

Assessment of Transmission Dynamics and Healthcare Response to Sexually Transmitted Infections (STIs) Among Sexually Active People in Monze District, Zambia

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ABSTRACT

Introduction: A sexually transmitted infection (STI) is an infection caused by viruses, bacteria, fungi, or parasites that people can acquire through unprotected sexual contact. Sexually transmitted infections (STIs) continue to pose a significant public health challenge, particularly impacting young individuals and men who have sex with men. Sexually transmitted infections (STIs) present a danger to all demographic groups, with those aged 20–24 being particularly vulnerable. While abstinence is the only method that offers complete protection against STIs and unplanned pregnancies, consistently using condoms is the most effective alternative. Globally, it is estimated that 374 million sexually transmitted infections occur annually. Over 30 different bacteria, viruses, and parasites are known to be transmitted through sexual contact, including vaginal, anal, and oral sex. Additionally, some STIs can be passed from mother to child during pregnancy, labour, childbirth, and breastfeeding. Sexually Transmitted Infections (STIs) remain a significant public health challenge, particularly in developing regions such as Monze District, Zambia.

Objectives: This study aims to investigate the behavioral risk factors associated with the transmission of sexually transmitted infections (STIs) among sexually active people in Monze District, Zambia. It also seeks to assess the availability and accessibility of sexual health services, including testing and treatment, within the Monze District of Zambia.

Methods: This study utilized a cross-sectional study design to assess transmission dynamics and healthcare responses to sexually transmitted infections among sexually active people in Monze district, Zambia. Ethical approval for this study was sought from CHRESO University Research and Ethics Committee, Texila American University, and Monze District Health Office respectively. Apart from that, a simple random sampling technique was utilized to select 271 respondents in randomly selected health facilities to participate in the study. Participants who voluntarily gave their consent were given a questionnaire to fill out. A structured questionnaire was used for data collection, which was then analyzed using Statistical Package for Social Sciences (SPSS) version 28.0 and presented in tables. Multivariate logistic regression analysis was applied to examine the relationships between socio-demographic characteristics and the parameters for the transmission dynamics and healthcare response to sexually transmitted infections among sexually active people in Monze district.

Results: The study disclosed that, most of the respondents (82.3%) believed that having sex while drunk or having multiple sexual partners (86%) increases the risk of acquiring STIs. The study also disclosed that, only 43.2% of respondents are in monogamous relationships, and 25.5% reported having three or more sexual partners in the past year, suggesting potential for increased risk behaviors. The findings from this study also exposed that, only 19.2% of respondents reported always using condoms during sexual intercourse. The study also demonstrated that, 81.9% of study participants were aware of common modes of STIs transmission, while 18.1% were unaware of common modes of STI transmission in Monze district of Zambia. The study further revealed that, most of the respondents (67.9%) have sought sexual health services while a good proportion of study participants (32.1%) did not seek health services in the health facilities in Monze district. This is an indication of a significant engagement with the healthcare system. The findings from this study also demonstrate that, the perceptions of the availability of sexual health services vary, with a notable portion of study participants rating it as good (41%) while 9.6% of study participants rated them as poor. In addition, despite the majority (65.3%) finding sexual health services affordable, a non-negligible proportion (15.9%) of respondents perceive them as expensive. Not only that, a good proportion of study participants (18.8%) were not sure whether the sexual health services were affordable or not. A good proportion (75.3%) of study participants were aware of the locations of STI testing and treatment centers. Not only that, more than half of the respondents (55.7%) report facing barriers when seeking sexual health services. The most common barriers to sexual health services faced by the people in Monze district include lack of information (49.5%), negative attitudes of healthcare providers towards patients and clients (27.8%), cost of health services (10.3%), and stigma and discrimination (9.2%).

