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Knowledge of youth regarding HIV prevention in South Africa – A quantitative descriptive and cross-sectional study

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Background: The human immune deficiency virus is a transmissible retro infection that causes Acquired immune deficiency syndrome in humans. HIV infection gradually affects the immune system of the human body and successively harms the cells. The significant method of transmission of HIV and AIDS worldwide is hetero contacts, especially in developing countries. Most young people do not receive adequate HIV and sex education. The study aimed at investigating the knowledge of youth regarding HIV prevention in TVET campuses within the Vhembe district.

Methods: Quantitative approach with a descriptive and cross-sectional design was employed in the study to gather more information on the knowledge of youth regarding HIV prevention in the Vhembe district. 353 self-administered questionnaires were completed by the students from all TVET campuses within the Vhembe district.

Results: The study revealed that youths know the following: unprotected sex place's one at risk of getting HIV/AIDS, condom use is one of the HIV prevention strategies, ABC stands for; is Abstain, be faithful, and Condom use, Abstaining reduces one's chances of contracting HIV, and being faithful to one sexual partner means one is safe from contracting HIV.

Conclusion: It is recommended that school health nurses should gain access to all TVET campuses within the Vhembe district to disseminate information about HIV prevention to the youth to increase their knowledge of HIV and promote the utilization of knowledge that youths must prevent HIV infection.

Keywords: HIV prevention, Knowledge, youth

Background

The human immune deficiency virus (HIV) is a global public health problem. Young people, especially women and key populations, are mostly affected by HIV. In 2017 about 36.9 million young people aged between 15 and 24 were affected with HIV, and 620 000 were newly infected. Acquired immune deficiency syndrome (AIDS) is now the leading cause of death among young people in Africa and the second leading cause of death worldwide.

The study by [1] revealed that youth are vulnerable to HIV and AIDS as they are insufficiently equipped with knowledge regarding problems related to sexuality education. This study further argued that youth do not have sufficient knowledge about HIV and AIDS.

In 2015, UNAIDS and the African Union recommended comprehensive sexual education (CSE) to improve the HIV response. Asia and the Pacific, West Africa, and Europe revised their policies to scale up CSE [2]

Programs for HIV prevention in sub-Saharan Africa are implemented to protect community members. These programs focused primarily on preventing HIV transmission through behavior change. For several years, they used the Abstinence, faithfulness, and Condom use (ABC) approach. However, by the mid-2000s, HIV prevention considered underlying socio-cultural, economic, political, legal, and other contextual factors. Most young people do not receive adequate HIV and sex education [3]

In Southern Africa between 2011 to 2016, about 36% of young women had comprehensive and correct knowledge about HIV and 30% of young men. Even though comprehensive education about HIV, youths aged between 15 to 24 years are mostly infected with HIV infection. Nearly a third of new HIV infections in South Africa occur within 15 to 24 years. It is in this light that the current was conducted to investigate the knowledge of youth regarding HIV prevention in TVET campuses within the Vhembe district, South Africa [4]

Methods

Study setting

The study was conducted on all Technical and Vocational Education and Training (TVET) campuses within the Vhembe district in Limpopo province, South Africa. There are five TVET campuses in the Vhembe district namely Mashamba, Mavhoi, Makwarela, Tshisimani, and Thengwe TVET campus. The main campus (Makwarela) is situated in Sibasa.

The Vhembe District Municipality is a Category C municipality located in the northern part of the Limpopo Province. It shares borders with Zimbabwe and Botswana in the northwest and Mozambique in the southeast through the Kruger National Park. It is comprised of four local municipalities: Musina, Thulamela, Makhado, and Collins Chabane. Vhembe district covers 18% of Limpopo Province [5].

Study design

A quantitative approach with a descriptive and cross-sectional design was used in the study.

Study population

The target population was the youth between the ages of 18 to 28 years in all TVET campuses within Vhembe district, Limpopo Province, South Africa.

Sampling and sample size

Non-probability, convenience sampling methods were used to select the respondents. Youths who were available during the visitation of TVET campuses participated in the study. Solvin's formula was used to calculate the sample size of 345 respondents.

