

Enhancing Adolescent Sexual Health Education and Condom Use in Harare: Addressing Attitudes and Practices amongst Adolescents on Antiretroviral Therapy

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ABSTRACT

Background: This study is coming against the backdrop of the attitudes and practices portrayed by sexually active adolescents on antiretroviral therapy (ART) concerning preventing STIs through condoms as a practice for safe sexual relations.

Aim: The study aims to explore the attitudes that adolescents on ART have towards the use of condoms as a preventive measure for the spread of sexually transmitted infections (STIs).

Method: The research presents a comprehensive examination of adolescent knowledge and attitudes towards antiretroviral therapy (ART) and sexual health education in Harare, employing a mixed-method approach. Quantitative data were gathered through semi-structured questionnaires, capturing participants' understanding of ART and their views on sexual health services. Qualitative data were obtained through structured interviews with purposely selected groups of adolescents, reflecting their lived experiences and perceptions. The sample was designed to reflect the diversity of the urban setting, with ten groups of participants representing various demographics. Data analysis encompassed univariate statistics, bivariate associations using Pearson's Chi-square, and multivariate relationships between variables and consistent condom usage, all with a 95% confidence level. This integrated approach provides a nuanced understanding of the complex factors influencing adolescent behavior in relation to ART and sexual health services, contributing valuable insights for public health interventions in Harare.

Results: This study investigated the attitudes and practices of condom use among 202 adolescents aged 10-19 years. The study found that several factors were significantly associated with a positive attitude towards condom use. Adolescents with older partners were more likely to have a positive attitude towards condom use (AOR=2.43, CI=1.16-5.10). This means that for every one year increase in the age of the sexual partner, the odds of having a positive attitude towards condom use increased. This could be attributed as adolescents perceive older partners as having more sexual experience and therefore consider condom use as a necessary precaution.

Adolescents who reported a better understanding of STIs were more likely to have a positive attitude towards condom use (AOR=3.31, CI=1.07-1.79). This means that adolescents who understood STIs better were 3.31 times more likely to have a positive attitude towards condom use than those who did not understand STIs as well. Research showed that adolescents express concerns about contracting STIs and the negative impact it can have on their health and future relationships. This increased awareness of risk motivated them to adopt positive attitudes towards condom use as a preventive measure.

Adolescents with more knowledge about condoms were more likely to have a positive attitude towards condom use (AOR=1.51, CI=0.10-3.45). This means that adolescents who had more knowledge about condoms were 150% more likely to have a positive attitude towards condom use than those who did not have as much knowledge about condoms. The conversations carried with the adolescents revealed that those with more knowledge about condoms have a better understanding of their efficacy, contributed to positive attitudes towards condom use. Others expressed a sense of self-assurance in their knowledge of how to properly wear and use condoms, which enhanced positive attitudes towards condom use.

These findings suggest that interventions aimed at increasing condom use among adolescents should focus on educating them about the risks of STIs, the benefits of condom use, and safe sex practices.

Conclusion: In light of the study's findings, it is evident that adolescents' attitudes towards condom use are influenced by various factors, including their own sexual maturation and the perceived experience of their sexual partners. The study underscores the importance of comprehensive sexual health education that addresses both the biological aspects of STIs and the social and psychological implications of sexual activity. As adolescents continue to navigate their sexual identities and relationships, interventions that enhance their knowledge and understanding of condom use as a tool for preventing STIs are crucial. Additionally, considering the broader context of adolescent sexual and reproductive health in developing countries, these findings contribute to a growing body of evidence that supports the need for tailored, culturally sensitive, and age-appropriate programs to support adolescents on antiretroviral therapy (ART) in making informed decisions about their sexual health.