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Conclusion: All in all, the study disclosed that, a substantial majority of respondents (82.3%) believe that engaging in sexual activities while intoxicated and having multiple sexual partners (86%) increases the risk of acquiring sexually transmitted infections (STIs), yet only 43.2% are in monogamous relationships, with 25.5% having had three or more sexual partners in the past year. Only 19.2% consistently use condoms during sexual intercourse, indicating a need for public health intervention. While 81.9% of participants are aware of common STI transmission modes, 18.1% still lack this crucial knowledge. Moreover, the majority (67.9%) of study participants have sought sexual health services, though 32.1% have not, highlighting varied engagement levels with the healthcare system. Perceptions of sexual health services are mixed, with 41% rating them as good and 9.6% as poor. The study further disclosed that 65.3% find services affordable while 15.9% perceive them as expensive, and 18.8% are unsure about the costs. A significant proportion (75.3%) of respondents are aware of STI testing and treatment centers' locations; however, more than half (55.7%) face barriers in accessing these services, primarily due to lack of information (49.5%), negative attitudes of healthcare providers (27.8%), cost (10.3%), and stigma and discrimination (9.2%). The author recommends that, there is need to enhance public health awareness campaigns via radio, television, and social media platforms to disseminate messages that challenge myths and misconceptions about STIs and promote positive attitudes among healthcare providers towards the respondents. This can also be done through health fairs, workshops, and community theater performances to increase awareness about STI transmission and prevention, and to promote consistent condom use. Additionally, developing community-based initiatives such as peer education and support groups formation is vital to combat stigma and discrimination and create a supportive environment for all the people in the community.

Keywords: Transmission Dynamics, Healthcare Response, STIs, Sexually Active people, Monze District, Zambia

Introduction

Sexually transmitted infections (STIs) affect millions of men, women, and children worldwide and are a leading cause of sudden sickness, infertility, long-term disability, and death. STIs continue to be a major public health concern worldwide, particularly for expectant mothers. STIs and bacterial vaginosis (BV) can have a variety of negative effects on a person's sexual, reproductive, and maternal-child health. So far, it has been determined that over 30 bacterial, viral, and parasite infections may be transmitted through sexual contact. Planning effective interventions and requesting funding as needed depends on having accurate data on the prevalence and impact of these illnesses [1].

Apart from that, evidence explains that, research on STI prevention has broadened from emphasizing abstinence, partner reduction, and condom use to incorporating innovative preventive measures, such as treatment-as-prevention, pre-exposure prophylaxis (the use of preventive medication by uninfected individuals), and vaccination for certain STIs. Social-cognitive factors, as outlined by theories like the theory of planned behaviour, are crucial immediate determinants of STI prevention behaviors, and interventions targeting these factors can successfully enhance preventive practices. Social-ecological perspectives emphasize that individual determinants are influenced by broader environmental factors, with social stigma notably impacting STI prevention efforts and necessitating effective intervention strategies [2].

Moreover, evidence explains that, the majority of Sexually transmitted infections cases, with the exception of HSV-2, were found in young women aged 15 to 24 years old, independent of the area or population type. Some STIs, like syphilis, seemed to be more prevalent in higher-risk groups of people. Young adolescents in Sub-Saharan Africa (SSA) are at a high risk of engaging in sexual risk behaviors, and the prevalence of unwanted pregnancy, treatable STIs, and herpes simplex virus type 2 (HSV-2) and HIV in this demographic is persistently high [3].

In addition, evidence also explains that, Sexually Transmitted Infections (STIs) are a significant public health concern globally,

affecting people of all ages, genders, and socioeconomic backgrounds. For instance, in individuals of childbearing aged between 15 and 49 years, the prevalence of STIs can vary depending on factors like geographical location, access to healthcare services, and sexual behaviors. Common STIs among this group include chlamydia, Trichomoniasis, gonorrhea, syphilis, genital herpes simplex virus (HSV), genital warts, giardia infections, viral hepatitis B, Lymphogranuloma Venereum (LGV), HIV/AIDS, and human papillomavirus (HPV). Not only that, sexually transmitted infections (STI) significantly affect the health of sexually active people, especially young people, and can cause low sexual dysfunction, low self-esteem, infertility, increased transmission of HIV, and death [4].

