ORIGINAL ARTICLE

# Perception of Risk of Sexually Transmitted Infections Among Students at the Gateway to Better Living School of Nursing in Monze District- Zambia

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## ABSTRACT

**Background:** Sexually transmitted infections (STIs) remain a significant public health concern, particularly among young adults, including nursing students who are expected to have adequate knowledge of STIs. Understanding the perception of risk of STIs among students is crucial for informing preventive strategies. Therefore, this study assessed the perception of risk of STIs and its associated factors among nursing students at the *Gateway to Better Living* School of Nursing in Monze, Zambia.

**Methods:** A quantitative analytical cross-sectional design was used, with a sample size of 384, who were selected using a systematic random sampling method. Data was collected using a structured self-administered questionnaire. Statistical analysis was performed using SPSS version 22.0. Pearson's Chi-square, Fisher's Exact tests were used to determine associations between perceptions of risk and independent variables; additionally, Binary logistic regression was used to find predictor variables.

**Results:** Most students (71.1%) were aged 20-24 years, 66.7% were female, and 78.4% were single. Most (97%) demonstrated a high level of STI knowledge, with (55.7%) had high-risk sexual behaviour. Additionally, (62%) had a positive perception of risk of STIs. A significant association was found between STI knowledge and perception of risk of STIs (OR: 5.19; p = 0.016), while other factors such as age, gender, and marital status did not show a significant impact.

**Conclusion:** Although knowledge is a crucial factor, it must be complemented by practical strategies that encourage safer sexual practices. The findings highlight the need for targeted interventions within nursing education and public health initiatives to strengthen STIs prevention efforts and promote long-term behavioural change among students.

## INTRODUCTION

Perception of risk refers to an individual's subjective judgment about the likelihood of experiencing a negative outcome, such as contracting a sexually transmitted infection (STI), as a result of certain behaviours. It influences decision-making and plays a crucial role in determining whether individuals adopt protective or risky health behaviours[1]. Evidence from different studies indicate that majority of students who were engage in risky sexual behaviours including having more than one

***Keywords:*** Sexually transmitted infections, Perception of risk, Nursing students, Sexual behaviour.

This article is available online at: http://www.mjz.co.zm, http://ajol.info/index.php/mjz, doi: https://doi.org/10.55320/mjz.52.5.803

The Medical Journal of Zambia, ISSN 0047-651X, is published by the Zambia Medical Association

sexual partner, early sexual initiation, inconsistent use of condom, having sex with commercial sex workers, use of substances during sex, and alcohol use. Emerging evidence suggest that most university and college students are in the youth age category and are categorized under the most at risk population group due to their inclination to be engaged in risky sexual behaviour, which leads to acquiring STIs[3,4]. These practices are associated with a reduction in the success of prevention interventions[5,6].

Sub-Saharan Africa has the highest STI burden in the world, and most youths tend to have a low perception of risk because STIs are asymptomatic.[7] Studies noted the other factors that increase their susceptibility to STIs as a lack of knowledge of infections and poor access to preventive services.[8] Having a good knowledge of STIs is one of the factors that protects students from acquiring these infections.[9] It is therefore important to enhance the students' knowledge and awareness towards STIs to prevent and control the spread of STIs.[10] Zambia is one of the countries with high STI prevalence in Sub-Saharan Africa, especially among the youth.[11] Additional evidence suggests that most students in Zambia engage in highly risky sexual practices.[12,13] However, there is limited data on the perception of risks of STIs[1,2]. Ensuring that this target group is well informed of the risks and prevention measures against infection is imperative to reduce the dissemination of these diseases across the population.

According to records from the Monze District Hospital Management Information System (MDHMIS, 2023), cases of sexually transmitted infections (STIs) have been steadily increasing, with youths and young people being the most severely affected demographic. Data from 2019 to 2023 show a consistent upward trend in STI cases, particularly syphilis, gonorrhoea, and chancroid. Syphilis cases increased from 34% in 2019 to 69% in 2023, gonorrhoea from 3% to 33%, and chancroid from 5% to 21% over the same period. These statistics signal a growing public health concern in Monze District.

