STRATEGIES TO PROMOTE SEXUALITY EDUCATION FOR CAREGIVERS OF PRIMARY SCHOOL LEARNERS IN LIMPOPO PROVINCE, SOUTH AFRICA.

By

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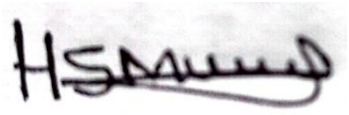
DECLARATION

I, **Humbulani Sarah Munyai** (11636538) declare that this thesis, **"_Strategies to Promote Sexuality Education for Caregivers of Primary School Learners in Limpopo Province, South Africa,"** has not been submitted previously for a degree at this or any other university, that it is my own work in design and in execution, and that all reference material contained therein has been duly acknowledged.

Signature:  **Date**: 10 March 2023

PREFACE

This thesis is written for my PHD Degree in Nursing and presented in an **Article Format**. The title of my thesis is Strategies to Promote Sexuality Education for Caregivers of Primary School Learners in Limpopo Province. The strategy will equip care givers with knowledge and skills on sexuality education. Furthermore, it will improve parent-child and teacher-learner communication on sexual health issues that has been overlooked particularly in the rural area. This thesis is presented in three Sections. **Section 1**- Overview of the research Process **Section 2** – Provides the articles as they were published in different Publications and **Section 3**- presents the conclusion, limitations, and recommendations of the thesis.

Section 1: Thesis Overview

This section presents the study procedure that details the background, problem statement, and objectives of this study. The section further offers a detailed outline of the research methods used to gather data.

Section 2: Article /Papers

This section has a total of 5 articles as detailed below:

Article 1: Experiences of grade 8 learners regarding promoting sexuality education from home and schools.

This study sought to gain insight into what grade 8 learners' experiences are about sexuality education from home and school. The paper utilized a qualitative design. Data was collected from the participants through focus group discussion. This paper was published by African journal reproductive health 2022; 26 [8]: 41-52

Article 2: Challenges on sexual health communication with secondary school learners, Limpopo province.

This paper sought to gain insight into what challenges parents are experiencing on sexual health communication. This study invited additional suggestions for overcoming these expected challenges. The paper is accepted for publication. Curationis Received: 1 Apr. 2022, Accepted: 27 Sept. 2022 Published: [to be released].

Article 3: Experiences of LO Teachers Teaching Sexuality Education in Secondary Schools learners in Limpopo Province, South Africa

The paper sought to explore describe the experiences of the teachers regarding promoting sexuality education in the classroom situation. This paper sought to empower LO Teachers with skills and knowledge on sexual health issues. This paper utilised a qualitative design, and data was collected from

the participants through face-to-face interviews. This paper is submitted to African of reproductive health Journal of Public Health is under review.

Article 4: A conceptual framework.

Conceptual Framework for Promoting Sexuality Education for Caregivers of Prima School learners in Limpopo Province.

This paper reviewed the literature on the relationship between caregiver and promoting sexuality education guided by five steps of Dickoff et al., (1968). The paper further developed a Conceptual Framework that guided this thesis inquiry and presentation. The paper was submitted to MBC's Journal of Public Health and is under review.

Article 5: Development and Validation of Strategies

Development and validation of strategy to promote sexuality education of care givers of primary school going children in Limpopo Province South Africa

This research aimed to create techniques to facilitate promotion of sexual health issues among teacher-Parent -Learner. This study begins by combining the data from three qualitative papers to gain a more comprehensive knowledge of how sexuality education can be implemented. A framework of Strength, Weaknesses, Opportunities, and Threats is applied to the merged results to evaluate provision of sexuality education from home and school. Based on the results of the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, the fundamental Logic framework is then utilized to define the resources and contextual factors that must be addressed when developing a sound strategy. The plan is then developed using the Build, Overcome, Eliminate, and Minimize approach. The objective would be to develop strategy to promote sexuality education by care givers MBC's Journal of Public Health and is under review.

Section 3: Conclusion, Recommendations and Limitations

The lack of knowledge and communication skills as outlined by participants, are concerning issues because they promote poor parent–child communication The researcher suggest collaboration between the two departments (DBE and DoH), Curriculum reviews, Capacity building for teachers and parents and Peer mentoring and support.

PUBLICATIONS

1. **Munyai, H. S.,** Makhado, L., Ramathuba, D. U. & Lebese, R. T. (2022). Experiences of grade 8 learners on sexuality education from home and school at Mopani and Vhembe districts. African Journal of Reproductive Health, 26(8), 41-52

2. **Munyai, H.S.,** Makhado, L., Ramathuba, D.U. & Lebese, R.T. (2023) 'Challenges on sexual health communication with secondary school learners, Limpopo province', Curationis 45(1), a2321. https://doi.org/10.4102/ curationis. v45i1.2321

3. **Munyai, H.S.,** Makhado, L., Ramathuba, D.U. & Lebese, R.T. (2022). 'Experiences of LO Teachers Teaching Sexuality Education in Secondary Schools Vhembe and Mopani Districts Limpopo Province South Africa under review

4. **Munyai, H.S.,** Makhado, L., Ramathuba, D.U. & Lebese, R.T., 'Conceptual framework for promoting sexuality education of care givers of primary school going children in Limpopo Province South Africa under review.

5. **Munyai, H.S.,** Makhado, L., Ramathuba, D.U. & Lebese, R.T., 'Development and validation of strategy to promote sexuality education of care givers of primary school going children in Limpopo Province South Africa under review.

ABSTRACT

Background: Sexuality education is a worldwide health issue that has been neglected over the past decade despite the sexual health concerns that countries face as a result. 3% of HIV-positive individuals are younger than 25 years old. Adolescent pregnancy is on the rise in the Vhembe and Mopani District, which has a negative impact on the lives of young people by increasing their susceptibility to sexual health issues.

Aim/ purpose

This study sought to develop strategies to promote sexuality education for care givers of primary school learners. The research objectives were to explore and describe the experiences of the learners on sexuality education at home and school, to explore and describe the views of parents regarding promotion of sexuality education, to explore and describe the experiences of Life Orientation teachers on providing sexuality education for the learner, to conceptualise the findings into a conceptual framework that will guide the development of strategies, to develop and validate the strategies to promote sexuality education for caregivers of primary school learners.

Method: This research was conducted in two phases. The first phase employed qualitative approach. The findings from the qualitative were merged through a comparison of three. Findings of different participant groups. The second phase focused on developing and validating strategies to improve sexuality education for caregivers of primary school learners who have a role in adolescents' development and sexual experiences. The study of strengths, weaknesses, Opportunities, and threats was applied to phase one's merged findings. The Basic Logic Model and Build, Overcome, Eliminate and Minimise model were utilised to design plans based on the SWOT findings plans based on the SWOT findings plans. The generated solutions were validated by the application of the Delphi method and distribution of a check list to the participants to provide feedback on the developed strategies, and this feedback were incorporated into the final versions of the strategies.

The results: Through a qualitative inquiry, key attributes, and concerns of promoting sexuality education were identified. Implementation of these strategies could facilitate collaboration between the department of health and the department of education in promoting sex. Enhance parent –learner and teacher learner communication. Enhance continues capacity building for parent and teachers to empower them with knowledge and skills.

Conclusion: The study revealed that sexual health education is lacking in schools and at home. There is role shifting taking place between teacher, parents, and religious leaders. The study findings

highlighted that learners require information on matters such as pregnancy, menstruation and contraception but communication is not happening effectively.

DEDICATION

This thesis is dedicated to my husband Ndanganeni Ernest, my daughter Zwavhudi Patience, my mother Elina Neswiswi and the late Caroline Nditsheni Neswiswi who have supported me unconditionally. All of my thanks goes out to my family, especially to my father Calvin and my brother Kanukani Neswiswi, as well as to everyone who took part in this research. I am grateful to have had your encouragement and support during the entirety of this study.

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- My lovely granddaughter Elizabeth Mudau
- My pastor TR Nemudzudzanyi for ongoing counselling and support

LIST OF ACRONYMS AND ABBREVIATIONS

AHFYSB	Adolescent Health and Family and Youth Service Bureau
AIM	African Immigrant Mothers
AOUM	Abstinence immigrant Mothers
BLM	Basic Logic Model
BOEM	Build, Overcome, Eliminate and Minimise
CAPS	Curriculum and Assessment policy statement.
CSE	Comprehensive Sexuality Education
FGDs	Focus Group Discussions
FPAHK	Family Plaining Association of Hong Kong Framework Strategy
GEMR	Global Education Monitoring Report
HIV	Human Immune Virus
ICPD	International Conference on Population and Development
ISHP	Integrated School Health Policy
ITG	International Technical Guidance
ITGSE	International Technical Guidance of Sexual Education
MCE	Moral and Civic Education
MOE	Ministry OF Education
NASRH	National Adolescent Sexuality and Reproductive Health
NGO	Non-Governmental Organization
P5	Primary five
PHSE	Personal, Social, Health and Economic Education
PPP	Pregnancy Prevention Program
RSE	Relationships Education, Relationships and Sex Education
STIs	Sexual Transmitted Infections
SWOT	Strength, Weakness, Opportunities and Threats
UNESCO	United Nations Educational, Scientific and cultural Organization
UNFPA	United Nation Population Fund
US	United States
USDHHA	United State Department of Health and Human services office of Adolescent

WHO World Health Organization

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Section 1: Thesis Overview

1. INTRODUCTION

Sexuality education is a global health concern which had been overlooked in the past decade regardless of the sexual health risks that the countries faced for its neglect. The risks of neglecting sexuality education were destroying transition from childhood to adulthood resulting in sexual health risks such as unintended pregnancy, Sexual transmitted infections (STI's), Human Immune deficiency Virus (HIV), sexual coercion, exploitation, compromising their educational achievements and economic potentials (United Nations Educational, Scientific, and Cultural Organisations, 2018). To address this gap the (UNESCO) published International Technical Guidance on Sexuality Education to guide countries on how to formulate standards for conducting sexuality education. In addition, United Kingdom government had released a sex education bill that mandated all schools to teach sexuality education (Ribinson, 2018).

In Sub-Saharan African countries, sexuality education was the main health problem that contributed to sexual health risks such as HIV, early pregnancy including early marriage and childbearing (Melesse et al., 2020). On the other hand, learners particularly bore disproportionately increased burden of Sexual health risks (Melesse et al., 2020). However early child marriage violated human rights of learners and negatively impacted not only their sexual and reproductive health but as well as their physical, psychosocial well-being and hindered their educational advancement (Melesse et al., 2021). As a result, teenagers in Sub-Saharan Africa have insufficient knowledge about sexuality Learners needed to be empowered with adequate information regarding their sexuality so that they would be able to make informed decision (Wado et al., 2019). However, the International Standards and Guidelines developed by UNESCO (2018) recommended sexuality education to begin in early childhood and continued throughout adolescent and adulthood. Despite the recommendation by UNESCO teenagers were still not receiving adequate sexuality education (Kusheta, et al., 2019). In Namibia cultural diversity was a barrier for parents to take a primary role in providing sexuality education. Parents felt uncomfortable to communicate about sexuality, believing that it was a taboo and culturally not acceptable discussing sexual health issues with their children (Al Zaabi et al., 2019).