In addition, evidence shows that, if sexually transmitted infections remain untreated, they can lead to serious consequences including neurological and cardiovascular diseases, infertility, ectopic pregnancy, stillbirths, and increased risk of Human Immunodeficiency Virus (HIV). They are also associated with stigma, domestic violence, and affects quality of life. The majority of STIs have no symptoms but when they are present, common symptoms of STIs are abnormal vaginal discharges, urethral discharges, genital ulcers and lumps, and lower abdominal pain [5].

Other than that, Sexually Transmitted Infections are a significant public health issue, especially in underdeveloped nations where the infrastructure for healthcare is frequently lacking. The incidence and prevalence of STIs are rising in Sub-Saharan Africa despite having several treatments. Sub-Saharan Africa continues to be the area of the world most impacted by the HIV epidemic. This area is home to nearly three-quarters (69%) of the 23.5 million infected individuals globally. The majority of Sub-Saharan African nations indicate a broad pandemic with pockets of concentrated epidemics in important populations (infection rates > 1%). Over 6 million individuals are still thought to be HIV-positive in South Africa. The adult prevalence rate is 26.5% in Swaziland, followed by 17.9%, 13.3%, and 11.1% in South Africa, Namibia, and Mozambique, respectively [6].

Another study was conducted on women and HIV/AIDS in Sub-Saharan Africa. The study found that HIV/AIDS epidemic continues to disproportionately affect women, with young women being infected almost 10 years sooner than their male counterparts. According to epidemiological data, the prevalence

and incidence of HIV among women are at unacceptable levels. Women are more susceptible to contracting HIV for a variety of reasons, including biological, behavioral, socioeconomic, cultural, and structural concerns. According to data, women in SSA are more likely than males to become infected with HIV. Women are entangled in relationships that further enhance their risk because of gender power dynamics. Given the unacceptably high rates of HIV prevalence and incidence among young women in southern Africa, every effort must be made to reduce this risk through a mix of biological, behavioral, and structural treatments that are directed both at the women and their sexual partners [7].

Also, evidence shows that, Sub-Saharan Africa remains the region with the largest percentage (32%) of youths aged between 10 and 24 years old. Policies that do not explicitly allow or authorize access to sexual and reproductive health and rights for youths and adolescents usually result in unintended pregnancies, an increase in STIs and HIV, and unsafe abortions. At the age of 18, 78% of women in Liberia and 77% of women in the Congo had engaged in their first sexual activity. Similar to this, in Angola and Congo, 66% and 68% of males, respectively, had experienced their first sexual encounter. In the African area, 31% of women aged 20 to 24 had their first marriage before becoming 18 years old [8].

Additionally, another study done in Botswana revealed that sexually transmitted infections (STIs) continue to be a significant issue for public health in sub-Saharan African nations, notably in Botswana. The author goes on to say that in Gaborone, STIs grew from 24, 272 in 2015 to 28, 106 in 2016 (16%), even though stakeholders were strongly urged to modify their behavior to lower the incidence of HIV and AIDS. Even being aware of the harmful consequences of STIs did not prevent people from being infected. Maintaining healthy habits is hampered by hurdles to simple access to condoms, such as long-distance travel and unfavorable attitudes about condom use. In the AIDS period, stakeholders should enhance condom collecting locations and alter unfavorable attitudes by using cost-benefit analysis. Since the majority of persons begin sexual activity during their teenage years, STI awareness should be spread among young populations, including those under the age of 18. Through health education initiatives and debunking myths, attitudes toward condom usage need to be addressed as well [9].

Other than that, evidence indicates that, education and marital status make a very notable difference in vertical transmission of HIV. A case control in Cameroon aimed at assessing the maternal socio-demographic factors associated with HIV vertical transmission found that at the univariate level, mothers who achieved a primary level of education were less likely to transmit HIV to infants compared to uneducated mothers [OR=0.28; CI (0.08-0.95); p=0.04]; and widows had a higher likelihood of HIV transmission to infants compared to married mothers [OR=4.65; CI (1.26-17.20); p=0.02] [10].

