



Empowering Youth: Strengthening Awareness of Sexual Education as A Shield to Prevent HIV and Sexually Transmitted Infections in Juvenile Correctional Institutions

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ABSTRACT

Class II Special Juvenile Rehabilitation Center (LPA) in Tanjung Pati faces significant challenges in fostering adolescents, mainly due to the lack of knowledge about sexual education. This lack of awareness increases the risk of HIV and Sexually Transmitted Infections (STIs) among LPA residents. To address this issue, more intensive prevention efforts were needed through comprehensive HIV/AIDS education. This community service program aims to enhance the understanding and awareness of adolescents in LPA regarding sexual education, mainly related to HIV/AIDS, as a concrete step in preventing the transmission of these diseases. The partner for this program is the Special Development Institution for Children Class II Tanjung Pati, focusing on male adolescents aged 14-19. The program results positively impacted the overall outcome, significantly increasing participants' understanding scores from pre- to post-intervention. Data analysis confirms that the intervention significantly improved participants' knowledge of HIV and STIs. The program needs continuous training for educators and staff at LPA on sexual education and the development of more comprehensive and integrated HIV prevention programs within the institution. This program not only succeeded in achieving its objectives but also provided hope for strengthening awareness and understanding of the importance of sexual education as a preventive measure against HIV and STIs among adolescents in LPA.

Keywords: adolescents, HIV/AIDS, sexual education, STIs, rehabilitation center

INTRODUCTION

The Human Immunodeficiency Virus (HIV) attacks the human immune system, reducing the body's ability to combat infections. This virus is transmitted through bodily fluids such as blood, semen, vaginal fluids, and breast milk, potentially leading to more serious infectious diseases (WHO, 2023). Adolescents represent one of the most vulnerable groups to HIV/AIDS infection. They often face challenges related to sexuality and reproductive health due to behavioral factors and emotional development (Maqbool et al., 2019).

According to the World Health Organization (WHO), adolescence, ages 10 to 19, is a developmental phase characterized by unique needs and capacities. This transitional period marks the path to adulthood and involves rapid physical growth, physiological and psychosocial changes, the development of secondary sexual characteristics, and

reproductive maturity. During this stage, adolescents undergo physical, emotional, and cognitive transformations that affect how they make decisions, interact socially, and respond to their environment (Hadiati, 2016). Despite being viewed as a generally healthy period, adolescence carries high risks for various health issues. These changes can influence behavior, including sexual activity, which may have both positive and negative impacts on their health (Singh Sunitha & Gururaj, 2014; WHO, 2020).

Sexuality and reproductive health issues frequently present significant challenges for adolescents. The physical changes and activation of reproductive organs during this time can trigger various issues, especially among those with limited understanding of reproductive health (Arini & Kasanah, 2021). Data from the Joint United Nations Programme on HIV/AIDS (UNAIDS) shows a continual global rise in HIV/AIDS cases. In the Asia-Pacific region, approximately 5.8 million cases have been recorded, making it the second-highest region after Africa. In Indonesia, which holds the highest number of HIV/AIDS cases in Southeast Asia, the total reached 454,723 by September 2023. The majority of HIV cases in Indonesia are found among individuals aged 25–49 years (69.9%), followed by those aged 20–24 years (16.1%) and 15–19 years (3.4%). These figures indicate that adolescents significantly contribute to the HIV/AIDS epidemic in Indonesia, emphasizing the need for more targeted prevention and care strategies (UNAIDS, 2023).

Adolescents often lack an adequate understanding of the risks associated with high-risk sexual behaviors and their link to HIV and sexually transmitted infections (STIs) (Shahani, 2014; Agu et al., 2020; Santika & Yuliani, 2023). Therefore, comprehensive education on sexuality and HIV/AIDS must be provided in schools, high-risk groups, and communities to address misconceptions and strengthen knowledge on transmission, prevention, and treatment (Maqbool et al., 2019).

