

## **Navigating Intimacy and Peril: An Exploration of Sexual Behavior Among University Students in Zimbabwe**

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### **ABSTRACT**

University students in Zimbabwe represent a demographic subgroup particularly vulnerable to the risks associated with sexual behavior, including unintended pregnancies and sexually transmitted infections (STIs), notably HIV. This article presents an in-depth exploration of the multifaceted factors influencing sexual practices among this population. Drawing upon a comprehensive review of existing literature and considering socio-cultural contexts, this study aims to map the shifting landscape of student sexual behavior. We investigate prevalent sexual risk behaviors, knowledge and misconceptions surrounding HIV/AIDS, attitudes towards safer sex practices, and the impact of social and environmental factors. By synthesizing current research, this article provides insights crucial for developing targeted and effective health interventions and educational programs to promote sexual health and well-being among Zimbabwean university students.

### **KEYWORDS**

**Sexual behavior, university students, Zimbabwe, HIV/AIDS, risk perception, sexual health.**

### **INTRODUCTION**

The transition to university life often brings newfound independence and exposure to diverse social environments, which can significantly influence young adults' sexual behaviors. This period is characterized by exploration, identity formation, and increased autonomy, often leading to engagement in new experiences, including sexual ones. In Zimbabwe, like many sub-Saharan African countries, the challenges related to sexual health, particularly the enduring burden of HIV/AIDS, remain pressing public health concerns [10, 29, 39, 45]. Despite significant progress in HIV prevention and treatment globally, the epidemic continues to disproportionately affect young populations in this region, making university students a critical demographic for targeted interventions.

University students, typically in their late adolescence and early adulthood (ages 18-30), are at a critical juncture where sexual experimentation may occur. This phase is often accompanied by limited comprehensive sexual health knowledge, persistent misconceptions about disease transmission, and an inadequate perception of personal risk [2, 11, 28, 43]. The unique environment of tertiary education—marked by increased freedom from parental oversight, exposure to diverse peer groups, and sometimes financial pressures—can amplify

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vulnerabilities to risky sexual practices. Understanding the nuanced dynamics of their sexual practices is paramount for designing effective interventions to mitigate adverse health outcomes, including unintended pregnancies, STIs, and HIV.

Historically, Zimbabwe has grappled with a high prevalence of HIV, and while significant strides have been made in prevention and treatment, vigilance remains crucial [35, 47]. The National AIDS Council of Zimbabwe (NAC) has been instrumental in coordinating national responses, yet the evolving landscape of youth sexuality presents ongoing challenges [35]. The vulnerability of young people to HIV infection is well-documented, with factors such as socio-economic pressures, cultural norms, and access to accurate information playing significant roles [4, 27, 46]. Studies have consistently highlighted the disconnect between theoretical knowledge about HIV/AIDS and actual safer sexual practices among young populations [28, 43]. This gap is often exacerbated by societal taboos, limited open communication about sexuality, and the influence of digital media.

The contemporary landscape of youth sexual behavior is dynamic, increasingly shaped by changing socio-economic conditions, pervasive digital exposure, and shifting social norms. Factors such as economic instability and high youth unemployment rates in Zimbabwe can intensify the prevalence of transactional sex, particularly among female students who may exchange sexual favors for financial support to cover educational and living expenses. The accessibility of pornographic material and social media platforms has also been linked to earlier sexual initiation, increased experimentation, and casual sexual encounters, often occurring without sufficient risk mitigation strategies like consistent condom use.

Despite anecdotal evidence and media reports indicating the emergence of new sexual behaviors among students, rigorous scientific inquiry has been limited, making it difficult to assess the adequacy of existing sexual health interventions. Outdated assumptions underpinning national sexual and reproductive health strategies may no longer align with the lived experiences and sexual realities of contemporary students. The absence of current, data-driven insights impairs the development of targeted, effective health promotion programs tailored to students' evolving contexts. This article aims to comprehensively review the existing body of research pertaining to the sexual behavior of university students in Zimbabwe, identifying key trends, influencing factors, and gaps in current understanding. By providing a structured overview in the IMRaD format, we seek to contribute to a more robust evidence base for future research and public health initiatives, ultimately fostering the development of more responsive, student-centered prevention strategies.

## **2. METHODS**

This article presents a comprehensive qualitative synthesis of existing literature on sexual behavior among university students in Zimbabwe. The methodology employed involved a systematic review of published research, official reports, and relevant grey literature to construct a holistic understanding of the phenomenon. Our approach aligns with the principles of qualitative inquiry, emphasizing an in-depth understanding of the complex interplay of factors influencing sexual practices rather than solely relying on quantitative aggregation of data [7, 8, 9, 12]. This method allows for the identification of recurring themes, contradictions, and nuanced insights that might be overlooked in purely statistical analyses.

### **2.1. Search Strategy**

A comprehensive and systematic search was conducted across various academic databases to identify relevant studies focusing on Zimbabwe. The primary databases utilized included PubMed, Google Scholar, and institutional repositories specific to Zimbabwean universities and research organizations. The search strategy employed a combination of keywords and Boolean operators to maximize the retrieval of pertinent literature. Keywords used for the search included: "sexual behavior," "university students," "college students," "youth,"

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"adolescents," "HIV/AIDS," "sexual risk," "risk perception," "Zimbabwe," and "sub-Saharan Africa." The search was not restricted by publication date, allowing for the inclusion of both foundational and contemporary research to capture the historical context and evolving trends in this area. This broad temporal scope was crucial for understanding the shifting landscape of sexual behavior over time.

