



COLLEGE OF HEALTH SCIENCE

DEPARTMENT OF PUBLIC HEALTH

**RISKY SEXUAL BEHAVIOR FOR HUMAN IMMUNODEFICIENCY
VIRUS INFECTION AND ITS ASSOCIATED FACTORS AMONG
STREET YOUTH IN DESSIE TOWN, SOUTH WOLLO ZONE,
AMHARA REGION, NORTHEAST ETHIOPIA, 2024**

BY:

HAILEMARIYAM GOSHU (BSC)

**ADVISORS: MR. SETEAMLAK ADANE (MPH, ASSISTANCE
PROFESSOR)**

MRS. YEMISRACH BELETE (MPH)

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| Name of investigator | Hailemariam Goshu Email: haile2012@gmail.com Phone: +251986624151 |
| Name of advisors | Name: Mr. Seteamlak Adane (MPH in Reproductive Health, Asst. Professor) Phone: +251912930571 Email: adaneseamlak19@gmail.com |
| | Name: Mrs. Yemisrach Belete (MPH-RH) Phone: +2519 10659372 Email: yemisrachbelete@gmail.com |
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Approval sheet

The undersigned examining committee certifies that the thesis presented by Hailemariyam Goshu entitled: “Risky Sexual Behavior for Human Immunodeficiency Virus Infection and its associated Factors among Street Youth in Dessie town, South Wollo Zone, Amhara Region, Northeast Ethiopia, 2024”, submitted to Woldia University, College of Health Sciences, Department of Public Health, in partial fulfillment of the requirements for a master’s degree in General Public Health compiles with the regulation of the University and meets the accepted standards concerning originality and quality.

Place of submission: Department of Public Health, College of Health Sciences, Woldia University.

Date of Submission: _____

Student name: Hailemariyam Goshu Signature _____ Date _____

Advisors:

1. Seteamlak Adane (MPH in Reproductive Health, Asst. Professor) Signature _____ Date _____

2. Yemisrach Belete (BSc, MPH in reproductive health) Signature _____ Date _____

Chair of the department:

Name _____ Signature _____ Date _____

Internal examiner:

Name _____ Signature _____ Date _____

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Acronyms and abbreviations

AYFHS-----Adolescent and Youth Friendly Health Services

HIV/AIDS-----Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

NGO----- Non-governmental Organizations

STD-----Sexually Transmitted Diseases

WHO----- World Health Organization

Abstract

Introduction: Risky sexual behaviors significantly contribute to HIV infection. In Ethiopia, street youth are especially vulnerable due to limited healthcare and economic instability, highlighting a critical knowledge gap regarding the factors driving these behaviors.

Objective: This study aimed to assess risky sexual behavior for HIV infection and its associated factors among street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia.

Methods: A community-based quantitative cross-sectional study was employed from August 25 to September 24, 2024, involving 421 street youth selected through simple random sampling. Data were collected via structured interviews and analyzed with STATA version 15. Bivariable and multivariable logistic regression analyses were performed. A p-value <0.05 was considered statistically significant in the multivariable model.

Result: A total of 382 respondents, with a response rate of 90.74%, participated in the study. The prevalence of risky sexual behavior for HIV infection among street youth was 56.81% (95% CI: 52.67–61.83). Several factors were significantly associated with risky sexual behavior, including age [AOR = 2.57, 95% CI (2.69–6.83)], social network size [AOR = 3.84, 95% CI (1.89–7.62)], substance use [AOR = 4.92, 95% CI (2.01–9.56)], poor HIV risk perception [AOR = 4.53, 95% CI (2.69–7.81)], low sexual self-concept [AOR = 1.39, 95% CI (1.26–5.21)], and negative attitudes toward condom use [AOR = 2.64, 95% CI (1.49–5.76)].

Conclusion and recommendations: The ever-growing population of street youth engaging in risky sexual behavior to aid HIV infection highlights the necessity of targeted interventions. Sexual education that suits the appropriate age group is paramount together with peer-to-peer campaigns that encourage healthy behaviors within their circles. This further encompasses the use of integrated HIV prevention interventions that cut across substance use in an effort to reduce risky sexual practices. Changing attitudes towards HIV infection requires an understanding of how it is transmitted, the elimination of false beliefs, and building a suitable self-esteem necessary for making healthy sexual choices. Furthermore, education must promote the use of condoms and not stigmatize them.

Keywords: Sexual risk behavior for HIV infection, HIV/AIDS, Street youth, Northeast Ethiopia

1. Introduction

1.1. Background

Human immunodeficiency virus (HIV) is the virus that causes acquired immune deficiency syndrome (AIDS) (1). The HIV/AIDS epidemic emerged as a global crisis in the 1980s, originating in the United States and quickly spreading across continents (2, 3). The first case of HIV in Africa was reported in the Democratic Republic of Congo in 1983, but research has shown that the virus had been present in the region for decades before that. HIV was identified in a blood sample from 1959, indicating its earlier presence (4).

HIV/AIDS was first identified in Ethiopia in the early 1980s, primarily affecting high-risk groups such as sex workers, street youth, and intravenous drug users (5, 6). Among the population of Ethiopia, street youth aged 15 to 24 are a particularly vulnerable group when it comes to risky sexual behavior and HIV/AIDS prevention (7).

Street youth refers to young individuals who are homeless or live in precarious conditions, often lacking stable family support or access to basic services (8). These youth face numerous challenges, including poverty, limited education, and social exclusion, which contribute to their engagement in risky behaviors, including risky sexual behavior (9).

Risky sexual behavior among street youth include unprotected sex, having multiple sexual partners, engaging in transactional sex, and inconsistent or incorrect use of condoms or other barrier methods (10). These behaviors not only put the street youth themselves at risk but also contribute to the spread of HIV/AIDS and other STIs within their communities (11). Street youth are vulnerable to HIV/AIDS risk due to limited access to healthcare, engagement in high-risk behaviors, and lack of comprehensive sexual education, social marginalization, and economic instability (12).

Understanding the factors that contribute to risky sexual behavior among street youth is crucial for developing effective prevention strategies. Thus, this study aims to investigate the factors influencing risky sexual behavior for HIV infection among street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia.

1.2. Statement of the problem

HIV infection is a global health concern that affects individuals of all age groups, with young people between the ages of 15 and 25 facing a particularly high risk (13). The World Health Organization (WHO) reports that in 2021, approximately 30% of newly confirmed HIV diagnoses worldwide occurred among young people in this age range (13). Among vulnerable populations, street youth are at a heightened risk of HIV/AIDS due to their engagement in risky sexual behaviors, including multiple sexual partners, early sexual initiation, inconsistent condom use, and involvement in commercial sex work (14). These behaviors contribute to the spread of HIV/AIDS. Moreover, street youth face socio-economic challenges, limited healthcare access, and a lack of comprehensive sexual education, further exacerbating their vulnerability to HIV/AIDS (8, 15).

Globally conducted studies have revealed alarming percentages of risky sexual behavior among street youth. For example, in Canada, 55% of street-involved youth reported hazardous alcohol use (16), while in Southern Brazil, an astonishing 86.6% of street youth were found to use illicit drugs, with a prevalence of engaging in unprotected sex at 61.9% (17).

Although the exact number of street youth is unknown, it is noted that the number is high in developing regions like Sub-Saharan Africa (18, 19). This region also faces significant challenges in addressing risky sexual behaviors among youth and preventing HIV/AIDS transmission. In 2017, the region accounted for approximately 75% of global HIV deaths (20, 21). The coexistence of a high number of street youth and the prevalence of HIV in the region underscores the severity of the issue. Recent studies in the region have highlighted the severity of risky sexual behavior among street youth. For instance, a study in Kenya revealed that 55% of street youth were involved in high-risk sexual behavior, with 41.9% reporting early sexual initiation between the ages of 10-15 years (22). Only 31.0% of street youth used modern contraceptives in Southwest Nigeria (23).

Given that Ethiopia is located in Sub-Saharan Africa and is classified as a low-income country, the prevalence of risky sexual behaviors among street youth is concerning. Studies conducted in various locations in Ethiopia have shown the severity of the problem. For example, a study conducted in southern Ethiopia showed that the prevalence of risky sexual behavior among street youth was 53.9% (24).

Several factors contribute to risky sexual behaviors among Ethiopian street youth. Engaging in unprotected sex is associated with higher rates of binge drinking (25) and illegal drug use (25). Peer pressure also plays a significant role in influencing risky sexual behavior (26). Exposure to negative media images, such as pornography, has been linked to higher odds of engaging in such activities among adolescents (27, 28).

Efforts have been made in Ethiopia to address the sexual and reproductive health needs of street youth through the implementation of Adolescent and Youth Friendly Health Services (AYFHS) (29). However, despite these efforts, the magnitude of sexual risk behavior remains high. The comprehensive AYFHS implemented from 2016 to 2020 aimed to bridge the gaps and provide targeted services, but further investigation is needed to assess its effectiveness.

Therefore, the purpose of this research is to examine risky sexual behavior and factors associated with HIV infection among street youth in Dessie Town, South Wollo Zone, Amhara Region, Northeast Ethiopia. By identifying specific risk factors and understanding the challenges faced by street youth in accessing appropriate healthcare and comprehensive sexual education, this study aims to provide valuable insights for the development of targeted interventions and improved strategies to address the health needs and reduce the risk of HIV/AIDS transmission among this vulnerable population.

1.3. Significance of the study

This study is significant because it specifically investigates risky sexual behaviors among street youth aged 15-24 in Dessie Town, Northern Ethiopia. The study tries to understand the factors driving these behaviours so that suitable measures can be instituted for this vulnerable population.

The information collected will be vital to the local health offices and other NGOs in the more economical utilization of health services, so that appropriate health and educational services are provided to mitigate the increased risk among the street youths. It will also assist in formulating public health interventions to prevent the spread of HIV/AIDS within this population group.

This study helps to fill the void in the existing literature by addressing the specific age group and region which other studies have largely neglected. Additionally, conducted during and after regional conflicts, the study highlights the heightened vulnerability of street youth during these times. It offers valuable insights that can inform future interventions and enhance the understanding of the specific challenges faced by this population in the context of conflict.

2. Literature review

2.1. Magnitude of sexual risk behaviors'

Globally, 47% of adolescents have sexual experiences. In Iran, the prevalence of sexual relationships among teens ranges from 12.8% to 20% (13). A study in four South Asian countries found that 54.2% of adolescents engaged in multiple sexual risk behaviors; 49.3% had their first sexual intercourse before age 14, and 46.9% did not use a condom during their last sexual encounter (30). Similarly, in Caribbean countries, 31.9% engaged in multiple sexual risk behaviors, with 58.8% having had two sexual partners and 28.4% not using a condom at last sex (31). The study conducted in Egypt reported a prevalence of 84.9% (32).

In Sub-Saharan Africa, 28% of males and 21% of females had sex before age 15 (33). A study in Fiji reported that 38.1% had two or more sexual partners, and 39.5% did not use a condom during their last sexual encounter (34). In Nigeria studies reported a 22.9% prevalence of sexual risky behavior among adolescent high school students (35).

In Ethiopia, studies indicate a high prevalence of sexual risk behaviors. In Arsi Negelle Town, the overall prevalence was 32.5%, with 51.2% having multiple sexual partners (36). Another study among Mizan high school students showed an overall risk of sexual behavior of 51.3%, with 50.94% having multiple partners and 18.87% engaging with commercial sex workers (37).

A cross-sectional study in Nekemte and Debre Tabor revealed that 61.4% had never used a condom, while 20.8% had sexual intercourse with commercial sex workers in Nekemte (38, 39). In Asella, Adams Town, and Wolaita Sodo, 59.7% to 98% reported starting sex before age 18, with non-condom use ranging from 47.3% to 55.7% during first sexual encounters (40-42).

Focusing on street youth, a study in Canada found hazardous alcohol use at 55.0% (16). In Iran, 19.6% reported sex out of marriage, with only 43.8% using condoms (43). In Southern Brazil, 86.6% used illicit drugs, and 61.9% engaged in unprotected sex (17). In Kenya, 55% of street youth reported high-risk sexual behavior, with 41.9% initiating sex between ages 10-15 (22). In Southwest Nigeria, only 31.0% used modern contraceptives (23).

In Ethiopia, studies among street youth indicate significant risk levels; a study in Dilla found 53.9% prevalence (24), while a study in Gedeo Zone reported 43.46% prevalence among children aged 10-18 (44).

2.2. Factors associated with sexual risk behaviors

Various factors contribute to risky sexual behaviors, including socio-demographic elements (age, sex, religion, education, family income, and living arrangements), peer pressure, pornography consumption, and substance abuse (26, 38, 45, 46).