Lima Puluh Kota Regency in West Sumatra faces challenges in meeting the Minimum Service Standards (SPM) for healthcare, particularly for individuals at risk of HIV. According to reports from the local Health Department, in 2021 and 2022, the coverage of HIV-related health services remained below the targeted standards, reaching only 51.9% in 2021 and 58.1% in 2022 (Dinkes Lima Puluh Kota, 2021, 2022).

Located in this regency, the Class II Special Child Development Institution (LPA) in Tanjung Pati houses adolescents from diverse social backgrounds with limited educational exposure. Cases of sexual misconduct and drug abuse among residents pose significant rehabilitation challenges. Most adolescents in this facility have limited access to reproductive health information, increasing their risk of HIV and STI transmission. The stigma surrounding these topics further hinders open discussions within families and communities, compounded by the institution's limited resources for delivering effective sexual education.

Raising awareness about the importance of sexual education is a crucial step in reducing the risk of HIV and STI transmission among adolescents in juvenile facilities. One of the key interventions is health education, which aims to disseminate practical knowledge, share relevant information, and boost adolescents' confidence in adopting health recommendations (Maqbool et al., 2019).

The Community Engagement Program (PKM) organized by the Faculty of Public Health at Andalas University focuses on supporting the achievement of SPM in the health sector, particularly in addressing HIV/AIDS in Lima Puluh Kota. This program involves a partnership with the Class II LPA in Tanjung Pati, targeting male adolescents aged 14–19. The primary goal of this initiative is to enhance the understanding and awareness of at-risk sexual behaviors among these adolescents, equipping them with the knowledge and skills to protect themselves from HIV transmission. Hopefully, this initiative will be sustained through improved access to reproductive health information and the development of more comprehensive HIV prevention programs within the LPA environment.

METHOD

This outreach activity targeted male adolescent inmates at the Class II Juvenile Correctional Institution (LPA) in Tanjung Pati. A total of 30 male participants aged between 14 and 19 years were involved in the intervention.

The activity was conducted in the following stages:

1. Planning Stage

a. Coordination with the Lima Puluh Kota District Health Office

The first step involved coordination with the District Health Office to obtain up-to-date data on adolescent health and the current situation within the LPA. This information was used to inform the development of the outreach program and determine the key topics related to HIV and sexually transmitted infections (STIs) prevention.

b. Coordination with the Regional Office of the Ministry of Law and Human Rights, West Sumatra Province

After identifying the key issues, the team coordinated with the Regional Office of the Ministry of Law and Human Rights to obtain official permission for the activity. Approval was granted on 12 December 2023.

c. Coordination with the Class II LPA Tanjung Pati

Next, coordination was carried out with the LPA to set the schedule, arrange the necessary facilities, and confirm the participation of 30 male adolescents within the specified age range. The outreach session was scheduled for 20 December 2023.

d. Preparation of the activity plan and administrative requirements

The final program was designed, including educational materials, evaluation tools such as pre-tests and post-tests, and a detailed agenda. All administrative and logistical needs—such as educational materials and supporting equipment—were prepared to ensure smooth implementation.

2. Outreach Implementation

The outreach was conducted on 20 December 2023 to increase adolescent knowledge and awareness regarding HIV and STI prevention. The activity comprised the following components:

a. Opening Session

The event began with an opening session moderated by the facilitator. A welcoming address was delivered by the Head of the Development Section of the Class II LPA Tanjung Pati, emphasizing the importance of health education for adolescents and endorsing the activity as part of the institution's rehabilitation efforts.

b. Health Exercise Session

A light exercise session was held following the opening to energize the participants and foster a more interactive atmosphere. This activity also served as an icebreaker to build rapport between the participants and facilitators.

c. Pre-Test

A pre-test was administered before the educational session to assess the participants' baseline knowledge of HIV and STIs. The questions aimed to evaluate their initial understanding of the topic, and the results would later be compared to the post-test to assess the session's effectiveness (see Figure 1 for pre-test questions).