Keywords: adolescents, ART, attitudes and practices, condom use, STIs

INTRODUCTION

Introduction: This study is set against the backdrop of the attitudes and practices of sexually active adolescents on antiretroviral therapy (ART) concerning the prevention of sexually transmitted infections (STIs) through the use of condoms. The aim is to explore the attitudes that adolescents on ART have towards condom use as a preventive measure for STIs. The research employs a comprehensive examination of adolescent knowledge and attitudes towards ART and sexual health education in Harare, using a mixed-method approach. This includes gathering quantitative data through semi-structured questionnaires and qualitative data through structured interviews with selected groups of adolescents. The study investigates the attitudes and practices of condom use among a sample of 202 adolescents aged 10-19 years, finding that factors such as the age of sexual partners, understanding of STIs, and knowledge about condoms are significantly associated with a positive attitude towards condom use. Adolescence also provides a window of opportunity in which early interventions are essential for inculcating correct health knowledge and attitudes toward sexual reproductive health (SRH). The findings underscore the importance of comprehensive sexual health education and suggest that interventions aimed at increasing condom use among adolescents should focus on educating them about the risks of STIs, the benefits of condom use, and safe sex practices.

METHODS

Study Setting

ART clinic at Beatrice Road Infectious Diseases Hospital (BRIDH) in Harare, Zimbabwe

Population

The study population comprised 202 adolescents aged 10-19 years enrolled in a community-based ART

programme.

Sampling Method

The selection criteria apply to adolescents between 10 and 19 years old who received ART, were at the hospital on the day of data collection, and those who mutually agreed to participate online. Furthermore, the adolescent should have taken ART medication at the data collection point for 12 months.

The sample size was determined using Israel's (1992) formula⁸. According to the Baseline Assessment of Access to HIV care in Zimbabwe by the National AIDS Council⁹, the estimated number of young people receiving ART at the clinic was 1,000. A Margin of Error was established at 0.05 and the Israel formula to calculate a sample size of 286 was used:⁸

where s = sample size

N = Target Population size ($N=1000$)

Err = Error margin ($Err = 0.057$)

Therefore, the calculated sample size (s) for the study is 240.

Data Collection

The study designed to investigate the attitudes and practices of adolescents on antiretroviral therapy (ART) concerning the prevention of sexually transmitted infections (STIs) through condom use. The research employed a comprehensive approach, utilizing both quantitative and qualitative data collection methods. These methods include semi-structured interviews, questionnaires, focus group discussions, and life histories, with a particular focus on exploring the perceived barriers and challenges to accessing condoms and STI treatment services.

A total of 200 questionnaires, were distributed to adolescents aged 10-19 years on ART from a clinic in Beatrice, Zimbabwe. The design of the questionnaires was informed by the qualitative research principles outlined by Braun et al. (2022)¹⁰, ensuring that the data collection methods were appropriate for the study's context and participants. These methods were chosen to ensure confidentiality, convenience, and accessibility, which are critical for engaging adolescents in this sensitive area of health.

The study aims to provide insights into the factors that influence adolescents' attitudes towards condom use and STI treatment, with the ultimate goal of informing the development of targeted interventions to improve sexual health outcomes among this population. The findings from this study will contribute to a better understanding of the complex factors that influence adolescent behavior in relation to ART and sexual health services, offering valuable insights for public health interventions in Zimbabwe.

The diagram below shows the key acceptance criteria for consideration to participate in the survey