2.2.1 Socio-demographic and economic factors

In Ethiopia, socio-demographic factors have been linked to sexual risk behaviors. A 2016 study in Arsi Negelle found that pocket money, mother's education, and grade level were significant factors (36). In Addis Ababa, Central Ethiopia sex, grade level, religious attachment, and living arrangements were associated with these behaviors (28). A 2017 study in Nekemte indicated that age and pocket money correlated with risky behaviors, while religious participation did not (38). A similar study in Debre Tabor town, South Gondar zone, showed that not attending religious education and being urban residence were significantly associated with the premarital sexual practice (39).

Studies in Arba Minch and Tigray highlighted associations between various socio-demographic factors and sexual risk behaviors, including pocket money and living with family (46, 47). In Gedeo Zone, daily income and time spent on the street were predictors of these behaviors (48).

According to a study in Yaedwha and Aksum Town, in 2019 revealed that living without parents and educational level (26) and living away from their family members (49), had a significant association with sexual risk behaviors. For the purpose of this study, we consider type of children, being on the street and off the street, as possible socio demographic factor based on the previous study in Gondar (50). Similar studies in the North Shewa zone found that being male had an association with sexual risk behaviors (45). In Horo Guduru Wollega zone, however, females were approximately four times more likely than males to engage in risky sexual behaviors (RSB).

A study in Gedeo zone, South Ethiopia showed that daily average income and duration on the street as predictors of sexual risk behavior (44).

2.2.2 Behavioral and psychological factors

Different studies indicate that alcohol and drug abuse have been associated with an increase in the number of sexual risk behaviors like multiple sexual partners, inconsistent condom use, sex with commercial sex workers, and early sexual debuts.

According to study conducted in four Southeast Asian countries showed that tobacco use, alcohol use, and cannabis use were associated with multiple sexual risk behaviors (30). Similar studies in four Caribbean countries on the prevalence and correlates of sexual risk behaviors among school-going adolescents showed that current cannabis use and ever having been drunk were associated with sexual risk behaviors (31).

A study in Andabet district, Ethiopia showed that substance use had significant association with sexual risk behavior (51). A study in South-West Nigeria showed that alcohol intake had a strong association with early sexual debut among the students (52).

A study conducted in Sebeta town and East Wollega showed that drinking alcohol, chewing Khat, and smoking cigarettes were significantly associated with sexual risk behaviors (28, 53). A similar study in Addis Ababa showed that sex after alcohol consumption was associated with sexual risk behaviors (54). In another study conducted in Adama and Asella showed that students who drink alcohol are almost two times more likely to engage in risky sexual behavior than those who do not drink alcohol (40).

Another study in Arba Minch revealed that using hashish or shisha and drinking alcohol was associated with sexual risk behaviors (46). A similar study in central Tigray showed that alcohol drinking and smoking were associated with sexual risk behaviors (47).

Studies conducted in Yaedwha and Aksum revealed that drinking alcohol was associated with sexual risk behaviors (26, 49). A similar study in the North Shewa Zone, Oromia Region, indicated that alcohol use, use of illicit drugs, and cigarette smoking were associated with sexual risk behaviors (45). Furthermore, drinking alcohol was significantly associated with risky sexual

behaviors in the Guduru district (27). A comparable study conducted in Wolaita Sodo town, Southern Ethiopia, showed that ever having used alcohol and smoking cigarettes were found to be significantly associated with sexual risky behaviour (42).

A study conducted in Jimma, Ethiopia showed that Students with moderate depression symptoms are more likely to experience risky sexual behavior (55). Various studies highlighted the effect of HIV risk perception on HIV risk behavior (51, 56). A study conducted among Chilean population revealed that when the self-concept is low, there is greater sexual risk-taking (56). A study conducted in Burayu town, Ethiopia affirmed the positive significant relationship of unfavorable attitude towards condom use with risky sexual behavior (57). A study conducted in Nigeria showed that HIV knowledge had significant effect on risky behavior (58).

2.2.3 Social factors

A study in four Caribbean countries showed that high peer pressure increased the odds of having multiple sexual partners (31). Another studies conducted in Adama and Asella towns revealed that peer pressure was as a pushing factor to engage in risky sexual activities (40, 41). A similar study in North Shewa, Oromia, and Metu town revealed that peer pressure was significantly associated with sexual risk behaviors, accounting for 47.8% and 22% of the major reasons/factors influencing respondents for their first sexual encounter, respectively (45, 59).

A study conducted among urban African American women revealed social network structure, specifically having many network increased the likelihood of sexual risky behavior (60). A study conducted in Bahir Dar City revealed that frequently attending night club increased the likelihood of sexual risky behavior (61).

2.2.4. Technology-related factors

Adolescents who had ever seen or read pornography were more likely to engage in risky sexual behavior. A cross-sectional study in Debre Tabor town showed that watching pornography films was associated with sexual risk behaviors (39). Another study in Addis Ababa showed that study participants who watched pornographic films were more likely to have risky sexual behaviors (54). A study conducted in Asella town showed that students who read or saw sexually explicit media/pornography were more likely to engage in risky sexual intercourse (40). A similar study

conducted in the central zone of Tigray showed that exposure to pornography, such as reading or seeing pornographic materials, was significantly associated with an early sexual debut (47). A study conducted in United State showed that social media usage has direct link to sexual risky behavior (62).

2.3. Conceptual framework

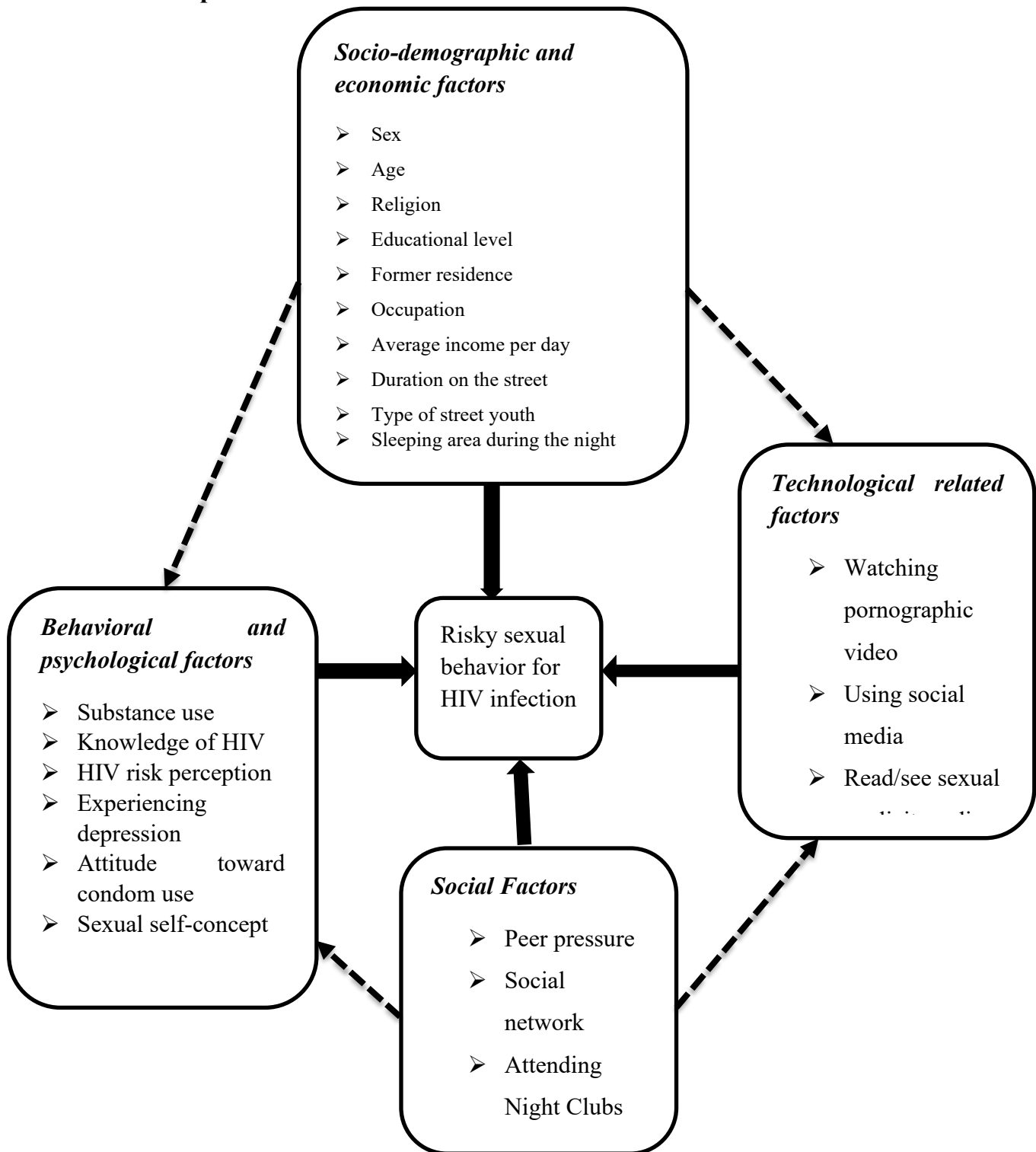


Figure 1: Conceptual framework of risky sexual behavior for HIV infection and associated factors, adapted from literature review of various studies (12, 13, 23, 39, 42, 56)

3. Objectives

3.1. General objective

- ✚ This study aims to assess risky sexual behavior for HIV infection and its associated factors among street youth in Dessie town, south Wollo Zone, Amhara Region, Northeast Ethiopia.

3.2. Specific objectives

- ✚ To assess the magnitude of risky sexual behavior for HIV infection among street youth in Dessie town, south Wollo Zone, Amhara Region, Northeast Ethiopia.
- ✚ To assess factors associated with risky sexual behavior for HIV infection among street youth in Dessie town, south Wollo Zone, Amhara Region, Northeast Ethiopia.

4. Methods and materials

4.1. Study area and period

The study was conducted in Dessie town, which is situated in the South Wollo zone of Amhara Regional State, Northeast Ethiopia. Dessie is a multi-ethnic town located at latitude of 11°08' and a longitude of 39°38'. It is positioned about 401 km away from Addis Ababa, the capital city of Ethiopia. According to the projection by the plan commission of this city, the anticipated population for the year 2025 is approximately 480,737 individuals. Dessie city comprises 18 urban and 10 rural Kebeles, which serve as the smallest administrative units in Ethiopia. The city is equipped with five hospitals, including one public referral hospital. The study was planned to takes place from August 25– September 24, 2024.

4.2. Study design

Community-based quantitative cross-sectional study design was employed.

4.3. Population

4.3.1. Source population

All the street youth who live in Dessie town were the source population.

4.3.2. Study population

The study population comprised street youth who lived in Dessie town for six months or more and were available during the data collection period.

4.4. Inclusion and exclusion criteria

4.4.1 Inclusion criteria

All street youth aged 15-24 years who lived in Dessie town for six months or more were included.

4.4.2. Exclusion criteria

Street youth who have hearing impairment and/or recently join the street (below 6 months) were excluded.

4.5. Sample size determination

The sample size for primary objective was calculated by using the single population proportion formula with the following assumptions: 5% marginal error and 95% confidence interval ($\alpha=0.05$) and from previous study proportion or prevalence of risky sexual behaviors among street youth according to the study in Dilla town were 53.9% (24). Therefore, based on the above information the total sample was calculated as follows:

$$n = \frac{(z_{\alpha/2})^2 * p(1-p)}{d^2}$$

Where, n = sample size

p= proportion of sexual risk behaviors from previous study = 53.9%

Z= Percentiles of the standard normal distribution corresponding to 95 % confidence level

$Z_{\alpha/2}$ = Coefficient at level of significance=1.96

d = precision (marginal error) = 0.05

$$n = \frac{(1.96)^2 * 0.539 * 0.461}{(0.05)^2} = \frac{(3.8416 * 0.216876)}{0.0025} = 382$$

Adding a 10% non-response rate, we got a total of 421 sample size.

4.5.1. Sample size calculation to assess the related factors

The sample size for the second objective was calculated by using Epi-info version 7.2.5. Adding a nonresponse rate of 10% was made in the total sample size (See **Table 1**). The total sample size obtained for each factor was compared with the sample size calculated for primary objective, and the largest was taken.