d. Educational Material Delivery

The outreach material was delivered by a team of faculty members from the Faculty of Public Health, Andalas University. Topics included HIV and STI transmission, prevention methods, the importance of early detection, and treatment options. The session adopted

an interactive approach, incorporating discussions and Q&A to engage participants actively.

e. Post-Test

After the educational session, a post-test was conducted to evaluate knowledge improvement. The questions mirrored those of the pre-test to facilitate comparative analysis. The comparison of pre-test and post-test results served as a key indicator of the session's impact.

3. Closing and Reporting

a. Documentation with Partners and Participants

As a gesture of appreciation and reinforcing collaboration, the event concluded with a group photo session involving the outreach team, LPA partners, and all participants. This documentation also serves as formal evidence of the activity.

b. Accountability Reporting

Following the event, the outreach team prepared an accountability report as an evaluation and formal submission to the LPA and the university. The report included a comprehensive overview of the activity, pre- and post-test results, documentation, and recommendations for future outreach programs. It also assessed the impact of the activity on participants' knowledge improvement.

RESULTS AND DISCUSSION

The intervention was carried out through structured stages, including an initial survey, preparation, implementation, and monitoring and evaluation. Each stage played a crucial role in the success of the program, which focused on increasing knowledge and awareness of HIV and Sexually Transmitted Infections (STIs) among adolescent inmates at the Class II Juvenile Correctional Institution (LPA) in Tanjung Pati.

1. Survey Phase

The initial survey was conducted through direct visits to Lima Puluh Kota District to identify prevailing health issues among the inmates. This phase involved interviews with key stakeholders, including the District Health Office and staff members at the LPA.

Preliminary findings revealed significant shortcomings in meeting the Minimum Service Standards (SPM) for health, particularly in services provided to individuals at risk of HIV infection. Data from the District Health Office indicated that in 2021, only 51.9% (4,747 individuals) of the target population received HIV-related health services, slightly increasing to 58.1% (5,292 individuals) in 2022. These figures remain well below the optimal 100% target, highlighting that many at-risk groups, including juvenile inmates, still lack adequate access to screening and prevention services.

This limited coverage has resulted in low early detection rates for HIV cases in the region. The survey also revealed high-risk behaviors among inmates, such as sexual misconduct and drug abuse, which significantly increase the risk of HIV and STI transmission. Furthermore, a lack of information and education related to HIV prevention was identified, compounding the inmates' vulnerability.

These findings served as a foundation for the outreach team to design an intervention that focused on strengthening sexual education as a strategic measure to prevent HIV and STI transmission among the adolescent population within the correctional facility.



Figure 1. Interview and audience session with the district health

2. Preparation Phase

The preparation phase involved intensive coordination with the Class II Juvenile Correctional Institution (LPA) in Tanjung Pati. This coordination included in-person meetings to determine the activity location, ensure the readiness of necessary facilities, and finalize the list of participants for the health education session.

In collaboration with LPA staff, the community engagement team arranged all technical aspects, including setting up the auditorium, preparing audiovisual equipment, and managing other logistical needs. A participant list was finalized, comprising 30 male adolescents aged 14–19 years. The coordination process was conducted smoothly, ensuring all requirements were met and the session proceeded as scheduled.

Effective collaboration with the LPA played a key role in shaping a well-structured agenda for the education session. This partnership enabled the materials to be delivered in a manner that was aligned with the participants' needs and the available infrastructure.



Figure 2. Interview and audience session with class II LPKA Tanjung Pati

3. Implementation Phase

The initiative to strengthen awareness of sexual education as a preventive shield against HIV and Sexually Transmitted Infections (STIs) at the Class II Juvenile Correctional Institution (LPKA) in Tanjung Pati was carried out through an educational outreach session

targeting the juvenile inmates. This session, focusing on HIV and STI prevention and management, took place on December 20, 2023, at the LPKA auditorium in Lima Puluh Kota District. A total of 30 male adolescents aged 14–19 participated in the session, which was also attended by the LPKA leadership.