In South Africa, inadequate sexuality education and insufficient instruction on sex and reproductive health have had detrimental effects on the sexual lives of teenagers, leaving them struggling to make informed decisions (Risenga and Mboweni, 2022). Nevertheless, the Sexual and Reproductive Health and Rights Policy of South Africa has been identified by the World Health Organization (WHO) as one of the most advanced and comprehensive policies in this field (Engel et al., 2019). The issue of when, what, and at what age to teach sexuality content in South Africa has been the subject of an ongoing debate. As a result, there was a need to revise the policy and develop comprehensive sexuality education programs that consider curriculum relevance, pedagogical relevance, and cultural relevance (Mturi and Bechuke, 2019). In South Africa, the Integrated School Health Policy was established to address the

sexual health needs of learners, as sexuality education had mainly been limited to the Life Orientation (LO) class, which has been proven to be problematic. Most LO teachers struggled to teach sexuality education successfully due to cultural and religious attitudes and perceptions (Al Sayed, 2021; Chaka, 2017). However, sexuality education should not be the sole responsibility of LO teachers, especially since there are doubts about whether Life Orientation is achieving its goal of providing learners with relevant information to make informed decisions within and beyond the classroom context. If Life Orientation fails to provide learners with relevant sexuality information, they may become vulnerable to sexual abuse, coercion, unplanned pregnancies, and sexually transmitted infections (Chaka, 2017).

In Limpopo little was known about promoting sexuality education for care givers of primary school learners. According to Ramathuba and Mashapha (2019) a formal instruction was said to be poor since students were informed about HIV/AIDS, STIs, reproductive health and physical changes that occurred during adolescent rather than a comprehensive sexuality education. In addition, Crockett (2019) and Risenga and Mboweni (2022) affirmed that in Vhembe district parent-child communication about sexuality was minimal and recommended that sexuality education should be introduced early before teenagers started to menstruate. Therefore, lack of sexuality education has a negative impact in the adolescent sexual life resulting in high rate of unintended pregnancy, HIV and STIs (Roman et al., 2021). Vhembe and Mopani districts have got the highest number of teenage pregnancies, HIV, and STI infections. That was an indication that sexuality education given to learners was insufficient (Risenga and Mboweni 2022). Then, there was a need to develop strategies to promote sexuality education for care givers of primary school learners in Limpopo Province, South Africa.

1.1. Background

The Global Education Monitoring Report (GEMR, 2016) highlighted sexuality education as the corner stone of sexual health promotion because sexuality education prepared teenager for a productive fulfilling life. HIV and STI's infections, unintended pregnancy, gender-based violence, gender inequality was posing a serious health risk to teenagers' well beings.

In addition, United Nation, Millennium Developmental Goal Report (2011) highlighted a need for comprehensive sexuality education as sexuality education did not merely mean providing teenagers with sufficient, up to date information, but they needed the adequate skill, training, awareness and development of own attitudes, beliefs perceptions related to their development, sexuality and health risk (WHO, 2018). Globally 23 % of people living with HIV were below 25 years of age while 41% of new infections occurred in people aged between 15 – 24 years. 44% of unintended pregnancies were girls under 19 years of age (Brearak et al., 2018).

United State government has developed and adopted a policy that promoted parent-child communication to strengthen parent -child communication by engaging parents in learners school

activities for example assisting learners with homework and learning materials (Leung et al., 2019). However, parents-child communication about sexuality would play a vital role in changing the sexual behaviour of the adolescents and increasing delaying sexual initiation (Mulholland et al., 2021). Thus, increasing the use of condom and contraception (El Kazdouh et al, 2019). The National state survey also revealed that parents in public schools overwhelmingly supported sexuality education and 95% accounted for high school learners that could be taught topics such as birth control and other methods of preventing pregnancy and sexual transmitted infections (Szucs et al., 2022; Eisenberg et al., (2022). In addition, Amo-Adjei (2021) affirmed that sexuality education should take place in schools and community level, it should be age appropriate and began at early stage of development to foster informed decision making.

There has been a remarkable decline in pregnancy rates for females aged 15 to 19 in the United States, which has occurred across all racial and ethnic groups (Brindis et al., 2020). However, unintended pregnancy among teenagers remains a significant public health challenge, particularly for certain populations and areas that are disproportionately affected. In certain geographic settings, large disparities persist in teenage birth rates and access to sexual and reproductive health information and services (Brindis et al., 2020). To address this issue, the United States has employed new technology and media to increase access to information, improved the availability of reproductive health services, tailored services to the needs of specific groups, and created a more supportive policy environment (Brindis et al., 2020; Widman et al., 2018). These strategies aim to enhance access to sexual and reproductive health information and services, particularly for those who are most at risk of unintended pregnancy.

In most of Europe and Central Asia countries sexuality education began in primary schools with the aim of imparting knowledge about human body, its functions, and changes during puberty as well as in human relationships (Newby and Mathieu-Chartier, 2018). Some of the countries started to teach sexuality at relatively young age before sexual initiation (Crockett (2019). In most countries' teachers did not receive training on how to prepare lessons on sexuality education. Countries such as, Australia, United Kingdom throughout the region had training on sexuality education being included in the training curriculum of teachers. Training should be done in all countries where sexuality education was compulsory. There was a lack of comprehensive sexuality education, skill training as well as concrete information on provision of sexuality education (Goldfarb and Lieberman, 2021).

In USA, 50% of new STIs infections are 15 – 24 years old. However, National Youth risk behaviour survey,2017 stated that STIs infection declined by 47.8% in 2007 to 46.2% in 2017. In high schools 70.6% of learners did not use contraceptive (Leung and Shek, 2019). In respond to increased prevalence HIV, STIs amongst learners, sexuality education had been a public health issue that warrant implementation of public health policy to ensure provision of sexuality education (Leung and Shek,

2019). 2018 sexuality education state legislative Midyear report introduced a bill across 27 states to advance sexuality education in schools. The development of National Teacher's Preparation Standards for sexuality education aimed to offer direction to high school educators in teaching sexuality education (Brindis et al., 2020) However, there was a gap in sexuality education as evidence by high prevalence of unintended pregnancy, STI, HIV and AIDS among secondary and tertiary learners. If they had knowledge at primary education before indulging in sexuality activity, sexual health risks would decrease among learners. Abstinence only until marriage Education Approach was used as a policy to promote sexuality education by encouraging learners to stop indulging to sex activities outside wedlock. Abstinence only until marriage as a valued moral behaviour expected from learners by most Christian faith religion was a fallacy. That policy did not meet the needs a of secondary school learners as such the policy had some pitfall, because learners lacked information about a comprehensive sexuality education (Leung et al., 2019).

In United states of America, a call was made to develop and strengthen a new strategy to enhance provision of sexuality education through strengthening communication (Leung et al., 2019; Kusheta et al., 2019). Open communication about sexuality would make the learners to delay sexual initiation and increased contraceptives uptake particularly by sexually active learners Parent child connectedness and supervision decreased the risks of pregnancies amongst learners (Kantor et al., 2020). Programs focused on working directly with parents may help to enhance communication skills related to sexuality and improve parent-child relationships, as well as assist parents in developing monitoring skills (Mulholland, Robinson, Fisher, Pallotta-Chiarolli, 2021). Strategy would promote sexuality education if parents were workshopped on what information was essential and how to disseminate sexuality information.

In United Kingdom, the government released a sex education bill that mandates all schools to teach sexuality education state legislation year-end report, 2016. According to Robinson, Smith, and Davies (2017) parents in England also supported the government idea of including sexuality education in school curriculum. It was also compulsory for all schools to teach sexuality education. However, the Department of Education developed a strategy that promoted age -appropriate sexuality education where adolescents received information that was developmentally relevant to the topic, increased accesses to contraception and other sexual health services. For example, 11 years old students received information on sex and relationships. Similarly, Section 34 of the Child and Social Work Act, 2017 affirmed that education was compulsory while relationship and sex education being compulsory in secondary school (Ribinson, 2018). All schools in United Kingdom had a policy that allowed parents to indicate the topics that were suitable for that age group. For that reason, all schools were encouraged to become health promoting schools. On the other hand, guidelines on promoting sexuality education in England were implemented. The guidelines required that all teachers undergo training before starting to teach, to empower teachers with skills and knowledge (Ribinson, 2018). Although England seemed

to be doing well in providing sexuality education in high schools but in their curriculum did not include sexuality education for primary school learners (Ribinson, 2018). The curriculum would benefit primary school leaners if sexuality education was included in the curriculum. Therefore, the researcher intended to develop strategy to promote sexuality education of primary school children by care givers in Limpopo Province.

In Uganda, 15% of National curriculum covered Sexual Reproductive Health (SRH) sexuality education. The following topics were included in the National curriculum puberty, HIV prevention, gender equity, sex and reproductive health, relationship, and human rights (Kemigisha,2018). Adolescents in Sub-Saharan Africa are confronted with mounting challenges regarding sex and sexuality. They encounter contradictory messages and expectations due to insufficient knowledge, expertise, and awareness of their rights, particularly regarding sex, sexuality, and gender expectations. Most of teenagers had undergone genital mutilation, forced marriage, as the means of preventing them from immoral, unhealthy sexual reproductive behaviours (Kemigisha, 2018). Different cultural group's view discussing sexuality education with any person younger than your age as culturally unacceptable and as a taboo. If it happened that parents discuss sexuality education with children, the discussion was more on how to prevent HIV and teenage pregnancy (Hanaas-hancock, 2019). While in Namibia cultural diversity was a barrier for parents to take a primary role in providing sexuality education. Parents felt uncomfortable to communicate about sexuality, believing that it was a taboo and culturally not acceptable discussing sexual health issues with their children (Noorman, den Daas, and de Wit, 2022).

South Africa has one of the highest rates of HIV epidemic globally, with approximately 7.1 million individuals living with HIV. The prevalence of HIV among the general population is also high, standing at 18.9%. In addition, a significant number of females between the ages of 12 and 19 are getting pregnant, while 5.8% of males in the same age group have fathered a child. Seventy- one (71%) of males did not use condom and while 68 % of female learner did not use contraceptives. Hence, SA government had statutory commitment to address Sexual Reproductive Health problems (Global information and education on HIV and AIDs in South Africa, 2019). Department of health and education introduced Life Orientation (LO) in school curriculum which was merged with life science and health education as main subject. Life orientation was not integrated well with life sciences and at times it was just a stand-alone subject for those following financial and management streams such as accounting and agriculture. As such there was a gap in SA curriculum because subjects were grouped according to streams that learners should follow to complete grade 12. The impact of life orientation was not seen because it was not considered for admission in tertiary level. In case where it was merged with Life Science, it posed a gap because only learners who would be doing life science get the information regarding sexuality while those who chose not life science would lack sexuality information. South African constitution guarantees that all schools must teach sexuality education.

Under this policy, it is mandatory for all secondary school students to receive SRH counselling, with a special emphasis on counselling that addresses risky behavior. Furthermore, sexually active students must be provided with dual-method contraception, HIV counselling and testing (HCT), STI screening services, and information on circumcision. These services can either be provided by an on-site nurse or through referral to a healthcare facility that offers them. (Integrated School Health Policy, 2012). Furthermore, the provision of sexuality education in secondary schools left a gap because life orientation at school started late after the learner is sexually active. Therefore, the curriculum needed to be aligned with educational programs on media for learners to can access and analyze information with the teachers unlike watching videos on YouTube which were not age appropriate unsupervised.