Table 1: Summary of sample size calculation for factors associated with risky sexual behavior for HIV infection, 2024

| S/No. | Variables | Outcome unexposed group (%) | Outcome exposed group (%) | CI | Power | AOR | Sample size | Adding 10% of the non-response rate | Reference |
|-------|--------------------|-----------------------------|---------------------------|----|-------|------|-------------|-------------------------------------|-----------|
| 1 | Female sex | 86.9 | 13.1 | 95 | 80 | 4.57 | 219 | 241 | (24) |
| 2 | Educational status | 19.2 | 24.3 | 95 | 80 | 5.73 | 191 | 279 | (44) |
| 3 | Age | 33.4 | 55.9 | 95 | 80 | 6.00 | 196 | 216 | (63) |

Finally, based on the calculated sample size for the two objectives the maximum sample size is 421.

4.6. Sampling procedure

The street youths live in 18 urban Kebele of Dessie town. All those Kebele were included in the study, and the sample size required for each Kebele was allocated proportionally to the number of street youth in each Kebele. Then, study participants were selected randomly from each Kebele. A total of 782 street youth was found in Dessie town (See **Figure 2**).

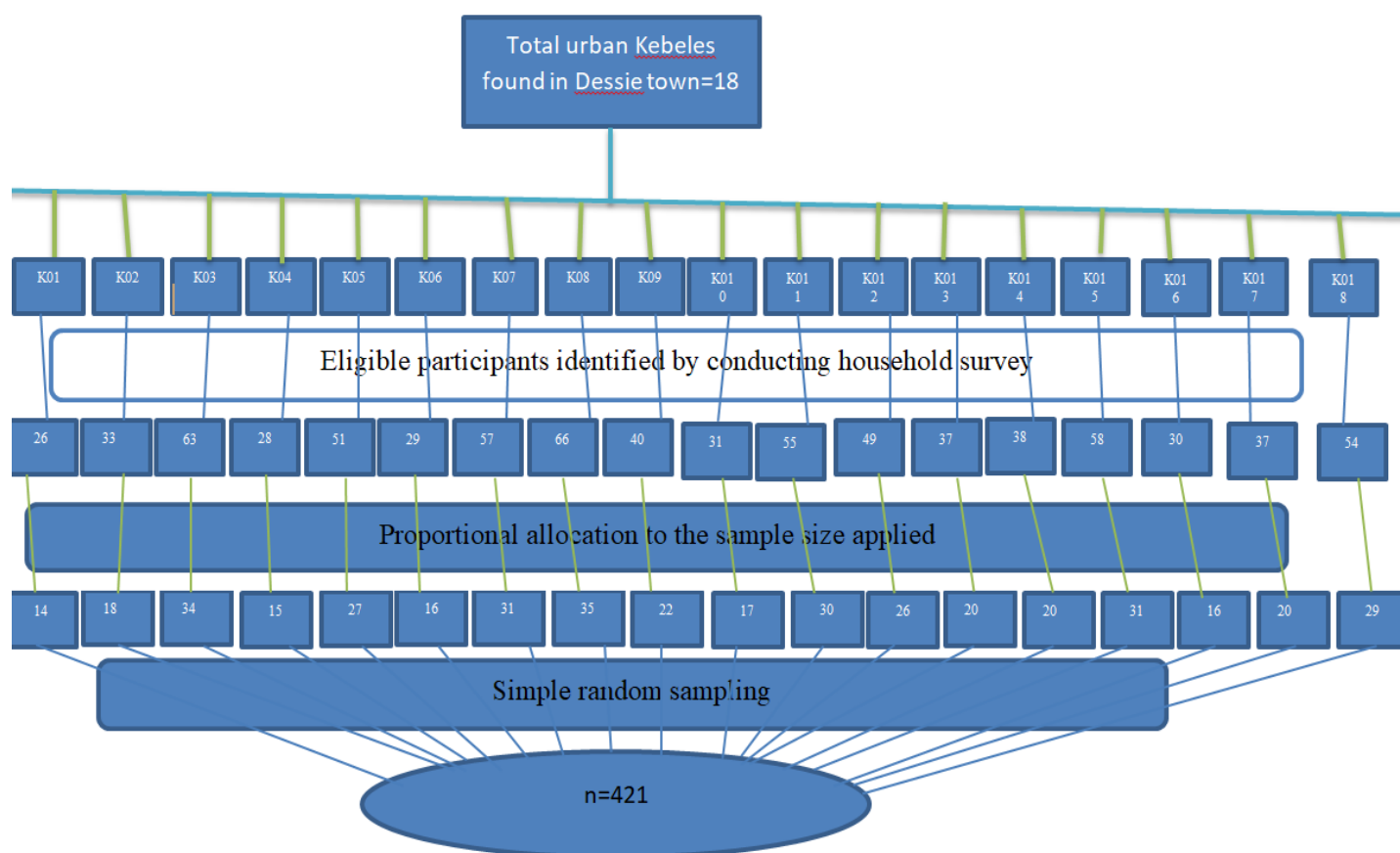


Figure 2: Schematic representation of sampling procedure

4.7. Data collection procedures

The data collection instrument was a structured close-ended question. A number of questions that could address the objectives of the study were gathered and adapted from previous similar studies (51, 64, 65). In the end, the final English version was translated into Amharic by an individual who had a very good command of both the English and Amharic languages, and then after data collection, it was translated back to English by another individual to ensure its validity and consistency. A total of four data collector were participated. Data was collected using a structured interview.

4.8. Data quality assurance and management

A pretest of the questionnaire was carried out in Woldia town, with a population that, more or less, had similar socio-demographic characteristics to the people of the study area. The pretest was conducted on about 5% of the total sample size, which became 21 participants.

The result of the pretest was discussed, and some corrections and changes were made to the questionnaires. Survey completion was required for 20-30 minutes. The overall activity of data collection was supervised and coordinated by the principal investigator and two other coordinators. The predictive value of the model was assessed using Hosmer–Lemeshow goodness-of-fit test statistics.

4.9. Study variables

4.9.1. Dependent variables

- ✚ Risky sexual behavior for HIV infection

4.9.2. Independent variables

Socio-demographic factors

- ✚ Sex
- ✚ Age
- ✚ Religion
- ✚ Educational level
- ✚ Former residence
- ✚ Occupation
- ✚ Average income per day
- ✚ Duration on the street
- ✚ Type of street youth
- ✚ Sleeping area during the night

Social factor

- ✚ Peer pressure
- ✚ Social network
- ✚ Attending night clubs

Technology related factors

- ✚ Watching pornographic video
- ✚ Using social media
- ✚ Read/see sexual explicit media

Behavioral and psychological factors

- ✚ Substance use
- ✚ Knowledge of HIV
- ✚ HIV risk perception
- ✚ Experiencing depression
- ✚ Attitude toward condom use
- ✚ Sexual self-concept

4.10. Operational definitions

- ✚ **Risky Sexual Behavior for HIV:** who have at least one of the following risky behavior for HIV: It was defined as: inconsistent use of condoms, having multiple sexual partner, and sex with commercial sex workers (38). The literature indicates that sexual behavior was evaluated based on respondents' recall of their risky sexual activities over the past 12 months (44, 66) and was assessed accordingly.
- ✚ **Street youth:** This term refers to young people who have spent time living on the streets without a parent or caregiver. Those who are "of the street" have no home other than the streets, often due to abandonment or the loss of family members. In contrast, those who are "on the street" regularly visit their families and may return home to sleep each night. However, they spend most of their days and some nights on the streets due to issues such as poverty, overcrowding, or experiencing sexual or physical abuse at home (67).
- ✚ **Substance use:** use of any one or more of the following substances in the last 12 months is thought to alter thinking and raise the risk of engaging in dangerous sexual behavior: alcohol, khat, cigarettes, shisha, hashish, or drugs (68).
- ✚ **HIV risk perception:** Six items were measured on a five-point Likert scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). Participants selected from these options to express their agreement with each statement. Scores were analyzed quantitatively,

categorizing individuals who scored at or above the mean (17.46) as having a strong understanding of HIV risks (51).

- ✚ **Social network:** The sexual network was defined based on the number of street youth respondents interacted with. Participants were asked to indicate this number, which was then dichotomized into two categories: those who interacted with more than five individuals were classified as having a large network, while those who interacted with five or fewer were classified as having a small network. This categorization aimed to explore the effect of network size on the dependent variable, providing insights into how varying levels of interaction might influence sexual behaviors (60).
- ✚ **Depression:** Using nine questions of major depressive disorder symptoms from the DSM-IV criteria, the PHQ-9 was utilized to measure depression. The ratings for each item response ranged from 0 (not at all) to 3 (almost daily). The PHQ-9's nine items have a total score between 0 and 27. Scores were categorized as follows: 0–4 for no depression, 5–9 for mild depression, 10–14 for moderate depression, and 15 or more for severe depression (69). A cut point of 10 or more was utilized for this investigation to indicate depression, and a cut point of less than 10 indicated no depression (70, 71).
- ✚ **Knowledge of HIV:** It was measured using a true/false questionnaire consisting of six statements that assess the respondents' understanding of key aspects of HIV transmission, prevention, and treatment. Participants indicated whether each statement was true or false, allowing for a straightforward evaluation of their knowledge. Correct responses were tallied to generate a total score, reflecting the level of HIV knowledge among the street youth in Dessie town (72).
- ✚ **Sexual self-concept:** The sexual self-concept referred to individuals' thoughts and beliefs about themselves within the sexual domain, encompassing aspects such as sexual health, sexual orientation, and personal values regarding sexuality. A 12-item scale was developed to measure three dimensions of sexual self-concept (73): sexual openness, sexual esteem, and sexual anxiety, with four items dedicated to each dimension. Participants responded to behavioral and attitudinal statements using a five-point Likert scale, ranging from "Never" or "Strongly Disagree" to "Always" or "Strongly Agree." Higher scores indicated greater levels of sexual self-concept, and the scale demonstrated both validity in its internal structure and satisfactory reliability across all dimensions. This instrument ultimately provided valuable

insights into individuals' sexual self-concept, enhancing the understanding of their attitudes and behaviors related to sexuality. Those who scored above mean (28.96) were considered as having high sexual self-concept (56, 73).

4.11. Data processing and analysis procedures

The collected data was checked for completeness and consistency, then coded and entered into Epi Data version 4.6 and exported and analyzed using STATA 15 statistical software. Data entry was made by the principal investigator. Descriptive statistics was calculated to summarize the findings and the result was presented by tables, text, graphs, and frequency.

The bivariable analysis was done and variables with a p-value less than 0.2 were included in the multivariable analysis which was performed to assess sexual risk behaviors and various explanatory variables after controlling all other factors. The strength of statistical association between dependent and independent variables were measured using $P\text{-value} < 0.05$ and an adjusted odds ratio at a 95% confidence interval during multivariable analysis.

4.12. Ethical consideration

Ethical clearance was obtained from Wolia University ethical review board. Then formal letter that explains the objectives, rationale, and expected outcomes of the study was written to administrators of the study area from Woldia University health Science College which requests cooperation.

Study participants were informed about the purpose of the study and information was collected after obtaining verbal consent from respective participants. Respondents were informed of the option of withdrawing from the study whenever they fill any discomfort and want to refuse for any reason at any time without consequence.

Any information recorded anonymously and confidentiality was assured throughout the study period and after a while. To ensure anonymity, personal information was coded with a number and stored in a password-locked laptop and secured place. It was explained to the participants to only those investigators who had access to the information and the content of the investigation was used for research only. The participants were also informed about the aim and purpose of the study.

4.13. Dissemination of results

The finding of the study was submitted to Health Science College of Woldia University. The research findings will be presented to the community of Woldia University, Dessie town administration and different stakeholders. Additionally, the findings will be shared with the scientific community through conference presentations and publication in reputable journals.

5. Results

5.1. Socio-demographic and economic characteristics

Out of the 421 individuals approached for the study, 382 completed the interview, resulting in a response rate of 90.74%. A significant majority of the participants, 326 (85.34%), were male. More than half, 211 (55.24%), fell within the 15-19 age range, with an average age of 18.6 years (± 3.4 SD). Most respondents, 235 (61.52%), were originated from rural areas, while 232 (60.73%) identified as followers of the Orthodox faith. Additionally, 170 (44.50%) were able to read and write, and 280 (73.30%) engaged in activities to earn money. Among respondents engaged in activities to earn money, the majority, 153 (40.05%) carrying items. A considerable portion, 173 (45.29%), reported an average daily income of less than 50 ETB. Regarding their duration of living on the street, the majority of the respondents, 251 (65.71%) had been slept on the street without any shelter during the night. Regarding to type of street children, about 199 (52.09%) of the respondents were on the street and the left were off the street children (see **Table 2**).