Another study found that factors that were substantially related with a high incidence of STIs included the kind of occupation, awareness of STIs, place of residence, having several sexual partners, transactional sex, not using condoms, drinking alcohol, and not caring about the behaviors of one's partner in sex.

Therefore, there is a need for extensive awareness campaigns about the dangers of having numerous sex partners, about controlling one's alcohol intake, and about safe sex practices including the use of condoms. In especially among groups that do not choose abstinence or a single sexual partner lifestyle, the author did advise the development of awareness techniques that promote safe sexual behaviors [11].

Material and Method

This study used a cross-sectional design to assess transmission dynamics and healthcare response to sexually transmitted infections among sexually active people in Monze district, Zambia. Ethical approval for this study was sought from CHRESO University Research and Ethics Committee, Texila American University, and Monze District Health Office respectively. Apart from that, a simple random sampling technique was utilized to select 271 respondents in randomly selected health facilities to participate in this study. The target population for this study consisted of men and women aged between 15 and 70 years residing in Monze District of Zambia. This age range was chosen because it helped to capture a broad spectrum of the population, including adolescents, young adults, and older individuals, who may have different, risk perceptions about STIs. On the other hand, the study population consisted of patients and clients seeking various health services in outpatient, maternal and child health (MCH), and laboratory departments over four weeks. Other than that, efforts were made to explain to the study participants that no harm would be done to them by participating in the study, neither would they gain any personal benefit by participating in the study, and that their anonymity would be assured. The nature of the research was explained to every study participant, and all those who willingly or voluntarily consented were given the questionnaire to complete, enabling their participation in the study. Similarly, participants were allowed to opt out of the study at any point without coercion. The overall time commitment for participants was expected to be ten minutes and their valuable input was expected to significantly contribute to advancing our understanding of the epidemiology of sexually transmitted infections (STIs) among sexually active adults in Monze district of Zambia. Before the main data collection process began, a pilot study was conducted at Zambia College of Agriculture Rural Health Centre to assess the validity, reliability, clarity, relevance, and feasibility of the data collection instrument. Feedback from the pilot study participants was used to fine tune the questionnaire and make necessary adjustments to ensure the validity and reliability of the data collection instrument. To avoid bias, Zambia College of Agriculture Rural Health Centre was not part and parcel of the final study. Primary data was collected from respondents using structured questionnaire while secondary data was collected from the Monze district health information office and by analyzing registers for outpatient, laboratory and MCH departments. A structured questionnaire was used as the primary data collection instrument because it allowed for systematic and standardized data collection. The collected data was analyzed by Statistical Package for Social Sciences (SPSS) version 28.0 and was presented by tables. Multivariate logistic regression analysis was used to examine the relationships between socio-demographic characteristics and parameters for the epidemiology of sexually transmitted infections.

Results**TABLE 1: Demographic Data**

Demographic Data			
1	Age	15-20	25.8%
		21-30	42.1%
		31-40	25.8%
		41-50	3.0%
		51-60	2.2%
		61-70	1.1%
2	Marital Status	Single	54.6%
		Married	35.1%
		Divorced	3.7%
		Widowed	3.0%
		Separated	3.7%
3	Gender	Male	48.0%
		Female	52.0%
4	Social Class	Upper Class	22.9%
		Middle Class	50.6%
		Lower Class	26.6%
5	Religion	Christian	92.3%
		Muslim	2.6%
		Others	5.2%
6	Level of Education	None	16.6%
		Primary	24.0%
		Secondary	31.7%
		Tertiary	27.7%
7	Occupation	Unemployed	52.8%
		Informal Employment	30.3%
		Formal Employment	17.0%
8	Number of Children	One	51.7%
		Two	26.9%
		Three	11.8%
		Four	5.5%
		Five	1.1%
		Six	0.4%
		Seven	1.1%
		Eight	0.7%
		Nine	0.4%
		Ten	0.4%

