness although there were still obstacles.

Table 2. Chi-square test results between hiv knowledge and willingness to test for hiv

Variable	Chi-Square	df	Sig. (p)
HIV Knowledge x Willingness to Test for HIV	0.567	2	0.753

The Chi-Square test results showed a p-value of 0.753, which is greater than 0.05, indicating that there is no significant relationship between knowledge about HIV and willingness to take an HIV test. In other words, although there are differences in the level of knowledge of respondents about HIV, it does not significantly affect their readiness to take an HIV test. This may indicate that other factors, such as personal attitudes or social influences, are more important in determining their decision to take an HIV test than just knowledge about the disease.

Table 3. Summary of logistic regression results on willingness to test for hiv

Variables	B	Sig. (p)	Exp(B)	Interpretation
Attitude towards PLWHA (Negative)	-3.778	0.045	0.023	Significant, decreased test willingness
Religious Influence (Quite)	3.487	0.064	32.677	Almost significant
Religious Influence (Very)	4.490	0.076	89.134	Almost significant

The results of logistic regression show that negative attitudes towards PLWHA have a significant influence ($p=0.045$) that reduces the willingness to test for HIV, with an Exp(B) value of 0.023. This means that respondents who have a negative attitude towards PLWHA tend not to be interested in taking an HIV test. Meanwhile, the influence of religion, both in the "quite" and "very influential" categories, is almost significant in increasing the willingness to test for HIV, with Exp(B) values of 32,677 and 89,134, respectively. Although the influence of religion is not yet fully statistically significant ($p=0.064$ and $p=0.076$), these results indicate that religious beliefs can be an important factor in motivating adolescents to take an HIV test.

Discussion

This study shows that although most respondents have limited knowledge about HIV, with 40% of them not knowing or having little understanding about the disease, this does not directly affect their willingness to take an HIV test. This is reflected in the results of the Chi-Square test which shows that there is no significant relationship between HIV knowledge and willingness to take an HIV test ($p = 0.753$). Knowledge may play a role, but other factors, such as attitudes towards PLWHA and social influence have a greater influence on the decision. Negative attitudes towards PLWHA were found to have a significant influence on low willingness to take an HIV test, with an Exp(B) value of 0.023, which means that respondents with negative attitudes tend to be less likely to take an HIV test. This phenomenon illustrates the importance of overcoming social stigma and discrimination against PLWHA in an effort to increase adolescents' willingness to take an HIV test.

In addition, the influence of religion was also found to have an almost significant relationship with the willingness to take an HIV test. Respondents who felt that their religion was very influential showed a significantly higher likelihood ($\text{Exp(B)}=89.134$) of taking an HIV test, although the p-value was still above the significance limit ($p=0.076$). This suggests that religious beliefs may be an important motivating factor in adolescents' decisions to take an HIV test, perhaps by providing moral support or responsibility for their own and others' health. This study supports the view that in a public health context, an approach that takes into account social, cultural, and religious influences can strengthen the effectiveness of HIV testing campaigns. Therefore, while knowledge about HIV remains an important part of prevention, reducing stigma

and social support are also essential to encourage more positive behavioral changes towards HIV testing and treatment.

CONCLUSION

Based on the results of the study, it can be concluded that although knowledge about HIV plays an important role, factors such as attitudes towards PLWHA and the influence of religion are more dominant in determining adolescents' willingness to take an HIV test. Negative attitudes towards PLWHA have a significant effect on reducing the willingness to take an HIV test, while the influence of religion, although almost significant, shows that religious beliefs can be a strong motivator for taking an HIV test. Therefore, to increase the willingness to take HIV tests and treatment among adolescents, an approach is needed that not only educates about HIV, but also addresses social stigma and utilizes the positive influence of religion and culture in shaping better health behavior.