Table 2: Socio-demographic and economic characteristics of street youth in Dessie town, South Wollo Zone, Amhara region, Northeast Ethiopia, August, 2024

| Variables | Categories | Number (N) | Percent (%) |
|--|--------------------------|------------|-------------|
| Sex | Male | 326 | 85.34 |
| | Female | 56 | 14.66 |
| Age | 15-19 | 211 | 55.24 |
| | 20-24 | 171 | 44.76 |
| Religion | Orthodox | 232 | 60.73 |
| | Muslim | 150 | 39.27 |
| Educational level | Unable to read and write | 45 | 11.78 |
| | Read and write | 170 | 44.50 |
| | Grade 1-8 | 167 | 43.72 |
| Former residence | Urban | 147 | 38.48 |
| | Rural | 235 | 61.52 |
| Work to earn money | Yes | 280 | 73.30 |
| | No | 102 | 26.70 |
| Occupation/ Work type to earn money | Carrying items | 153 | 40.05 |
| | Transferring messages | 61 | 15.97 |
| | Car washing | 111 | 29.06 |
| | Peddling | 26 | 6.81 |
| | Shoe shining | 16 | 4.19 |
| | Others+ | 15 | 3.92 |

Continued from Table 2 ...

| Variables | Categories | Number (N) | Percent (%) |
|---|--------------------|------------|-------------|
| Average daily income | <50 birr | 173 | 45.29 |
| | 50-100 birr | 118 | 30.89 |
| | 100 birr and above | 91 | 23.82 |
| Type of street youth | On the street | 199 | 52.09 |
| | Off the street | 183 | 47.91 |
| Duration on the street | 6-12 months | 118 | 30.89 |
| | 1 and above years | 264 | 69.11 |
| Sleeping area during most of the night | On the street | 251 | 65.71 |
| | Plastic shelter | 131 | 34.29 |

5.2. Behavioral and psychological characteristics

The majority of the respondents, 286 (69.8%), reported using substances, with chat chewing being the most commonly used substance, noted by 234 (57.07%). Two-thirds of the respondents, 306 (74.63%), had a good understanding of HIV/AIDS. Most respondents, 302 (73.7%), had a positive perception of HIV/AIDS, indicating that they recognized its associated risks. Regarding depression, only 66 (16.10%) reported experiencing symptoms of depression (See **Table 3**).

Table 3: Behavioral and psychological characteristics of the respondents of street youth in Dessie town, South Wollo Zone, Amhara Region, Northeast Ethiopia, August, 2024

| Variables | Categories | Number (N) | Percent (%) |
|----------------------------|-----------------------------|------------|-------------|
| Substance use | No | 115 | 30.10 |
| | Yes | 267 | 69.90 |
| Substance intake | Alcohol | 151 | 39.53 |
| | Cigarette | 76 | 19.90 |
| | Chat | 234 | 57.07 |
| | Benzene | 92 | 22.44 |
| | Shisha | 6 | 1.46 |
| Knowledge of HIV | Poor | 97 | 25.39 |
| | Good | 285 | 74.61 |
| HIV risk perception | Poor | 128 | 33.51 |
| | Good/ perceive HIV as risky | 254 | 66.49 |
| Experiencing depression | Yes | 66 | 17.28 |
| | No | 316 | 82.72 |
| Attitude toward condom use | Unfavorable | 133 | 34.82 |
| | Favorable | 249 | 65.18 |
| Sexual self-concept | Low | 113 | 29.58 |
| | High | 269 | 70.42 |

5.3. Social factors among respondents of street youth

A significant majority of the respondents, 266 (69.63%), reported being influenced by peer pressure. About 223 (58.38%) of the respondents had large network with other street youth. About 104(27.3%) of street youth attending night club (See **Figure 3-5**).

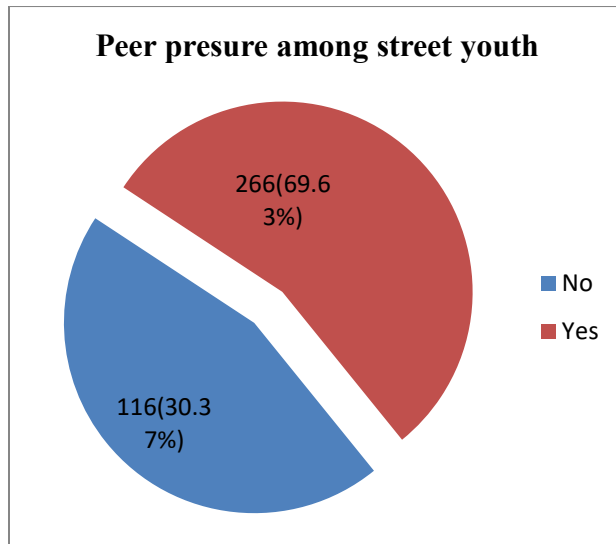


Figure 3: Peer influence among respondents of street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

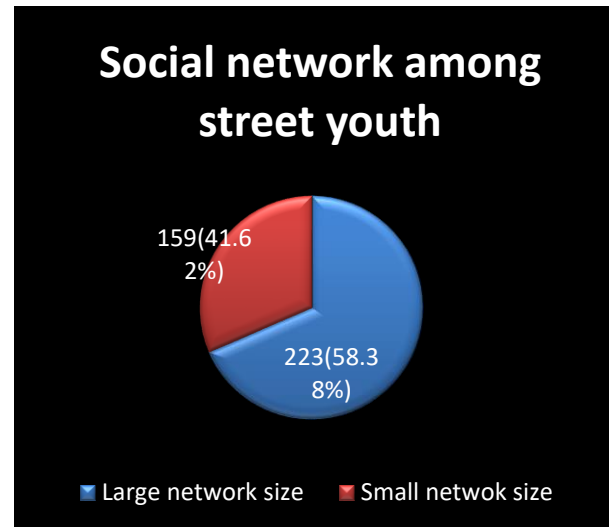


Figure 4: Social network among respondents of street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

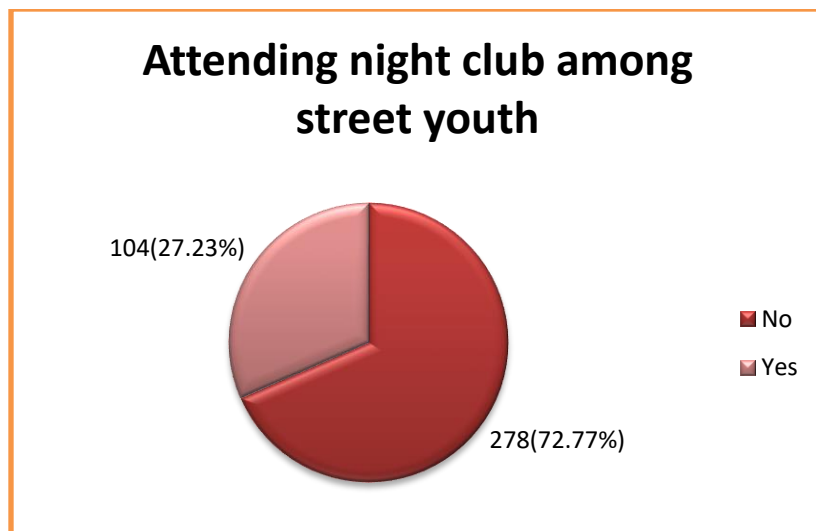


Figure 5: Attending night club among street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

5.4. Technological factors among respondents of street youth in Dessie town

Technological influences among street youth in Dessie town indicate that about 101 respondents (26.44%) interact with sexually explicit media. Furthermore, approximately 108 respondents (28.27%) reported viewing pornographic videos. A smaller group, 60 respondents (15.97%) use social media (see **Table 4**).

Table 4: Technological factors among respondents of street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

| Variables | Categories | Number (N) | Percent (%) |
|----------------------------------|------------|------------|-------------|
| Watching pornographic video | Yes | 108 | 28.27 |
| | No | 274 | 71.73 |
| Use social media | Yes | 61 | 15.97 |
| | No | 321 | 84.03 |
| See/read sexually explicit media | Yes | 101 | 26.44 |
| | No | 281 | 73.56 |

5.5. Risky sexual behavior for human immunodeficiency virus infection among street youth

In Dessie town, Northeast Ethiopia, the prevalence of risky sexual behavior among street youth is 217 individuals, representing 56.81% (95% CI: 52.67-61.83). A total of 283 respondents (74.08%) reported being sexually active. Notably, 106 respondents (27.75%) experienced early sexual initiation. Additionally, among respondents who had sex in the past 12 months 189 of them (69.49%) reported inconsistent condom use. Furthermore, 179 respondents (46.86%) had two or more sexual partners within the same timeframe, and 107 individuals (28.01%) engaged in sexual activities with commercial sex workers (see **Table 5**).

Table 5: Risky sexual behavior for HIV infection among street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

| Variables | Categories | Number (N) | Percent (%) |
|---|--------------------------|------------|-------------|
| Ever had sexual intercourse | Yes | 283 | 74.08% |
| | No | 99 | 25.92% |
| Age at first time sex | Never had sex | 99 | 25.92% |
| | Below 18 | 106 | 27.75% |
| | 18 and above | 177 | 46.33% |
| Sexual intercourse in the last 12 months | Yes | 272 | 71.20% |
| | No | 110 | 28.80% |
| Inconsistent use of condoms <u>among who had sex</u> in the last 12 month | Consistent | 83 | 30.51% |
| | Inconsistent | 189 | 69.49% |
| Having multiple sexual partner in the last 12 month | Not had multiple partner | 203 | 53.14% |
| | had 2 and more partner | 179 | 46.86% |
| Sex with commercial sex workers in the last 12 month | Yes | 107 | 28.01% |
| | No | 275 | 71.99% |
| Overall sexual risk behavior in the last 12 months | Non-risky | 165 | 43.19 |
| | Risky behavior | 217 | 56.81 |

5.6. Factors Associated with risky sexual behavior for HIV infection

Out of the 22 independent variables evaluated, only 11 were included in the multivariable logistic regression due to p-values greater than 0.2. After accounting for confounding factors, five variables stood out as significant predictors of risky sexual behavior.

The analysis indicated that individuals aged 15 to 19 were over two and a half times more likely to engage in risky sexual behavior, with an AOR of 2.57 (95% CI: 2.69, 6.83). Additionally, those with a larger social network, defined as having more than five connections, showed nearly a fourfold increase in risk, illustrated by an AOR of 3.84 (95% CI: 1.89, 7.62). Substance use was also a significant factor, with an AOR of 4.92 (95% CI: 2.01, 9.56), indicating that individuals who use substances were about five times more likely to engage in risky sexual behaviors.

Moreover, individuals with poor HIV risk perception had an AOR of 4.53 (95% CI: 2.69, 7.81), suggesting they were over four times more likely to engage in risky behaviors. Furthermore, those with low sexual self-concept were 39% more likely to partake in risky sexual practices, as reflected by an AOR of 1.39 (95% CI: 1.26, 5.21). Finally, a negative attitude toward condom use was associated with an AOR of 2.64 (95% CI: 1.49, 5.76), indicating that such individuals were more than two and a half times more likely to engage in risky sexual practices. For additional details, please refer to **Table 6**.