Table 1 shows that, the majority of study participants (42.1%) were aged between 21 and 30 while 25.8% of the respondents were aged between 15-20 and 31-40 respectively. The results from this table shows that, most of the study participants (54.6%) were single while 35.1% of respondents were married. The study also revealed that most of the respondents (52%) were females while 48% of the study participants were males. The study further disclosed that, most of study participants (50.6%) belonged to middle class while a small proportion of respondents (26.6%) belonged to lower class. The study revealed that, the majority of the respondents (92.3%) were Christians. The study also uncovered that, few respondents had attained secondary

(31.7%) and tertiary (27.7%) levels of education respectively. The study also exposed that, most of the respondents (52.8%) were unemployed and many of them (51.7%) had one child only.

Table 2: Behavioral Risk Factors Associated with STIs Transmission in Monze District

Behavioral Risk Factors Associated with STIs Transmission	Responses	Frequency (%)
1. Do you think having sexual intercourse while drunk can put you at risk of acquiring STIs?		
	Yes	82.3%
	No	8.9%
	Not sure	8.9%
2. Does having multiple sexual partners put you at risk of acquiring STIs?		
	Yes	86%
	No	5.2%
	Not sure	8.9%
3. Are you currently in a monogamous relationship?		
	Yes	43.2%
	No	56.8%
4. How many sexual partners have you had in the past year?		
	None	12.2%
	One	30.6%
	Two	31.7%
	Three or more	25.5%
5. Do you use condoms consistently during sexual activity?		
	Always	19.2%
	Sometimes	46.9%
	Rarely	17%
	Never	17%
6. Have you ever used intravenous drugs or shared needles?		
	Yes	34.3%
	No	65.7%
7. Have you received comprehensive sexual health education?		
	Yes	64.2%
	No	35.8%
8. Are you aware of the common modes of transmission for STIs?		
	Yes	81.9%
	No	18.1%

Table 2 shows that, 82.3% of respondents believe that having sex while drunk or having multiple sexual partners (86%) increases the risk of acquiring STIs. The study also disclosed that, only 43.2% of respondents are in monogamous relationships, and 25.5% reported having three or more sexual partners in the past year, suggesting potential for increased risk behaviours. The findings from this study also exposed that, only 19.2% of respondents reported always using condoms. The study further disclosed that, over 34.3% of respondents reported ever using intravenous drugs or sharing needles thus increasing their risk of STIs acquisition. While 64.2% of respondents reported receiving sexual health education, nearly 35.8% did not. The study also demonstrated that, 81.9% of respondents were aware of common modes of STIs transmission while 18.1% were unaware of common modes of STI transmission in Monze district of Zambia.

Table 3: Distribution Table: Availability and Accessibility of Sexual Health Services

Availability and Accessibility of Sexual Health Services	Responses	Frequency (%)
1. Have you ever sought sexual health services (STI testing, treatment, counseling) in Monze District?		
	Yes	67.9%
	No	32.1%
2. How would you rate the availability of sexual health services in your area?		
	Excellent	24.7%
	Good	41%
	Fair	24.7%
	Poor	9.6%
3. Are sexual health services affordable for you?		
	Yes, they are affordable	65.3%
	No, they are expensive	15.9%
	Not sure	18.8%
4. Do you know where to access STI testing and treatment centers in Monze District?		
	Yes	75.3%
	No	9.6%
	Not sure	15.1%
5. Are there any barriers that prevent you from seeking sexual health services when needed?		
	Yes	55.7%
	No	44.3%
6. If yes, which of the following are the barriers to sexual health services?		