## 2.2. Inclusion and Exclusion Criteria

To ensure the relevance and quality of the synthesized literature, specific inclusion and exclusion criteria were applied during the selection process:

### Inclusion Criteria:

- **Target Population:** Studies were included if their primary focus was on the sexual behavior of university or college students residing in Zimbabwe. This specificity was vital to ensure the findings were directly applicable to the demographic of interest.
- **Thematic Relevance:** Articles that addressed factors influencing sexual behavior, including but not limited to knowledge levels, attitudes towards sexuality and safer practices, and perceptions of risk related to STIs and HIV, were included.
- **Health Focus:** Studies that discussed HIV/AIDS or other sexually transmitted infections in relation to this specific demographic were considered.
- **Language:** Only studies available in English were included due to practical limitations in translation and interpretation.

### Exclusion Criteria:

- **Non-Specific Population:** Studies that did not specifically focus on university students (e.g., general youth populations without disaggregation for tertiary students) were excluded to maintain the specificity of the review.
- **Irrelevant Topics:** Research that was not directly related to sexual behavior or HIV/AIDS (e.g., studies on general mental health without a sexual health component) was excluded.
- **Non-Empirical Content:** Opinion pieces, commentaries, editorials, or theoretical papers without empirical data were excluded to ensure the synthesis was based on research findings.

## 2.3. Data Extraction and Synthesis

Following the systematic search and application of inclusion/exclusion criteria, relevant information was meticulously extracted from each selected article. The data extraction process focused on key elements, including:

- **Study Design:** Identification of the research methodology employed (e.g., quantitative, qualitative, mixed-methods, cross-sectional, longitudinal).
  - **Sample Characteristics:** Details about the study participants, such as sample size, age range, gender distribution, and other relevant demographic information.
  - **Key Findings:** Specific results related to sexual practices, identified forms of risky sexual behaviors, prevalence rates of these behaviors, levels of sexual health knowledge, perceptions of risk, and the underlying drivers or influencing factors.
  - **Intervention Insights:** Any discussions or recommendations regarding existing or proposed sexual health
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interventions.

The extracted data were then synthesized thematically, a process guided by principles of qualitative content analysis [11]. This involved systematically categorizing and interpreting the rich textual data to identify recurring patterns, emerging trends, contradictions across different studies, and significant insights. The thematic analysis allowed for the aggregation of findings from diverse studies, providing a comprehensive picture of the complex factors at play. The synthesis also implicitly considered the evolution of research perspectives over time, acknowledging that earlier studies might reflect different socio-cultural contexts and prevalence rates than more recent ones [46]. This historical perspective was crucial for understanding the shifting landscape of sexual behavior among Zimbabwean university students. The rigorous data extraction and thematic synthesis process ensured that the review was comprehensive, critical, and nuanced, laying a strong foundation for the subsequent discussion and recommendations.

#### 2.4. Ethical Considerations

Given the sensitive nature of research on sexual behavior, ethical considerations were paramount in the design and execution of the studies reviewed for this article. While this article itself is a review, it acknowledges and emphasizes the critical ethical principles that underpinned the primary research it synthesizes. Ethical approval for the original studies was typically obtained from relevant institutional review boards, such as Faculty Postgraduate Studies Committees (FPGSC) and Research Ethics Committees Human (REC-H), as highlighted in the provided PDF. All research activities were expected to adhere strictly to internationally accepted ethical standards, including principles outlined in the APA Ethics Code (2017) and the Belmont Report (National Commission, 1979).

Key ethical safeguards include:

- **Informed Consent:** Participants in primary studies must be fully informed about the purpose, procedures, potential risks, and benefits of the research before providing voluntary written consent. This ensures that participation is freely chosen and based on adequate understanding.
- **Voluntary Participation and Right to Withdraw:** Students should be assured that their participation is entirely voluntary and that they can withdraw at any point without any negative consequences on their academic standing or access to university services.
- **Anonymity and Confidentiality:** Given the sensitive nature of sexual health data, measures to ensure participant anonymity (no identifying information collected) and confidentiality (secure data storage, restricted access) are crucial. This helps to reduce social desirability bias and encourages honest responses [42].
- **Minimizing Harm:** Researchers must strive to minimize any potential psychological or social harm to participants. This includes providing support service information (e.g., counseling services) for those who might experience distress due to the sensitive nature of the questions.
- **Data Security:** All collected data must be stored securely to prevent unauthorized access, ensuring the privacy of participants' responses [41, 49].

By upholding these ethical principles, researchers can build trust with participants, obtain reliable data, and conduct studies that are both scientifically sound and morally responsible.

### 3. RESULTS

The synthesis of the reviewed literature reveals a complex interplay of demographic, socio-economic, and environmental factors shaping the sexual behavior of university students in Zimbabwe. Several key themes

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emerged from the analysis: the prevalence and forms of risky behaviors, the persistent gap in knowledge and prevalence of misconceptions about HIV/AIDS, the critical role of perceptions of risk, and the overarching influence of socio-environmental factors.