Table 6: Factors associated with risky sexual behavior for HIV infection among street youth in Dessie town, South Wollo zone, Amhara region, Northeast Ethiopia, August, 2024

| Variables | Category | Sexual risky behavior | | COR | AOR |
|--|--------------------|-----------------------|-----|-------------------|---------------------|
| | | Yes/risky | No | | |
| Age | 20-24 | 130 | 41 | 1 | 1 |
| | 15-19 | 87 | 124 | 4.52 (2.35,6.25) | 2.57 (2.69,6.83)* |
| Former residence | Urban | 87 | 60 | 1 | 1 |
| | Rural | 130 | 105 | 1.17 (1.04,2.58) | 0.7 (0.62,1.98) |
| Type of street youth | On the street | 134 | 65 | 1 | 1 |
| | Off the street | 83 | 100 | 2.48 (1.03,6.92) | 1.83(0.81,6.02) |
| Peer pressure | No | 82 | 34 | 1 | 1 |
| | Yes | 135 | 131 | 2.34 (1.07,5.91) | 1.92(0.81,6.03) |
| Social network size among street youth | Small network | 128 | 31 | 1 | 1 |
| | Large network size | 89 | 134 | 6.22 (2.45,8.25) | 3.84(1.89,7.62)** |
| Substance use | No | 98 | 17 | 1 | 1 |
| | Yes | 100 | 139 | 8.01 (3.59,14.35) | 4.92(2.01,9.56) *** |
| HIV risk perception | Good | 183 | 71 | 1 | 1 |
| | Poor | 34 | 94 | 7.13 (4.41,11.52) | 4.53(2.69-7.81)*** |
| Sexual self-concept | High | 179 | 90 | 1 | 1 |
| | Low | 38 | 75 | 3.93 (2.48,6.34) | 1.39(1.26,5.21)* |
| Attitude toward condom use | Favorable | 175 | 74 | 1 | 1 |
| | Unfavorable | 42 | 91 | 5.12 (1.53-9.75) | 2.64(1.49,5.76) * |
| Watching pornographic | No | 175 | 99 | 1 | 1 |
| | Yes | 42 | 66 | 2.77 (1.75,4.36) | 1.38(0.76,4.85) |
| See/read sexually explicit media | No | 177 | 104 | 1 | 1 |
| | Yes | 40 | 61 | 2.60 (1.62,4.11) | 0.86(0.62,3.11) |

Note: *p-value > 0.05, **p-value > 0.01, p-value < 0.001*** and 1 reference category

6. Discussion

This study aimed to identify magnitude and factors associated with risky sexual behavior among participants, highlighting significant predictors that warrant attention in public health initiatives. The prevalence of risky sexual behavior for HIV infection among street youth in this study was 56.81% (95% CI: 52.67-61.83). This finding is consistent with previous research, which reported a prevalence of 55.0% in Canada (16), 55% in Kenya among street youth (22), and 53.9% in Ethiopia (24).

The finding in this study was comparatively lower than that of a study in Egypt, which reported a prevalence of 84.9% (32). This difference could be attributed to the study population and setting; the study in Egypt focused on substance users, who may be more vulnerable than the population in our study.

Conversely, the prevalence in this study was higher than in Nigeria, where it was reported at 22.9% (35), and was also notably higher than figures from Fiji (38.1% with two or more sexual partners) (34) and various studies in Ethiopia, including 32.5% in Arsi Negelle Town (36), 51.3% among Mizan high school students (37), and 43.46% among children aged 10-18 in Gedeo Zone (44). This could be attributed to the fact that our study population consists of street youth, who may be more vulnerable to such behaviors, especially given the current situation in the study area, which has experienced various conflicts and remains a zone of unrest.

One of the most striking results was the increased likelihood of risky sexual behavior among individuals aged 15 to 19. This can be justified as early adolescents in this age group often display behavioral characteristics such as impulsivity and a tendency toward experimentation, which can lead to engaging in risky sexual activities. Compared to older street youth aged 20 to 24; younger individuals may have a less developed ability to assess risks and consequences, resulting in a higher propensity for unsafe sexual practices. These results aligned with previous studies that have identified early adolescent populations as particularly vulnerable to engaging in risky sexual practices (38).

Another significant factor was the size of social networks, with those having more than five connections with other street youth exhibiting higher odds of sexual risky behavior for HIV infection. This finding implies that larger social circles may contribute to a greater likelihood of

engaging in risky behaviors, as individuals within these networks may share experiences and attitudes that normalize such actions. This can be justified as the presence of multiple connections can amplify exposure to various risky behaviors, making it more likely for individuals to adopt these practices themselves. This aligned with previous studies that have shown that individuals in extensive social networks often mirror the behaviors of their peers (60).

Substance use emerged as a critical predictor of risky sexual behavior for HIV infection. This finding is consistent with existing literature that links substance abuse to impaired judgment and an increased likelihood of engaging in sexual risk-taking (51). This can be justified as when individuals consume substances such as alcohol or chew khat, their ability to make sound decisions is often compromised. This impairment can lead to reduced inhibition, making individuals more likely to engage in behaviors they might otherwise avoid, including unprotected sex or multiple sexual partners.

Moreover, the social environments associated with substance use, such as those around chewing khat, can create a context where risky behaviors are more likely to occur. The communal nature of khat consumption often involves social gatherings that may encourage a disregard for safe sexual practices, further reinforcing the likelihood of engaging in risky sexual behavior.

The study also highlighted the impact of HIV risk perception. Participants with poor risk perception had higher odds of sexual risk behavior for HIV infection, indicating a significant disconnect between awareness and behavior. These disconnect stems from a lack of understanding about the severity of HIV and how it affects individual susceptibility, causing many to underestimate their risk of infection. When individuals do not view themselves as at risk for HIV, they are less likely to adopt protective measures, such as consistent condom use. This finding is supported by previous studies elsewhere in the World (51, 56).

Furthermore, low sexual self-concept was found to increase the likelihood of engaging in risky sexual behavior. The finding was in line with previous study (56). This finding can be justified as individuals with a negative view of their sexual identity may be more prone to risky practices, highlighting the importance of fostering a positive sexual self-concept through supportive interventions.

Lastly, unfavorable attitudes toward condom use were linked to higher odds of sexual risk behavior for HIV infection. This finding suggests that negative perceptions regarding condoms can significantly hinder safe sex practices. When individuals hold unfavorable views about condoms such as beliefs that they reduce pleasure, are inconvenient, or unnecessary, they are less likely to use them consistently. This reluctance can lead to increased vulnerability to STIs and unintended pregnancies. This finding is supported by previous studies that have shown a direct correlation between negative attitudes toward condoms and lower rates of condom use (57).

7. Strengths and limitations of the study

This research attempts to fill a gap by examining street youth, who are arguably the most at risk group. The data collection was through an interviewer-administered questionnaire, which raises the risk of introducing interviewer bias. Furthermore, this research has shares the shortcomings of cross sectional studies, which tend to lack cause-effect relationships. The data was gathered based on self-reported practices, which can cause underestimating of figures by the participants. In addition, there were no qualitative results to back up this study.

8. Conclusion

The ever-growing population of street youth engaging in risky sexual behavior to aid HIV infection highlights the necessity of targeted interventions. Sexual education that suits the appropriate age group is paramount together with peer-to-peer campaigns that encourage healthy behaviors within their circles. This further encompasses the use of integrated HIV prevention interventions that cut across substance use in an effort to reduce risky sexual practices. Changing attitudes towards HIV infection requires an understanding of how it is transmitted, the elimination of false beliefs, and building a suitable self-esteem necessary for making healthy sexual choices. Furthermore, education must promote the use of condoms and not stigmatize them.

9. Recommendations

Specific educational campaigns aimed at adolescents age 15 to 19, particularly from street youth groups, should be developed and implemented by zonal health departments and health offices. Such programs should be designed with the intention of addressing issues such as impulsivity and peer pressure, while also encouraging safe sex. Additionally, the use of drugs should be taught alongside sexual health to help mitigate the effects of poor decision-making. Public health campaigns should also focus on the need for greater awareness regarding the transmission of HIV so that younger people appreciate the need for protection such as the use of condoms.

Programmes targeting the enhancement of sexual self-esteem should be developed by the NGOs and other relevant stakeholders for street youth. Self-acceptance and body positivity campaigns recommended to reduce the chances of taking part in such risky activities. Additionally, campaigns addressing the negative stigma associated with condom use and emphasizing the importance of STIs and unintended pregnancy prevention should be mounted. Through working with the local community, NGOs can promote safe sex practices and empower street youth to make healthy sexual decisions.

Finally, the authors of this study recommend that future investigators support our finding by using a qualitative study.

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8. Appendices

Annex I: Information Sheet and Consent form

A. Info Sheet

Title of the Research:

Risky Sexual Behavior for Human Immunodeficiency Virus Infection and its associated Factors among Street Youth in Dessie town, South Wollo Zone, Amhara Region, Northeast Ethiopia, 2024

Name of Principal Investigator: Hailemariyam Goshu

Name of the Organization: Woldia University College of Health Sciences and School of public health.

Introduction

This info sheet and consent type is ready with the aim of assessing Risky Sexual Behavior for Human Immunodeficiency Virus Infection and its associated Factors among Street Youth in Dessie town, South Wollo Zone, Amhara Region, Northeast Ethiopia, 2024.

We would like to search out ways in which we will determine the associated factors of risky sexual behaviour among street youth and develop thought and strategic interventions to handle the matter. We tend to be worth your input to create this study a prosperous one.

Purpose of the analysis: This study aims to assess the risky sexual behavior and associated factors in Dessie town, northeast Ethiopia, in 2024.

Procedure: The study involves street youth aged from 15 to 24 years. You're selected to be one of every of the study participants if you are willing to take part in this study and we kindly invite you to take part in our study.

If you're willing to participate, we tend to be thus happy and, we want you to perceive the aim of this study and show your agreement. Finally, you're kindly requested to offer your real response within the interview.

Benefits, Risks, and /or Discomfort

By collaborating during this scientific research, you'll feel some discomfort in wasting it slowly (most 30 minutes). However, your participation is vital to assess your disposition towards the risky sexual behavior. There's no risk or direct profit in participating in collaborating during this scientific research.

Incentives/Payments

You will not be provided any incentives or payment to require half during this study.

Confidentiality

The information collected from you'll be unbroken confidential and held on in an exceeding file, while not your name by distribution a code variety to that. As a result, your name is never mentioned in the study report.

Right to Refusal or Withdraw

You have the total right to refuse from collaborating during this analysis. You have got additionally the total right to withdraw from this study at any time you would like.

Person to contact

This scientific research is reviewed and approved by the Institutional Review Board (IRB) of Woldia University Faculty of Health Sciences. If you have got any queries you'll be able to contact the investigator.

Name: **Institutional Review Board (IRB) of Woldia University**

Address: cell phone: +251932470327

B. Consent Form

A prepared form assesses risky sexual behavior for human immunodeficiency virus infection and its associated factors among street youth in Dessie town, South Wollo Zone, Amhara Region, Northeast Ethiopia, 2024.

Dears,

Hello, my name is Hailemariyam Goshu. I'm learning master's a degree in public health at Woldia University Faculty of Health Sciences, School of Public Health. I'm curious about learning about the risky sexual behavior for human immunodeficiency virus infection and its associated factors. This form is meant for educational functions and can be approved by Woldia University, the college of Health Sciences, School of Public Health, in partial fulfillment of a master's degree in public health. I hope you'll help by responding these questioners. None of your answers are obtainable to anyone. All the data you provide are unbroken and non-public. Anyone won't be caning to participate in the study and you can discontinue at any time within the method. Confidentiality and privacy are maintained by making certain the respondents answer the queries in an exceedingly separate place wherever nobody will see them. Therefore, I would like your honest and real response. The results of the study can hopefully be a very important input for policy and intervention programs. I thank you for taking the time to answer my queries.

Would you be willing to participate in the study?

1, Yes 2, No

Continue to the next page if the answer is yes. If not, please stop here.

Name of Researcher: Hailemariyam Goshu **Address:** Woldia University College of Health Sciences

Phone No: +251986624151

E-mail: haile2012@gmail.com

Name of the information gatherer _____ signature _____ Date of questionnaire interview _____ month ____ /2024

Supervisor's name _____ Date _____ signature _____ Time of form administer began ____ hours: minutes Time of administered form finished ____ hours: minutes Checked on; cuspace _____ date ____ month/ 2024

Annex II: Tools

Part I: Socio-demographic characteristics

| S. no | Questions and filters | Alternative answers (coding category) | Skip to |
|-------|--|---|---------|
| 101 | How old are you? | _____ years (with full number) | |
| 102 | Sex of respondents | 1. Male 2. Female | |
| 103 | What is your religion? | 1. Orthodox 2. Muslim 3. Protestant 99. Others, specify / _____/ | |
| 104 | Which ethnic group do you belong to? | 1. Amhara 3. Tigray 2. Oromo 99. Others, specify / _____/ | |
| 105 | Former Residence | 1. Rural 2. Urban | |
| 106 | Do you attend Church/ Mosque at least once a week? | 1. Yes 2. No | |
| 107 | Your education level | _____ | |
| 108 | Do you work to earn money | A. No B. Yes | |
| 109 | What you do for living | 1. Nothing 2. Carrying items 3. Transferring messages 4. Car washing 5. If other ways to get income that you need for living, specify _____ | |
| 110 | What is your average daily income in Ethiopian birr? | _____ | |

| | | | |
|-----|---|--|--|
| 111 | How many months have you been living on the street? | _____ | |
| 112 | Where do you usually sleep at night? | A. On the street B. At plastic shelter C. Other, specify _____ | |
| 113 | Which best describes your situation? | A. I live on the street all the time. B. I go home to my family at night but spend most of my days on the street. | |

PART II: Sexual risk-taking behavior related questioner.