This alarming rise in STI prevalence among young people, including nursing students, raises serious concerns regarding their knowledge of STIs, levels of risk perception, and sexual practices. A possible explanation for this trend lies in the increased vulnerability of students who often live away from their families in pursuit of higher education, typically in hostels or rented accommodations, where they interact with peers from diverse sociocultural backgrounds. Such environments may encourage experimentation and exposure to unsafe sexual behaviours, thereby increasing their risk of contracting STIs. Given these developments, there was pressing need to determine perceptions of risk of STIs among students at *Gateway to Better Living* School of Nursing in Monze.

## METHODS

A quantitative analytical cross-sectional study design to collect snapshot data on the study variables within the possible time available. It involved analysing the existence of associations between dependent variables (perception of risk of STIs) and independent variables (socio-demographic factors (age, residence and year of study), sexual behavioural factors and knowledge about STIs).

The research was conducted at *Gateway to Better Living* School in Monze District, Southern province, Zambia. The study population included nursing students and it targeted population was nursing student aged 16 years and above. The Cochran sample size formula was used to calculate the minimum required sample size. With an expected proportion of 50%, a confidence level of 95% and a margin of error of 5%, the calculated minimum sample size was 384 nursing students.

At the time of the study, there were 540 nursing students. A sample of 384 was required, giving a sampling interval of 1.4, which was approximated by selecting every student on the list. The first participant was randomly chosen from the first two students, and ties were resolved using simple random selection.

Data was collected using a structured self-administered questionnaire adapted from instruments developed by Nyasulu *et al.*,[14] Visalli *et al*[15] on knowledge items. While behaviour and perception items were adapted from Raia-Barjat et al.,[16] McMann and Trout[17] with modifications made to ensure cultural relevance and clarity. Validation was conducted through a pilot study at Monze College of Nursing involving 38 students (10% of the sample), resulting in a Cronbach's alpha of 0.79.

Key variables were defined as follows: high knowledge was scoring 50% or above on knowledge questions; low risky sexual behaviour indicated minimal or no engagement in risky activities; and positive perception of risk was measured by scoring 50% or higher on Likert-scale items assessing awareness of STI risk.

Statistical Packages for Social Sciences (SPSS) version 22.0 was used for data analysis. Descriptive statistics (frequency table and graphs) were used to summarize the data. The Pearson Chi-square test was employed to assess associations between categorical variables. Fisher's Exact test was used. Additionally, a binary logistic regression model was used to identify predictors of the dependent variable because perception of risk was dichotomized into two categories positive vs. negative. P-value of 0.05 and 95% confidence interval were used.

Ethics clearance was sought from the University of Zambia Biomedical Research Ethics Committee (UNZABREC). Permission to proceed with the study was also well be obtained from the National Health Research Authority (NHRA), *Gateway To Better Living* School of Nursing. During the study process, the researcher upheld the principles of ethical conduct in research: justice, beneficence, and respect for human dignity. Written informed consent was obtained from each participant following the provision of an outline of the purpose of the study.

Confidentiality and anonymity were maintained by assigning unique codes to questionnaires, securely storing data in password-protected files, and ensuring that no personal identifiers were used during data analysis or reporting.

In order to mitigate social desirability bias, the study used anonymous self-administered questionnaires with neutral wording, assured confidentiality, and emphasized honest responses.

## RESULTS

### Socio-demographic characteristics

**Table 1: Socio-demographic characteristics (n=384)**

| Variables | Category | n | % |
|---|---|---|---|
| Age (in years) | 16-19 | 11 | 2.9 |
| | 20-24 | 273 | 71.1 |
| | 25 and above | 100 | 26.0 |
| Gender | Male | 128 | 33.3 |
| | Female | 256 | 66.7 |
| Marital status | Single | 301 | 78.4 |
| | Married | 80 | 20.8 |
| | Divorced | 3 | 0.8 |
| Religious affiliation | Christianity | 382 | 99.5 |
| | Islam | 2 | 0.5 |
| Year of study | 1st year | 129 | 33.6 |
| | 2nd year | 86 | 22.4 |
| | 3rd year | 169 | 44.0 |
| Residence | Parents' or relative's home | 92 | 24.0 |
| | Dormitory | 93 | 24.2 |
| | Live with friends in private home | 16 | 4.2 |
| | Live alone in private home | 71 | 18.5 |
| | Own home | 112 | 29.2 |

Table 1 shows that majority of the respondents were aged between 20-24 years, female, and were single. In terms of religious affiliation majority were Christians and were in their 3rd year of study, and most were residing in their own homes