Tools and data collection

Self-administered questionnaires were used to collect data. 353 self-administered questionnaires were completed by the students from all TVET campuses within the Vhembe district. Sixty-nine (69) questionnaires were distributed to each campus for the respondents willing to participate in the study. The questionnaire's included two sections namely, section A-Biographical information and section B- Knowledge-based questions.

Data analysis

Statistical Package for the Social Sciences (SPSS) version 26 was used to analyze data. Descriptive statistics were used to describe and summarise data about the knowledge of youth regarding HIV prevention. For data to be more meaningful frequency tables, and descriptive and inferential statistics were used to present the data.

Validity

The content validity- the pre-testing was conducted to ensure content validity. Self-administered questionnaires were distributed to seven youth from a TVET campus in the Vhembe district who met inclusion criteria. Relevant literature guided the development of the instrument.

Face validity. Developed semi-structured questionnaires were reviewed by supervisors and statisticians to ensure face validity.

Reliability

The test-retest method was used to check the reliability of the questionnaires. The researcher administered questionnaires to the youths once pretested and approved by a supervisor and statistician.

Permission to conduct the study

The study was ethically approved by the research ethics committee of the University of Venda Higher degree committee. Permission to conduct a study was also granted by the principals of TVET campuses (Makwarela campus, Tshisimani campus, Mavhoi campus, Mashamba campus, and Thengwe campus).

Results

The results of the study are discussed in the following sections: Demographic data and knowledge of youth regarding HIV prevention.

Demographic data

Of the respondents were Out of 353 (100%), only 140 (39, 7%) who participated in the study were males whereas 213 (60,3%) were females. 250 (70.8%) of youths who took part in this study were between 18 to 24 years of age and 103 (29.2%) were between the aged of 25-28 years. 339 (96.0%) were single and 10 (2.8 %) were married. 317 (89.8%) were heterosexual and 18 (5.1%) were homosexual 18 (5.1%) were bisexual.

The knowledge that unprotected sex place's one at risk of getting HIV/AIDS

The figure below revealed that most of the respondents (77.3%) have knowledge that unprotected sex place's one at the risk of getting HIV/AIDS. Only a few respondents (1.7%) didn't know. This shows that most youths know that HIV can be prevented by practicing safer sex.