	Lack of information about sexual health services	49.5%
	Cost	10.3%
	Stigma and discrimination	9.2%
	Distance	3.2%
	Negative attitudes of healthcare workers towards patients and clients	27.8%

Table 3 shows that, the majority of respondents (67.9%) have sought sexual health services in Monze District, indicating a significant engagement with the healthcare system. The findings from this study also demonstrate that, the perceptions of the availability of sexual health services vary, with a notable portion of study participants rating it as good (41%) while 9.6% of study participants rated them as poor. In addition, despite the majority of respondents (65.3%) finding sexual health services affordable, a non-negligible proportion of respondents (15.9%) perceive them as expensive. A good proportion (75.3%) of study participants are aware of the locations of STI testing and treatment centers. Not only that, more than half of the respondents (55.7%) report facing barriers when seeking sexual health services. The most prevalent barriers to sexual health services include lack of information (49.5%), negative attitudes of healthcare providers towards patients and clients' (27.8%), cost (10.3%), and stigma (9.2%).

Discussion of the Findings

The study aimed to assess the transmission dynamics and healthcare response to sexually transmitted infections (STIs) among sexually active individuals in Monze District of Zambia. The study in Table 1 demonstrates that, the majority of study participants (42.1%) were aged between 21 and 30 while 25.8% of the respondents were aged between 15-20 and 31-40 respectively. The results from this table show that, most of the study participants (54.6%) were single while 35.1% of respondents were married. The results from the table suggest that being single may be associated with a higher risk of sexually transmitted infections (STIs) among the study participants. The study also revealed that most of the respondents (52%) were females while 48% of study participants were males. The study further disclosed that, most of study participants (50.6%) belonged to middle class while a small proportion of respondents (26.6%) belonged to lower class. The study revealed that, the majority of the respondents (92.3%) were Christians. The study also uncovered that, few respondents had attained secondary (31.7%) and tertiary (27.7%) levels of education respectively. The study also exposed that, most of the respondents (52.8%) were unemployed and many of them (51.7%) had one child only.

Moreover, the results in Table 2 show that, 82.3% of respondents believe that having sex while drunk or having multiple sexual partners (86%) increases the risk of acquiring STIs. The study also disclosed that, only 43.2% of respondents are in monogamous

relationships, and 25.5% reported having three or more sexual partners in the past year, suggesting potential for increased risk behaviours. The findings from this study also exposed that, only 19.2% of respondents reported always using condoms. The study further disclosed that, over 34.3% of respondents reported ever using intravenous drugs or sharing needles thus increasing their risk of STIs acquisition. While 64.2% of respondents reported receiving sexual health education, nearly 35.8% did not. The study also demonstrated that, 81.9% of respondents were aware of common modes of STIs transmission while 18.1% were unaware of common modes of STI transmission in Monze district of Zambia. These findings are consistent with those of another study that highlighted the alarming rise in STI rates among young adults, which is directly linked to unprotected sexual intercourse. The study revealed that 59% of respondents used condoms during their most recent sexual encounter, and 43% reported consistent condom use.

Additionally, 68% of participants stated they had only one sexual partner, while 9% admitted to having a casual partner. Among the 46 participants who have been sexually active, 50% have undergone STI screening, and 13% plan to be screened within the next 90 days. The study also found a correlation between participants' knowledge, attitudes, and values regarding condoms and their actual condom use. However, there was no association between individuals' beliefs or values and their engagement in sexual intercourse with multiple partners, nor between their knowledge and attitudes and their screening behavior [12].

Other than that, these findings are in line with results from another study which found that, recent reports on partnerships among women and men indicate that approximately 17 million women aged 15-44, representing 34% of those sexually active in the past year, were at risk for sexually transmitted infections (STIs). This risk was due to exposure from multiple sexual partners, including 5.4 million women with direct exposure, 6.3 million with indirect exposure, and 5.5 million with both types of exposure. Overall, 21% of women faced direct risk, and 23% faced indirect risk. In comparison, among men aged 18-44, 24% were at direct risk for STIs, with an unknown proportion at indirect risk. Multivariate analyses revealed that unmarried individuals, women under 40, men aged 20-29, Black individuals, and women in the South were at an increased risk for STIs due to multiple sexual partnerships. In 1995, 19% of sexually active women aged 15-44 reported using condoms to protect against STIs over the previous year, and 19% of those active in the three months before the survey were current condom users. Condom use for STI prevention was notably higher among women at both direct and indirect risk (58%) and those at direct risk only (46%) compared to other women. Conversely, women whose partners posed only an indirect risk were less likely to be current or recent condom users compared to those who were not at risk or were only at direct risk [13].