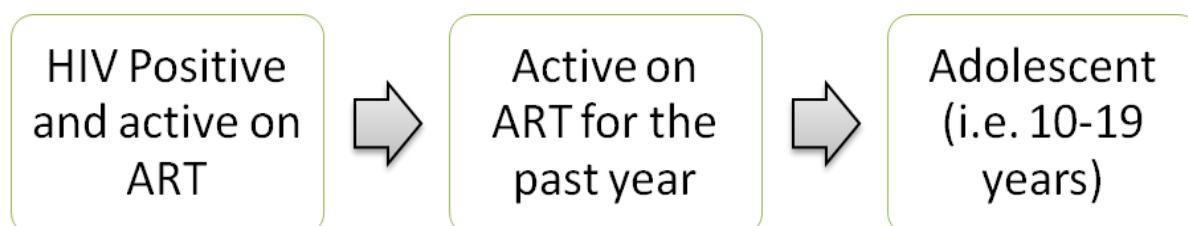


Figure 1: Selection Criteria

Data Management and Analysis

Upon the completion of data collection, the questionnaires and interviews were evaluated for competency and consistency. The data was subsequently coded into SPSS, a statistical software package, to create electronic data sets that facilitated the subsequent analyses. The research employed the Chi-squared test to compare the observed frequencies of categorical variables with the expected frequencies, assessing the significance of individual associations. The Chi-squared value was deemed significant when the p-value was less than or equal to 0.05. A bivariate analysis was conducted to examine the relationships between the study variables. Any variables that showed a significant association in the bivariate analysis were then considered for multivariate analysis. This approach allowed for a comprehensive understanding of the relationships between the variables and their impact on the study's outcomes. The data management and analysis process ensured the integrity and reliability of the findings, providing a solid foundation for the interpretation and reporting of the study's results.

RESULTS

Demographic Characteristics of Study Participants

Variable	Categories	Frequency, <i>N</i>	Percentage, %
Gender	Female	107	53
	Male	95	47
Age (Adolescents)	Early: 10-13	55	27.3
	Mid: 14-15	67	33.1
	Late: 16-19	80	39.6
Marital Status	Single	164	81.2
	Married	28	13.9
	Divorced	5	2.5
	Cohabiting	3	1.5
	Other	2	0.9
Residence	¹ Low Density	33	16
	² Medium density	41	20
	³ High density	114	57
	⁴ Peri-Urban	14	7
Staying With	Alone	9	5
	Parent	105	52
	Sibling	25	12
	⁵ Guardian	35	17
	Partner	28	14
Level of Education attained	None	25	12.4
	Primary	40	19.8
	Secondary	113	55.9
	Tertiary	24	11.9

Out of the 202 participants in this study, a gender distribution of 47.04% males (n=95) and 52.96% females (n=107) was observed. This distribution is slightly skewed towards females, which is in contrast to the national population ratio reported by ZimStat 2021, where 50.7% of the population is female and 49.3% male. The age range of the participants spanned from 10 to 19 years, with a significant portion of the participants, 60% (n=121), within the age group of 10-15 years. Additionally, 75.7% (n=153) of the participants were still enrolled in school, indicating that a large percentage of the study’s participants are in the critical developmental stage of their lives. Interestingly, 12.5% (n=25) of the participants reported never having attended school, which underscores the importance of reaching out to this demographic in sexual health education initiatives. Furthermore, this suggests that the majority of the participants are in the early stages of adolescence, which is a critical period for sexual health education and the adoption of safe sexual practices.

Lastly, a total 11.9% of the participants (n=24) were enrolled in tertiary education, which is a notable decrease from the original 69 participants who were eligible to participate in tertiary education. This finding highlights the need for targeted sexual health education programs that reach out to adolescents with different educational background and hence varying understanding of safe sex practice¹².

Attitudes towards condom use and Prevention of STIs by Adolescents on ART

The factors associated with condom use among adolescents were the age of the sexual partner, knowledge about condoms, knowledge about STIs and perceived risk, attitude towards safe sex practice, and lastly, the influence of health workers through condom use demonstration¹³.