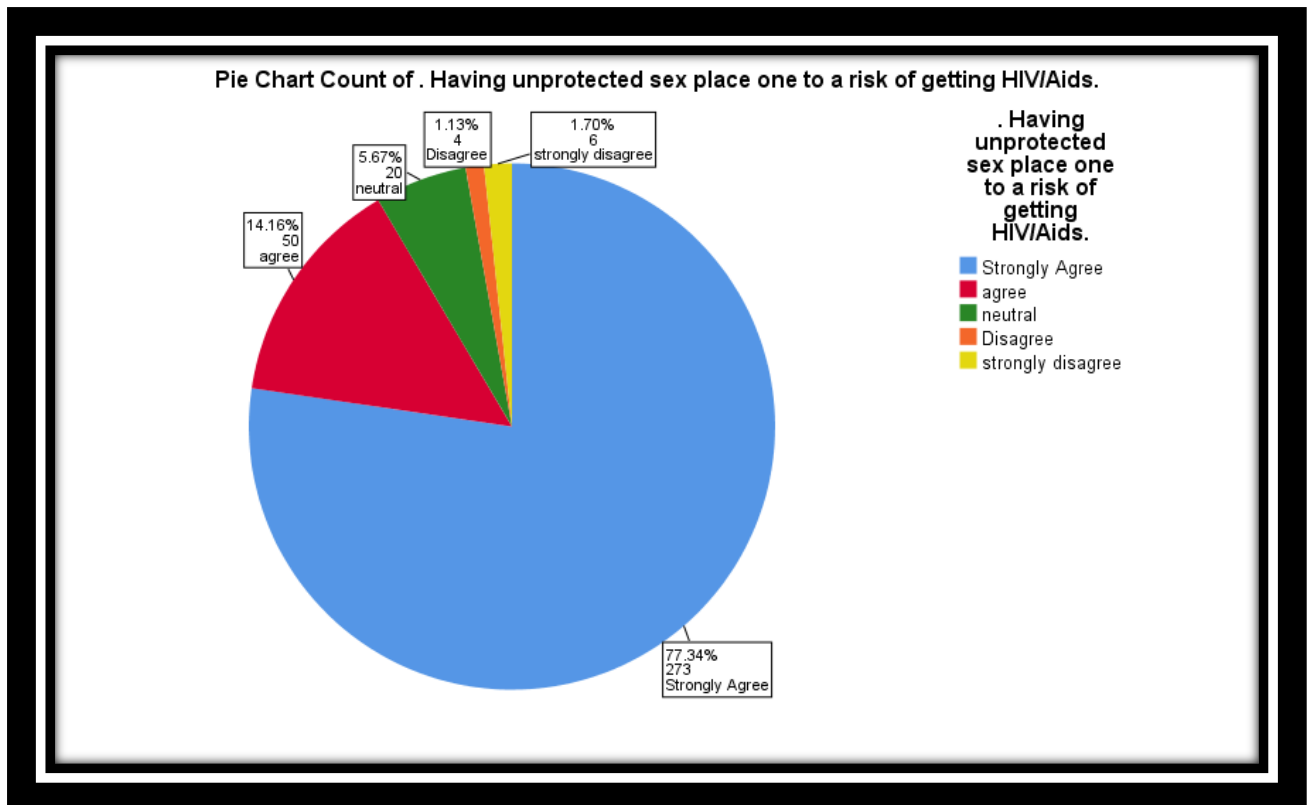


Figure 1: Having unprotected sex place’s one at risk of getting HIV/AIDS.

The table below revealed that the majority (70.8%) of youth in TVET campuses within the Vhembe district knew that condom use is one of the HIV prevention strategies. This indicates that most youths know that condom use is one of the strategies to prevent HIV infection. Only minority respondents did not know that condom use is one of the HIV prevention strategies.

The knowledge that condom use is one of the HIV prevention strategies.

Table 2 below shows that most youths knew that condom use is one of the HIV prevention strategies. About 250 (70.8%) youth strongly agreed, and 59 (16.7%) youth agreed that condom use is one of the HIV prevention strategies though a minority of youth, 26 (7.4%) remain neutral. Only 9 (2, 5%) youth disagreed, and 9 (2, 5 %) youth strongly disagreed that condom use is one of the HIV prevention strategies. This shows that most of the youth in TVET campuses within the Vhembe district who took part in this study know about HIV prevention. This is consistent with the findings of other studies, a study was done in Cameroon by Collins and Jane-Francis (2016), which revealed that most of the youth (384 Respondents-82, 2%), knew condom use as one of the HIV prevention strategies. Most of them indicated that HIV transmission could be minimized by using a condom during intimacy.

Table 1: Condom use is one of the HIV prevention strategies.

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	250	70.8	70.8	70.8
Agree	59	16.7	16.7	87.5
Neutral	26	7.4	7.4	94.9
Disagree	9	2.5	2.5	97.5
Strongly disagree	9	2.5	2.5	100.0
Total	353	100.0	100.0	

The knowledge that ABC stands for; is Abstain, Be faithful, and Condom use.

The finding of this study revealed that youth on TVET campuses knew what ABC stand for. Most of the youth (72.8%) knew that ABC stands for; Abstain, Faithful, and Condom use. About (9.6%) of the youth remained neutral while (1.4%), and (3.6%) of the youth didn't know what ABC stand for. The findings of the current study show that most of the youth on TVET campuses knew that ABC is an HIV prevention strategy.