To enhance the provision of comprehensive sexuality education in South African schools, the National Adolescents Sexuality and Reproductive Health and Rights Framework Strategy 2014 - 2019 was implemented. This was done to review Life Orientation (LO) in the South African context and promote positive transformation among teachers and learners. Additionally, the Department of Basic Education Integrated Strategy on HIV, STI and TB 2012- 2016 was utilized to pioneer Adolescent Sexual and Reproductive Health and Rights of the learners in schools through the HIV and AIDS Life Skills programme and Life Orientation curriculum. This framework was meant to guide stakeholders in addressing gaps in sexual health promotion strategies. However, it was not implemented effectively, resulting in a lack of knowledge and skills regarding sexuality.

Despite the implementation of the Integrated Strategy on HIV, STI and TB 2012- 2016, issues such as high prevalence of HIV, STIs, unintended pregnancy, and abortion remained a problem among learners. In December 2015, the South African government published a white paper on National Health Insurance, which aimed to provide universal access to quality, affordable personal health services to all South Africans based on their health needs (NDoH Annual Performance Plan 2016/17 -2018/19). The constitution of the Republic of South Africa,1996, section 27 stipulates that everyone has the right to have access to health care services, including reproductive care, and no one may be refused emergency medical care. However, despite these policies and strategies, there were no significant differences in pregnancy, HIV, and STI prevalence among learners. It appeared that awareness or knowledge of sexuality interventions did not necessarily translate into engagement and/or behavior change. As a result, the researcher aimed to develop a strategy to promote sexuality education for caregivers of primary learners in South Africa's Limpopo Province (Lince-Deroche, 2016).

1.2. Problem statement

The researcher was a lecturer in Limpopo, who accompanied students on clinical learning at different health facilities in Vhembe district. During clinical accompaniment it was observed that the number of teenagers who were pregnant during antenatal visits was higher than adult women. Among 60 pregnant

women 37 were teenagers between the age 15 – 19 years old (DHIS, 2018) According to the local newspaper, Mirror (October 19th, 2018), it was revealed that 27 learners of Molautsi Secondary school near Polokwane were pregnant. Thirty-six learners at Mukhwantheli secondary school in Dididi village outside Thohoyandou were also pregnant. 31 of learners from Mukhwatheli secondary school tested HIV positive at Mulendzhe clinic (Frank Maponya, 2018). Mavalane secondary school at Mopani district was found to be one of the schools with high teenage pregnancy (DHIS,2018). Sexuality was a thorny problem which was affecting individuals, parents, families, and community at large.

In Limpopo Province teenage pregnancy was high in Vhembe and Mopani districts. In Vhembe district it accounted for 17.7 % while Mopani district accounted for 16.6%. That was the indication that learners lacked accurate and appropriate information about sexuality education in schools, homes and community at large. The escalating number of teenage pregnancies in Vhembe and Mopani District had negative impact in the lives of adolescents as it predisposed them in sexual health risks. Non-governmental organizations in South Africa collaborated with the Department of Health and Department of Education to promote sexuality education. Organizations like Soul City and Love Life were established to support this cause. One of the most successful family television shows, Soul Buddyz, was produced in South Africa to disseminate information about sexuality. About 67% of learners aged 8-12 years old watched, read, or listened to Soul Buddyz. Even though those programmes were put in place, prevalence of unintended pregnancy, STIs, HIV/AIDS and abortion among learner was not reducing. May be if these programs were scheduled during school time the teacher would watch and analyse them for open discussion with learners. That would empower learners with knowledge regarding sexuality and reduce health risks behaviours. Therefore, the researcher sought to develop strategies to promote sexuality education for care givers of primary school learners. The table below showed the percentage on teenage birth rate according to districts performance.

Table 1. Percentage on teenage birth rate according to districts performance

Mopani district	**Number of births**	**Vhembe district**	**Number of births**
Ba-Phalaborwa	18.7%	Collins Chabane local municipality	10.2%
Greater Giyani	16.9%	Makhado local Municipality	14.4%
Greater Letaba	13%	Musina local municipality	10.5%
Greater Tzaneen	10.1%	Thulamela local municipality	17.9%
Grand total	58.7%	Grand total	44.9%

Source: Vhembe District Health Information System 2018

1.3 Rationale of the study

Sexuality education among primary school learners has not been addressed effectively. The consequences of late interventions result in sexual health problems such as, unwanted, and unplanned pregnancies. Focused was on adolescents in secondary and tertiary institution.

1.4. Significance of the study

The study findings might address the challenges encountered by teachers and SGB in promoting sexuality education for primary school children. The study might assist teachers and SGB in developing confidence and courage to take a primary role in providing sexuality education for primary learners. The study findings might contribute to the current body of knowledge and empower learners with relevant recent sexual and reproductive information. The study might improve learners to access sexual health services and reduce sexual health risks. The study findings might serve as a guideline for curriculum developer might be of great value by highlighting the gaps on sexuality education. It might enhance quality for all learners by implement age-appropriate sexuality education as early as from primary level. The policy makers might benefit by identifying the gaps and review the policy to suit the current sexual health issues. Study might strengthen the collaboration between Department of Health and Education hence reducing sexual health risks and dropout.

1.5. Purpose of the study

The purpose of this study was to develop the strategy to promote sexuality education for care givers of primary school learners in Limpopo Province, South Africa.

1.6. Objectives

Phase 1

- To explore the experiences of the primary school learners on sexuality education at home and school.
- To explore experiences of Life Orientation teachers providing sexuality education for the learners.
- To explore and describe the views of the School Governing body (SGB) regarding provision of sexuality education at school.
- To conceptualise the findings into a conceptual framework that guided the development of the strategy.

Phase 2

- To develop strategy to promote sexuality education for care givers of primary school learners in Limpopo Province, South Africa
- To validate developed strategy to promote sexuality education for care givers of primary school learners in Limpopo Province, South Africa
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1.7. Definition of concepts

- **Strategy:** refers to procedures that are developed to encounter long term goals (Evered ,1983). In this study strategy refers to procedure that will be developed and used to promote sexuality education for care givers of primary school children in Limpopo Province, South Africa.
- **Sexuality education**: Is a structured method of raising awareness about sexual health in individuals, covering topics such as sexual development, gender roles and identities, eroticism, pleasure, intimacy, and reproduction. Sexuality can be expressed in various ways, such as thoughts, beliefs, attitudes, values, behaviors, practices, roles, and relationships (WHO, 2019). For the purposes of this study, sexuality education is defined as a combination of formal and informal communication methods used to provide information about bodily development, sexuality, sexual relationships, and gender identity, with the aim of equipping learners with knowledge and skills to make informed decisions regarding their sexual health.
- **Care giver**: refers to any individual who has provided care for a child with or without the consent of a parent or guardian, including those who have cared for a child in temporary safe care. This could be a male or female person who is taking care of children under the age of 15, according to the Children's Act of 2005. For the purpose of this study, care givers are defined as teachers and members of the School Governing Body (including non-biological care givers) who are responsible for the well-being of learners.
- **Learner:** refers to an individual who is receiving education or is required to receive education under the relevant legislation. Specifically, for this study, a learner is defined as a male or female student who is under the age of 16.
- **School**: refers to a public institution that provides education to students in South Africa, from grade zero up to grade 12. The definition of school is in accordance with the South African School Act of 1996, which covers both public and independent schools that enroll learners in one or more grades.

1.8. Theoretical framework

The study was based on the Precede-Proceed model, which provides a comprehensive framework for evaluating health and quality of life needs, and for designing, implementing, and evaluating health

promotion and other public health programs to meet those needs. Precede-Proceed is an acronym in which each letter represents the first letter of a word. PRECEDE stands for Predisposing, Reinforcing, Enabling Constructs in Educational/Environmental Diagnosis and Evaluation, and refers to the process that precedes an intervention. It outlines a diagnostic planning process to help develop targeted and focused public health programs. On the other hand, PROCEED stands for Policy, Regulatory, and Organizational Constructs in Educational and Environmental Development, and describes how to proceed with the intervention. PROCEED guides the implementation and evaluation of the programs designed (Green and Kreuter, 1999).

Each phase of the PRECEDE-PROCEED model has a distinct purpose and approach to guide the development, implementation, and evaluation of health promotion and public health programs.

- Phase 1: Involves determining the quality of life or social problem and needs of a particular group of people.
- Phase 2: Focuses on identifying and prioritizing health or community issues, and their behavioral and environmental determinants that need to be addressed to achieve the desired outcome.
- Phase 3: Involves identifying the predisposing, enabling, and reinforcing factors that can affect the behaviors, attitudes, and environmental factors that were given priority in Phase 2.
- Phase 4: Focuses on identifying administrative and policy factors that need to be considered in implementing the intervention successfully (Green and Kreuter, 1999).
    - The four phases of PRECEDE move logically backward from the desired outcome to where and how the intervention should be implemented, to the administrative and policy issues that need to be addressed.
    - The four phases of PROCEED cover the actual implementation of the intervention and the evaluation of its effectiveness, working back to the desired outcome (Green and Kreuter, 1999).
- Phase 5: Involves the design and actual conducting of the intervention.
- Phase 6: Focuses on process evaluation, which involves assessing whether the intervention is being implemented as planned.
- Phase 7: Focuses on impact evaluation, which involves assessing whether the intervention is having the desired impact on the target population.

- Phase 8: Involves outcome evaluation, which aims to determine whether the intervention has achieved the desired result that was envisioned in Phase 2.

To improve the health and quality of life and prevent illness and injury, any population health program or environmental intervention should follow a basic agenda. These programs typically operate at one or more stages of prevention. The primary stage involves health enhancement and prevention through environmental controls, while the secondary stage focuses on early detection and treatment of known risk factors. The tertiary stage involves therapy to prevent recurrence. Most population health interventions operate at the primary stage, which concentrates on improving or enhancing the health of the community (Green and Kreuter, 1999).

The model aiming at making the problem and solution as specific as possible ending at the level of determinates that were the factors that shape people behaviour, such as knowledge, attitudes, confidence, and skills.

The PRECEDE-PROCEED model is based on the principles of self-determination and participatory planning, which ensure the active involvement of the target population and communities in planning and implementing health interventions. This model allows for community empowerment and includes ecological planning and assessment. By using the model, the community can adjust the structure and methods of intervention to meet their needs. PRECEDE focuses on the desired outcome of change and works backward to construct an intervention that will achieve that outcome, with four phases (Green and Kreuter, 1999).

In phase one, social diagnoses determine the community's needs and aspirations and raise awareness about their concerns and objectives from a social, economic, cultural, and environmental perspective. The epidemiological diagnosis characterizes the main health problems of the community and identifies the behavioral and environmental factors that must change to address these issues. Community mobilization becomes a significant part of the health promotion process. The application of PRECEDE-PROCEED to identify predisposing, enabling, and reinforcing factors provides valuable data to the development of more efficient communication and health strategies (Green and Kreuter, 1999).

Predisposing factors refer to personal attributes such as knowledge, attitudes, beliefs, values, and perceptions that can promote or hinder motivation for change. Enabling factors are societal forces or systems that enable change, such as availability of personal and community resources, accessibility, referrals, laws, status, personal skills, services, and facilities. Reinforcing factors include behaviours and attitudes such as reward and incentives or the feedback received from peers, parents, family, employers, and societal groups for adopting the desired outcomes (Green and Kreuter, 1999).