The activity began with a group exercise session to foster rapport and establish a supportive learning environment. The outreach team employed pre-test and post-test assessments to evaluate the effectiveness of the intervention. The tests consisted of multiple-choice questions that covered essential topics. The pre-test was administered on paper before the material presentation, with a 10-minute time allocation for completion. The completed pre-tests were collected for immediate evaluation, providing a baseline measure of participants' initial knowledge regarding HIV and STIs (Figure 3).

Following the pre-test, the education session continued with a 30-minute presentation. The first topic addressed was the definition of HIV, referencing the Indonesian Ministry of Health Regulation No. 23 of 2022, which defines HIV as a virus that attacks the immune system (white blood cells) and can lead to Acquired Immuno-Deficiency Syndrome (AIDS), weakening the body's defenses. The presentation also included the definition of Sexually Transmitted Infections (STIs), as outlined in the same regulation, describing STIs as infections transmitted through sexual contact—vaginal, anal, or oral (MoH RI, 2022). Additional material included information on risk factors, symptoms, preventive measures, and management strategies, as well as identifying populations at risk of infection.

After the main session, an ice-breaking activity was held in the form of a Q&A segment, with small prizes for participants who correctly answered the moderator's questions. This interactive segment aimed to maintain participant engagement and focus before the post-test was conducted. The post-test served to measure knowledge improvement following the educational session.



Figure 3. HIV and STI education session with juvenile inmates at class II LPKA Tanjung Pati

4. Monitoring and Evaluation

The monitoring and evaluation stage was conducted by comparing the results of the pre-test and post-test administered to participants before and after the counseling activity. This evaluation aimed to measure the extent to which participants' understanding of HIV and Sexually Transmitted Infections (STIs) improved as a result of the educational intervention.

The evaluation results indicated a significant increase in participants' knowledge following the counseling. This was evidenced by the rise in the average post-test scores compared to the pre-test scores and an increase in the minimum score, reflecting improved understanding even among participants with initially low knowledge levels.

This improvement confirms that the counseling activity successfully achieved its primary objective—to enhance the knowledge and awareness of juvenile inmates regarding the prevention and control of HIV and STIs. A more detailed descriptive analysis of pre-test and post-test scores is presented in the following section, further demonstrating the effectiveness of the intervention.

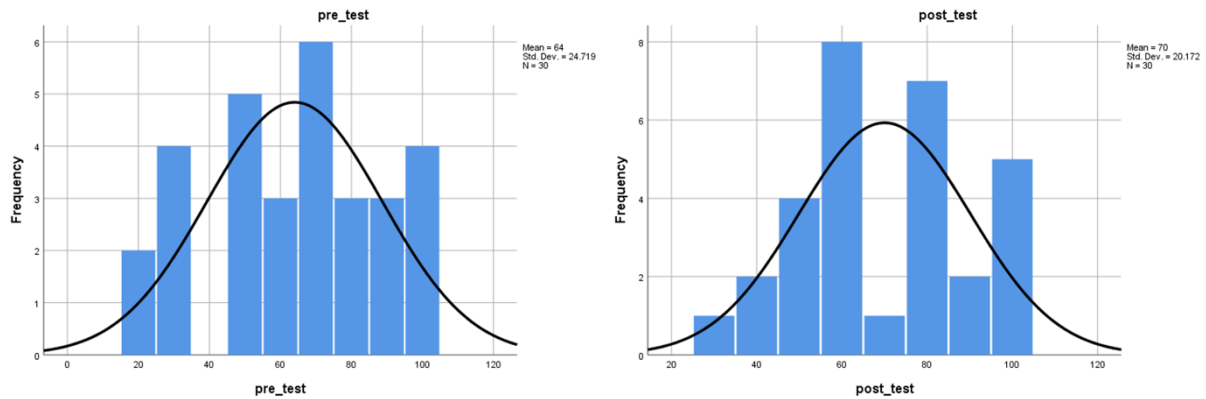


Figure 4. Pre and post test score distribution on HIV/AIDS and STI knowledge at class II LPKA Tanjung Pati