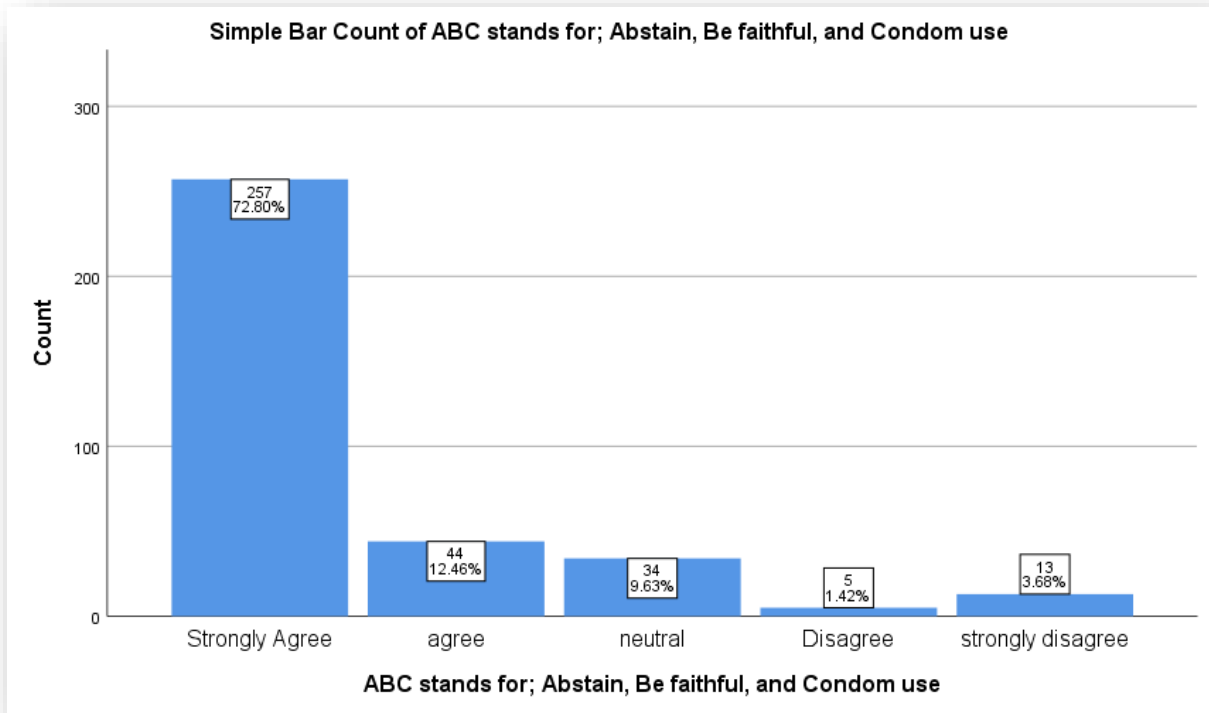


Figure 2: ABC stands for; Abstain, Be faithful, and Condom use.

A recent study revealed that most of the youth in TVET campuses within Vhembe campuses were knowledgeable of what “ABC” stands for. This shows that they know regarding ABC as a strategy to prevent HIV infection. This revealed that their knowledge regarding ways in which HIV can be transmitted was high even though some youth didn’t know much about how HIV can be transmitted. This demonstrates that most of the youth in the TVET campus within the Vhembe district knew abstaining as one of the ways of preventing HIV infection.

The knowledge that Abstaining reduces one's chances of contracting HIV.