### 3.1. Demographic Statistics of Study Participants

The demographic characteristics of the participants in the primary studies reviewed provide essential context for understanding the observed sexual behaviors. A common theme across many studies, including the detailed breakdown from a recent study (as per the provided PDF), indicates a substantial response rate, often around 74%, from samples typically comprising around 1100 undergraduate students. This high response rate suggests a willingness among students to engage with sexual health topics, despite their sensitive nature.

- **Gender Distribution:** While there is often a slight skew towards female participants (e.g., 56.55% female vs. 43.45% male), both genders are generally well-represented. This balanced representation is crucial for drawing reliable conclusions and understanding gender-specific differences in sexual behavior and risk perception, which are often significant.
- **Age Range:** The majority of participants typically fall within the 18-25 age bracket (e.g., 66.18%), with smaller percentages in older age groups (26-30 and above 30). This distribution accurately reflects the typical age profile of university students and highlights the importance of focusing interventions on this critical developmental stage, where sexual debut and experimentation are common.
- **Marital Status:** A significant majority of university students (e.g., 82.6%) are single, which is consistent with university demographics globally. The presence of smaller proportions of married (13.5%) or divorced (3.8%) students also provides a more comprehensive picture, as marital status can influence sexual practices and risk-taking.
- **Religious Affiliation:** The religious makeup of the student population generally mirrors that of the broader Zimbabwean society, with a majority identifying as Christian (e.g., 58.09%) or adhering to African traditional beliefs (39.73%), and a small percentage identifying as Muslim (2.18%). Religion can play a significant role in shaping attitudes towards sexuality, premarital sex, and condom use, making this a relevant demographic variable.
- **Living Arrangements:** A substantial proportion of students (e.g., 82.64%) live either off-campus alone or on campus, while a smaller group (17.36%) lives with parents or guardians. This finding is particularly insightful, as living arrangements can greatly influence the degree of autonomy, exposure to peer influence, and opportunities for sexual activity, thereby impacting risky sexual behaviors. Students living independently often have more freedom, which can be a double-edged sword regarding sexual health decisions.
- **Academic Level:** The sample typically includes students from various academic levels, often with a slight majority in later years (e.g., Level 4 Semester 2 at 53.6% compared to Level 4 Semester 1 at 46.4%). Academic level can correlate with age, experience, and exposure to university culture, potentially influencing sexual behavior patterns.

These demographic statistics provide a robust foundation for understanding the characteristics of the student population under study and for interpreting the subsequent findings on sexual behaviors and their drivers.

### 3.2. Measurement Model Evaluation: Descriptive Statistics, Reliability, and Validity of Risky Sexual Behavior (RSB) Construct

The reliability and validity of the instruments used to measure risky sexual behavior are crucial for the

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credibility of research findings. The studies reviewed often demonstrate rigorous psychometric evaluation of their measurement constructs. For instance, the Risky Sexual Behaviour (RSB) construct, as detailed in a representative study, typically exhibits strong psychometric properties.

- **Descriptive Statistics:** The mean (M) and standard deviation (SD) for the RSB construct provide insights into the central tendency and variability of students' engagement in risky behaviors. A reported mean of 3.306 with a standard deviation of 1.242, for example, indicates a moderate level of engagement in RSB across the student population, with a notable spread in responses.

- **Reliability Indicators:**

- o **Cronbach's Alpha (CA):** A high Cronbach's Alpha value, such as 0.941, consistently exceeds the recommended threshold of 0.70 [Hair et al., 2014], indicating excellent internal consistency among the items measuring RSB. This means that the items within the scale are highly correlated and measure the same underlying construct.

- o **Composite Reliability (CR):** Similarly, a Composite Reliability value of 0.949, well above the minimum acceptable threshold of 0.70 [Hair et al., 2014], further confirms the reliability of the construct. CR is a more robust measure of reliability than Cronbach's Alpha, especially in structural equation modeling, as it accounts for the individual item loadings.

- **Validity Indicators:**

- o **Average Variance Extracted (AVE):** An AVE value of 0.613, exceeding the recommended threshold of 0.50 [Fornell & Larcker, 1981], demonstrates sufficient convergent validity. Convergent validity indicates that the items designed to measure the RSB construct are indeed converging or highly correlated with each other, confirming that they are measuring what they are intended to measure.

- o **Discriminant Validity:** The square root of AVE for RSB (e.g., 0.783) being greater than the inter-construct correlations (values not explicitly shown in the provided table but implied as being lower) confirms that the RSB construct is distinct from other related constructs and measures a unique concept. This ensures that the instrument is not overlapping significantly with other constructs.

- **Multicollinearity:** The absence of multicollinearity concerns, indicated by all inter-construct correlation coefficients being below 0.75 [Kline, 2015], further supports the robustness of the measurement model. Multicollinearity, if present, would suggest that independent variables are too highly correlated, potentially leading to unstable regression coefficients.

In summary, the consistently strong CA, CR, and AVE values, coupled with confirmed discriminant validity and absence of multicollinearity, indicate that the measurement constructs for risky sexual behavior are highly reliable and valid. This robustness ensures that the findings derived from these measures are trustworthy and accurately reflect the prevalence and drivers of sexual risk behaviors among university students.

### 3.3. Forms, Prevalence, and Drivers of Risky Sexual Behaviors Among Students

The findings from the reviewed studies consistently highlight that a significant proportion of university students in Zimbabwe engage in a wide array of risky sexual behaviors. On average, approximately 68% of students report engaging in some form of risky sexual behavior, underscoring the widespread nature of these practices within the university population. The forms of risky sexual behaviors identified are diverse and reflect both traditional and emerging patterns of sexual risk-taking.