| S. no | Questions and filters | Alternative answers (coding category) | Skip to |
|-------|---|--|-----------------------------------|
| 201 | Have you ever had sexual intercourse? | 1/ Yes 2/ No | If No go to 301 |
| 202 | What was your age when you first had sexual intercourse? | A. Below 15 B. 15-18 C. Above 18 | |
| 203 | Did you use a condom the first time you had sexual intercourse? | 1. Yes 2. No | |
| 204 | How many sexual partners (s) have you had so far? | _____ partner/s | |
| 205 | Did you use condom when you have sex with her/them | 1/ Yes 2/ No | |
| 206 | Have you ever had a sexual relationship with commercial sex workers in your life? (for males only) | 1/ Yes 2/ No | I if no skip to the next question |
| 207 | If yes for the above question, was a condom used? | 1/ Yes 2/ No | |
| 208 | Have you ever had sex for money | 1/ Yes 2/ No | If no go to next question |
| 209 | If yes for the above question, was a condom used? | 1. Yes 2. No | |
| 210 | Have you had sexual intercourse in the last 12 months? | 1. Yes 2. No | If no go to question 301 |

| | | | |
|-----|---|-----------------------|--|
| 211 | If yes for the above question, was a condom used? | 1. Yes 2. No | |
| 212 | How many sexual partners have you had sexual intercourse within the last 12 months? | A/ One B/ Two or more | |
| 213 | If yes for the above question, was a condom used? | 1. Yes 2. No | |
| 214 | Have you had sexual intercourse in the last 12 months with commercial sex worker? | 1. Yes 2. No | |
| 215 | If yes for the above question, was a condom used? | 1. Yes 2. No | |
| 216 | Have you had sexual intercourse in the last 12 months for getting money? | 1/ Yes 2/ No | |
| 217 | If yes for the above question, was a condom used? | 1/ Yes 2/ No | |

PART III: Behavior and psychological related questioner

| S. no | Questions and filters | Alternative answers (coding category) | Skip to |
|-------|---|---|---------------------------------|
| | The following item assesses whether you use substances. Please choose one response.' | | |
| 301 | Do you consume alcohol (Tella, Teji, Areke, Beer, Wine, etc..) in the last 12 months? | 1. Yes 2. NO | If say No skip to next question |
| 302 | If you say yes for the above question, how frequently have you used alcohol? | A) Daily B) Several times a week C) Once a week D) A few times a month E) Rarely F) Not at all | |
| 303 | Have you chew chat in the last 12 months? | 1. Yes 2. NO | If say No skip to next question |
| 304 | If you say yes for the above question, how frequently have you chew chat? | A) Daily B) Several times a week C) Once a week | |

| | | | |
|-----|--|---|---------------------------------|
| | | D) A few times a month E) Rarely F) Not at all | |
| 305 | Have you smoked a cigarette in the last 12 months? | 1. Yes 2. No | If say No skip to next question |
| 306 | If you say yes for the above question, how frequently have you smoked? | A) Daily B) Several times a week C) Once a week D) A few times a month E) Rarely F) Not at all | |
| 307 | Did you use any other substance out of those listed above in past 12 months? | 1. Yes 2. No | |
| 308 | If yes, please specify the substance you used | _____ | |
| 309 | If you say yes for the above question, how frequently have you used the substance you specified above? | A) Daily B) Several times a week C) Once a week D) A few times a month E) Rarely F) Not at all | |
| | HIV knowledge (Say true or false for the next HIV knowledge related question) | | |

| | | | |
|-----|---|------------------|--|
| 310 | HIV can be transmitted through unprotected sexual intercourse | A/ False B/ True | |
| 311 | Sharing needles can lead to HIV transmission. | A/ False B/ True | |
| 312 | A person can be infected with HIV and not show symptoms for many years. | A/ False B/ True | |
| 313 | Using condoms can reduce the risk of HIV transmission. | A/ False B/ True | |
| 314 | People with HIV can lead a normal life with proper treatment. | A/ False B/ True | |
| 315 | Pregnant women with HIV can pass the virus to their babies during childbirth. | A/ False B/ True | |

| S. no | Questions and filters (Rate your level of agreement for the following questions, from 1-5 (1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5= strongly agree)) | Rate (1=strongly disagree, 2=disagree, 3= neutral, 4=agree, 5= strongly agree) | | | | |
|-------|--|---|---|---|---|---|
| | HIV risk perception | | | | | |
| 316 | I believe I am personally at risk of contracting HIV | 1 | 2 | 3 | 4 | 5 |
| 317 | I think that many people in my community are at risk of contracting HIV. | 1 | 2 | 3 | 4 | 5 |
| 318 | I believe that my lifestyle choices determine my risk of contracting HIV | 1 | 2 | 3 | 4 | 5 |
| 319 | I feel that I have a good understanding of how HIV is transmitted, which affects my perception of risk. | 1 | 2 | 3 | 4 | 5 |
| 320 | I believe that social stigma around HIV affects my perception of being at risk. | 1 | 2 | 3 | 4 | 5 |
| 321 | I feel motivated to take precautions (e.g., using condoms, getting tested) because I perceive a risk | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----|--|---|---|---|---|---|
| | of contracting HIV. | | | | | |
| | Sexual self-concept | | | | | |
| 322 | I feel comfortable discussing my sexual preferences with others. | 1 | 2 | 3 | 4 | 5 |
| 323 | I am open to exploring new sexual experiences. | 1 | 2 | 3 | 4 | 5 |
| 324 | I believe it is important to communicate openly about sexual health. | 1 | 2 | 3 | 4 | 5 |
| 325 | I am willing to learn about different aspects of sexuality. | 1 | 2 | 3 | 4 | 5 |
| 326 | I feel confident in my sexual identity. | 1 | 2 | 3 | 4 | 5 |
| 327 | I have a positive view of my sexual abilities. | 1 | 2 | 3 | 4 | 5 |
| 328 | I believe that I deserve a satisfying sex life. | 1 | 2 | 3 | 4 | 5 |
| 329 | I feel good about my sexual orientation. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----|---|---|---|---|---|---|
| 330 | I often worry about my sexual performance. | 1 | 2 | 3 | 4 | 5 |
| 331 | I feel anxious when discussing sexual topics. | 1 | 2 | 3 | 4 | 5 |
| 332 | I fear that I may not meet my partner's sexual expectations. | 1 | 2 | 3 | 4 | 5 |
| 333 | I often feel insecure about my sexual attractiveness. | 1 | 2 | 3 | 4 | 5 |
| | Attitude toward condom use | | | | | |
| 334 | I believe that using condoms during sexual intercourse is an effective way to prevent sexually transmitted infections, including HIV. | 1 | 2 | 3 | 4 | 5 |
| 335 | I feel comfortable discussing condom use with my sexual partner. | 1 | 2 | 3 | 4 | 5 |
| 336 | I think that using condoms detracts from the pleasure of sexual intercourse. | | | | | |

| | | | | | | |
|-----|---|---|---|---|---|---|
| 337 | I would encourage my friends to use condoms to protect themselves from STIs and unintended pregnancies. | 1 | 2 | 3 | 4 | 5 |
| 338 | I believe that condoms should be readily available in public places (e.g., schools, community centers) to promote safe sex. | 1 | 2 | 3 | 4 | 5 |

| Depression: Instructions: For each of the following questions, please consider how often you have experienced the symptom over the past two weeks and rate the appropriate response from 0 to 3. | | Response Options: 0: Not at all 1: Several days 2: More than half the days 3: Almost every day | | | |
|---|---|---|---|---|---|
| 339 | Have you experienced little interest or pleasure in doing things you usually enjoy? | 0 | 1 | 2 | 3 |
| 340 | In the past two weeks, have you felt down, depressed, or hopeless? | 0 | 1 | 2 | 3 |
| 341 | Have you had trouble falling asleep or staying asleep? | 0 | 1 | 2 | 3 |
| 342 | Do you often feel tired or have little energy? | 0 | 1 | 2 | 3 |
| 343 | Have you noticed changes in your appetite, such as poor appetite or overeating? | 0 | 1 | 2 | 3 |
| 344 | Do you often feel bad about yourself or that you are a failure? | 0 | 1 | 2 | 3 |
| 345 | Have you had trouble concentrating on things, such as reading or watching television? | 0 | 1 | 2 | 3 |
| 346 | Have others noticed that you are moving or speaking more slowly than usual? | 0 | 1 | 2 | 3 |
| 347 | Have you had thoughts that you would be better off dead or thoughts of self-harm? | 0 | 1 | 2 | 3 |

PART V. Social Factor Related Questiner

| S. no | Questions and filters | Alternative answers (coding category) | Skip to |
|-------|--|--|---------|
| | PEER SEXUAL BEHAVIOR AND PEER INFLUENCE (Give response by saying yes or no) | | |
| 401 | Is there pressure from your friends for you to have sexual intercourse? | A. Yes B. No | |
| 402 | Do you practically apply what your best friend(s) tell(s) you to do for the sake of comforting your friend(s)? | A. Yes B. No | |
| 403 | Do you know that your best friend(s) is/are doing sexual intercourse? | A. Yes B. No C. I do not know | |
| 404 | Did your girl/boyfriend insisted you do sexual intercourse? | A. Yes B. No C. I do not have a girl/boyfriend | |
| 405 | If you do have a long term plan with your girl/boyfriend, suppose if she/he asks you to do sexual intercourse, what your response will be? | A. If I love her/him I will do sex even without condom B. If I love her/him I will do sex with condom C. Even if I love her/him I will resist not doing unplanned sex D. Even if I love her/him I will resist not doing sex before marriage | |
| 406 | If your sexual partner insists not to use a condom, what is your response? | A. I will do sex not to miss my partner B. Even without a condom. I will insist on using a condom | |

| | | | |
|-----|--|--|---------------------------------|
| | | <p>C. I will provide him with a condom to use</p> <p>D. I will not do sex without condom</p> | |
| 407 | Have you been attending night club in the last 12 month | <p>A. Yes</p> <p>B. No</p> | If no skip to the next question |
| 408 | How frequently attending night club? | <p>A. Daily</p> <p>B. Twice and more than twice a week</p> <p>C. Weekly</p> <p>D. Sometimes in a month</p> <p>E. Never</p> | |
| 409 | How many people do you consider part of your social network (friends, family, acquaintances) that you regularly interact with? | ____ (Please provide a number) | |
| 410 | What types of relationships do you have within your network? (Select all that apply to you) | <p>A. Family</p> <p>B. Friends</p> <p>C. Acquaintances</p> <p>D. Peers from the street</p> <p>E. Community members</p> <p>F. Service providers (e.g., social workers, counselors)</p> <p>G. Others (please specify): _____</p> | |
| 411 | How often do you communicate with the people in your network? | <p>A. Daily</p> <p>B. Several times a week</p> <p>C. Weekly</p> <p>D. Monthly</p> <p>E. Rarely</p> | |

PART VI: Exposure to social media and technological factor questioner

| S. no | Questions and filters | Alternative answers (coding category) | Skip to |
|-------|---|---------------------------------------|---------|
| 501 | Do you currently use social media (you tube, Facebook and so on) | A. Yes B. No | |
| 502 | Have you ever seen pornography movies in the last 12 month? | A. Yes B. No | |
| 503 | Have you ever read /see sexual explicit media in the last 12 month? | A. Yes B. No | |

Annex II: Amharic Version Questioner

ክፍል አንድ፡ ማህበረ-ሕዝብ ነክ ባህሪያት

| ተ.ቁ. | ጥያቄዎች እና ማጣሪያዎች | አማራጭ መልሶች (የኮድ ምድብ) | ዝላል |
|------|---|--|-----|
| 101 | እድሜዎዎ ስንት ነው | _____ ዓመት (በሙሉ ቁጥር) | |
| 102 | ፆታዎ | ሀ. ወንድ ለ. ሴት | |
| 103 | ሀይማኖትዎ ምንድን ነው? | ሀ. ኦርቶዶክስ ለ. ሙስሊም ሐ. ፕሮቴስታንት መ. ሌላ ከሆነ ይግለጹ / _____ / | |
| 104 | የየትኛው ብሄረሰብ አባል ነዎት/ብሄርዎ ምንድን ነው? | ሀ. አማራ ለ. ትግራይ ሐ. ኦሮሞ 4. ሌላ ከሆነ ይግለጹ / _____ / | |
| 105 | የቀድሞ መኖሪያዎ የት ነበር፣ ከተማ ወይስ ገጠር? | ሀ. ገጠር ለ. ከተማ | |
| 106 | እርሶዎ ቤተክርስቲያን/ መስጊድ ቢያንስ በሳምንት 1 ጊዜ ይሄዳሉ? | ሀ. አዎ ለ. አልሄድም | |
| 107 | የትምህርት ደረጃዎን ይግለጹ? | _____ | |
| 108 | ገንዘብ ለማግኘት ስራ ትሰራለህ? | ሀ. አዎ ለ. ምንም ስራ የለኝም | |