Table 4-1:Multivariable Logistic Regression Model for Factors Associated with Condom Use Among Adolescents in Zimbabwe

Variable	Categories	Condom Use		COR [95%Conf. Interval]	AOR [95% Conf. Interval]	P-values
		Yes	No			
Age of sexual partner	16-19	5	9	1	1	
	20+	27	18	2.13[2.19–5.17]	2.43[1.16–5.10]	0.018*
Knowledge about condoms	Low	9	18	1	1	
	High	17	6	0.13[0.18–0.69]	0.51[1.01-3.45]	0.027*
Knowledge about STI	Inadequate	6	10	1	1	
	Adequate	17	9	0.13[0.08–0.60]	0.31[0.07–0.69]	0.018*
Attitude toward safe sex	Negative	8	12	1	1	
	Positive	15	5	1.96[0.53–2.60]	2.74[0.05–3.77]	0.024*
Condom use through demonstration by a health worker	Insufficient	8	3	1	1	
	Sufficient	22	4	0.03[0.6-0.81]	0.32[0.05–0.98]	0.229
Perceived understanding of ART and STI risk association	Poor	3	6	1	1	
	Good	17	4	1.3[0.08–0.60]	3.31[1.07–1.79]	0.04*
Perceived STI risk level	Low	6	7	1	1	
	High	23	4	0.21[0.05–0.87]	0.31[1.13-5.66]	0.116

The influence of partner age on condom use among adolescents on antiretroviral therapy (ART) is significant, as indicated by findings showing that adolescents with partners older than 20 years are more

likely to use condoms consistently compared to those dating partners aged between 16-19 years old (Odds Ratio 2.43, Adjusted Odds Ratio [AOR]: [1.16-5.10], p-value = 0.018). Insights from interviews suggest that adolescents perceive partners older than 20 years to be more experienced and thus more likely to prioritize condom use¹⁴, leading to higher consistency in condom use within these relationships.

Moreover, the impact of knowledge on condom use behavior is evident, with adolescents possessing comprehensive knowledge about condoms and perceiving condom use as a safe sex practice¹⁴ demonstrating a 51% higher likelihood of using condoms compared to their counterparts (Odds Ratio 0.51, AOR: [1.16-5.10], p-value = 0.027). Data obtained through focus group discussions reveals that adolescents who possess accurate knowledge about condoms often express greater confidence in negotiating condom use with their partners, citing awareness of the importance of protection against STIs and unintended pregnancies.

In addition, evidence from a study conducted in Tanzania emphasizes the significance of knowledge in influencing condom use behavior^{15,16}, with findings indicating a substantial impact of knowledge on condom use (Adjusted Odds Ratio = 3.484, 95% Confidence Interval 1.13-10.7). Insights from both interviews and focus group discussions highlight that adolescents who lack comprehensive knowledge about condoms often express doubts about their effectiveness and may have misconceptions about their use, which can deter consistent condom use behavior.

Furthermore, the role of comprehensive knowledge in promoting appropriate condom use is underscored by quantitative findings revealing that adolescents are more inclined to use condoms correctly when they possess thorough education about their use, with an odds ratio of 2.74 (Adjusted Odds Ratio: [0.05-3.77], p-value = 0.024). Both interviews and focus group discussions suggest that adolescents who receive thorough education about condom use, including practical demonstrations and discussions about proper usage¹⁷, exhibit greater confidence and competence in using condoms correctly during sexual encounters.

Factors that influence attitudes and practices of adolescents on antiretroviral therapy in accessing relevant ASRH services

Table 3 below highlights a regression analysis of factors that positively impact attitudes towards safe sex. These include the role of culture, peer influence, peer reliability, the health worker’s perspective, and the adolescent attitude towards collecting ART resupply.

Table 3: Regression Analysis of factors that have positive significance to attitudes and practices on adolescents in accessing relevant ASRH service

Variable	Categories	COR [95%Conf. Interval]	AOR [95% Confidence Interval]	P-values	Std. Err
ART resupply in private	No	1	1		0.076871
	Yes	0.25[1.43- 5.46]	0.60[1.04-4.46]	0.041*	
Role of culture	Low	1	1		0.021935
	High	1.00[0.57- 1.91]	1.56 [0.57- 13.51]	0.023*	
Peer influence	Low	1	1		0.035914
	High	0.12[0.98-3.02]	0.63[2.99-11.62]	0.075*	
Peer reliability	Unreliable	1	1		0.071661
	Reliable	0.08[0.29- 1.27]	0.09[0.29 -1.47]	0.934	