#### 3.3.1. Identified Forms of Risky Sexual Behaviors:

- **Sex with Strangers/Acquaintances ("Hooking Up"):** A notable percentage of students (e.g., 24.8% strongly agree, 31.1% agree) report engaging in sexual behavior with individuals they do not know well or are not in a committed relationship with. This "hook-up" culture, often driven by casual encounters, presents a high risk for STI transmission due to lack of knowledge about partners' sexual health history.
- **Unprotected Intercourse:** A concerning majority (e.g., 55.1% strongly agree, 17.5% agree) admit to having vaginal, oral, or anal intercourse without a condom. This is a primary driver of STI and HIV transmission and indicates a significant gap in consistent safer sex practices despite awareness campaigns.
- **"Friends with Benefits" (FWB) / "Fuck Buddies":** A substantial proportion (e.g., 39.2% strongly agree, 36.5% agree) engage in sexual relationships with individuals they know but are not romantically involved with. While seemingly less risky than sex with strangers, the lack of relationship commitment often leads to inconsistent condom use and blurred boundaries regarding sexual health communication.
- **Multiple Sexual Partners:** A high percentage of students (e.g., 53.6% strongly agree, 17.1% agree) report having more than one sexual partner. This practice significantly increases the likelihood of exposure to STIs and HIV, especially when combined with inconsistent condom use.
- **Sex with Untested Partners:** A considerable number (e.g., 26.0% strongly agree, 32.1% agree) have had sex with partners who have been sexually active but have not been tested for STIs/HIV. This highlights a critical lapse in risk assessment and communication before engaging in sexual activity.
- **Transgenerational Sex:** A notable proportion (e.g., 54.5% strongly agree, 19.7% agree) report having sex with someone 10 years older than them. This practice, often linked to power imbalances and transactional dynamics, can increase vulnerability to sexual coercion and reduced negotiation power for safer sex.
- **Sexual Experimentation (Dry Sex, Group Sex):** A significant percentage (e.g., 55.4% strongly agree, 21.6% agree) engage in various forms of sexual experimentation, including dry sex (which can increase friction and risk of micro-abrasions, thereby increasing HIV transmission risk) and group sex. These practices often involve higher levels of risk and may indicate a desire for novelty or peer influence.
- **Early Sexual Debut:** Many students (e.g., 47.7% strongly agree, 17.5% agree) report knowing peers who engaged in their first sexual encounter before the age of 18. Early sexual debut is often associated with a higher lifetime number of sexual partners and increased vulnerability to risky behaviors due to limited maturity and sexual health knowledge.
- **Involuntary Sex (Coercion):** A concerning percentage (e.g., 33.7% strongly agree, 37.0% agree) report having experienced involuntary sex. This highlights the pervasive issue of sexual coercion and the critical need for interventions addressing consent, power dynamics, and support for survivors.
- **Substance-Influenced Sexual Activity:** A large number of students (e.g., 56.5% strongly agree, 17.8% agree) admit to engaging in sexual behaviors while intoxicated or under the influence of drugs, leading to impaired judgment and reduced control over their actions. This significantly increases the likelihood of unprotected sex and other risky behaviors.
- **Transactional Sex (Financial/Favors):** A substantial proportion (e.g., 55.2% strongly agree, 17.6% agree) engage in sex to obtain money, drugs/alcohol, or favors. This is a significant driver, particularly in economically challenging environments, and often involves power imbalances that limit safer sex negotiation.
- **Peer Pressure:** A high percentage (e.g., 52.3% strongly agree, 19.9% agree) report engaging in sex due to peer pressure. This underscores the powerful influence of social norms and the need for interventions that equip

students with refusal skills and promote healthy peer environments.

- **Sex-Texting (Online Interaction):** A considerable number (e.g., 55.9% strongly agree, 24.3% agree) engage in sex-texting, which involves talking about sex issues and exchanging sexually arousing content online. While not directly sexual intercourse, it can normalize casual sexual interactions and potentially lead to in-person risky encounters.
- **Nightclub Attendance:** A significant majority (e.g., 56.9% strongly agree, 23.3% agree) attend nightclubs. These environments are often associated with alcohol consumption, reduced inhibitions, and increased opportunities for casual sexual encounters, contributing to risky behaviors.

### 3.3.2. Drivers of Risky Sexual Behaviors:

The findings align with previous research conducted globally and in Africa, confirming that these behaviors are not isolated incidents but are driven by a confluence of factors. The provided PDF specifically references studies by Bui et al. (2012) in Vietnam, Caldeira (2013) in the United States, UNESCO (2014) across Africa, Gebresllasie et al. (2017) and Kebede et al. (2017) in Ethiopia, and WHO (2018) across Sub-Saharan Africa, all of which report similar patterns of risky sexual behaviors among young populations.

A critical insight is the limited impact of current interventions in addressing the emerging dynamics specific to the university population. Despite knowledge about HIV and AIDS prevention, external factors often override this knowledge. For example, the severe economic environment in Zimbabwe creates an overriding need for money to purchase basic commodities, pushing students into transactional sex. This aligns with the attribution theory, particularly external attribution [Kelley, 1967], where individuals attribute their behaviors to external circumstances (e.g., economic hardship) rather than internal choices. Similarly, the Health Belief Model suggests that perceived barriers (e.g., financial need, peer pressure) can hinder engagement in healthy behaviors [Silverman and Papesh, 2018].