In this study reinforcers would be self-encouragement and encouragement by others and individual positive feeling. Teachers, parents, learners and SGB, after training they would encourage themselves and by others so that they translated information related to sexuality education based on knowledge and skills they would have acquired with positive feelings. The reinforcers would be trainers, teachers and peer educators would give information to parents and learners to empower them about sexual reproductive health issues, methods of family planning, how to use them where to access the services. Peoples' expectations about advantages and dis-advantages, many motives and belief could play a role in shaping attitudes.

The enablers would be notification of educational messages about materials designed for Primary School Action for better health. The reinforcers would be trainers, trainers from department of education and department of health. The reinforcers would be the experts in sexuality education, sexual health education, teachers, and postgraduate and young people's mobilization to articulate their needs for sexuality education would be a powerful driving force (Green and Kreuter, 1999).

Assessment of cognitive/ knowledge about aspects of sexuality education would be done at school level to evaluate if students would be able to make informed decision and choices leading in reduction of teenage pregnancy, STIs, HIV and AIDS. The PRECEDE - PROCEED model of which teachers, SGB, student's behaviour was assessed in three area, the predisposing factors such as knowledge, attitude, and beliefs and value. Precede behaviour changed and generated motivation for behaviour enabling factors such as availability of resources and accessibility of services and policies.

Process evaluation and review of process towards pre-set goals would be carried out during the implementation of the training course. The effectiveness would be evaluated on the completing the precede -proceed interview guide 6 weeks after training. The training would be conducted for 15 participants in groups on separate days.

2. RESEARCH DESIGN AND METHODS

The aim of this study methodology was to describe the research plan, which includes the research approach, study design, selection of the population and study setting, as well as the data collection and analysis methods. The research would be conducted in three distinct phases. The first phase would encompass collecting and analyzing data, while the second phase would involve the development of a strategy to promote sexuality education among primary school caregivers in the Mopani and Vhembe districts of Limpopo Province, South Africa. Below is Table 2: Summary of research methodology

Design	Context	Population and Sampling	Data collection	Data analysis
Qualitative	Limpopo Province is geographically divided into five districts, namely Southeast Mopani, South West Capricorn, Waterberg to the west, Sekhukhune South East, and Vhembe District in the far north. The present study will be conducted in Mopani and Vhembe districts, with Thulamela Municipality in Vhembe District purposively selected. Vhembe District has four municipalities: Collins Chavane, Makhado, Musina, and Thulamela. The area has one university, 127 secondary schools, two libraries, and few dilapidated recreational facilities. Health facilities in Vhembe East include four hospitals, 52 clinics, and mobile clinics. The area has a high prevalence of pregnancies, sexually transmitted infections, and HIV/AIDS amongst learners, with 18% of the population being unemployed and poor (IDP, 2018/2019). Mopani District is divided into five municipalities, namely Ba-Phalaborwa, Greater Tzaneen, Greater Letaba, Greater	**Target population: Target** population would be learners, SGB and teachers. **Sampling: Non**probability purposive sampling would be employed to select districts, and circuit, schools participants. **Sampling of circuit**: Mopani and Vhembe districts were selected based on high prevalence of sexual health risk such as pregnancies, STI's and HIV. **sampling of the circuit**: Vhembe district has 2 education circuits which are Vhembe East and Vhembe west. Vhembe east education circuit has been purposively selected due high prevalence of sexual health risks such as STI's and pregnancy among learners. Vhembe east consist of 4 sub – circuits namely: Vhumbedzi-Malamulele, Dzindi – Vhuronga, Niani_Sambandou and, Tshinane – Mvudi. all 4-school circuits would be selected for study. Greater Giyani municipality has 5 circuits, and 4 circuits would be purposively sampled based on high prevalence of sexual health risks among the learners. which is Klein Letaba,	**Instrument** Unstructured and semi-structured Interviews would be used as an instrument for data collection. **Methods** for data collection would be: In-depth face to face interviews to obtain data from Life Orientation teachers who have 12 months and more teaching experience. Questions that need to explore and describe the views and experiences of teachers were asked. Focus group discussion was conducted collecting data from grade 8 learners males or females and SGB The researcher asked questions regarding how best sexuality	To conduct a thematic analysis, the data was first transcribed and read multiple times to generate initial ideas. These ideas were then be transformed into codes and organized into potential themes. The themes were checked to ensure they relate to the coded extracts and the entire data set. Ongoing analysis refined the specific details of each theme, and clear definitions and names for each theme and sub-theme would be created. Throughout the analysis, vivid and compelling extracts from the transcripts were selected and analyzed to focus on the research question and consider the study's theoretical framework. A thematic map of the analysis emerged and was used to tell the overall story of the analysis.

	Giyani, and Maruleng. Greater Giyani was selected for the study due to a high prevalence of pregnancies, sexually transmitted infections, and HIV/AIDS amongst learners. In the area, 74.4% attend school, and higher learning institutions are affordable. Unemployment rates in the area are high, with an increase from 50.7% to 60.4%. The district has physical recreational facilities available, but some have been vandalized and are not in use. Similar to Vhembe District, there is a high prevalence of pregnancies, sexually transmitted infections, and HIV/AIDS amongst learners, accounting for 44.9% (IDP, 2018/2019).	Nsani, Manombe and Shamavunga circuits sampling of school. **Sampling of the schools:** Giyani has 53 secondary schools. Cluster sampling was used to select schools resulting in one school per cluster purposively sample for representativeness. **Sampling of participants:** The researcher purposively selected teacher who have been engaged in teaching life orientation as major subject for 12 months and more. Learners in grade 8 females and males, age 13 -15 years would be purposively selected. School Governing Body (Parents, LO Teachers) would be conveniently sampled as only parents in the schools.	education can be implemented and what information should be included to promote sexuality education in primary school. Field note, audio record would be used,	

2.1 Research Strategy

The research project was divided into two phases, which were focused on empirical research and strategy development and validation. The first phase used a qualitative multimethod approach and consisted of four stages. After completing these stages, the study findings were conceptualized into a framework that was used to guide the development of the strategies. And lastly the development and validation of the strategies were done in phase 2. (See figure 1)

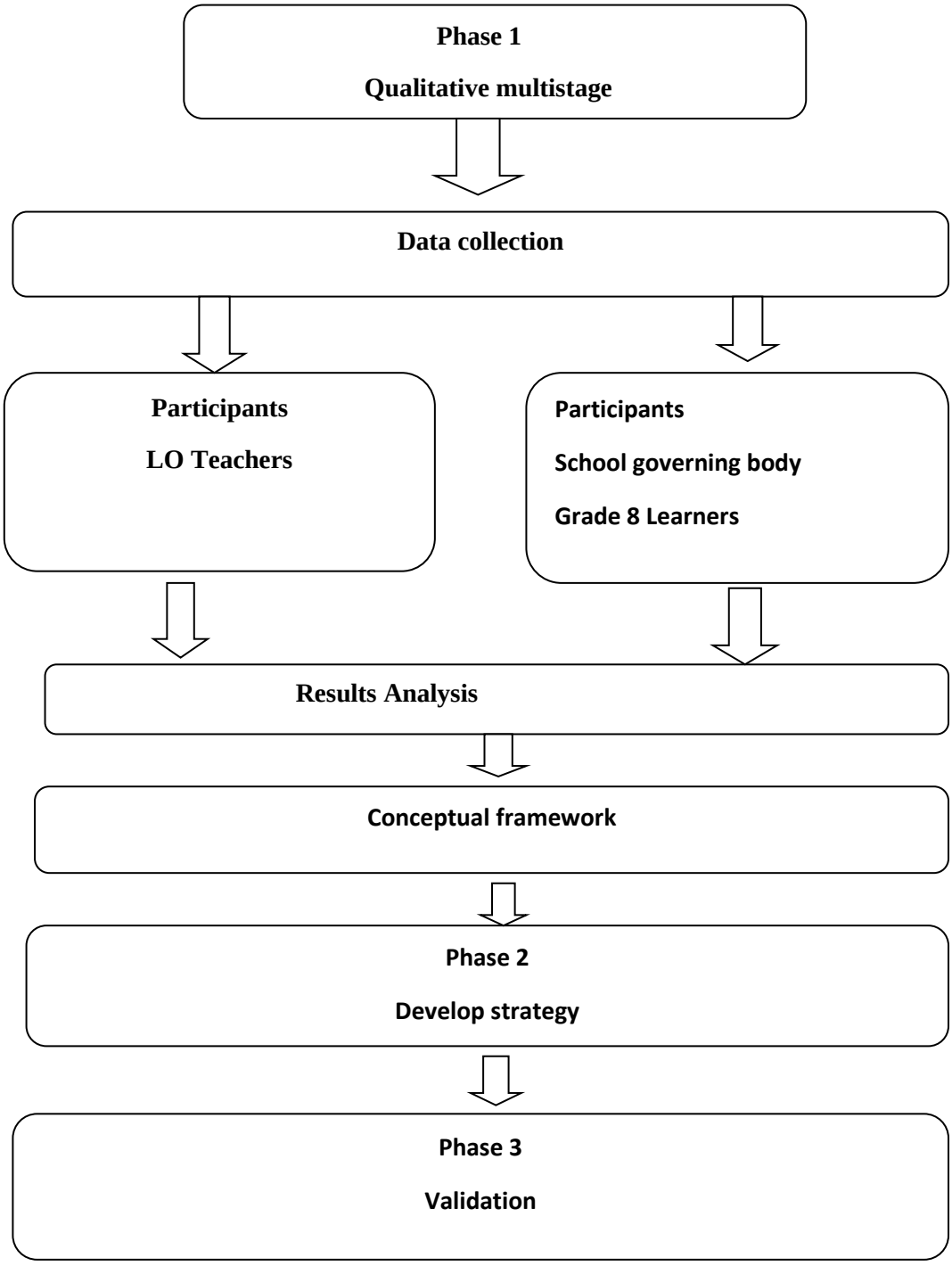

Figure1. Phases of research process

2.2. Research design

This study used a qualitative, exploratory, descriptive, and contextual research design to investigate and describe the experiences and perspectives of participants, aiming to gain a comprehensive understanding of the challenges associated with inadequate provision of sexuality education for primary school caregivers in the Mopani and Vhembe districts.

- **Exploratory**

According to Burns, Gray and Grove (2013), the researcher explored learners', and life orientation teachers' experiences about sexuality education at home and school. Views of the SGB and LO teachers on promoting sexuality education of the primary school learners were explored. Through explorative design the researcher gained in-depth knowledge about sexuality education of primary school learners in Vhembe and Mopani district.

- **Descriptive design**

In this study the researcher described the views of the SGB and life orientation on how sexuality education can be implemented. Description of participant's views on sexuality education assisted researcher in categorizing the information, formulating themes and sub-themes that led to the development of strategies (Brink van de Walt, and van Rensburg: 2017; Polit & Beck,2017).

- **Contextual design**

Contextual design refers to the process of studying a phenomenon in its natural setting. In this particular study, the researcher observed and interacted with learners, teachers, and SGB members at schools. The researcher recognized that people's behaviors can be better understood and interpreted when situated within the context of their lives and the environment around them (de Vos et al., 2011).