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| 109 | እርሶዎ ለመኖር የሚሰሩት ምንድን ነው? | ሀ. እቃዎችን መያዝ ለ. መልእክቶችን ማስተላለፍ ሐ. መኪና ማጠገን መ. ሌላ ለመኖር የሚያስፈልገውን ገቢ የሚያገኙበትን ዘዴ ካለ ይግለጹ _____ | |
| 110 | በኢትዮጵያ ብር አማካይ የቀን ገቢዎ ስንት ነው? | _____ | |
| 111 | በጎዳና ላይ ስንት ወር ኑረዋል? | _____ | |

ክፍል ሁለት: ከወሲብ አደጋ ጋር የተያያዙ መጠይቆች

| ተ/ቁ | ጥያቄዎች እና ማጣሪያዎች | አማራጭ መልሶች (የኮድ ምድብ) | ዝላል |
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| 201 | የግብረ ሥጋ ግንኙነት ፈጽመዉ ያወቃሉ? | ሀ. አዎ ለ. አድርጌ አላዉቅም | አድርጌ አላዉቅም ካሉ ወደ ተ/ቁ 301 ይዝላሉ |
| 202 | ለመጀመሪያ ጊዜ የግብረ ሥጋ ግንኙነት ሲፈጽሙ ዕድሜዎ ስንት ነበር? | ሀ. ከ 15 ዓመት በታች ለ. ከ 15-18 ዓመት ሐ. ከ 18 ዓመት በላይ | |
| 203 | ለመጀመሪያ ጊዜ የግብረ ሥጋ ግንኙነት ሲፈጽሙ ኮንዶም ተጠቅመዋል? | ሀ.አዎ ለ. ኮንዶም አልተጠቀምኩም | |
| 204 | እስካሁን ስንት የወሲብ አጋሮች ነበሩዎት? | _____ አጋሮች | |
| 205 | ከእሷ/እሱ/እነሱ ጋር የግብረ ሥጋ ግንኙነት | ሀ.አዎ | |

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| | ሲፈጽሙ ኮንዶም ተጠቅመዋል? | ለ. ኮንዶም አልተጠቀምኩም | |
| 206 | በህይወትዎ ውስጥ ከሴተኛ አዳሪ ጋር የግብረ ሥጋ ግንኙነት ነበረዎት? (ለወንድ ብቻ) | ሀ. አዎ ለ. አድርጌ አላዉቅም | I if no skip to the next question |
| 207 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ ኮንዶም ተጠቅመዋል? | ሀ.አዎ ለ. ኮንዶም አልተጠቀምኩም | |
| 208 | ገንዘብ ለማግኘት ወሲብ ፈጽመሺ/ህ ታውቃለህ? | ሀ. አዎ ለ. አድርጌ አላዉቅም | መልሰዎ አዎ ካልሆነ ወደሚቀጥለው ጥያቄ ይሂዱ |
| 209 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ ኮንዶም ተጠቅመዋል? | ሀ. አዎ ለ. ኮንዶም አልተጠቀምኩም | |
| 210 | በለፉት 12 ወራት ውስጥ የግብረ ሥጋ ግንኙነት ፈጽመዋል? | ሀ. አዎ ለ. አድርጌ አላዉቅም | መልሰዎ አዎ ካልሆነ ወደሚቀጥለው ተ/ቁ 301 ጥያቄ ይሂዱ |
| 211 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ ኮንዶም ተጠቅመዋል? | ሀ. አዎ ለ. ኮንዶም አልተጠቀምኩም | |
| 212 | በለፉት 12 ወራት ውስጥ ከምን ያህል ሰዓዊ ጋር የግብረ ሥጋ ግንኙነት ፈጽመዋል? | ሀ/ አንድ ለ/ ሁለት ወይም ከዚያ በላይ | |
| 213 | ኮንዶምስ ተጠቅመዉ ነበር? | ሀ. አዎ ለ. ኮንዶም አልተጠቀምኩም | |
| 214 | በለፉት 12 ወራት ውስጥ ከሴተኛ አዳሪ ጋር የግብረ ሥጋ ግንኙነት ፈጽመዋል? | ሀ. አዎ ለ. አልፈ ፀምኩም | |
| 215 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ ኮንዶም | ሀ. አዎ | |

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| | ተጠቅመዋል? | ለ. ኮንዶም አልተጠቀምኩም | |
| 216 | ገንዘብ ለማግኘት ባለፉት 12 ወራት ውስጥ የግብረ ሥጋ ግንኙነት ፈጽመዋል? | ሀ. አዎ ለ. አልፈ ፀምኩም | |
| 217 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ ኮንዶም ተጠቅመዋል? | ሀ. አዎ ለ. ኮንዶም አልተጠቀምኩም | |

ክፍል III: ባህሪ እና ስነ-ልቦናዊ ተዛማጅ ጠያቂ

| ተ/ቁ | ጥያቄዎች እና ማጣሪያዎች | አማራጭ መልሶች (የኮድ ምድብ) | ዝላል |
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| | የሚከተለው ንጥል ንጥረ ነገሮችን መጠቀማችሁን ይገመግማል። | | |
| 301 | ባለፉት 12 ወራት ውስጥ አልኮል (ጠላ፣ ጠጂ፣ አረቂ፣ ቢራ፣ ወይን፣ ወዘተ..) ተጠቅመዉ ያዉቃሉ? | ሀ. አዎ ለ. ተጠቀሜ አላዉቅም | የለም ካሉ ወደሚቀጥለው ጥያቄ ይዝላሉ |
| 302 | ከላይ ላለው ጥያቄ አዎ ካሉ፣ ምን ያህል ጊዜ አልኮል ተጠቅመዋል? | ሀ) በየቀኑ ለ) በሳምንት ብዙ ጊዜ ሐ) በሳምንት አንድ ጊዜ መ) በወር ጥቂት ጊዜ መ) አልፎ አልፎ ረ) በጭራሽ | |
| 303 | ባለፉት 12 ወራት ውስጥ ጫት ቅመው ያዉቃሉ? | ሀ. አዎ ለ. ቅሜ አላዉቅም | የለም ካሉ ወደሚቀጥለው |

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| | | | ጥያቄ ይዝለሉ |
| 304 | ከላይ ላለው ጥያቄ አዎ ካሉ፣ ምን ያህል ጊዜ ጫት ቅመው ያዉቃሉ? | ሀ) በየቀኑ ለ) በሳምንት ብዙ ጊዜ ሐ) በሳምንት አንድ ጊዜ መ) በወር ጥቂት ጊዜ ሙ) አልፎ አልፎ ረ) በጭራሽ | |
| 305 | ባለፉት 12 ወራት ውስጥ ሲጋራ አጭሰዋል ያዉቃሉ? | ሀ. አዎ ለ. አጭሻ አላዉቅም | የለም ካሉ ወደሚቀጥለው ጥያቄ ይዝለሉ |
| 306 | ከላይ ላለው ጥያቄ አዎ ካሉ፣ በየስንት ጊዜ አጭስዋል? | ሀ) በየቀኑ ለ) በሳምንት ብዙ ጊዜ ሐ) በሳምንት አንድ ጊዜ መ) በወር ጥቂት ጊዜ ሙ) አልፎ አልፎ ረ) በጭራሽ | |
| 307 | ባለፉት 12 ወራት ውስጥ ከላይ ከተዘረዘሩት ውጭ ሌላ ማንኛውንም ንጥረ ነገር ተጠቅመዋል? | ሀ. አዎ ለ. ተጠቀሜ አላዉቅም | የለም ካሉ ወደሚቀጥለው 310ኛ ጥያቄ |

| | | | ይዝላሉ |
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| 308 | ከላይ ላለው ጥያቄ መልሰዎ አዎ ከሆነ፣ እባክዎ የተጠቀሙትን ንጥረ ነገር ይግለጹ | _____ | |
| 309 | ከላይ ላለው ጥያቄ አዎ ካሉ፣ ከዚህ በላይ የገለጽኩት ንጥረ ነገር ምን ያህል ጊዜ ተጠቅመዋል? | ሀ) በየቀኑ ለ) በሳምንት ብዙ ጊዜ ሐ) በሳምንት አንድ ጊዜ መ) በወር ጥቂት ጊዜ ሙ) አልፎ አልፎ ረ) በጭራሽ | |
| | ስለ ኤችአይቪ እውቀት (ለቀጣዩ የኤችአይቪ እውቀት ጋር የተያያዘ ጥያቄ እውነት ወይም ውሸት ብለው ይመልሱ) | | |
| 310 | ኤች አይ ቪ ጥንቃቄ በሌለው የግብረ ሥጋ ግንኙነት ሊተላለፍ ይችላል። | ሀ/ሀሰት ለ/ እውነት | |
| 311 | መርፌዎችን መጋራት ለኤችአይቪ መተላለፍ ሊያጋልጥ ይችላል. | ሀ/ሀሰት ለ/ እውነት | |
| 312 | አንድ ሰው በኤች አይ ቪ ተይዞ፣ ለብዙ አመታት ምልክቶችን ሊያሳይ ይችላል. | ሀ/ሀሰት ለ/ እውነት | |
| 313 | ኮንዶም መጠቀም የኤችአይቪን ስርጭት አደጋን ይቀንሳል። | ሀ/ሀሰት ለ/ እውነት | |
| 314 | በኤች አይ ቪ የተያዙ ሰዎች በተገቢው ህክምና መደበኛ | ሀ/ሀሰት ለ/ እውነት | |

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| | ህይወት ሊመሩ ይችላሉ. | | |
| 315 | ኤች አይ ቪ የተያዙ ነፍሰ ጡር እናቶች በወሊድ ጊዜ ሽይረሱን ወደ ልጆቻቸው ሊያስተላልፉ ይችላሉ። | ሀ/ሀሰት ለ/ እውነት | |

| S. no | ጥያቄዎች እና ማጣሪያዎች (ለሚከተሉት ጥያቄዎች የእርስዎን የስምምነት ደረጃ ደረጃ ይስጡ፡ ከ1-5 (1= በጣም አልስማማም፣ 2=አልስማማም፣ 3= ገለልተኛ፣ 4=እስማማለሁ፣ 5= በጣም እስማማለሁ) | ደረጃ ይስጡ (1= በጣም አልስማማም ፣ 2= አልስማማም ፣ 3= ገለልተኛ ፣ 4= እስማማለሁ ፣ 5= በጣም እስማማለሁ) | | | | |
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| | የኤችአይቪ ስጋት ግንዛቤ | | | | | |
| 316 | በግሌ በኤች አይ ቪ የመያዝ ስጋት አለኝ ብዬ አምናለሁ። | 1 | 2 | 3 | 4 | 5 |
| 317 | እኔ እንደማስበው በእኔ ማህበረሰብ ውስጥ ያሉ ብዙ ሰዎች በኤች አይ ቪ የመያዝ ስጋት አለባቸው። | 1 | 2 | 3 | 4 | 5 |
| 318 | የእኔ የአኗኗር ዘይቤ ምርጫዎች በኤች አይ ቪ የመያዝ ስጋትን እንደሚወስኑ አምናለሁ | 1 | 2 | 3 | 4 | 5 |
| 319 | ኤችአይቪ እንዴት እንደሚተላለፍ ጥሩ ግንዛቤ እንዳለኝ ይሰማኛል፣ ይህም ለአደጋ ያለኝን ግንዛቤ ያሳያል። | 1 | 2 | 3 | 4 | 5 |
| 320 | በኤችአይቪ ዙሪያ ያሉ ማህበረሰባዊ መገለሎች በኤች አይ ቪ ተጋላጭ የመሆን ግንዛቤ ላይ ተፅኖ እንዳላችኋል አምናለሁ። | 1 | 2 | 3 | 4 | 5 |
| 321 | በኤች አይ ቪ የመያዝ ስጋት እንዳለብኝ ስለማውቅ ጥንቃቄዎችን ለማድረግ (ለምሳሌ ኮንዶም መጠቀም፣ ምርመራ ማድረግ) እንዳለብኝ ይሰማኛል። | 1 | 2 | 3 | 4 | 5 |
| | ስለራስ ያለ የታውቅ ግንዛቤ/ Sexual self-concept | | | | | |
| 322 | ስለ ጾታዊ ምርጫዎቼ ከሌሎች ሰዎች ጋር መወያየት | 1 | 2 | 3 | 4 | 5 |