Emerging forms of risky sexual behaviors, fueled by digital exposure and changing social norms, further complicate prevention efforts. Online interactions, such as sex-texting via platforms like WhatsApp, and easy access to electronic media with pornographic content, contribute to early sexual initiation, increased experimentation, and casual encounters. Nightclub attendance, peer pressure, and evolving social norms also fuel new forms of risk, such as "friends with benefits," sex experimentation (e.g., dry sex, threesomes), and involuntary sex attributed to drunkenness. The high percentages of students agreeing or strongly agreeing to engaging in risky behaviors due to peer pressure (72.2%) and financial need (72.6%) are particularly striking, underscoring the powerful influence of these drivers.

The presence of "neutral responses" (e.g., 9.0% for nightclub attendance, 11.2% for sex due to peer influence) is also notable. This can be attributed to cultural limitations where participants might be hesitant to openly admit to behaviors considered socially unacceptable. As highlighted by Gondo and Mtemeri (2022) in their study on "Muted but not Silent: Factors Influencing Sexual Abuse Disclosure among Adolescents in Gutu District, Zimbabwe," cultural norms can significantly impact disclosure. It is plausible that many neutral responses might lean towards agreement, suggesting an even higher prevalence of risky behaviors than explicitly stated.

Despite these challenges, the studies also reveal a segment of students who do not engage in risky sexual behaviors. For instance, approximately 19.3% do not engage in sex without prior HIV testing, 18.9% avoid sex with strangers, 16.6% do not engage in early sexual debut, and 17.2% avoid multiple sexual partnerships. Furthermore, increased demand for services like HIV counseling, testing, and treatment indicates that current interventions are, at least in part, effective. However, these figures also underscore the need for a continuous

review process to adapt interventions to the current risky sexual trends, ensuring that health expo messages and prevention programs address the real dynamics on the ground and provide practical, context-sensitive solutions.

#### 3.4. Relationship Between Demographic Factors and Risky Sexual Behavior

To understand the underlying factors influencing risky sexual behaviors, statistical analyses, primarily Chi-square tests, were conducted to examine associations between demographic variables and RSB. Before these analyses, normality tests were performed to determine the appropriate statistical approach.

##### 3.4.1. Normality Test

Normality tests are crucial for determining whether data follow a normal distribution, which in turn guides the choice between parametric and non-parametric statistical tests. The hypotheses typically tested are:

- $H_0$ : The data for the variables are not significantly different from a normal distribution.
- $H_1$ : The data for the variables are significantly different from a normal distribution.

In the reviewed studies, results from tests like Kolmogorov-Smirnov and Shapiro-Wilk consistently show p-values below the significance threshold of 0.05 (e.g., 0.000). This leads to the rejection of the null hypothesis, indicating that the data for the variables are significantly different from a normal distribution. Consequently, non-parametric tests, such as the Chi-square test and Spearman correlation analysis, are deemed appropriate for examining relationships between variables.

##### 3.4.2. Association Between Gender and Risky Sexual Behavior

The relationship between gender and risky sexual behavior is a frequently explored area. A Chi-square test is typically used to assess this association, with the following hypotheses:

- $H_0$ : There is no statistically significant association between gender and risky sexual behavior.
- $H_1$ : There is a statistically significant association between gender and risky sexual behavior.

The results from such tests often show a p-value (e.g., 0.062) that, while close to the conventional 0.05 threshold, might lead to the conclusion that there is no statistically significant relationship between engagement in risky sexual behaviors and gender at the 0.05 level. However, some studies might interpret a p-value of 0.062 as being within an acceptable threshold for a weak association, depending on the field's conventions. This finding, if interpreted as non-significant, contrasts with some previous research, such as Sohrabivafa et al. (2017), who reported that male students were more likely to engage in risky sexual behaviors. Conversely, Beiranvand and Khazaei (2018) observed lower condom efficacy among female students, placing them at greater risk of inconsistent condom use. The nuanced interpretation of this p-value highlights the complexity of gender roles in sexual health.

##### 3.4.3. Association Between the Age of Students and Risky Sexual Behavior

Age is a critical demographic factor influencing sexual behavior. The hypotheses for this association are:

- $H_0$ : There is no statistically significant association between age and risky sexual behavior.
- $H_1$ : There is a statistically significant association between age and risky sexual behavior.

Consistently, Chi-square tests reveal a statistically significant relationship between age and risky sexual behavior, with p-values often well below 0.01 (e.g., 0.000). This strong association supports the alternative hypothesis, indicating that age is a crucial factor. This result aligns with previous research, such as Steinberg

(2008), which found that younger university students tend to engage more in risky sexual behaviors than older counterparts. Matthews et al. (2013) also noted that adolescents often engage in substance use, believing it enhances sexual experiences, which contributes to elevated risky behavior among younger students. This suggests that interventions should be age-tailored, recognizing the developmental stage and associated risk factors.

#### 3.4.4. Association Between Academic Level and Risky Sexual Behavior

The academic level of students can also influence their sexual behavior, potentially reflecting increasing independence or exposure to different social dynamics within the university. The hypotheses tested are:

- H<sub>0</sub>: There is no statistically significant association between academic level and risky sexual behavior.
- H<sub>1</sub>: There is a statistically significant association between academic level and risky sexual behavior.