2.2. Study setting

Limpopo Province is divided into 5 districts namely southeast Mopani, southwest Capricorn, Waterberg to the west Sekhukhune South east and Vhembe district in the far north. The setting for this study was Mopani and Vhembe Districts. Vhembe District is divided into 4 Municipalities namely Collins Chavane, Makhado Musina, and Thulamela Municipality was purposively selected for this study. Thulamela has 618462 population. There is one University and 127 secondary schools with 2 libraries, recreational facilities are few and dilapidated hence there is 1 sports centre with less resources. Health facilities in Vhembe east are as follows: 4 hospitals namely Tshilidzini, Malamulele, Hayani and Donald Fraser hospitals, 52 clinics and mobile clinics. Sexual and reproductive health services are poorly rendered because they are mainly focusing on prevention of HIV and. Eighteen percent (18%) of

population are unemployed and poor. There is extreme poverty with high prevalence of pregnancies, STIs, HIV and AIDS amongst learners (IDP, 2018/2019).

Mopani District is divided into 5 municipalities namely Ba-Phalaborwa, Greater Tzaneen, Greater Letaba, Greater Giyani and Maruleng. Greater Giyani was selected for the study based on high prevalence of pregnancies, STIs, HIV and AIDS amongst learners and including sexual abuse. Population in greater Giyani is 256300. Seventy four percent (74.4%) attend school and 22.6% did not attend school due to accessibility and the affordability of higher learning institution. Percentage of population with no schooling decreased from 47.6% to 42.1%. Most female were employed than males, however unemployment in area was increasing from 50.7% to 60.4%. Physical recreational facilities are available, such as library, sports centres which were not in use because some have been vandalized, lack of human and material resources. There was high prevalence of pregnancies, STIs, HIV and AIDS amongst learners which account for 44.9%. that was the reason why the researcher has chosen Mopani and Vhembe districts to conduct study (IDP, 2018/2019). (See Figure 2)

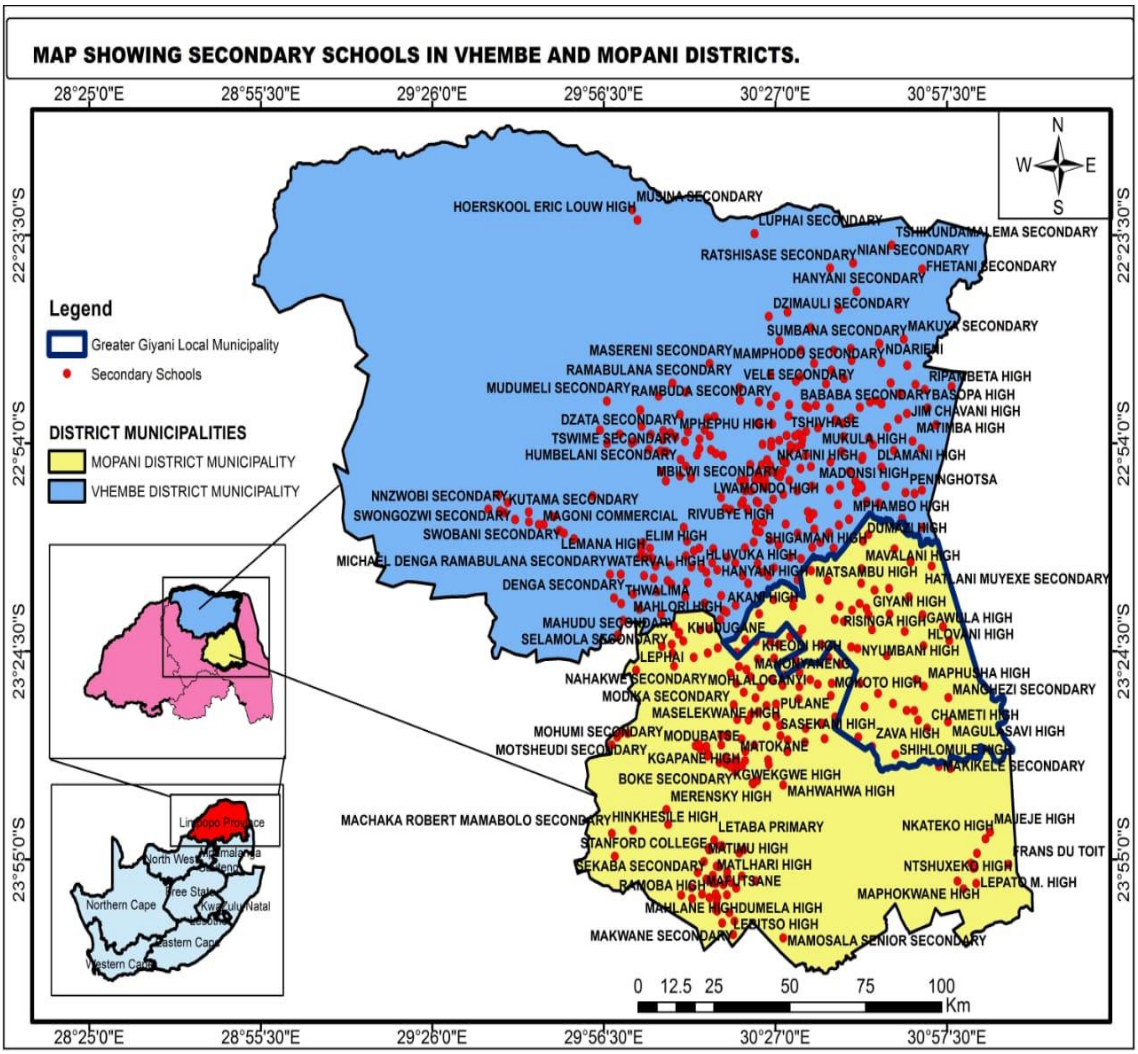

Figure 2. Map of Schools in Limpopo Province District Municipalities (Mopani and Vhembe Districts)

2.3 Population

In this study the population was as follows.

- All learners residing at Vhembe and Mopani District.
- All teachers of learners where research was conducted.
- All SGB members.

The accessible population were grade 8 learners, school governing body, teachers who met the criteria for the study, who were available during data collection at Mopani and Vhembe District.

2.3.1. Target population

The target population in this study were learners, teachers, SGB at the selected schools.

Sample

In this study, the sample was selected from the population learners, teachers, SGB at the selected schools.

2.3.2. Sampling

The study selected participants for research on promoting sexuality education to primary school learners through non-probability purposive sampling. This method ensured that participants were chosen based on their relevant experiences and met specific criteria, allowing the researcher to gather the most informative data possible. In this study, purposive sampling was selected because the main aim in qualitative inquiry would be to generate rich and dense description about promotion of sexuality education for care givers of primary school learners rather than using technique that would support generalizability of the findings.

2.3.2.1. Sampling of the Districts and Municipalities

Limpopo has five districts namely Capricorn, Mopani, Vhembe Sekhukhune, and Waterberg. The researcher purposively selected Mopani and Vhembe districts base on high prevalence of sexual health risks among learners. The researcher further purposively selects Thulamela and greater Giyani municipalities based on high prevalence of sexual health risks among learners.

2.3.2.2. Sampling of the education circuits

Theoretical sampling was conducted to sample the education circuit and schools due to high reports of teen pregnancies in those circuits. Vhembe district has 2 education circuits which were Vhembe East

and Vhembe west. Vhembe east education circuit has been purposively selected based on high prevalence of sexual health risks among learners. Vhembe East and has 4 sub - circuits which were Vhumbedzi-Malamulele, Dzindi-Vhuronga, Niani-Sambandou and, Tshinanne-Mvudi.

Greater Giyani municipality has circuits, and 4 circuits were purposively sampled based on high prevalence of sexual health risks among learners. in Klein Letaba, Nsani, Manombe circuit and Shamavunga.

2.3.2.3. Sampling of schools

Vhembe east has 156 secondary schools and greater Giyani has 65 secondary schools. Cluster sampling would be used resulting in one school per cluster purposively sampled for representativeness. At greater Giyani 4 schools and Vhembe 4 schools would be selected based on prevalence of sexual health risks among learners.

2.3.2.4. Sampling of participants:

Convenience sampling was conducted based on participants availability during data collection. In this study the researcher purposively selected participants based on participants experiences and knowledge about sexuality education.

- Teachers - The researcher purposively chose teachers who had at least 12 months of experience teaching life orientation for the study. This selection was based on the teachers' specific background and qualifications in the subject, ensuring that the study gathered relevant data from knowledgeable sources.
- Learners in grade 8 female and male, age 13 -15 years were purposively selected.
- School Governing Body (Parents) were purposively sampled as only parents in the schools.

Accessing the participants

The principal of the selected schools identified the teachers who would assist in purposively selecting candidates (LO teachers, grade 8 learners and SGB members) as the assisting teacher know participants information rich about research topic.

2.3.3. Sample size

The study planned to conduct unstructured face-to-face interviews lasting between 40 and 45 minutes, with the sample size being determined by data saturation. For the focus group interviews, each session would involve at least 8 participants, resulting in a total of 64 participants. The focus group discussions would last between 45 and 60 minutes, with the goal of determining data saturation.

2.3.4 Inclusion criteria

In this study inclusion criteria was as follows:

- SGB from selected schools
- Grade 8 learners, both males and females, age 13 – 15 years
- Teachers who facilitate LO.
- Those that gave consent or assent.

2.4. Data collection

Data collection method is the process of collecting data from the participants. In this study the researcher used face-face interviews for focus groups with learners. Data collected using unstructured interviews with caregivers. Data were recorded as fields notes and verbatim. Through unstructured and semi-structured interviews, the researcher was able to engage with participants as such the participants expressed their experiences and views on promoting sexuality education for care giver of primary school learners in Limpopo Province, South Africa.

2.4.1 Data collection instrument

The researcher used both unstructured and semi-structured interviews to collect data. Open ended questions were used to collect data from the teachers, while semi-structured was employed to collect data from the learners and SGB. The interview guides ensured that all questions were covered during the data collection process. During the study, the researcher encouraged participants to talk freely, using interview guides that contained different questions for the focus group discussions with learners and SGB. The researcher conducted focus group discussions using face-to-face interviews, as it allowed for first-hand information and observation, and easy recording of data. The focus group discussions also promoted self-disclosure among the participants, including learners, SGB, and parents, providing insights into their thoughts on promoting sexuality education for primary school learners.

2.4.2 Pre-test the interview guide

In the study, a pre-test was conducted before the actual interview session. The pre-test involved conducting in-depth face-to-face interviews with 3 teachers and 1 focus group discussion with 6 learners and SGB in different settings. The purpose of the pre-test was to test the interview guide, interview skills, duration, and the use of an audio recorder. Participants for the pre-test were selected from Vhembe west district based on geographical proximity and the fact that it was not the main setting for the study. Volunteers were chosen to participate in the pre-test.

2.4.3 Pre- interview Arrangement

In the study, the researcher designed an unstructured question and interview guide (Annexure G) for use during face-to-face interviews and focus group discussions. A journal was prepared for taking field notes. The researcher negotiated in writing for access to the schools through district managers of Greater Giyani and Vhembe districts. The researcher also prepared a consent form for all participants who voluntarily agreed to participate in the study. Consent for grade 8 learners was obtained from their parents or guardians since they were minors. Consent forms were distributed to the learners by their teachers, and the researcher followed up to collect the signed consent forms. The right to privacy and respect was ensured, and voluntary participation was emphasized, with the right to withdraw from the study at any time. Participants were recruited by teachers working in the same school where the study was conducted, with SGB members recruited during parent meetings by the school manager. The researcher agreed with the participants on the time, date, and place where data would be collected. A group facilitator was required to assist the researcher with taking notes, operating the tape recorder, handling environmental conditions and logistics, and responding to unexpected interruptions during the study. The assistant played a key role during the post-meeting analysis of the session.