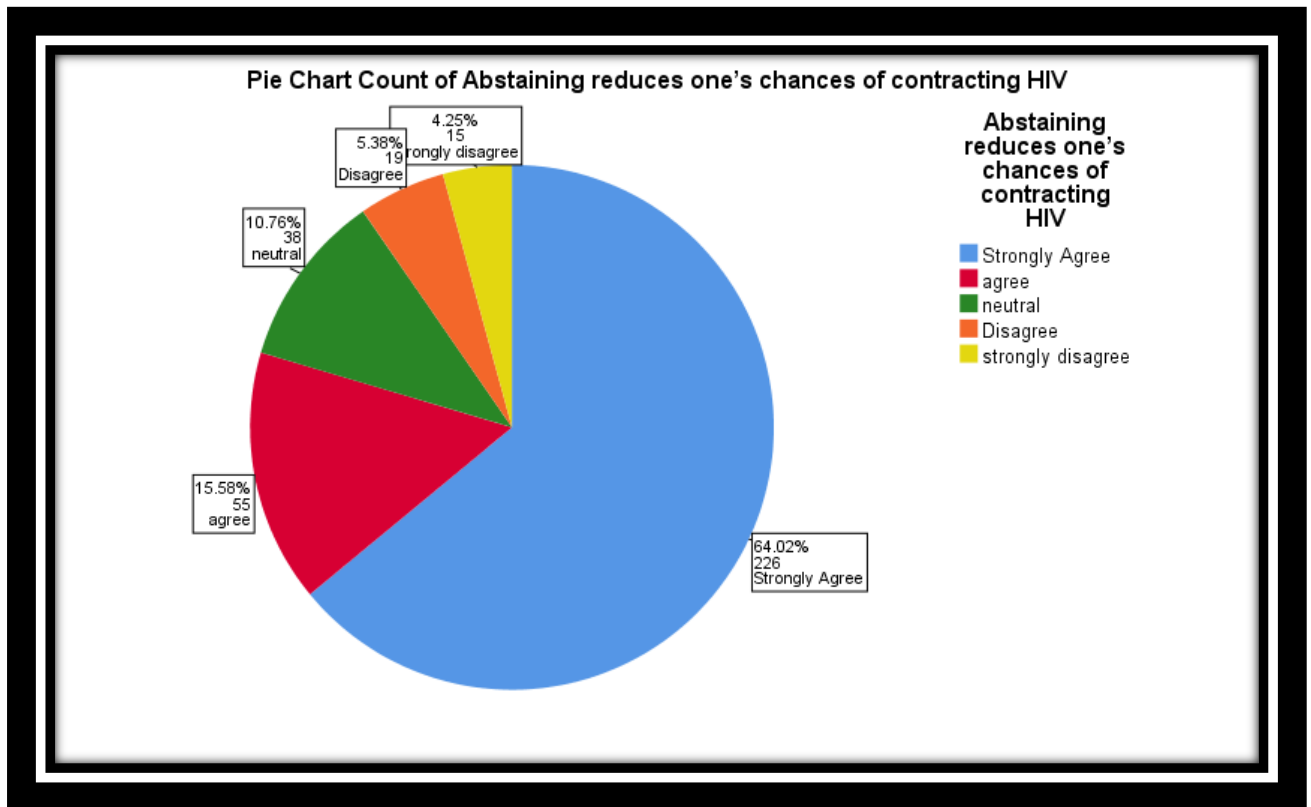


Figure 3 Abstaining reduces one's chances of contracting HIV.

Figure 3 above addresses the knowledge that abstaining reduces one's chances of contracting HIV infection. About 226 (64.0%) and 55 (15.5%) youth strongly agreed that abstaining reduces one's chances of contracting HIV. Only 38 (10.7%) youth were neutral with the statement while 19 (5.3%) disagreed and 15 (4.2%) youth strongly disagreed with the statement. The findings of the study revealed that most of the youth in TVET campuses within the Vhembe district had knowledge that abstaining reduces one's chances of contracting HIV infection.

This means that most of the youth on TVET campuses in the Vhembe district knew that once a person abstains from sex, he or she is safe from contracting HIV infection.

The knowledge that being faithful to one sexual partner means one is safe from contracting HIV.