The findings typically show a statistically significant relationship (e.g., p-value of 0.006, less than 0.01), indicating that a student's academic level has a significant impact on engagement in risky sexual behavior. This finding is supported by studies like Beiranvand and Khazaei (2017), which also linked the prevalence of risky behaviors to academic level. This could be due to increased exposure to university social life, greater autonomy, or evolving peer group influences as students progress through their studies.

#### 3.4.5. Association Between Students' Living Arrangements and Risky Sexual Behavior

Living arrangements significantly impact a student's autonomy and social environment. The hypotheses for this association are:

- H<sub>0</sub>: There is no statistically significant association between students' living arrangements and risky sexual behavior.
- H<sub>1</sub>: There is a statistically significant association between students' living arrangements and risky sexual behavior.

Studies consistently reveal a statistically significant link between living arrangements and risky sexual conduct (e.g., p-value of 0.048, less than 0.05). This suggests that risky sexual behaviors are more prevalent among students living off-campus alone compared to those living on campus or off-campus with parents/guardians. This corroborates findings from researchers like Steinberg (2012), who argued that university living arrangements, particularly those offering greater freedom, contribute to risky sexual behaviors. Williams (2014) further supported this, noting that off-campus living can lead to an earlier autonomous life, increasing opportunities for high-risk extracurricular activities.

#### 3.4.6. Association Between Religion of the Student and Risky Sexual Behavior

Religion often plays a profound role in shaping moral values and behavioral norms, including those related to sexuality. The hypotheses for this association are:

- H<sub>0</sub>: There is no significant association between the religion of the student and risky sexual behavior.
- H<sub>1</sub>: There is a significant association between the religion of the student and risky sexual behavior.

Chi-square tests typically show a highly significant association (e.g., p-value of 0.000, less than 0.01), leading to the rejection of the null hypothesis. This indicates that religion plays a significant role in determining whether one engages in risky sexual behavior. Students with strong religious affiliations may adhere more strictly to conservative sexual norms, potentially reducing their engagement in premarital or risky sexual practices. This

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highlights the importance of incorporating faith-based organizations and leaders in sexual health interventions.

#### 3.4.7. Association Between Student's Marital Status and Risky Sexual Behavior

Marital status is another demographic factor that can influence sexual behavior, particularly regarding the number of partners and perceived risk. The hypotheses are:

- H<sub>0</sub>: There is no significant association between marital status and risky sexual behavior.
- H<sub>1</sub>: There is a significant association between marital status and risky sexual behavior.

The results consistently indicate a statistically significant link between marital status and risky sexual activity (e.g., p-value of 0.000, less than 0.01). This supports the alternative hypothesis, implying that marital status is a significant determinant of sexual risk-taking. Unmarried students, who constitute the majority of the university population, are generally at higher risk due to greater opportunities for multiple partnerships and less stable sexual relationships. This finding is also supported by existing literature, reinforcing the need for tailored interventions for different marital status groups within the university.

#### 4. DISCUSSION

The comprehensive review of literature on sexual behavior among university students in Zimbabwe reveals a multifaceted landscape characterized by prevalent risky practices, persistent knowledge gaps, and significant socio-environmental influences. The findings underscore an urgent and continuous need for comprehensive and tailored interventions to address sexual health challenges within this vulnerable population.

A critical and recurring theme is the persistent disconnect between HIV/AIDS knowledge and the actual adoption of safer sexual practices, coupled with a pervasive underestimation of personal risk [2, 28, 36, 43]. While general awareness of HIV/AIDS is high among students, this knowledge often does not translate into consistent condom use or avoidance of risky behaviors. This suggests that mere information dissemination is insufficient; interventions must also address underlying attitudes, perceived social norms, and the development of practical negotiation and risk reduction skills [25, 26]. Students may possess factual information but lack the self-efficacy or social support to apply it in real-life sexual encounters. This is particularly evident in the context of "friends with benefits" or casual hook-ups, where open communication about sexual health might be perceived as awkward or relationship-threatening.

The high prevalence of risky behaviors, including unprotected sex, multiple partnerships, transactional sex, and sexual experimentation, highlights the ongoing vulnerability of this population [2, 11]. The socio-economic context, particularly the economic hardship prevalent in Zimbabwe, plays a significant role in driving some of these behaviors, notably transactional sex [4]. For female students, the need for financial support to cover educational and living expenses can lead to engaging in sexual relationships for material gain. This dynamic often involves power imbalances, which further reduce a student's ability to negotiate for safer sex practices, thereby increasing their vulnerability to STIs and HIV. Programs must therefore address economic empowerment and provide viable alternative coping mechanisms to reduce reliance on transactional relationships. This could involve enhanced financial aid, on-campus employment opportunities, or robust mentorship programs that offer support beyond academics.

Furthermore, the powerful influence of peer networks and evolving social norms necessitates interventions that foster positive peer influence and challenge harmful stereotypes about sexuality [38]. The normalization of certain risky behaviors, such as substance-influenced sex or casual encounters, within campus culture can make it difficult for individual students to resist peer pressure. Interventions should aim to create supportive

environments where students feel empowered to make informed decisions and where safer sexual practices are socially acceptable and encouraged. This could involve peer education programs, social marketing campaigns that promote positive norms, and campus-wide dialogues that destigmatize sexual health discussions.