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| | ይመቸኛል። | | | | | |
| 323 | አዲስ የወሲብ ልምዶችን ለማወቅ ዝግጁ ነኝ። | 1 | 2 | 3 | 4 | 5 |
| 324 | ስለ ወሲባዊ ጤንነት በግልፅ መግባባት አስፈላጊ ነው ብዬ አምናለሁ። | 1 | 2 | 3 | 4 | 5 |
| 325 | ስለ የተለያዩ የግብረ-ሥጋ ግንኙነት ገጽታዎች ለመማር ፈቃደኛ ነኝ። | 1 | 2 | 3 | 4 | 5 |
| 326 | በጾታዊ ማንነቴ በራስ መተማመን ይሰማኛል። | 1 | 2 | 3 | 4 | 5 |
| 327 | ስለ ወሲባዊ ችሎታዎቼ አዎንታዊ/ጥሩ አመለካከት አለኝ። | 1 | 2 | 3 | 4 | 5 |
| 328 | አርኪ የወሲብ ህይወት ይገባኛል ብዬ አምናለሁ። | 1 | 2 | 3 | 4 | 5 |
| 329 | ስለ ጾታዊ ዝንባሌዬ ጥሩ ስሜት ይሰማኛል። | 1 | 2 | 3 | 4 | 5 |

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| 330 | ብዙ ጊዜ ስለ ወሲባዊ ብቃቴ እጨነቃለሁ። | 1 | 2 | 3 | 4 | 5 |
| 331 | ስለ ወሲባዊ ጉዳዮች ከሰዎች ጋር ስወያይ እጨነቃለሁ። | 1 | 2 | 3 | 4 | 5 |
| 332 | የፆታዊ/የወሲብ ዳደሾችን/ዳደሹን የግብረ-ስጋ ግንኙነት ፍላጎት እንዳለሟለ እስጋለሁ። | 1 | 2 | 3 | 4 | 5 |
| 333 | ስለ ወሲባዊ ስሜቴ ብዙ ጊዜ በራስ ያለመተማመን ስሜት ይሰማኛል። | 1 | 2 | 3 | 4 | 5 |
| | ለኮንዶም አጠቃቀም ያለው አመለካከት | | | | | |
| 334 | በግብረ ሥጋ ግንኙነት ወቅት ኮንዶም መጠቀም ኤችአይቪን ጨምሮ በግብረ ሥጋ ግንኙነት የሚተላለፉ ኢንፌክሽኖችን ለመከላከል ውጤታማ ዘዴ ነው ብዬ አምናለሁ። | 1 | 2 | 3 | 4 | 5 |
| 335 | ከወሲብ ዳደሹ/ች ጋር ስለኮንዶም አጠቃቀም መወያየቴ ምቹት ይሰማኛል። | 1 | 2 | 3 | 4 | 5 |

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| 336 | ኮንዶም መጠቀም የግብረ ሥጋ ግንኙነትን ይስታ የሚቀንስ ይመስለኛል። | | | | | |
| 337 | ዳደሮቼ እራሳቸውን ከአባላዘር በሽታዎች እና ካልታሰበ እርግዝና ለመከላከል ኮንዶም እንዲጠቀሙ አበረታታለሁ። | 1 | 2 | 3 | 4 | 5 |
| 338 | ደህንነቱ የተጠበቀ ወሲብን ለማበረታታት ኮንዶም ሕዝብ በብዛት በሚገኝባቸው ቦታዎች (ለምሳሌ ትምህርት ቤቶች፣ የማህበረሰብ ማእከላት) በቀላሉ መገኘት አለበት ብዬ አምናለሁ። | 1 | 2 | 3 | 4 | 5 |

| የመንፈስ ጭንቀት፡ | | የምላሽ አማራጮች፡ | | | |
|---|--|---|---|---|---|
| መመሪያዎች፡ ለእያንዳንዳቸው ለሚከተሉት ጥያቄዎች፣ እባክዎን ባለፉት ሁለት ሳምንታት ውስጥ ምን ያህል ጊዜ ምልክቱን እንዳጋጠመዎት ያስቡ እና ተገቢውን ምላሽ ከ 0 እስከ 3 ደረጃ ይስጡ። | | 0፡ በፍጹም አይደለም 1፡ ብዙ ቀናት 2፡ ከቀኖቹ ከግማሽ በላይ 3፡ በየቀኑ ማለት ይቻላል | | | |
| 339 | ብዙውን ጊዜ የሚወዷቸውን ነገሮች ለማድረግ ዝቅተኛ ፍላጎት ወይም ይስታ አጋጥሞዎታል? | 0 | 1 | 2 | 3 |
| 340 | ባለፉት ሁለት ሳምንታት ውስጥ፣ ድብርት፣ ወይም ተስፋ ቢስ መሆን ተሰምቶዎት ያውቃል? | 0 | 1 | 2 | 3 |
| 341 | ለመተኛት ወይም እንቅልፍ ለመያዝ ተቸግረዋል ያውቃሉ? | 0 | 1 | 2 | 3 |
| 342 | ብዙ ጊዜ ድካም ይሰማዎታል ወይም የሀይል መቀነስ አጋጥሞዎታል? | 0 | 1 | 2 | 3 |
| 343 | እንደ የምግብ ፍላጎት መቀነስ ወይም ከመጠን በላይ መብላት ያሉ የምግብ ፍላጎት ለውጦችን አስተውለዋል? | 0 | 1 | 2 | 3 |
| 344 | ብዙ ጊዜ ስለራስዎ መጥፎ ስሜት ወይም ውድቀት እንዳጋጠመዎት ይሰማዎታል? | 0 | 1 | 2 | 3 |

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| 345 | ሲያነቡ ወይም ቴሌቪዥን ሲመለከቱ እንዲሁም በመሳሰሉት ነገሮች ላይ የማተኮር ችግር አጋጥሞታቸው ያዉቃል? | 0 | 1 | 2 | 3 |
| 346 | እርሶዎ ከወትሮው በበለጠ በዝግታ እየተንቀሳቀሱ ወይም እየተናገሩ እንደሆነ ሌሎች ሰዎች አስተውለዋል? | 0 | 1 | 2 | 3 |
| 347 | ብሞት ይሻለኛል ብለዉ ወይም እራሴን መጉዳት አለብኝ የሚል ስሜት ተሰምቶታቸው ያዉቃል | 0 | 1 | 2 | 3 |

ክፍል አራት፡ ማህበራዊ ጉዳዮች ጋር ተዛማጅ የሆኑ መጠይቆች

| S. no | ጥያቄዎች እና ማጣሪያዎች ለሚከተሉት የአቻ ጾታዊ ባህሪ እና የእኩዮች ተጽእኖ <u>መጠይቆች</u> አዎ ወይም አይደለም በማለት ምላሽ ይስጡ | አማራጭ መልሶች (የኮድ ምድብ) | ዝላል |
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| 401 | የግብረ ሥጋ ግንኙነት እንድትፈጽም ከጓደኞችህ ግፊት አለ? | ሀ. አዎ ለ. አይ የለም | |
| 402 | ጓደኛህን (ጓደኞችህን) ለማስደሰት ስትል የቅርብ ጓደኛህ (ጓደኞችህ) የሚሉህን/የምትልህን/የሚልህን ነገር በተግባር አድርገህ ታዉቃለህ? | ሀ. አዎ ለ. አይ አድርጌ አላዉቅም | |
| 403 | የቅርብ ጓደኛዎ (ዎች) የግብረ ሥጋ ግንኙነት እየፈጸሙ እንደሆነ ያውቃሉ? | ሀ. አዎ ለ. አይ አላዉቅም | |
| 404 | ሴት/ወንድ ጓደኛህ የግብረ ሥጋ ግንኙነት እንድትፈጽም ገፋፍቶህ/ገፋፍታህ ታዉቅ ነበር? | ሀ. አዎ ለ. አይ ሐ. ሴት/ወንድ ጓደኛ የለኝም | |
| 405 | ከሴት ጓደኛዎ/ጓደኛዎ ጋር የረዥም ጊዜ እቅድ ካሎት፣ እሷ/እሱ የግብረ ሥጋ ግንኙነት | ሀ. እሷን ካፈቀርኳት ያለኮንዶም እንኳ ወሲብ እፈፅማለሁ | |

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| | እንድትፈጽሙ ከጠየቀ/ች፣ ምላሽዎ ምን ይሆናል? | <p>ሊያምወዳት ከሆነ በኮንዶም ወሲብ እፈጸማለሁ</p> <p>ሐ. ያልታቀደ ወሲብ አለመፈጸምን እቃወማለሁ</p> <p>መ. ባፈቅራችሁ/ዉም እንኳ ከጋብቻ በፊት ወሲብ ላለማድረግ እቃወማለሁ።</p> | |
| 406 | የወሲብ ዳደኛዎ ኮንዶም ላለመጠቀም ቢያስገድዱ ምን ምላሽ ይሰጣሉ? | <p>ሀ. የትዳር ዳደኛዬን ላለማጣት ወሲብ አደርጋለሁ</p> <p>ለ. ኮንዶም ባይኖርም. ኮንዶም ለመጠቀም መጠቀም እንዳለብን አስረዳዋለሁ/ አስረዳታለሁ</p> <p>ሐ. የሚጠቀምበትን ኮንዶም እሰጠዋለሁ</p> <p>መ. ያለኮንዶም ወሲብ አልፈጸምም።</p> | |
| 407 | ባለፈው 12 ወራት ውስጥ በምሽት ክበብ/ጭፈራ ቤት ውስጥ ገብተዋል? | <p>ሀ. አዎ</p> <p>ለ. አልገባዉም</p> | <p>አልገባዉም</p> <p>ካሉ</p> <p>ወደሚቀጥለው ጥያቄ ይዝለሉ</p> |
| 408 | በምሽት ክበብ ውስጥ ምን ያህል ጊዜ ይገኛሉ? | <p>ሀ. በየቀኑ</p> <p>ለ ሁለት ጊዜ እና በሳምንት ከሁለት ጊዜ በላይ</p> <p>ሐ. በየሳምንቱ</p> <p>መ. አንዳንድ ጊዜ በወር ውስጥ</p> <p>ሠ. በጭራሽ</p> | |

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| 409 | በመደበኛነት ከምትገናኝበት የማህበራዊ አውታረ መረብህ (ጓደኞችህ፣ ቤተሰብህ፣ ጓደኞችህ) ምን ያህል ሰዎች ጋር ትገናኛለህ? | ___ (በቁጥር) | |
| 410 | በአውታረ መረብዎ ውስጥ ምን አይነት ግንኙነቶች አሉዎት? (ለእርስዎ የሚመለከተውን ሁሉ ይምረጡ፡ ከ1 በላይ መምረጥ ይቻላል) | ሀ. ቤተሰብ ለ. ጓደኞች ሐ. የሚያውቋቸው መ. ከመንገድ ላይ እኩዮች ሠ. የማህበረሰብ አባላት ረ. አገልግሎት አቅራቢዎች (ለምሳሌ፡ ማህበራዊ ሰራተኞች፣ አማካሪዎች) ር. ሌሎች ካሉ (እባክዎ ይግለጹ)..... | |
| 411 | በአውታረ መረብዎ ውስጥ ካሉ ሰዎች ጋር ምን ያህል ጊዜ ይገናኛሉ? | ሀ. በየቀኑ ለ በሳምንት ብዙ ጊዜ ሐ. በየሳምንቱ መ. በየወሩ ሠ. አልፎ አልፎ | |

ክፍል አምስት፡ ለማህበራዊ ሚዲያ መጋለጥ እና የቴክኖሎጂ ጉዳይ ጠያቂ

| ተ.ቁ. | ጥያቄዎች እና ማጣሪያዎች | አማራጭ መልሶች (የኮድ ምድብ) | ዝላል |
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| 501 | በአሁኑ ጊዜ የማህበራዊ ሚዲያ (YouTube፣ Facebook እና የመሳሰሉት) ትጠቀማለህ? | ሀ. አዎ ለ. አይ አልጠቀምም | |
| 502 | ባለፈው 12 ወራት ውስጥ የግብረሰጋ ግንኙነት የሚያሳዩ የብልግና ምስሎችን/ቪዲዮዎችን አይተው ያውቃሉ? | ሀ. አዎ ለ. አይ አላይም | |
| 503 | ባለፈው 12 ወራት ውስጥ ወሲባዊ ግልጽነት ያለው | ሀ. አዎ | |

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| | ሚዲያ አንብበው ወይም አይተው ያውቃሉ? | ለ. አይ አላይም/አላነብም | |
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