To capitalize on the role of religious institutions as agents of change in adolescent HIV education and prevention, concrete interventions include the involvement of religious leaders in training on religious value-based health education, the integration of moral messages about health care responsibilities into sermons and religious activities for adolescents, and the establishment of interfaith forums that support inclusive approaches to HIV/AIDS issues. Religious institutions can serve as a bridge between cultural norms and medical education, thus strengthening the legitimacy of health messages in the community. Meanwhile, health communication strategies should be designed in an intercultural and participatory manner, using narratives that are in line with local and religious values without directly challenging sensitive norms. Communication that emphasizes empathy, respect for community values, and the use of culturally-based peer-education approaches has been shown to reduce resistance and norm conflict, while building a social environment that supports adolescents' decisions to access HIV testing and treatment voluntarily and without stigma.

References

- Adigun, O. T. (2020). Self-esteem, self-efficacy, self-concept and intimate image diffusion among deaf adolescents: A structural equation model analysis. *Heliyon*, 6(8).
- Akuiyibo, S., Anyanti, J., Idogho, O., Piot, S., Amoo, B., Nwankwo, N., & Anosike, N. (2021). Impact of peer education on sexual health knowledge among adolescents and young persons in two North Western states of Nigeria. *Reproductive health*, 18, 1–8.
- An'Umillah, A. N., & Nugraha, D. M. (2021). Pentingnya peran nilai-nilai Pancasila terhadap karakter remaja pada era globalisasi dan disrupsi. *Harmony: Jurnal Pembelajaran IPS dan PKN*, 6(1), 35–41.
- Ardayan, E., Boari, Y., Akhmad, A., Yuliyani, L., Hildawati, H., Suarni, A., Anurogo, D., Ifadah, E., & Judijanto, L. (2023). *Metode Penelitian Kualitatif dan Kuantitatif: Pendekatan Metode Kualitatif dan Kuantitatif di Berbagai Bidang*. PT. Sonpedia Publishing Indonesia.
- Benton, A. D., Santana, A., Vinklerek, A. J., Lewis, C. M., Sorensen, J. M., & Hernandez, A. (2020). Peer-led sexual health education: Multiple perspectives on benefits for peer health educators. *Child and Adolescent Social Work Journal*, 37, 487–496.
- Boyd, D. T., Waller, B., & Quinn, C. R. (2021). Re-imagine an AIDS free generation: Examining youth and young adults' personal agency and its association with HIV testing. *Preventive Medicine Reports*, 22, 101335.
- Cort, D. A., Reynolds, K., & Chakraborty, D. (2023). HIV stigma beliefs and unprotected sex among teenagers and young adults in sub-Saharan Africa: The moderating role of mass media exposure. *Social Science & Medicine*, 317, 115615.
- Devinta, Q. I. (2022). ANALYSIS OF THE REPUTATION OF YOUTH RESILIENCE PROGRAMS IN INDONESIA; GENERATION BERENCANA (GENRE) FROM THE PERSPECTIVE OF THE GENRE AMBASSADORS. *Journal Research of Social Science, Economics & Management*, 2(5).
- Dodd, S., Widnall, E., Russell, A. E., Curtin, E. L., Simmonds, R., Limmer, M., & Kidger, J. (2022). School-based