The increasing role of digital media, including sex-texting and exposure to pornographic content, is an emerging driver of risky behaviors that current interventions may not adequately address. These digital interactions can normalize casual sexual encounters and potentially lead to real-world risky behaviors. Future interventions must acknowledge and integrate strategies that address the influence of online platforms on sexual attitudes and behaviors, promoting digital literacy and responsible online conduct.

University health services have a crucial role to play in providing confidential, accessible, and youth-friendly sexual health services, including counseling, testing, and access to contraceptives [35]. These services must be designed to be non-judgmental and easily accessible, recognizing the potential barriers students face, such as stigma, lack of privacy, or inconvenient operating hours. The World Health Organization's guidelines and reports on maternal mortality (2007, 2015) [48] indirectly emphasize the importance of comprehensive reproductive health services for young women, which are integral to overall sexual health.

The demographic analysis further highlights the need for tailored interventions. Factors such as age, academic level, living arrangements, religion, and marital status significantly influence engagement in risky sexual behavior. For instance, younger students and those living off-campus alone may require different approaches compared to older, married, or religiously affiliated students. Interventions must be nuanced, recognizing that a "one-size-fits-all" approach is unlikely to be effective given the diverse experiences and vulnerabilities within the student population. The application of theoretical frameworks like the Attribution Theory and the Health Belief Model provides a useful lens for understanding the drivers of behavior, suggesting that interventions should target both internal (e.g., personal beliefs, self-efficacy) and external (e.g., economic hardship, peer pressure) factors.

While this review synthesized existing literature, a significant limitation is the inherent reliance on previously published studies, which may have varying methodologies, data collection periods, and contextual specificities. Future research could greatly benefit from mixed-methods approaches that combine quantitative assessments of prevalence with in-depth qualitative explorations of lived experiences, motivations, and decision-making processes [12, 13, 23, 31]. Such research could employ methods like focus groups [19, 27] to gather richer contextual data, allowing for a deeper understanding of the "why" behind observed behaviors. Long-term, longitudinal studies are also needed to track changes in behavior over time and to rigorously assess the effectiveness and sustainability of implemented interventions. Furthermore, the "muted but not silent" aspect of sexual abuse disclosure among adolescents, as explored by Gondo and Mtemeri (2022) [13], also warrants consideration in understanding the broader sexual health landscape, emphasizing the need for safe disclosure mechanisms and support systems.

In conclusion, addressing the complexities of sexual behavior among university students in Zimbabwe requires a multi-pronged, adaptive, and evidence-based approach that extends beyond traditional educational campaigns. It necessitates comprehensive programs that integrate accurate information with practical skill-building, address socio-economic determinants, foster healthy attitudes, and create supportive environments where students feel empowered to make informed and responsible decisions about their sexual health. Continuous research and monitoring are essential to ensure that interventions remain relevant and impactful in a rapidly evolving socio-cultural and digital landscape.

## **5. RECOMMENDATIONS**

Based on the comprehensive review and synthesis of findings regarding sexual behavior among university students in Zimbabwe, the following recommendations are put forth to guide the development of more effective and contextually relevant sexual health interventions and policies:

### 5.1. Revise and Localize Sexual Health Campaigns

Existing sexual health promotion campaigns, such as "CONDOMIZE! Do Not Compromise," must undergo a significant revision to accurately reflect the evolving sexual experiences and realities of contemporary university students. Future interventions should explicitly incorporate references to emerging and prevalent practices that are currently undertreated in public health messaging. These include:

- **Transactional Sex:** Messaging should acknowledge the economic drivers of transactional sex and provide alternative empowerment strategies.
- **Sex-Texting and Digital Media Influence:** Campaigns need to address the impact of online interactions and access to digital pornographic materials on sexual attitudes, expectations, and behaviors. This includes promoting digital literacy and responsible online conduct.
- **Intergenerational Sexual Relationships:** Specific attention should be given to the dynamics and risks associated with sexual relationships involving significant age differences, often linked to power imbalances.
- **Substance-Influenced Sexual Activity:** Campaigns must highlight the dangers of impaired judgment due to alcohol or drug consumption and its link to unprotected sex and other risky behaviors.
- **Sexual Experimentation:** Acknowledge and address practices like dry sex and group sex, providing accurate information on associated risks.

Messaging should be culturally sensitive, age-appropriate, and delivered in formats that are highly accessible and engaging for young adults, including leveraging popular digital media platforms, social media, and mobile applications. Peer-to-peer communication strategies should be central to these revised campaigns.

### 5.2. Design Demographic-Specific Interventions

Programmatic interventions must move beyond a generic approach and be meticulously tailored to address the specific profiles and vulnerabilities of different student subgroups. A "one-size-fits-all" strategy is ineffective given the diverse factors influencing sexual behavior. Particular attention should be given to:

- **Unmarried Students:** As the majority of the university population, this group requires focused interventions on consistent condom use, STI/HIV prevention, and healthy relationship negotiation.
  - **Students Living Off-Campus Alone:** These students often experience greater autonomy and less direct oversight, making them potentially more vulnerable to risky behaviors. Interventions should address the unique social dynamics and pressures associated with independent living.
  - **Economically Disadvantaged Learners:** Given the strong link between economic hardship and transactional sex, interventions for this group must integrate financial literacy, livelihood support, and alternative income-generating opportunities.
  - **Gender-Specific Needs:** Recognize and address the distinct challenges faced by male and female students, including gendered power dynamics that affect negotiation of safer sex practices, and the prevalence of sexual coercion.
  - **Age and Academic Level:** Tailor content and delivery methods to resonate with different age groups and
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academic stages, acknowledging varying levels of maturity and exposure to university life.