The attitude of health workers	Negative	1	1		0.1414229
	Positive	0.52[0.18-3.43]	1.17[1.75 – 2 .64]	0.118	

When adolescents on antiretroviral therapy (ART) were asked about their preferred mode of accessing ART resupply, the majority expressed a preference for privacy or utilizing a proxy, such as a guardian or parent¹⁷. This preference for privacy was evident in quantitative findings, where the odds of an adolescent using private means to obtain medication were 0.60 (Adjusted Odds Ratio [AOR]: [1.04-4.46], $p = 0.041$), indicating a 60% chance that adolescents opt not to be seen by others when collecting their ART. Qualitative insights suggest that factors contributing to this preference include peer pressure, cultural and social norms, and the attitude of health officers responsible for distributing medication. Regarding the influence of culture^{18,19}, adolescents affirmed that it plays a crucial role in shaping attitudes towards accessing adolescent sexual and reproductive health (ASRH) services (Odds: 1.56, AOR: [0.57-13.51], $p = 0.023$), underscoring the importance of cultural sensitivity in healthcare provision.

Peer influence emerged as a significant factor in adolescents' attitudes towards accessing ASRH services^{19,20}, with 63% of respondents acknowledging the role of peers in shaping their attitudes (Odds: 0.63, AOR: [2.99-11.62], $p = 0.075$). Despite the p -value slightly above the conventional threshold for statistical significance, the qualitative data corroborates the influence of peers in providing information, feedback, and support as adolescents navigate their sexual and reproductive health.

During focus group discussions, adolescents highlighted the positive impact of health personnel's attitudes on their perception of ASRH services. Adolescents felt more comfortable disclosing personal information and asking questions about their health when health workers exhibited a positive attitude. Although the odds ratio for health worker attitude was not statistically significant (Odds: 1.17, $p = 0.118$), findings from discussions emphasized the importance of building therapeutic relationships between health workers and adolescents living with HIV²³. Nursing practice guidelines underscored the significance of nurses' competency in adolescent ART management, emphasizing the need for a supportive and empathetic approach in HIV care provision²⁴.

In conclusion, adolescents on ART navigate various influences, including peer pressure, cultural norms, and the attitudes of health personnel, in accessing ART and ASRH services. Privacy concerns drive preferences for discreet medication collection methods, while peer and cultural influences shape attitudes towards ASRH services. Positive interactions with health workers are pivotal in fostering trust and facilitating open communication among adolescents, highlighting the crucial role of healthcare providers in supporting adolescent ART management and promoting holistic HIV care.

DISCUSSION

Adolescents living with HIV encounter significant challenges in accessing STI treatment and preventing sexual transmission. Despite condom use being one of the most effective ways to prevent STIs, including HIV, many adolescents on ART do not use condoms consistently or correctly. Our study delves into the attitudes and practices of condom use and STI prevention among adolescents on ART, shedding light on the implications for health promotion interventions.

The findings from Mavedzenge et al. (2014) highlight a concerning trend among adolescents on antiretroviral therapy (ART), indicating low levels of condom use ranging from 16% to 85%, alongside high prevalence rates of sexually transmitted infections (STIs) ranging from 6% to 59%. These statistics underscore the urgent need for targeted interventions aimed at addressing barriers to consistent condom use and STI prevention within this vulnerable population²⁸. The study identifies with these findings, further highlighting the intricate relationship between knowledge, awareness, and condom use behavior among

adolescents on ART. Through comprehensive data analysis, it is observed that adolescents with a higher level of knowledge and awareness regarding condoms and STI prevention demonstrated a significantly higher likelihood of engaging in consistent condom use practices. This correlation emphasizes the pivotal role of education and awareness-raising initiatives in promoting safer sexual behaviors among adolescents living with HIV.