## Knowledge of Sexually Transmitted Infections

**Table 2: Knowledge of Sexually Transmitted Infections (n=384)**

| Statements | Category | n | % |
|---|---|---|---|
| Heard of sexually transmitted infections | Yes | 343 | 89.3 |
| | No | 41 | 10.7 |
| Source about sexually transmitted infections | Friends/Family | 49 | 12.8 |
| | School/college | 17 | 4.4 |
| | Television/Radio | 74 | 19.3 |
| | Internet | 123 | 32.0 |
| | Hospital/Clinic | 121 | 31.5 |
| Causes of sexually transmitted infections | Bacteria | 158 | 41.1 |
| | Virus | 201 | 52.3 |
| | Parasites | 1 | 0.3 |
| | Mosquitoes | 1 | 0.3 |
| | Bad hygiene | 12 | 3.1 |
| | I don't know | 11 | 2.9 |
| Diseases that are sexually transmitted infections | Gonorrhea | 112 | 29.2 |
| | Syphilis | 98 | 25.5 |
| | Genital herpes | 75 | 19.5 |
| | Trichomoniasis | 42 | 10.9 |
| | HIV/AIDS | 27 | 7.0 |
| | Chlamydia | 18 | 4.7 |
| | Hepatitis B & C | 12 | 3.1 |
| Routes of sexually transmitted infections | Sexual intercourse | 145 | 37.8 |
| | Blood transfusion | 87 | 22.7 |
| | Sharing injection needles | 75 | 19.6 |
| | Infected mother to child | 44 | 11.5 |
| | Sharing food/drinks | 18 | 4.7 |
| | Kissing | 15 | 3.7 |
| Signs and symptoms of sexually transmitted infections | Abdominal pain | 79 | 20.6 |
| | Discharge from penis/vulva | 66 | 17.2 |
| | Itching in genital area | 57 | 14.8 |
| | Burning pain on urination | 48 | 12.5 |
| | Pain during intercourse | 39 | 10.2 |
| | Genital ulcers or open sores | 36 | 9.4 |
| | Swelling in genital area | 28 | 7.3 |
| | Blood in urine | 19 | 4.9 |
| | Failure to urinate | 12 | 3.1 |
| Possibility for a man to STIs other than HIV without having symptoms | Yes | 283 | 73.7 |
| | No | 101 | 26.3 |
| Possibility for a woman to have STIs other than HIV without having symptoms | Yes | 312 | 81.3 |
| | No | 72 | 18.8 |

***Table 2… Continues***

| | | | |
|---|---|---|---|
| Complications of STIs if untreated | Abdominal pain | 78 | 20.3 |
| | Discharge from penis/vulva | 66 | 17.2 |
| | Itching in genital area | 55 | 14.3 |
| | Burning pain on urination | 47 | 12.2 |
| | Pain during intercourse | 39 | 10.2 |
| | Genital ulcers or open sores | 36 | 9.4 |
| | Swelling in genital area | 28 | 7.3 |
| | Don't know | 35 | 9.1 |
| STI exposure source of information | Family member | 96 | 25.0 |
| | Hospital facility | 288 | 75.0 |

Table 2 shows that, majority heard about STIs before, common sources of information about STIs were the internet and hospitals or clinics. The primary causes of STIs were identified as viruses and fungi and bacteria. Commonly recognized STIs included gonorrhoea, syphilis, and genital herpes. Sexual intercourse was the most identified route of STI transmission, followed by blood transfusion and sharing injection needles. Commonly known symptoms included abdominal pain, discharge from the genitals, and itching in the genital area. A significant proportion of respondents acknowledged that both men and women could have STIs without symptoms. Regarding STI complications, symptoms such as pain, genital ulcers, and swelling were frequently mentioned. Lastly, when asked where they had seen STIs other than HIV, most students reported seeing cases at hospital facilities.

The level of students' knowledge of STIs was aggregated as high if they scored 50% or more and low if they scored below 50% on knowledge questions. Figure 1, showed that, majority of respondents had high knowledge level on STIs.