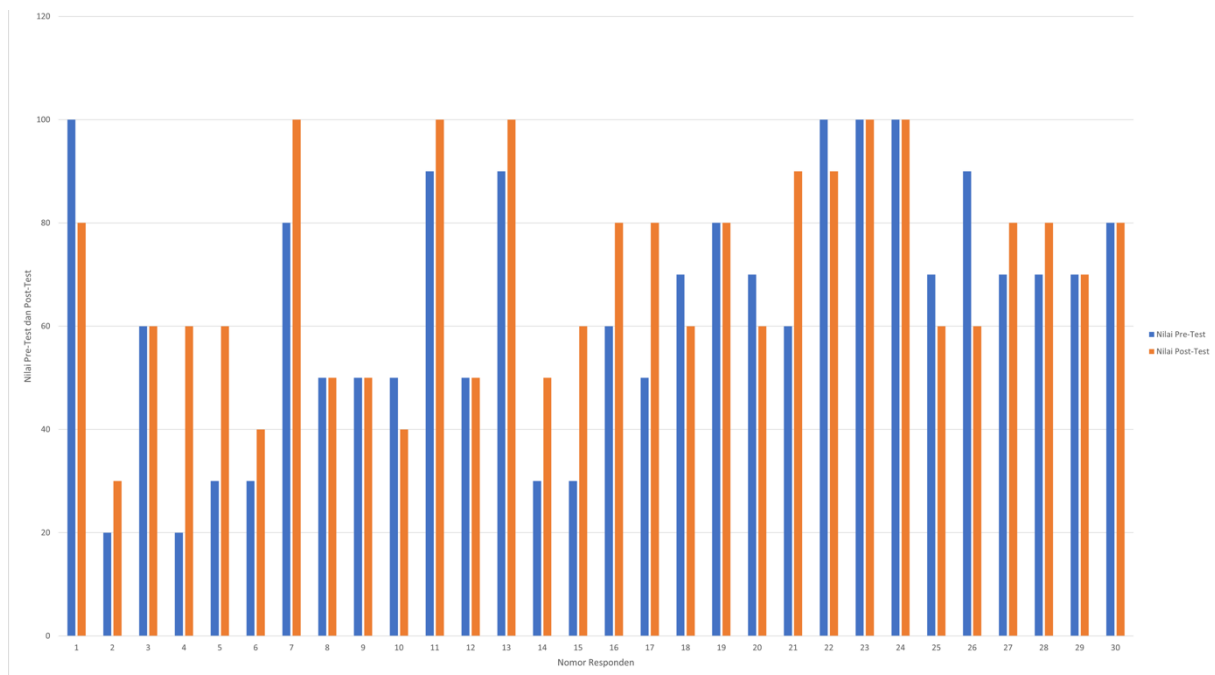


Figure 5. Combined distribution of pretest and posttest scores of HIV and STIs education participants

Based on Figures 4 and 5 above, the comparison between pre-test and post-test scores generally shows that post-test scores are higher than pre-test scores for most participants. This indicates an improvement in participants' understanding after receiving education on HIV and STIs. According to the score distribution, several participants, such as those numbered 7, 8, 11, and 13, showed significant improvement from low pre-test to higher post-test scores. Participants 12, 23, and 24 achieved the highest scores, with post-test scores reaching 100.

Generally, pre-test scores vary with a broader range, from 20 to 90. In contrast, post-test scores are more consistent, with most participants scoring above 60, indicating a uniform improvement after the education.