2.4.4 Focus group discussion

Focus group discussion - was an interview of a group of people gathered to discuss a focused issue of concern. The aim of using focus group discussion was to describe and understand the shared experiences by participants. Focus group discussions were conducted amongst grade 8 learners of age 13-15 years and SGB. In this study, the researcher conducted one focus group discussion per each school resulting in eight focus groups. Each focus group consisted of eight participants. Focus group discussions were suitable for discussing sensitive topics.

Participants shared their opinions while learning from each other. Through focus group discussions, participants explored and clarified their experiences and views freely, rather than in face-to-face interviews. Participants shared their experiences amongst each other. Focus group discussions saved time and money as the researcher did not need to travel long distances several times. The participants

provided information based on their experience. Group consensus was formulated, unlike in face-to-face interviews. Research assistants were needed during the focus group discussion for data capturing (writing field notes and recording of the discussions with an audio recorder). An interview guide was provided as Annexure G.

2.4.5 In-depth Face to face interview

The researcher conducted the interview with grade 8 LO teachers to explore their experiences and views when promoting sexuality education of primary school learners. The researcher asked the following central question **"explain your views on promoting sexuality education for primary school learners.?"** Probing and follow up questions were used to deepen the discussion. During in-depth interview the researcher informed the participants and request permission to use an audio recorder if the participants would be willing.

2.4.6 Initial stage interview

The topic, goals and objectives were introduced by the researcher, and ethical considerations were ensured before the consent forms were signed. After that, the consent forms were distributed to the participants for completion. Open-ended questions were used to initiate the conversation, and participants were encouraged to discuss their experiences and views on promoting sexuality education for caregivers of primary school learners.

2.4.7 Post Interview phase

After the interview session, the researchers thanked the participants and inform them about the likelihood of further contact in case there was a need to spell out or endorse the captured data. From that point the researcher collected the nitty gritty notes of the interview while the researcher could still remember the data (De Vos et al., 2011)

2.5. Measures to ensure trustworthiness.

In this qualitative study, the researcher aimed to establish confidence and ensure the genuineness of the findings through trustworthiness, which was concerned with truth value. To enhance trustworthiness, the researcher adhered to the criteria of credibility, transferability, and dependability, as outlined by Polit and Beck (2017).

2.5.1 Credibility

Credibility refers to the confidence in the truth of the data and interpretation thereof. The researcher enhanced credibility by remaining in the field for longer period. The researcher at least spends 45

minutes with individual participants when conducting face to face interviews and 40-60 minutes for focus group discussions. In this study, credibility would be established through:

- **Prolonged engagement:** Prolong engagement implied staying in the field until data saturation occurred. Through prolonged engagement the researcher obtained rich, detailed information and have in-depth understanding of the participants' behaviours through continuous observation. The researcher spent three weeks with participants because the first week of data collection the researcher visited different setting to establish rapport, explain the objectives, purpose of the study. During data collection the researcher immerse herself in the world of the participants. The researcher spends extended time conducting face to face interviews, focus group discussion and taking field notes. The interviews continued until data saturation. In each school selected for study. The researcher would invest enough time in data analysis, listening to audio recordings. Transcripts were read over and over to fully acquaint with the data. (Polit, Beck, 2017).
- **Triangulation:** In this study, triangulation conducted through in-depth interview and focus group discussion. Triangulation achieved by interviewing the learners, teachers, SGB. The use of unstructured and semi-structured interviews enhanced triangulation. The researcher always contacted the promoters. Fields note, audio recordings and observations during the interviews enhances triangulation.
- **Use of peer debriefing**: Peer debriefing involved sessions that the researcher would have with promoters periodically throughout the study to reflect on any biases and omissions The researcher would present different phases of the study with peers who were experts in research gave a constructive input on how a scientific research inquiry should be conducted. The experts were the promoter, co-promoters.
- **Member check:** The researcher probe during interviews to ensure that the researcher understand the participants 'meaning. The participants were informed about the interpretations of data collected through fields note, audio recorder, observation to assess if the researcher's interpretations were true representations of participants' realities. Participants given opportunity to affirm their accuracy.

2.5.2 Dependability

- This refers to the consistency of data under various circumstances and over time. The main concern was whether the findings of the research would be consistent if the study was repeated with the same participants and conditions (de Vos et al., 2011). In this study, the researchers improved dependability by thoroughly describing the research design and steps taken. The researcher carried out the following actions:

- **Audit trail:** The researcher saved a full record of the decisions completed beforehand during research and narrative of the research, and then document non-verbal communication observed during in depth one to one interview to enrich the data (de Vos et al., 2011).
- **Stepwise replication:** Data was analysed separately and compare results if there is consistency and similarities of the outcomes it means that dependability is achieved (Chinn & Kramer, 2015).
- **Code-recode strategy:** Data was coded twice by the researcher, taking one or two weeks in between if the codes are similar then dependability is achieved (Chinn & Kramer, 2015).
- **Peer–examination:** The researcher discussed and agreed on the outcomes with a promoter to help in identifying the categories and negative cases not shielded (Chinn & Kramer, 2015).

2.5.3 Transferability

The concept of transferability in qualitative research relates to the degree to which the study's findings can be applied to other contexts or groups (Polit and Beck, 2017). In this study, the researcher aimed to increase transferability by providing a comprehensive account of the research methodology, participants, and data collection setting to determine the generalizability of the research outcomes to other contexts.

2.5.4 Conformability

Conformability in qualitative research refers to the degree to which the data is reliable and consistent and can be agreed upon by multiple individuals regarding its accuracy, relevance, and meaning (de Vos et al., 2011). In this study, the researcher ensured conformity by meticulously planning the research process, design, sampling, and data collection. The interviews were recorded to accurately capture participant responses, and the data was transcribed and analyzed independently by an external coder to ensure objectivity. The research draft was reviewed by the school of nursing for corrections, and the promoter checked the work with the co-promoter to ensure accuracy. An independent coder was hired to listen to the audio recordings to enhance the truth value of the data and validate the developed themes with the researcher (de Vos et al., 2011).

2.7. Data analysis

Data analysis is a process whereby the researcher categorises, manipulate and summarize data to get answer of phenomenon under study. Recorded data transcribed to prevent missing information. Audio

recorded information was transcribed verbatim. During analysis data were reduced as the researcher categorise data and develop themes.

In this study data were analysed using Thematic Analysis, this is the method whereby data was identified, analysed, and reporting patterns (themes) within data and minimally organises (Braun, Clarke, Hayfield, Terry, 2019).

Phase	**Description of the process**
Familiarising yourself with the data	The data was transcribed and then reviewed multiple times, with initial thoughts and ideas recorded.
Generation of initial codes	Relevant data across the entire data set were systematically coded, capturing interesting features of the data for each code.
Searching for themes	The codes that were created in step 2 were brought together to form potential themes.
Reviewing the themes	The themes were reviewed to ensure they aligned with the coded extracts and the entire data set, and this led to the creation of a thematic map for the analysis.
Defining and naming themes.	The analysis was continuously reviewed to improve the details of each theme and the overall narrative it presents. This process involved creating distinct definitions and titles for each theme and its sub-themes.
Themes defining and naming themes	The analysis was continuously updated to further develop the specific details of each theme.
Producing the report	In creating the report, the researcher chose particularly interesting and persuasive portions of the transcripts to analyze. The analysis concentrated on the research question and was informed by the theoretical framework for the study. .

2.8. Ethical consideration

Ethics guidelines were followed to protect the rights of the participants from any form of violation by the researcher. These guidelines mandated voluntary consent, justification, and justification of research for the benefit of society. Additionally, a code of ethics was put in place to protect the researcher from any legal action, and to outline their obligations towards the participants. In order to adhere to ethical principles, the researcher sought permission to conduct the study. Brink (2012) stated that obtaining permission is a crucial aspect of research ethics, and as such, the researcher presented their research proposal to the School of Health Science Higher Degree committee and Research Ethics Committee of the University of Venda. The University of Venda Ethics Committee granted clearance for the study, and an application requesting permission to conduct the study was submitted to the Limpopo Provincial Health Department and Vhembe and Mopani District Department of Health.

To ensure adherence to ethical guidelines, the participants were informed of their right to make an informed consent. The researcher explained all information regarding the study to the participant, including the nature, purpose, and potential benefits. Participants were allowed to voluntary decide whether to participate or not. In this study, school-going children could not give consent as they are minors, but the researcher obtained consent from the guardian or parent (Brink, 2017). Additionally, participants had the right to privacy, and the researcher ensured anonymity by using codes during data collection. Voice recordings and field notes were kept by the principal investigator under lock and key.

The participants had the right to choose whether to partake in the study without any risk of penalty, and they were free to withdraw from the study at any time and refuse to give information (Polit, Beck, 2017). Furthermore, the researcher had a responsibility to avoid or reduce harm, and not subject participants to preventable dangers or discomfort. The study needed to be scientifically and socially safe (Polit, Beck, 2017). In this study, the researcher did not cause any harm to the participants, neither mentally nor emotionally. Any potential danger associated with participating in the study was disclosed to the participants.

2.9. Phase 2: Development and Validation of Strategy

In phase two, the researcher focused on developing and validating strategy to promote sexuality education for care giver of primary school learners in Limpopo Province, South Africa.

2.9.1 Development of the Strategy

Development of strategy emanated from empirical results of phase one and integration of PRECEED-PROCEED framework. The researcher used 10 steps of SWOT analysis as a tool for developing strategy (Ommani, 2011; Hande, 2014). The following are 10 steps for SWOT analysis:

1. Consider the use of SWOT analysis as a tool for strategic management and to make decisions.
2. Preparing the area where the researcher indicated all the strength, weakness opportunities and threats and the researcher divided them into section after data analysis and interpretation.
3. Considering the strength
4. Considering the weakness that were internal factors.
5. Considering the weakness that were external factors.
6. Considering the threats that were from outside (external factors).
7. Using the information from internal factor
8. Using information from the external factor
9. Using SWOT in career planning
10. Words of caution

Before developing the strategy, the researcher analyzed and interpreted the data obtained from phase one. The strategy was developed using SWOT analysis, basic logic model, and BOEM. To validate the developed strategies, the Delphi technique was applied, and a modified checklist was administered to key stakeholders to obtain their opinions (Ommani, 2011; Hande, 2014).

2.9.2 Validation of the Strategy

Validation refers to the scientific process whereby the developed strategy was assessed for accuracy (Chinn & Kramer, 2015). In this study validation was done to assess the applicability of developed strategy and that developed strategy should correct the identified gaps from the findings of the study (Chinn & Kramer, 2015). Validation of the developed strategy was done through consultation with LO teachers and SGB which were not part of the sample of the study in Mopani and Vhembe to validate if the strategies are simple, understandable, and implementable.

- **Purpose of validating developed strategy**

The purpose of validating strategy determined the applicability in correcting identified gaps from the findings of study.

- **Research method**

Quantitative research design was used because the researcher used a check list to quantify the variables/concepts identified. The participants validated the applicability, relevance and its comprehensiveness acceptability and flexibility. However, the rationale of validating quantitative design was to enhance the validity and reliability of the developed strategy (Creswell:2014).