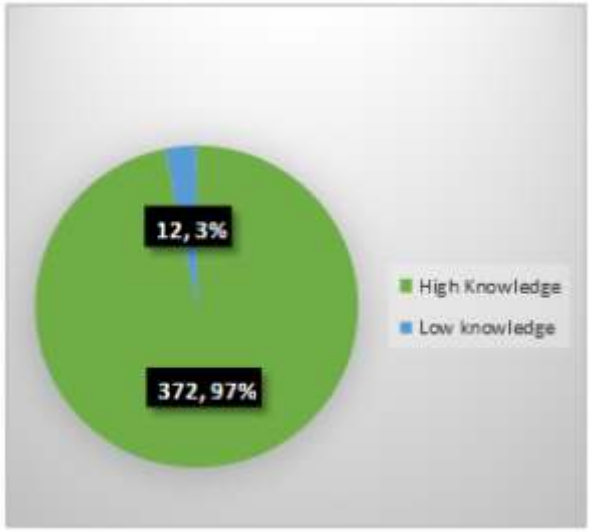


**Figure 1: Level of knowledge of STIs among studentsRisky sexual behaviours**

On risky sexual behaviours, Table 3 shows that, majority of the students had their first sexual experience between the ages of 18 and 23. Condom use during sexual intercourse majority admitted to using condoms only sometimes. When asked about their reasons for initiating sexual activity, the majority stated that they did so because they had fallen in love.

In the past 12 months, most of the respondents reported engaging in sexual activity with the opposite sex. Among those who had sexual intercourse, the majority claimed to have consistently used condoms. The influence of alcohol or drugs on sexual activity was reported by most

students, stating that they had not engaged in sex under the influence of alcohol and drugs. Regarding the number of sexual partners in the past 12 months, most reported having between three and five partners.

**Table 3: Risky Sexual Behaviours (n=384)**

| Questions | Category | n | % |
|---|---|---|---|
| Age of first sexual intercourse encounter | None | 78 | 20.3 |
| | 14 to 17 | 63 | 16.4 |
| | 18 to 23 | 205 | 53.4 |
| | 24 to 29 | 31 | 8.1 |
| | 30 and above | 7 | 1.8 |
| Frequency of condom usage during sexual intercourse | Every time | 153 | 39.8 |
| | Sometimes | 170 | 44.3 |
| | Never used it | 61 | 15.9 |
| Reason to start having sex | None | 52 | 13.5 |
| | Fall in love | 266 | 69.3 |
| | Raped | 12 | 3.1 |
| | To get money or gift | 9 | 2.3 |
| | Got married | 35 | 9.1 |
| | Were drunk | 10 | 2.6 |
| Sexual affair with opposite sex in the past 12 months | Yes | 233 | 60.7 |
| | No | 151 | 39.3 |
| Correctly and consistently usage of condoms during sexual intercourse in the past 12 months | Yes | 212 | 55.2 |
| | No | 172 | 44.8 |
| Sex with hardly known person in the past 12 months | Yes | 108 | 28.1 |
| | No | 276 | 71.9 |
| Sex after drinking alcohol or using other drugs in the past 12 months | Yes | 50 | 13.0 |
| | No | 333 | 87.0 |
| Number of sexual partners had in the past 12 months | None | 61 | 15.9 |
| | 1-2 | 83 | 21.6 |
| | 3-5 | 217 | 56.8 |
| | >5 | 22 | 5.7 |

**Perception of risk of STIs**

Students' risky sexual behaviour toward STIs was categorized as high risk as having multiple sexual partners, unprotected sex, or sex under the influence, moderate risk in inconsistent engagement in risky behaviours, and low risk as minimal or no risky behaviour. Figure 2 shows that the majority of students were at high risk.