Participants with partners above 20 years old were more likely to use condoms consistently than those dating between 16-19 years old, indicating the influence of partner age on condom use behavior. Additionally, adolescents with knowledge about condoms demonstrated a higher likelihood of using condoms compared to their counterparts, emphasizing the positive impact of comprehensive knowledge on condom use. This indicates that knowledge about condoms positively influences condom use among adolescents.

The study looked into the factors influencing the attitudes and practices of adolescents on antiretroviral therapy (ART) regarding accessing relevant adolescent sexual and reproductive health (ASRH) services. Regression analysis revealed several significant determinants, including culture, peer influence, peer reliability, the health worker's perspective, and the adolescent attitude towards collecting ART resupply. These factors collectively impacted attitudes positively towards safe sex practices among adolescents on ART. Peer pressure emerged as a significant factor, with adolescents expressing concerns about potential judgment or stigma associated with their HIV status if seen collecting medication in public settings.

Cultural and social norms also played a role, as adolescents may perceive seeking HIV treatment as taboo or stigmatizing within their communities. Additionally, the attitude of healthcare providers responsible for distributing medication was cited as a factor influencing adolescents' preferences, with negative or judgmental attitudes potentially deterring adolescents from seeking ART resupply openly.

These findings underscore the complex interplay of individual, interpersonal, and societal factors shaping adolescents' access to HIV treatment and care services. The preference for privacy in accessing ART medication reflects adolescents' desires to maintain confidentiality and protect themselves from potential stigma or discrimination. To address these barriers, interventions must prioritize creating supportive and non-judgmental healthcare environments that respect adolescents' autonomy and confidentiality.

Peer support programs and community-based initiatives can also play a crucial role in reducing stigma and empowering adolescents to access HIV treatment and care services openly. The positive attitude of health personnel affects how adolescents perceive ASRH services, making it easier for them to disclose personal information and ask questions about their health. This attitude is related to the health worker's perspective towards the adolescent, with an odds ratio of 1.17 and a p-value of 0.118.

The findings from our study align with existing research²⁶⁻²⁹, highlighting the significant roles of knowledge about condoms, cultural factors, peer influence, and the attitude of health personnel in shaping attitudes towards safe sex among adolescents on antiretroviral therapy (ART). Specifically²⁵, we found that adolescents with greater knowledge about condoms were more likely to engage in consistent condom use, echoing the findings of Kalolo's study in Tanzania (2015). Additionally, the influence of culture²⁶ on attitudes towards safe sex, as well as the impact of peer influence²⁷ on adolescent behaviors, were consistent with previous literature.

Regarding the attitude of health personnel²⁹, the study substantiated existing research indicating its essential role in shaping adolescent attitudes towards safe sex. Health workers who exhibit supportive and non-judgmental attitudes create environments conducive to open communication and positive health-seeking behaviors among adolescents on ART. In addition to these factors, our study underscores the importance of parental communication³² about sex and condom use, perceived self-efficacy, and access to youth-friendly

sexual health services in shaping adolescent perceptions of condom use and STIs^{28,30}. These findings emphasize the multifaceted nature of adolescent sexual health behaviors and the need for comprehensive interventions addressing various influencing factors.

In conclusion, our study contributes to a deeper understanding of the complex interplay of factors influencing adolescent perceptions of condom use and STIs. By recognizing and addressing these factors at multiple levels, including knowledge enhancement, cultural sensitivity, peer support, and improved access to sexual health services, innovative interventions can effectively promote condom use and improve sexual health outcomes among adolescents on ART.