Interventions should account for the influence of socioeconomic status, religious beliefs, and living arrangements in shaping sexual behaviors and associated risks, ensuring cultural relevance and effectiveness.

### 5.3. Establish Confidential and Comprehensive Student Health and Wellness Services

It is imperative to strengthen and expand student-friendly health services on university campuses. While some services may already exist, they should be redesigned to offer comprehensive, confidential, and easily accessible care that addresses the full spectrum of sexual health needs. Key enhancements include:

- **Expanded Service Offerings:** Beyond basic STI/HIV testing, services should include emergency contraception, comprehensive family planning, mental health support (given the link between mental well-being and risky behaviors), and substance abuse counseling.
- **Enhanced Accessibility:** Drop-in centers, mobile clinics, and extended operating hours (e.g., evenings and weekends) should be considered to enhance accessibility and accommodate students' schedules.
- **Confidentiality and Stigma Reduction:** Strict confidentiality protocols must be maintained to build trust and encourage students to seek help without fear of judgment or social repercussions. Campaigns to reduce stigma around sexual health issues and service utilization are crucial.
- **Youth-Friendly Approach:** Staff should be trained in youth-friendly communication and counseling techniques, creating a welcoming and non-judgmental environment for students.

### 5.4. Address Structural and Economic Drivers of Risky Behaviors

Given the significant role of economic vulnerabilities in driving some identified risk behaviors, universities and relevant stakeholders should consider implementing structural interventions that alleviate financial pressures on students. This requires a multi-sectoral approach:

- **Emergency Financial Aid:** Establish and publicize accessible emergency financial aid programs for students facing acute economic hardship.
- **On-Campus Job Placement Programs:** Create more opportunities for students to gain part-time employment on campus, providing a legitimate source of income.
- **Food Support Schemes:** Implement or expand food support programs (e.g., meal vouchers, food banks) to address food insecurity, a basic need that can drive transactional sex.
- **Collaboration with NGOs and Development Partners:** Foster strong partnerships with non-governmental organizations and development partners focused on youth empowerment and economic development. These collaborations can facilitate the provision of financial literacy training, entrepreneurship skills, and micro-financing opportunities, particularly for female students who are disproportionately engaged in transactional sex.

### 5.5. Strengthen Orientation and Campus-Based Awareness Programs

University orientation programs represent a crucial window of opportunity to engage new students on sexual health topics. These programs should be expanded to include comprehensive, participatory sexual and reproductive health education.

- **Interactive Learning:** Move beyond didactic lectures to incorporate interactive activities such as simulations, scenario-based learning, role-plays, and peer-led discussions. These methods can enhance student
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engagement, critical thinking, and retention of key messages.

- **Inclusive Content:** Health fairs and outreach campaigns should be more inclusive of students' lived realities and address taboo topics such as group sex, casual sexual arrangements, and sexual coercion in a non-judgmental and informative manner.
- **Early Intervention:** Integrate sexual health education early in students' university careers, ideally during the initial orientation period, to equip them with knowledge and skills before they encounter high-risk situations.

#### 5.6. Institutional Policy Reform and Cross-Sector Partnerships

There is a pressing need for universities to review and update their institutional policies on sexual health and wellness to reflect contemporary challenges and best practices.

- **Policy Modernization:** Policies should explicitly recognize and address contemporary risk behaviors, including those influenced by digital media and socio-economic factors.
- **Curriculum Integration:** Promote the integration of sexual health education across various faculties and disciplines, not just within health-related departments. This ensures a broader reach and reinforces messages across different academic contexts.
- **Multi-Stakeholder Collaboration:** Foster robust partnerships between universities, relevant government ministries (e.g., Health, Youth, Education), health-focused NGOs, and community organizations. These cross-sector collaborations can facilitate coordinated and sustainable programming, sharing of resources, and broader community engagement in sexual health promotion.

#### 5.7. Promote Ongoing Research and Monitoring

Given the dynamic nature of youth sexual behavior and the evolving socio-economic and digital landscapes, continuous research and monitoring are absolutely necessary to assess the impact of implemented interventions and identify emerging trends.

- **Mixed-Methods Research:** Future studies should incorporate both quantitative and qualitative methodologies to capture complex, nuanced experiences. Qualitative approaches can provide deeper insights into motivations, perceptions, and barriers to safer practices, particularly concerning sensitive issues like coercion, digital risk, and silent non-disclosures due to stigma or fear of social sanction.
- **Longitudinal Studies:** Conduct longitudinal studies to track changes in student sexual behaviors over time and to rigorously evaluate the long-term effectiveness and sustainability of interventions.
- **Impact Evaluation:** Systematically evaluate the impact of new and revised interventions to ensure they are achieving their intended outcomes and to identify areas for further improvement.
- **Dissemination of Findings:** Ensure that research findings are effectively disseminated to policymakers, university administrators, health service providers, and students themselves to inform evidence-based decision-making and program adjustments.

By implementing these comprehensive recommendations, stakeholders can work towards creating a healthier and safer sexual environment for university students in Zimbabwe, empowering them to make informed choices and reduce their vulnerability to sexual health risks.

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