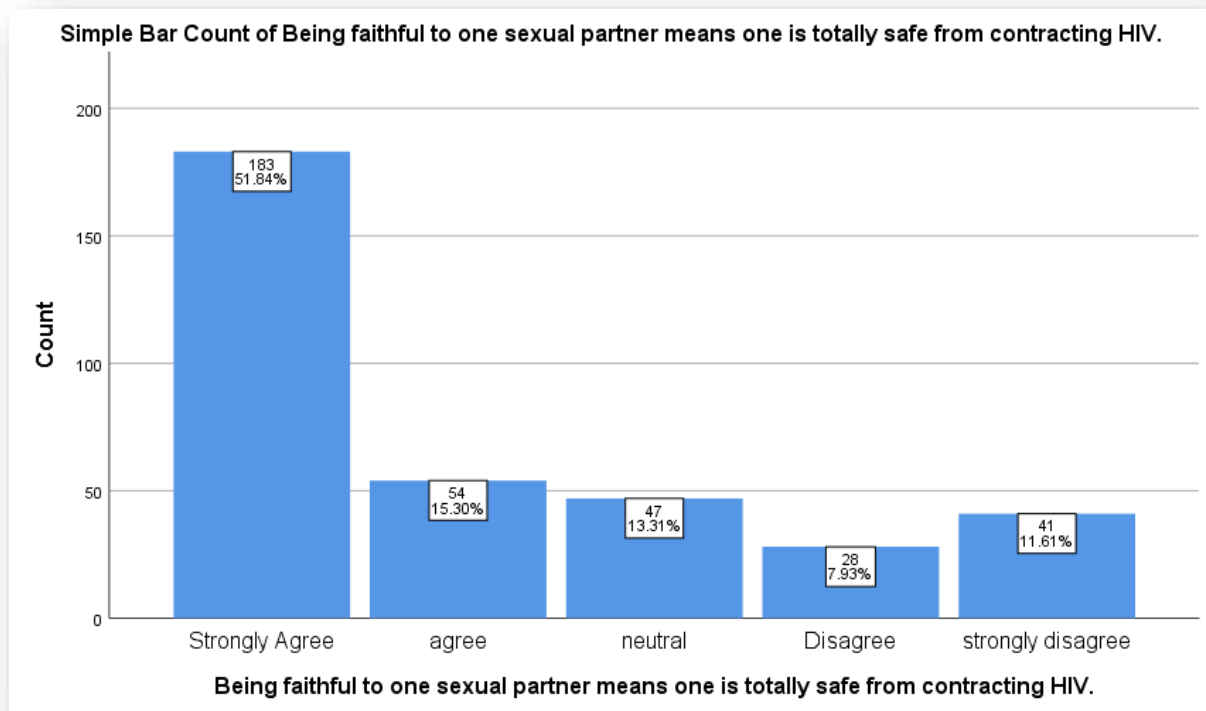


Figure 4: Being faithful to one sexual partner means one is safe from contracting HIV.

Figure 4 above indicates that most of the youth 183 (51.4%) strongly agreed and 54 (15.3%) youth agreed that being faithful to one sexual partner means one is safe from contracting HIV. About 47 (13.3%) youth remained neutral while 28 (7.9%) and 41(11.6%) youth disagreed and strongly disagreed with the statement. The results show that majority of youth on TVET campuses knew that being faithful to one sexual partner can help one to be at minimum risk of contracting HIV infection.

Discussion

On the issue of knowledge, the study reported that most youths knew about HIV prevention strategies even though some don't have adequate knowledge. Most youths knew that having unprotected sex places them at risk of being infected with HIV infection and to protect themselves they should practice safe sex all the time. The findings of the present study also concur with the study conducted in the United States which revealed that 97% of respondents know that engaging in unsafe behavior such as having unprotected sex can predispose one to the risk of being infected by HIV [6]

They also knew that being faithful to one uninfected partner reduces the chance of one being infected with HIV. Furthermore, the study revealed that most of the youth didn't understand what abstinence from sex means while only a few of them knew that it means to stay away from sex. This study showed similar results to other studies, a done in Ethiopia which revealed that 90 (30.7%) of the youths reported that being faithful to one sexually uninfected partner reduces the chance of contracting any sexually transmitted infections including HIV [7]. A study done in Southeast Ethiopia also obtained similar findings which reported that most youths revealed that being faithful to one accomplice is the best method of HIV prevention [8].

The study also revealed that youth have knowledge that ABC stands for; is Abstain, Be faithful, and Condom use. This is contrary to the results of the study done in Central Uganda which indicated that 80 (32.6%) youths were not aware of the ABC HIV prevention strategy [9].

Youth also know that abstaining from sex reduces one's chances of contracting HIV. The finding of this study is contrary to the study done in the United States which reported that 48% of the respondents believed that abstaining from alcohol and drug use could reduce the risk of HIV infection ([10]. They know that condom use is one of the HIV prevention strategies. A study was done in South Africa by [11] and reported that most participants revealed that they knew that condoms can be utilized to prevent pregnancy, sexually transmitted infections, and HIV infection. The findings of the present study also concur with the result of the study done in Namibia which revealed that most youths reported that condom use is one of HIV prevention that can help to reduce the spread of the virus among young people [12]. The current study was conducted in the Vhembe district of Limpopo province of South Africa, hence it cannot be generalized to the whole province.

Conclusions

The study aimed at investigating the knowledge of youth regarding HIV prevention in the Vhembe district. The study used a quantitative approach with a descriptive and cross-sectional design. The study revealed that most of the youth knew about HIV prevention and a minority of youth had inadequate knowledge about HIV prevention.