Not only that, the findings from this study are in line with another study which found that, of the 175 women, 52 (29.7%, 95% CI [22.9-36.5%]) were identified as having a risk for STIs. Factors significantly associated with STI risk ($p < 0.05$) included orgasm frequency and the desire for increased sexual activity. Specifically, not experiencing orgasms was associated with a significantly higher risk (OR = 7.01, 95% CI [1.49-33.00];

$p = 0.008$) compared to those using a single method (OR = 1). Additionally, desiring an increased frequency of sexual activities was associated with a lower risk of STIs (OR = 0.27, 95% CI [0.13-0.59], $p < 0.001$) [14].

Other than that, the findings from the current study also align with another study done in Spain that highlighted the significant public health concern posed by sexually transmitted infections. Common sexual behaviours include vaginal intercourse and oral sex (mouth-vagina and mouth-penis), while anus-mouth and anal sex are less common. Condom use is frequent in vaginal and anal sex but less common in oral sex. There is an association between sexually transmitted infections and oral sex practices, specifically mouth-penis ($p = 0.004$) and mouth-vagina ($p = 0.023$), as well as anal sex ($p = 0.031$). The relationship between STIs and oral sex is linked to lower condom use, whereas anal sex shows a prevalence of condom use despite the association with STIs [15].

In addition, the results in Table 3 show that, the majority of respondents (67.9%) have sought sexual health services in Monze District, indicating a significant engagement with the healthcare system. The findings from this study further demonstrate that, the perceptions of the availability of sexual health services vary, with a notable portion of study participants rating it as good (41%) while 9.6% of respondents rated them as poor. In addition, despite the majority of respondents (65.3%) finding sexual health services affordable, a non-negligible proportion of respondents (15.9%) perceived them as expensive. A good proportion (75.3%) of study participants are aware of the locations where STI testing and treatment services are accessed while 15.1% of the respondents did not know where sexual health services could be accessed from. Not only that, more than half of the respondents (55.7%) report facing barriers when seeking sexual health services in the health facilities. The most prevalent barriers to sexual health services include lack of health information about sexual health services (49.5%), negative attitudes of healthcare providers towards patients and clients' (27.8%), cost (10.3%), and stigma and discrimination (9.2%). The results of the current research align with those of a separate cross-sectional study involving 251 adult women attending a mobile clinic in a rural area of South Africa. This prior study highlighted a significant unmet need for STI care in rural South Africa, where healthcare access is limited. It emphasized that while offering STI services through a mobile clinic using a syndromic management approach is beneficial, this method should be supplemented with targeted diagnostics to effectively tackle the infection burden [16].

Moreover, the findings from the present study are similar to the systematic review which was conducted among the youth in Sub Saharan Africa. The study revealed that access to and use of youth-friendly sexual and reproductive health services remain significant challenges for young people, particularly in sub-Saharan Africa. Key obstacles include health workers' negative attitudes and lack of skills, stemming from administrative issues, and individual factors such as youth's lack of knowledge. Promoters of service utilization include community outreach, health education, and improved quality of services tailored to adolescents' needs. The authors suggest that stakeholders should focus on enhancing health worker training and service

quality for youth. Additionally, it is recommended that, sexual health information about STIs should be accessed by the youths through community outreach, community engagement, social mobilization and school-based education to address individual barriers to accessing and utilizing sexual health services [17].