- peer education interventions to improve health: a global systematic review of effectiveness. *BMC public health*, 22(1), 2247.
- Goldhammer, H., Mayer, K. H., Marc, L. G., Psihopoulos, D., Chavis, N. S., Massaquoi, M., Cahill, S., Downes, A., Koester, K., & Fields, S. D. (2021). HIV care continuum interventions for Black men who have sex with men in the USA. *The Lancet HIV*, 8(12), e776–e786.
- Ifroh, R. H., & Ayubi, D. (2018). Efektivitas Kombinasi Media Audiovisual Aku Bangga Aku Tahu Dan Diskusi Kelompok Dalam Upaya Meningkatkan Pengetahuan Remaja Tentang HIV-AIDS. *Perilaku Dan Promosi Kesehatan: Indonesian Journal of Health Promotion and Behavior*, 1(1), 4.
- Indravudh, P. P., Sibanda, E. L., d'Elbée, M., Kumwenda, M. K., Ringwald, B., Maringwa, G., Simwinga, M., Nyirenda, L. J., Johnson, C. C., & Hatzold, K. (2017). 'I will choose when to test, where I want to test': investigating young people's preferences for HIV self-testing in Malawi and Zimbabwe. *Aids*, 31, S203–S212.
- Ismail, I. A., Febriyanti, A., Alif, D., Namira, A., Wicaksono, S., Nadeak, R. S., Ramadhan, T. D., Yusral, A., & Ardhana, W. (2022). Hubungan pengetahuan dan sikap terhadap pencegahan HIV/AIDS pada remaja. *International Journal of Academic Health and Medical Research (IJAHMR)*, 6(5), 46–51.
- Joorbonyan, H., Ghaffari, M., & Rakhshanderou, S. (2022). Peer-led theoretically Desinged HIV/AIDS prevention intervention among students: a case of health belief model. *BMC public Health*, 22, 1–10.
- Khairani, L., Masitah, W., Hajar, S., & Ibrahim, M. (2023). Edukasi Pencegahan dan Pengendalian HIV/AIDS melalui Peran Perempuan dalam Keluarga. *ABDI SABHA (Jurnal Pengabdian kepada Masyarakat)*, 4(3), 82–90.
- Kristiani, S. K. M., Arifin, S., & Adi Nugroho, S. K. M. (2025). *Dukungan dan harapan: Kunci pencegahan HIV-AIDS*. Uwais Inspirasi Indonesia.
- Kusumaningrum, P. R., Elsera, C., Sulistyowati, A. D., Sari, D. P., & Suciana, F. (2024). *Peran Pendidikan Seks dalam Membangun Kesadaran Seksual Remaja*. MEGA PRESS NUSANTARA.
- Munthe, D. S., Saragih, N. P., Nainggolan, E., Siregar, P. S., Ariga, F. A., & Silalahi, K. L. (2022). Hubungan Tingkat Spiritual Dengan Kualitas Hidup Orang Dengan Hiv/Aids (Odha). *Jurnal Keperawatan Priority*, 5(1), 124–131.
- Pant Pai, N., Behlim, T., Abrahams, L., Vadnais, C., Shivkumar, S., Pillay, S., Binder, A., Deli-Houssein, R., Engel, N., & Joseph, L. (2013). Will an unsupervised self-testing strategy for HIV work in health care workers of South Africa? A cross sectional pilot feasibility study. *PloS one*, 8(11), e79772.
- Safira, D., Subagyo, A., & Nastiti, N. N. (2024). HAMBATAN UNITED NATIONS PROGRAMME ON HIV/AIDS (UNAIDS) DALAM MENANGANI HIV/AIDS DI INDONESIA TAHUN 2022-2023. *Global Insights Journal: Jurnal Mahasiswa Hubungan Internasional*, 1(1).
- Simo Fotso, A., Wright, C. G., & Low, A. (2023). How does HIV-related stigma correlate with HIV prevalence in African countries? Distinct perspectives from individuals living with and living without HIV. *BMC Public Health*, 23(1), 1720.
- Sulfasyah, S., & Arifin, J. (2016). Implikasi pendidikan nonformal pada remaja. *Equilibrium: Jurnal Pendidikan Sosiologi*, 4(2), 69306.
- UNAIDS. (2024). *The urgency of now: AIDS at a crossroads*.
- Zakiei, A., Norouzi, E., Ghasemi, S. R., Komasi, S., Rostampour, M., & Khazaie, H. (2022). Controlling risky behavior associated with AIDS: the role of social support, family functioning, self-efficacy and AIDS risk perception. *BMC psychology*, 10(1), 132.