Based on the average improvement, most participants showed enhanced understanding of HIV and STIs following the education. Only a few participants showed a slight difference between pre-test and post-test scores, such as participant number 25, who showed a decreased score, although this change was insignificant.

Table 1. Distribution of pre-test and post-test scores of HIV and STI counseling participants

Variable	n	Mean	Median	Std. Deviation	Min	Max
Pretest	30	64	70	24.719	20	100
Posttest	30	70	65	20.172	30	100

Table 2. Impact of material delivery on participants' understanding of HIV and STIs

Variable	Mean	Std. Deviation	p-value
Pretest	64	24.719	0.0001
Posttest	70	20.172	

Based on Tables 1 and 2, the increase in average scores indicates a significant improvement in participants' knowledge following the educational intervention. Although the median post-test scores slightly decreased compared to the pre-test median (from 70 to 65), this may reflect a broader distribution of scores in the post-test. The pre-test standard deviation of 24.719 suggests a wide variation in initial participant scores. After the intervention, the standard deviation decreased to 20.172, indicating that participants' scores became more consistent and closer to the average. Additionally, the increase in the minimum score from 20 to 30 reflects an improvement among participants who initially scored the lowest.

These findings demonstrate that the HIV and STI education session had a significant impact on enhancing participants' understanding. The increase in average post-test scores and the improved consistency of results reflect the effectiveness of the intervention. Furthermore, the statistically significant p-value confirms that the observed difference between pre- and post-test scores was not due to chance, but rather a result of a practical educational approach.

These results align with the study conducted by Triana et al. (2023), which examined the effectiveness of the Emotional Demonstration method in increasing maternal knowledge as a strategy for stunting prevention in the working area of Mungo Public Health Center. Their study showed that emotionally engaging and interactive educational methods significantly improved participants' comprehension of health-related issues. Similar to the current study's findings, the use of participatory and context-sensitive approaches was crucial in delivering impactful health education.

Therefore, this intervention not only provides empirical evidence that health education can effectively increase knowledge about HIV and STIs among adolescents but also reinforces the importance of structured, engaging, and sustainable educational programs. Both in the context of stunting prevention and HIV/STI awareness, strategic educational interventions—tailored to the audience's characteristics and supported by appropriate media—prove to be effective in promoting behavioral change and public health literacy.

5. Conclusion and Reporting

The activity concluded with a documentation session involving partners and participants as a formal closing gesture. Subsequently, the implementation team prepared an accountability report encompassing the entire series of activities, including the analysis of pre-test and post-test data and relevant documentation of the implementation. The report was then submitted to the Special Child Development Institution (LPA) Class II Tanjung Pati and the university to evaluate the implemented program and plan future follow-up programs.



Figure 6. Utilization of banners as educational media in the HIV/AIDS counseling session at class II LPKA Tanjung Pati

CONCLUSION

The community service program focusing on sexual education as a preventive effort against HIV and Sexually Transmitted Infections (STIs) at the Special Child Development Institution (LPKA) has shown a significant impact on increasing participants' understanding. Statistical analysis of the pre-test and post-test scores demonstrated a meaningful improvement, indicating the effectiveness of the counseling sessions in delivering the educational material.

The success of this program was strongly supported by close collaboration between the implementation team, the LPKA administration, the Health Office, and various other stakeholders. Active participation from all parties fostered effective synergy and ensured smooth program execution. This emphasizes the importance of cross-sectoral cooperation in implementing sustainable prevention programs.

With the program's primary objectives successfully achieved, this initiative has the potential to serve as a replicable model for health education in similar contexts. The

outcomes are expected to inform the development of broader health promotion strategies, particularly in preventing the spread of HIV and STIs among vulnerable adolescents.

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We hope that the objectives of this activity are achieved, and that this collaborative effort can have a positive and sustainable impact on the community. Thank you for your attention, cooperation, and commitment to the success of this initiative.

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