The findings from the current research are similar to those from a cross-country comparison study conducted in Kenya, Zambia, Uganda, and Tanzania, which examined access to sexual and reproductive health commodities in East and Southern Africa. This study revealed that access to sexual and reproductive health services remains a significant public health issue in these countries, with low usage of modern contraceptives, high unmet family planning needs, and elevated maternal mortality rates. The overall availability of sexual and reproductive health commodities was below 50% across all sectors, areas, and countries, with the highest mean availability recorded in Kenyan public facilities at 46.6%. Stock-outs were prevalent, with the average number of stock-out days per month ranging from 3 days in Kenya's private and private not-for-profit sectors to 12 days in Zambia's public sector. In the public sectors of Kenya, Uganda, and Zambia, as well as Zambia's private not-for-profit sector, all sexual and reproductive health commodities were free for patients. In other sectors, the unaffordability of 2 to 9 commodities was noted, with magnesium sulphate being particularly unaffordable in the countries studied. Accessibility was generally low, with only Kenya's and Zambia's public sectors having six commodities that met the accessibility threshold, while Uganda's private sector had just one commodity meeting the threshold [18].

Conclusion

In summary, the study disclosed that a substantial majority of respondents (82.3%) believed that engaging in sexual activities while intoxicated and having multiple sexual partners (86%) increased the risk of acquiring sexually transmitted infections (STIs). However, only 43.2% of respondents were in monogamous relationships, with 25.5% having had three or more sexual partners in the past year. The study further disclosed that only 19.2% of study participants consistently used condoms during sexual intercourse, indicating a need for public health intervention to increase awareness on the importance of condom usage. While 81.9% of participants were aware of common STI transmission modes, 18.1% of respondents still lacked this crucial knowledge. Moreover, the majority (67.9%) of study participants had sought sexual health services, though 32.1% had not, highlighting varied engagement levels with the healthcare system. Perceptions of sexual health services were mixed, with 41% rating them as good and 9.6% of respondents rating them as poor. The study also found that, the affordability of sexual health services was also a concern; 65.3% found services affordable, 15.9% perceived them as expensive, and 18.8% were unsure about the costs. Apart from that, a significant proportion (75.3%) of respondents were aware of STI testing and treatment centers' locations; however, more than half (55.7%) faced barriers in accessing these services, primarily due to lack of information (49.5%), negative attitudes of healthcare providers (27.8%), cost (10.3%), and stigma and discrimination (9.2%) respectively.

Recommendations

The researcher recommends that, Monze District Health Office should strengthen community engagement by actively collaborating with local communities in both the planning and execution phases of sexual health programs to ensure that these initiatives are culturally appropriate and responsive to the local needs of the people. This process involves incorporating community members in decision-making, working alongside local organizations and leaders (village headmen and women, chiefs, traditional healers, and faith-based leaders), and establishing partnerships that enhance the efficacy and acceptance of sexual health programs.

The author also recommends that, Monze District Health Office should continue to implement community-based initiatives to combat stigma, discrimination, negative attitudes of healthcare workers, and the lack of accurate information about available sexual health services and their accessibility. This includes capacity building for community leaders, healthcare providers, and peer educators to promote positive attitudes, as well as organizing public awareness campaigns and support groups to create a more inclusive and accepting environment for individuals seeking sexual healthcare services in health facilities.

The researcher also recommends that, the Ministry of Health and its cooperating partners in Zambia should prioritize Health System Strengthening (HSS) to enhance the accessibility, affordability, and availability of Sexual health services for STI patients in Monze District of Zambia

The investigator further recommends that, Monze District Health Office and its cooperating partners should continue to conduct community awareness campaigns via health education, health communication, community engagement and social mobilization on the risks associated with having multiple sexual partners, engaging in sexual activities while drunk, and cohabiting. These programs should also emphasize the importance of consistent use of condoms, PrEP and voluntary medical male circumcision to reduce the risk of STI acquisition among the people in the community.

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Conflicts of Interest

The author declares no conflicts of interest.

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