- **Population**

The population were LO teachers and parent Vhembe east and Greater Giyani.

- **Sampling**

Sampling of Districts

Vhembe and Mopani district sampled for the purpose of validating study. The two districts were purposefully sampled using non- probability sampling method because is where the study will be conducted. Sub-districts which is Greater Giyani and Vhembe east will be purposefully sampled within the area of study to validate the developed strategy.

Sampling of participants

Purposive sampling was used to select the participants. Purposive sampling was based on the area of expertise on sexuality education and incidence of teenage pregnancy on that area. Participants were reach through convenience sampling.

Data analysis

The researcher will make appointment with LO teachers to arrange the dates and time to meet them the researcher will provide the participants with developed strategy a week before they meet. The participants will have time to familiarize themselves with developed strategy. The researcher held a meeting with participants in different dates as the research setting were Vhembe and Mopani. The researcher stated the purpose of validating the strategy. A brief background of research presented to the participants. The researcher gave the participants time to state their views regarding developed strategy. At the end the researcher thanked everyone participated in the study.

2.10. Limitations of the study

The study will be limited to Vhembe and Mopani District. This may make transferability of findings to all nine provinces difficult. In-depth one-one interview may lead researcher seen as intrusive and researchers' presence may bias responses. Sample include care giver and grade 8 learners from selected secondary schools in Vhembe and Mopani District Limpopo Provinces, South Africa.

2.11. Dissemination

The results submitted to journals.

The findings of the study were disseminated to the scientific community and the public through publication in journals and other forums, and a research document was submitted to the Department of Health in Limpopo Province. In addition, the researcher presented the results in conferences through oral presentations or posters. The objective of the study, which was to develop a strategy to promote

sexuality education for caregivers of primary school learners in Limpopo Province, South Africa, was achieved as per the Foundation for Professional Development (2010).

3. REFERENCES

Amo-Adjei, J., 2021. Toward an understanding of optimal grade for starting sexuality education programme for in-school children and adolescents: insights from ghana. American Journal of Sexuality Education, 16(2), pp.238-256.

Alldred, P., Fox, N. and Kulpa, R. (2016) Engaging parents with sex and relationship education: a UK primary school case study. Health Education Journal. E-pub ahead print of: https://hej.sagepub.com/content/early/2016/03/11/0017896916634114.abstract

Bearak, J., Popinchalk, A., Alkema, L. and Sedgh, G., 2018. Global, regional, and subregional trends in unintended pregnancy and its outcomes from 1990 to 2014: estimates from a Bayesian hierarchical model. The Lancet Global Health, 6(4), pp.e380-e389.

Beksinska M, E., Pillay, C.M., Smith J, A., 2014. The sexual and Reproductive Health needs of youth in South Africa – history in context. The South African Medical Journal 2014, 104, (10): 676-678. DOI:10.7196/SAMJ.8809

Birungi, H., Undie, C.C., MacKenzie, I., Katahoire, A., Obare, F. and Machawira, P., 2015. Education sector response to early and unintended pregnancy: A review of country experiences in sub-Saharan Africa.

Botma, Y., Greeff, M., Mulaudzi, F.M. and Wright, S.C., 2010. Research in health sciences (pp. 251-254). Cape Town: Heinemann.

Braun, V., Clarke, V., Hayfield, N. and Terry, G., 2019. Thematic analysis. Handbook of Research Methods in Health Social Sciences, pp.843-860.

Breuner CC, Mattson G, AAP, 2016. Committee on Adolescence, AAP Committee on Psychosocial Aspects of Child and Family Health. Sexuality Education for Children and Adolescents. Pediatrics.;138(2):20161348

Brindis, C.D., Decker, M.J., Gutmann-Gonzalez, A. and Berglas, N.F., 2020. Perspectives on adolescent pregnancy prevention strategies in the united states: looking back, looking forward. Adolescent health, medicine and therapeutics, pp.135-145.

Brink, H., Vander Walt, C. & van Ransburg G. 2012. Fundamentals of Research Methodology for Health Care Professionals. Juta. Cape Town.

Chaka, J.N., 2017. A critical analysis of sexuality education in schools beyond the disciplinary boundaries of life orientation (Doctoral dissertation, University of the Free State).

Chinn, P.L. and Kramer, M.K. 2008. Integrated theory and knowledge development in Nursing. 7th ed., Mosby. Elsevier.

Creswell J.W., 2014. Research Designing: Qualitative, Quantitative and Mixed Method. International Students. 4th ed. Thousand Oaks: sage Publications Washington. DC.

Crockett, L.J., Deardorff, J., Johnson, M., Irwin, C. and Petersen, A.C., 2019. Puberty education in a global context: knowledge gaps, opportunities, and implications for policy. *Journal of Research on Adolescence*, *29*(1), pp.177-195.

De Vos, A.S. Strydom, H., Fouche, C.B. & Delport, C.S.L. 2011. Research at Grassroots: For social Sciences and Human Services Profession, 4th ed., Pretoria: Van Schaik.

Eisenberg, M. E., Oliphant, J. A., Plowman, S., Forstie, M., & Sieving, R. E. (2022). Increased parent support for comprehensive sexuality education over 15 years. *Journal of Adolescent Health*, *71*(6), 744-750.

El Kazdouh, Hicham, Abdelghaffar El-Ammari, Siham Bouftini, Samira El Fakir, and Youness El Achhab. "Perceptions and intervention preferences of Moroccan adolescents, parents, and teachers regarding risks and protective factors for risky sexual behaviors leading to sexually transmitted infections in adolescents: qualitative findings." *Reproductive Health* 16, no. 1 (2019): 1-17

Green, L.W. and Kreuter, M.W., 1992. CDC's planned approach to community health as an application of PRECEED and an inspiration for PROCEED. Journal of Health Education, 23(3), pp.140-147.

Grove, S.K., Buns, N., & Gray, J, R., 2013. The Practice of Nursing Research Conduct, Critique, and Utilization. Elsevier Saunders.

Hanass-Hancock, J., Nene, S., Johns, R. and Chappell, P., 2018. The impact of contextual factors on comprehensive sexuality education for learners with intellectual disabilities in South Africa. Sexuality and Disability, 36, pp.123-140.

Helms, M.M. and Nixon, J., 2010. Exploring SWOT analysis–where are we now? A review of academic research from the last decade. Journal of strategy and management, 3(3), pp.215-251.

Kantor, L.M. and Lindberg, L., 2020. Pleasure and sex education: The need for broadening both content and measurement. American Journal of Public Health, 110(2), pp.145-148.

Kemigisha, E., Bruce, K., Nyakato, V.N., Ruzaaza, G.N., Ninsiima, A.B., Mlahagwa, W., Leye, E., Coene, G. and Michielsen, K., 2018. Sexual health of very young adolescents in South Western Uganda: a cross-sectional assessment of sexual knowledge and behavior. Reproductive health, 15(1), pp.1-8.

Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. International journal of environmental research and public health, 16(4), p.621. Gesondheid 16 (1), Art. #502, 10 pages. Doi:4102/hsag.v16i1.502

Lince-Deroche, N., Pleaner, M., Morroni, C., Mullick, S., Firnhaber, C., Harries, J., Sinanovic, E., Mulongo, M. and Holele, P., 2016. Achieving universal access to sexual and reproductive health services: the potential and pitfalls for contraceptive services in South Africa. *South African Health Review*, *2016*(1), pp.95-108.

Magezi, V., 2016. A proposition for an integrated church and community intervention to adolescent and youth sexual reproductive health challenges. HTS: Theological Studies, 72(2), pp.1-9.

Mulholland, M., Robinson, K., Fisher, C. and Pallotta-Chiarolli, M., 2021. Parent–child communication, sexuality and intergenerational conflict in multicultural and multifaith communities. *Sex Education*, *21*(1), pp.44-58.

Noorman, M.A., den Daas, C. and de Wit, J.B., 2022. How parents' ideals are offset by uncertainty and fears: A systematic review of the experiences of European parents regarding the sexual education of their children. *The Journal of Sex Research*, pp.1-11.

Newby, K.V. and Mathieu-Chartier, S., 2018. Spring fever: Process evaluation of a sex and relationships education programme for primary school pupils. *Sex education*, *18*(1), pp.90-106.

Ommani, AR. 2011. Strengths, weaknesses, opportunities and threats (SWOT) analysis for farming system businesses management: Case of wheat farmers of Shadervan District, Shoushtar Township, Iran African Journal of Business Management Vol. 5(22), pp. 9448-9454, 30 September 2011 ISSN 1993-8233 ©2011 Academic Journals

Polit, D. F, & Beck, C.T., 2017. Nursing Research: *Generating and assessing evidence for nursing practice*, 8th edn., Lippincott Williams & Wilkins, Philadelphia, PA.

Ramathuba, D.U. & Mashapha, V.A., 2019. Community perceptions of normative factors influencing adolescent sexual health in Mutale Municipality of Limpopo Province. *Gender and Behaviour*, *17*(1), pp.12663-12673.

Risenga, P.R. and Mboweni, S.H., 2022. Adolescent Girls' Experiences Regarding Teenage Pregnancy in the Rural Villages of Limpopo Province, South Africa. Adolescents, 3(1), pp.60-71.

Roman Lay, A.A., Fujimori, E., Simões Duarte, L. and Vilela Borges, A.L., 2021. Prevalence and correlates of early sexual initiation among Brazilian adolescents. Plos one, 16(12), p.e0260815.

Szucs, L.E., Harper, C.R., Andrzejewski, J., Barrios, L.C., Robin, L. and Hunt, P., 2022. Overwhelming support for sexual health education in US Schools: A meta-analysis of 23 surveys conducted between 2000 and 2016. Journal of Adolescent Health, 70(4), pp.598-606.

Robinson, K.H., Smith, E. and Davies, C., 2017. Responsibilities, tensions and ways forward: parents' perspectives on children's sexuality education. Sex education, 17(3), pp.333-347. practice, Wolters Kluwer/Lippincott, Williams & Wilkins.

Robinson, R.S., Kunnuji, M., Shawar, Y.R. and Shiffman, J., 2018. Prioritising sexuality education in Mississippi and Nigeria: the importance of local actors, policy windows and creative strategy. Global public health, 13(12), pp.1807-1819.

United Nations Educational, Scientific and Cultural Organization 2018. International technical guidance on sexuality education: An evidence-informed approach. 7, place de Fontenoy, 75352 Paris 07 SP, France.

Widman, L., Nesi, J., Kamke, K., Choukas-Bradley, S. and Stewart, J.L., 2018. Technology-based interventions to reduce sexually transmitted infections and unintended pregnancy among youth. *Journal of Adolescent Health*, *62*(6), pp.651-660.

World Health Organization, 2018. WHO recommendations on adolescent sexual and reproductive health and rights.

Section 2: **Papers/Articles**

Experiences of grade 8 learners on sexuality education from home and school at Mopani and Vhembe districts

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See **Annexure in I** for Author Guidelines

EXPERIENCES OF GRADE 8 LEARNERS ON SEXUALITY EDUCATION FROM HOME AND SCHOOL AT MOPANI AND VHEMBE DISTRICTS.