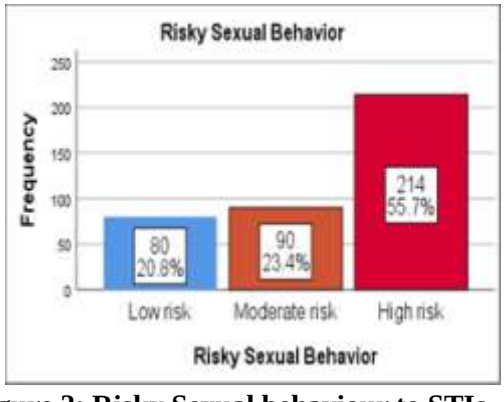


**Figure 2: Risky Sexual behaviour to STIs**

**Table 4.4: Perception of risk (n=384)**

| Questions | Category | n | % |
|---|---|---|---|
| Worried about the chance of contracting STIs in future | Worried | 138 | 35.9 |
| | Not worried | 246 | 64.1 |
| Not at risk for acquiring sexually transmitted infections | Agree | 222 | 57.8 |
| | Disagree | 162 | 42.2 |
| STIs are dangerous | Dangerous | 383 | 99.8 |
| | Not dangerous | 1 | 0.2 |
| STI are risky | Risky | 381 | 99.2 |
| | Not risky | 3 | 0.8 |
| Usage of condom is safe during sexual intercourse to avoid an STI | Safe | 373 | 97.2 |
| | Not safe | 11 | 2.8 |
| Consequence of unprotected sex | Contracting HIV | 76 | 19.8 |
| | Causing a pregnancy | 23 | 6.0 |
| | Contracting STIs | 45 | 11.7 |
| | All of above | 240 | 62.5 |

Table 4 shows that, when participants were asked about their level of concern regarding the possibility of contracting an STI in the future, most of them reported not being worried at all or being very little worried. Regarding self-assessed risk, most of respondents agreed that they were not at risk of acquiring an STI. The perceived danger of STIs was high among respondents, with most of them stating that STIs are either very dangerous or moderately dangerous. Similarly, most of respondents perceived STIs as highly risky. When asked about the effectiveness of condom use in preventing STIs, majority believed condoms were either highly effective or moderately effective. Regarding the perceived consequences of unprotected sex, most of respondents recognized that it could lead to HIV infection, pregnancy, and other STIs, while less than half acknowledged specific consequences such as contracting HIV, STIs, or causing pregnancy. The level of student's perception of risk of STIs Perception of risk of sexually transmitted infections was measured with scores of 50% or more on perception questions classified as positive, and scores below 50% classified as negative are shown in Figure 3. Indicates that majority had positive perception of risk of STIs.


**Figure 4.3: Perception of Risk of STIs**

**Table 4.5: Results from Chi-square**

| | | Perception of Risk of STIs | | |
|---|---|---|---|---|
| **Variables** | **Category** | **Positive n (%)** | **Negative n (%)** | **P-value** |
| **Demographics** | | | | |
| Age | 16-19 | 9 (81.8) | 2 (18.2) | |
| | 20-24 | 171 (62.9) | 102 (37.4) | 0.302[a] |
| | 25 and above | 59 (59.0) | 41 (41.0) | |
| Gender | Male | 75 (56.6) | 53 (41.4) | |
| | Female | 164 (61.4) | 92 (35.9) | 0.297[b] |
| Marital status | Single | 190 (63.1) | 111 (36.9) | |
| | Married | 47 (58.8) | 33 (41.3) | 0.787[a] |
| | Divorced | 2 (66.7) | 1 (33.3) | |
| Year of study | 1st year | 76 (58.9) | 53 (41.1) | |
| | 2nd year | 48 (55.8) | 38 (44.2) | 0.103[b] |
| | 3rd year | 115 (68.0) | 54 (32.0) | |
| **Knowledge** | | | | |
| | High | 236 (63.4) | 136 (36.6) | |
| | Low | 3 (25.0) | 9 (75.0) | ***0.012[a]*** |

a=Fisher's Exact test, b=Chi-square test

Table 5 shows that there was no significant relationship between perception of risk of sexually transmitted infections (STIs) and demographic factors. Age (p=0.302), gender (p=0.297), marital

status (p=0.787), and year of study (p=0.103) all had p-values greater than 0.05, indicating no statistically significant association. However, knowledge of STIs showed a significant relationship with perception of risk of STIs (p=0.012), suggesting that individuals with higher STIs knowledge were more likely to have a positive risk perception. This implies that while demographic factors do not significantly influence STIs risk perception, education and awareness play a crucial role in shaping individuals' understanding of STIs risks.