List of abbreviations

TVET

HIV

AIDS

ABC

SPSS

CSE.

UNAIDS

Declarations

Acknowledgments

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Ethics approval and consent to participate

The researcher adhered to several keys of research ethical considerations. The keys include the permission to conduct a study which was obtained from the school of Health Sciences Higher Degree Committee, University of Venda Higher Degree, and Ethics committee. All principles that protect the human rights in the research were followed accordingly. Informed consent and confidentiality, and anonymity were ensured.

Consent for publication

Not applicable

Competing interests

The authors of this article have no conflicts of interest to declare for this study.

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Authors 'contributions

All authors participated in the conception and design of this project. ST collected and analyzed data. ART drafted the manuscript. Feedback and editing were provided by NSR. All authors read and approved the final manuscript.

Data availability

Data for the current study are available from the corresponding author on a realistic request.

References

1. Tenkorang EY, Amo-Adjei J, Kumi-Kyereme A. Assessing components of Ghana's comprehensive sexuality education on the timing of sexual debut among in-school youth. *Youth & Society*. 2021 Nov;53(8):1259-86.
2. Plesons M, Cole CB, Hainsworth G, Avila R, Biaukula KV, Husain S, Janušonytė E, Mukherji A, Nergiz AI, Phaladi G, Ferguson BJ. Forward, together: a collaborative path to comprehensive adolescent sexual and reproductive health and rights in our time. *Journal of Adolescent Health*. 2019 Dec 1;65(6):S51-62.
3. Wangamati CK. Comprehensive sexuality education in sub-Saharan Africa: adaptation and implementation challenges in universal access for children and adolescents. *Sexual and Reproductive Health Matters*. 2020 Dec 17;28(2):1851346.
4. Chimbindi N, Mthiyane N, Birdthistle I, Floyd S, McGrath N, Pillay D, Seeley J, Zuma T, Dreyer J, Gareta D, Mutevedzi T. Persistently high incidence of HIV and poor service uptake in adolescent girls and young women in rural KwaZulu-Natal, South Africa prior to DREAMS. *PLoS one*. 2018 Oct 16;13(10):e0203193.
5. Stats SA. Census 2011 statistical release: P0301. 4. Statistics South Africa. Pretoria: Statistics South Africa. 2012.
6. Andrew PO, Andrew RN. Association between HIV/AIDS knowledge and risk behaviors among African American undergraduate students at a Historically Black University. *Asian Journal of Research in Infectious Diseases*. 2020;4(1):1-3.
7. Yared A, Sahile Z, Mekuria M. Sexual and reproductive health experience, knowledge and problems among university students in Ambo, central Ethiopia. *Reproductive health*. 2017 Dec;14(1):1-7.
8. Obsa AG, Weldihanes B. Knowledge and self-efficacy on Hiv/Aids among undergraduate students of Maddawalabu University, Southeast Ethiopia. *Glob J Hum Social Sci G Ling Educ*. 2017;17(1).

9. Rukundo, A., Muwonge, M.M., Mugisha, D., Aturwanaho, D., Kasangaki, A. and Bbosa, G.S., 2016. Knowledge, attitudes, and perceptions of secondary school teenagers towards HIV transmission and prevention in rural and urban areas of central Uganda. *Health*, 8(10).
10. Andrew PO, Bhuiyan A, Mawson A, Buxbaum SG, Sung JH, Shahbazi M. HIV/AIDS knowledge of undergraduate students at a Historically Black College and University. *Diseases*. 2018 Oct 31;6(4):98.
11. Mbelle, N., Mabaso, M., Chauke, T., Sigida, S., Naidoo, D. and Sifunda, S., 2018. Perception and attitudes about male and female condom use amongst university and technical and vocational education and training (TVET) college students in South Africa: a qualitative enquiry of the 2014 higher education and training HIV/AIDS (HEAIDS) programme first things first campaign. *Journal for HIV and AIDS*, 4(1), p.031.
12. Shikulo, P.I., Pretorius, L., Shifiona, N., and Ashipala, D.O., 2019. Knowledge on HIV Prevention Measures Among Male Learners in Secondary Schools in Oshana Region, Namibia. *Global Journal of Health Science*, 11(5), pp.1-10.