CONCLUSION

In conclusion, adolescents, particularly those on antiretroviral therapy (ART), are greatly influenced by their thought processes, reasoning, and risk assessments, especially concerning sexual and reproductive health. By fostering positive behavioral changes and promoting good intentions, we can encourage them to engage in activities that positively impact their sexual and reproductive well-being. Empowering adolescents on ART to make confident choices and take control of their health is crucial for mitigating the risks associated with HIV transmission and sexually transmitted infections (STIs). Rather than expecting perfection, providing them with knowledge, skills, and support to navigate complex sexual health situations is more effective. Comprehensive sexual education, accessible healthcare services, and supportive community networks are essential tools for equipping adolescents on ART to prioritize safe sexual practices and protect their health. By fostering open communication, non-judgmental support, and empowerment, we can help them navigate adolescence while maintaining their health and well-being. Ultimately, investing in the sexual and reproductive health of adolescents on ART contributes to their overall health outcomes and quality of life.

RECOMMENDATIONS

The following are suggested as recommendations from this study:

1. Conduct a comprehensive assessment of the sexual health needs and risks of adolescents on ART, including their knowledge, attitudes, and practices regarding condom use and STI prevention. This assessment should be carried out by healthcare providers and researchers in collaboration with community organizations. By understanding the specific challenges and barriers faced by adolescents on ART, tailored interventions and support services can be developed to address their unique needs and promote positive sexual health outcomes.
2. Provide tailored and age-appropriate sexual health education and counseling to adolescents on ART, emphasizing the benefits of consistent and correct condom use for dual protection against HIV transmission and STIs. Healthcare providers, including nurses, physicians, and counselors, should be trained to deliver culturally sensitive and stigma-free sexual health education sessions. These sessions should focus on empowering adolescents to make informed decisions about their sexual health and equip them with practical skills for negotiating safer sex practices.
3. Ensure the availability and accessibility of free or low-cost condoms and lubricants for adolescents on ART, along with other contraceptive methods if desired. This initiative should be implemented by government health agencies, NGOs, and community-based organizations in collaboration with pharmaceutical companies and donors. Access to affordable and reliable contraceptives is essential for empowering adolescents to protect themselves against HIV transmission and STIs.
4. Integration of Mental Health Support, organizations should recognize the impact of mental health on condom use behavior and provide access to mental health support services for HIV-positive

adolescents. This may involve integrating mental health services into sexual health programs, providing counseling and support groups for adolescents, and addressing underlying issues such as depression, anxiety, and trauma. By addressing mental health needs, organizations can improve overall well-being and promote healthier sexual behaviors among adolescents living with HIV.

5. Encourage adolescents on ART to seek regular testing and treatment for STIs and to disclose their HIV status to their sexual partners if possible. Healthcare providers should promote a non-judgmental and supportive environment where adolescents feel comfortable discussing their sexual health concerns and accessing necessary testing and treatment services. Encouraging open communication and destigmatizing STI testing and treatment are crucial for reducing the burden of STIs among adolescents on ART.
6. Monitoring and Evaluation, establish mechanisms for monitoring and evaluating the effectiveness of interventions aimed at improving condom use among HIV-positive adolescents. Collect data on condom use rates, knowledge levels, and attitudes over time to assess the impact of programs and identify areas for improvement.
7. Support the development of peer-led interventions and community-based initiatives that promote condom use and STI prevention among adolescents on ART and address stigma and discrimination affecting their sexual health outcomes. Collaborative efforts between healthcare providers, community organizations, and peer educators can facilitate the design and implementation of innovative programs tailored to the needs of adolescents on ART. These initiatives should prioritize peer support, education, and advocacy to challenge harmful social norms and promote positive sexual health behaviors.
8. In conclusion, these recommendations are vital for addressing the sexual health needs of adolescents on ART and promoting their overall well-being. Implementing these recommendations requires collaboration among various stakeholders, including healthcare providers, policymakers, community organizations, and adolescents themselves. By prioritizing comprehensive sexual health services, destigmatizing HIV and STI testing and treatment, and empowering adolescents to make informed decisions about their sexual health, we can work towards ensuring a healthier future for adolescents on ART.

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