**Table 6: Binary Logistic Regression Test results**

| Variable | OR (95% CI) | P-value |
|---|---|---|
| **Age** | | |
| 16-19 | 1 | - |
| 20-24 | 4.03 (0.79 – 20.61) | 0.095 |
| 25+ | 1.19 (0.68 – 2.09) | 0.544 |
| **Gender** | | |
| Male | 1 | - |
| Female | 0.77 (0.49 – 1.22) | 0.267 |
| **Marital Status** | | |
| Single | 1 | - |
| Married | 0.97 (0.08 – 11.98) | 0.984 |
| Divorced | 0.78 (0.07 – 9.45) | 0.847 |
| **Year of Study** | | |
| 1st year | 1 | - |
| 2nd year | 0.71 (0.43 – 1.18) | 0.186 |
| 3rd year | 0.56 (0.32 – 0.98) | ***0.043*** |
| **Residence** | | |
| Parents'/Relatives' | 1 | - |
| Dormitory | 0.94 (0.52 – 1.68) | 0.831 |
| With friends in private home | 1.03 (0.57 – 1.86) | 0.920 |
| **Knowledge Level** | | |
| High | 1 | - |
| Low | 5.19 (1.35 – 19.92) | ***0.016*** |

Table 6 reveals that, age was not a significant predictor, as those aged as p-value was greater than 0.05. Similarly, gender (p = 0.267) and marital status (p = 0.847) were not significantly associated with perception of risk. The year of study was a notable factor, as third-year students were significantly less likely to have a negative perception of risk compared to first-year students (OR: 0.56; p = 0.043). However, second-year students did not show a significant difference (p = 0.186). Residence also did not significantly influence perception of risk, with those living in dormitories (p= 0.831), with friends in a private home (p = 0.920). The knowledge level was the only significant predictor of perception of risk of sexually transmitted infections (STIs). Respondents with high STIs knowledge had significantly higher odds of having a positive perception of risk compared to those with low knowledge (OR: 5.19; p = 0.016).

## DISCUSSION

### Socio-demographics factors

Socio-demographics characteristics, the result of this indicates that, most respondents were aged between 20-24 years (71.1%), with a significant proportion being female (66.7%) and single (74.4%). While these demographic characteristics suggest vulnerability to STIs risks due to increased sexual activity and potentially risky behaviour, the study found no significant relationship between perception of risk and factors like age, gender, marital status, year of study, or residence. This indicated that demographic factors alone might have not influenced students' awareness or perception of STIs risks.

The findings align with study of Abiodun *et al*[18], which found no significant impact of demographic variables on students' perception of risks of STIs. However, they differ from Provenzano *et al*[19], which found that age and gender, was associated with perception of risk of STIs. This discrepancy could be attributed to different factors, such as cultural factors, influencing how students' perception of risk of STIs is formed.

### Knowledge of STIs

Knowledge is critical in decision making among students towards prevention and management of STIs, the result of this study revealed that (97%) of nursing students had high knowledge levels about

sexual transmission infections. This is a promising result, as there is high level of understanding about STIs among students, which is critical in making informed decisions about their sexual health. However, despite this reported high knowledge, misconceptions about STI causes, transmission routes, and complications, such as attributing them to bad hygiene or kissing, reveal critical gaps in understanding. This result aligns with the study result of Mataru et al, revealed (75%) of students had sufficient knowledge and Nzoputan *et al*[20] showed (83.1%) of the respondents had good knowledge. In this case, the students' knowledge appeared to be an asset in their ability to recognize the risks associated with unsafe sexual behaviour.

The statistical analysis further supported the relationship between STIs knowledge and perception of risk. Specifically, Fisher's Exact test showed that, STIs knowledge was found to have a significant association with perception ($p = 0.012$). This is also confirmed by binary logistic regression result which found knowledge level to be a significant predictor of perception of risk of STIs (OR: 5.19; $p = 0.016$), meaning that those who had higher STI knowledge were five more times likely to have a positive perception of risk which could have translated into positive behaviour that reduced the likelihood of STIs acquisition.

However, a centrally finding was noted from a study by Oharume,[21] which reported that only (18.7%) of students had good level of knowledge of STIs, similarly, Gnatou *et al*[22] reported low levels of knowledge, as only 33.7% had good knowledge; these results were significantly lower than the current study results. This suggested that while the knowledge levels in this study were high, there may still be other underlying barriers to preventing STIs.

**Risky sexual behaviour**

Risky sexual behaviour contributes to the spread of STIs, and understanding this behaviour among students is crucial in designing effective interventions. The current study results showed that 55.7% of nursing students reported high levels of risky sexual behaviour, indicating a negative behaviour, given high vulnerability the youth to STIs, in a school setting.

Similar results have been reported, a study in Brazil study result that 85.16% of students were sexually active, with 62.8% not consistently using condoms.[23] Another study in confirmed that university students often engaged in high-risk sexual activities, contributing to increased STIs prevalence.[24] Additionally, a study in Ethiopia revealed that 61.7% of students had multiple sexual partners, and 58% did not use condoms regularly.[25]

Conversely, in Sri Lanka reported lower rates of risky sexual behaviour, with only 21.2% of students having had sexual exposure, and 18% using condoms during intercourse.[26] Similarly, research highlighted that while students engaged in risky behaviour, a significant proportion actively sought STIs prevention strategies.[12,13] These findings suggest that while risky sexual behaviour are prevalent, regional and cultural factors influence the extent of engagement in such practices.

**Perception of risk of STIs**

On the perception of risk of STIs, the study shows that 62% of nursing students demonstrated a positive perception of risk of STIs. This indicated that a majority of the students recognized their susceptibility to STIs, which is an essential step in preventing their transmission. This aligned with the study result of Zizza *et al*[27] that revealed the majority of students with a high perception of risk of STIs (60%). A positive perception of risk often motivates individuals to adopt protective behaviour, such as using condoms consistently and seeking STI testing. According to the Health Belief Model (HBM), perceived susceptibility to a health threat is a critical factor in influencing preventive behaviour. The result of a positive perception of risk in over half of the respondents suggested that many students were aware of their vulnerability to STIs and could take steps to protect themselves.

However, statistical analysis of Fisher's Exact and Chi-square tests indicated that there was no significant relationship between perception of risk and demographic factors such as age, gender, and marital status. And this indicated that demographic factors did not significantly influence students' perceptions of risk of STIs. However, STIs knowledge emerged as a significant predictor of perception of risk, with (OR: 5.19; p = 0.016), meaning that students who have higher STIs knowledge were five more times likely to have a positive perception of risk of STIs.

This result on association agreed with the study of Oharume[21], who observed that a high knowledge level of STIs was strongly correlated with a positive perception of risk of STIs. On the contrary, research by Leivo *et al*[28], suggested that even though students may have a positive perception of risk of STIs, it does not always lead to the adoption of safer sexual practices. This highlights the complexity of the perception of risk of STIs and suggests that other psychological, social, and environmental factors also play a role in shaping sexual behaviours of individuals.

## CONCLUSION

The results of the study on the perception of risk of sexually transmitted infections (STIs) among nursing students at *Gateway to Better Living School of Nursing* in Monze District, Zambia, showed that 97% of respondents had a high level of STIs knowledge, while 55.7% reported high levels of risky sexual behaviour. Additionally, 62% of students had a positive perception of STIs risks. The study revealed a significant association between STIs knowledge and perception of risk (OR: 5.19; p = 0.016), indicating that higher knowledge levels lead to a more positive perception of risk. However, demographic factors such as age, gender, marital status, and residence did not significantly influence perception of risk, suggesting that other factors might play a more substantial role in shaping these outcomes. These findings emphasize the importance of reinforcing STIs education and the negative effects of STIs, which is critical in addressing high knowledge levels of STIs and the high-risk behaviour gap among students, particularly in settings like nursing schools.

## RECOMMENDATIONS

Based on the study findings, the following recommendations are made:

1. Based on the study findings, the nursing school should ensure that students have access to consistent and updated sexual health education, particularly focusing on the latest STIs prevention strategies, as despite high STIs knowledge, risky behaviour still high among students.
2. The Ministry of Health should collaborate with nursing schools to provide additional training for nursing students on the prevention of STIs and the management of sexual health risks, particularly given the persistent risky behaviour despite high levels of knowledge.
3. Public health campaigns should be targeted at young people, emphasizing the importance of safe sexual practices and regular STIs testing, as the study revealed that while students had good knowledge, most students engaged in risky behaviour, highlighting the need for further reinforcement through targeted campaigns.

## ACKNOWLEDGEMENTS

I would like to thank my supervisors for their invaluable guidance, support, and patience in walking through this undertaking. The University of Zambia School of Nursing sciences faculty for their continued mentorship throughout the development of this research, *Gateway to Better Living School of Nursing* management, nursing students and National health research authority (NHRA) for the approval granted to conduct this study.

## COMPETING INTEREST

The authors declare that there is no conflict of interest in this study.

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