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Abstract

Globally, adolescents' risk of sexual behaviour has become a concern owing to the lack of sexuality education. This study examined the experiences of grade 8 learners on sexuality education from home and school. The study was mainly qualitative, involving eight focus group discussions (FGDs) to grade 8 learners ages 13- 15 years. The findings revealed participants' experiences of sexuality education about confusion regarding physiological body changes, Inadequate knowledge about menstruation and how to manage menstrual periods, Inadequate knowledge about pregnancy, and Inadequate knowledge about contraception. Findings further revealed Communication concerns related to Cultural barriers, fear of embarrassment, Reactive sharing of information instead of being proactive, use of media as a source of information, and gender stereotype. The study concluded that these concerns operate as barriers to comprehensive sexuality education. The study recommended that parents and teachers train about sexuality to acquire knowledge and improve their communication skills. And they involved other stakeholders in the community.

Keywords: Experiences, Learner, Sexuality Education, adolescents, Sexual risk behaviours

INTRODUCTION

Globally, adolescents' risk of sexual behaviour has become a concern due to a lack of sexuality education[1]. While sexuality education is a lifetime process in which information, credentials, values and attitudes are collected. It is designed for children and adolescents to become aware of reproductive functions and teach adolescents to make informed decisions, and make them more aware of the dangers of unsafe sexual behavior[2]. Globally, sexuality education is combined into school curricula, aimed at children and adolescents who learn reproductive functions and prevent sexually transmitted infections or unintended pregnancies and assist adolescents in developing strong and meaningful sexual relations—avoiding sexual coercion, discrimination, violence, and upholding sexual rights[3,4,5,6]. Awareness about sexuality builds adolescents' personality, creates a sense of themselves, and makes informed choices now and in the future[7,8.]

Furthermore, school-based interventions targeting adolescents that promote communication and negotiation skills are effective in reducing and preventing sexual health risks[9]. However, schools' current sexuality education programmes are limited due to insufficient government commitment to championing CSE, inadequate or non-existent budgeting to effectively implement sexuality education, weak monitoring and evaluation systems, lack of coordination across ministries, and ineffective partnerships and coalition-building mechanisms among actors[10],[11,12]. Taboos against socio-cultural values like speaking about sex in public in some countries were found to influence unsuccessful sexuality education[8,2]. A study conducted by Al Zaabi [12] discovered that sexuality education appears to be deficient between 11-12 years of age in Australia. The conversation about relationships, feelings, emotions, sexual abuse or the pressures learners experienced concerning sexuality was not discussed[5,13]. Addressing emotional aspects of sexuality was as important as providing knowledge on the biological aspects of sexuality and sexually transmitted infections (STIs) in which schools play a vital part[5,14,15]. In the United States of America (USA), the high prevalence of sexually transmitted illnesses and pregnancy among teenagers demonstrates the inadequacy of current sex education[16]. However, the US government decided to implement the policy Abstinence Only Until Marriage (AOUM) policy. The policy was ineffective in delaying early sexual debut and STIs. This approach was approved because it aimed to teach and promote the use of contraception, which may reduce the rate of unintended pregnancies and STIs. On the other hand, the study revealed that comprehensive sex education (CSE) is more effective than abstinence-only sex education. Like any other countries sexuality education in USA schools is compulsory [1,17,18].

In Sub-Saharan Africa, adolescents' lack of sexuality education remains a serious public health concern. Child marriage, adolescent pregnancy, HIV transmission, and limited coverage of modern contraception are all frequent[5,8]. Approximately 150,000 adolescents below 15 years were HIV/AIDS-infected, 120,000 in sub-Saharan Africa[2,19] South Africa, Nigeria, Kenya and Tanzania are four countries with

the highest rates of infected adolescents aged 10-19 years[20]. South Africa (SA) accounted for 25% of newly HIV-infected adolescents aged 15–24 years[20]. The evidence of the highest HIV prevalence showed that communication among teachers, parents and learners is inadequate, and the idea of childhood sexuality education can be thought provocative[22].

For this reason, Sexuality education has been integrated into school curricula, and it is compulsory at all levels[23]. In SA, sexuality education was introduced as a subject of Life Orientation to enhance teacher-learners communication and reduce sexual health risks among learners[24]. Even though Life Orientation is included in the curriculum, some learners still drop from school due to unwanted pregnancy [25]. Equipping the learners with knowledge on sexuality issues would promote good health outcomes for the [26].

In South Africa, the National Adolescent – Friendly clinic (SANAF) initiative has been adopted to provide services for adolescents that address the needs through increasing availability of non-judgemental healthcare providers and providing appealing, appropriately equipped, easily accessible facilities[27]. On the other hand, the South African (SA) Constitutional Court also found that adolescents have a right to engage in sexual behaviour, without criminal punishment, under certain circumstances. The recent revision in the Criminal Law (Sexual Offenses) Amendment, No 32 of 2007, reflects this rights-based approach to adolescent sexuality[28]. Because of the ages at which teens can agree with a range of other sexual and reproductive health services (SRH), the right to have sex at the age of 16 must be understood. According to Children's Act No 38 of 2005, adolescents are entitled to SRH services such as HIV testing, male circumcision, contraception, contraceptive advice and virginity testing independently[29]. The Choice of Termination of Pregnancy Act No. 92 of 2007 allows a girl child of any age to consent to termination of pregnancy without assistance. Regardless of all that, the provision of sexuality education remains insufficient in Sub-Sahara Africa, including South Africa[30,31]. The study on learners' experiences promoting sexuality education for grade 8 learners is limited in Limpopo Province.

Existing research has primarily focused on the prevention of sexual health risks. They have not taken into attention the necessities of promoting comprehensive sexuality education. Learners need knowledge and skills to make informed choices about their sexuality, learn how to avoid and deal with sexual related problems and know where to seek help. Sexuality education can help adolescents to develop knowledge and understanding; positive values, including respect for gender equality, diversity and human rights. This includes attitudes and skills that contribute to safe, healthy and positive relationships. Sexuality education is a positive and effective strategy for producing long-term behavioural change and ultimately reducing teen pregnancy and STI infections. Early debut in sexual activities, sex with many partners, low and inconsistent use of condoms[32].

This study aimed to explore and describe grade 8 learners' experiences with sexuality education from home and school. Therefore, learners need comprehensive sexuality education for effective sexual knowledge transformation. Teaching learners about abstinence-only and not providing learners with comprehensive sexuality education may lead to unintended pregnancy and STIs infections. For this reason, it is important to provide sexuality education from the primary level[33].

Methods

The present study was conducted using qualitative, explorative, descriptive and contextual designs. This method was chosen because the researcher sought to explore the lived experiences of grade 8 learners regarding the promotion of sexuality education from home and school in Greater Giyani and Thulamela Municipalities. A non-probability purposive sampling of 64 grade 8 learners were sampled from all selected schools for this study, of which 25 were males and 39 females[34,35,36]. Data were collected from eight (8) focus groups discussions, each group having eight (8) participants. This method allows a deep understanding of participants' thoughts, opinions, experiences and information-rich. Both male and female participants were interviewed to reach the maximum uniqueness and data saturation[37]. A quite convenient classroom was prepared. Permission to participate in the study was sought. Data was audio recorded[35,36].

The interview began with a question on, "*what do you understand by sexuality education*?" to ensure that the participant had an understanding of the concept. Then the researcher asked the main question that direct the Focus Group Discussions: *"what are your experiences concerning the promotion of sexuality education from home and school?"* Paraphrasing and probing follow up questions were done to deepen the discussions. Probing questions such as "tell me more about that", reflecting on what participants have said. Observational notes and fields notes were taken and used to assist the researcher in understanding the meaning that the participants hold about sexuality education. The duration of the focus group discussions was between 45 – and 60 minutes depending on participants' responses[34,36,37].

Data credibility was achieved through prolonged engagement with the participants during focus. The researcher ensured member checking by giving the transcripts of the interviews and extracting codes to some of the participants and that the agreement of their opinion with that of the researcher was evaluated. Peer checking was ensured by submitting transcripts, codes, themes and sub-themes to the supervisors. Transferability was obtained by using purposive sampling, working contextually and using a dense description. Dependability was ensured by a thick description of data collection, analysis and interpretation of the data. Confirmability is achieved by auditing the entire research process[34,36].

Table 1: FGD Characteristics of the Learners

	School	Number of Participants	Gender	Age range of Participants
Mopani Municipality	1	08	4 boys 4 girls	13-15 y years
	2	08	4 boys 4 girls	13-15 years
	3	08	4 boys 4 girls	13-15 years
	4	08	4 boys 4 girls	13-15 years
Thulamela Municipality	5	08	4 boys 4 girls	13-15 years
	6	08	4 boys 4 girls	13-15 years
	7	08	4 boys 4 girls	13-15 years
	8	08	4 boys 4 girls	13-15 years

Ethical clearance was granted by the University of Venda Ethics committee project code (SHS/19/PDC/37/2410) and the Provincial Department of Education Limpopo Province. District managers and principals had also granted us verbal permission. The researcher was informed that no school visits during exam time and disrupting classes. A written assent form was obtained from each participant. Participation was voluntary. No information would be divulged to unauthorized persons. The data analysis was done concurrently with data collection. Tesch's open coding method was employed to analyze data[33,37]. The researcher listened to audio recordings several times and associating field notes with audio recordings. Audio-recorded FGDs were transcribed verbatim. Transcribed data were read and re-read, and the audio recordings were listened to multiple times to get a sense of the whole. Summarized topics were named using codes. These codes were appropriately categorized. Themes were developed and classified as themes and sub-themes[38].

Data analysis led to the emergence of the themes and sub-themes. The first theme was participant experiences of sexuality education with four sub-themes: Confusion regarding physiological body changes, Inadequate knowledge about menstruation and how to manage menstrual periods, Inadequate knowledge about pregnancy, and Inadequate knowledge about contraception. The second theme was Communication concerns with five sub-themes: Cultural barriers, fear of embarrassment, Reactive sharing of information instead of being proactive, use of media as a source of information and Gender stereotype.

Findings

The demographic characteristics of participants in the focus groups consist of sixty-four (64) learners from all the selected schools. The participants' ages were between thirteen (13) and fifteen (15) years, and both males and females participated. Eight focus groups of eight students were interviewed.

The results revealed that learners lack information on sexuality education from home and school. During the interview, learners describe their experiences and explain what they understand about sexuality education. The following themes developed from the participant's description of the concept of sexuality education. Namely: participant experiences of sexuality education and communication concerns. Each theme identified is consists of various sub-themes

Table 2: Experiences of Grade 8 learners about promoting sexuality education from home and at school

Themes	Sub-themes
Participant experiences of sexuality education.	Confusion regarding physiological body changes. Inadequate knowledge about menstruation and how to manage menstrual periods Inadequate knowledge about pregnancy. Inadequate knowledge about contraception.
Communication concerns	Cultural barriers. Fear of embarrassment. Reactive sharing of information instead of being proactive. Use of media as a source of Information. Gender stereotype.

Theme 1 Participant experiences of sexuality education

The study revealed that participants had various experiences regarding sexuality education. These include physical body changes which they found confusing; inadequate knowledge about menstruation and how to manage menstrual periods; pregnancy, and contraception

Confusion regarding physiological body changes

The study highlighted that the participants found physiological body changes confusing, with no family members explaining what was happening to their bodies and the implications of those changes thereof. This was reported as:

One participant said:

"I realized that hair was growing under my armpits, and I could not understand because no family member informed me about such changes. I understood the changes in my body when my teacher said when my breast starts to develop, my hips widen, developing pubic hair and acne on my face it means that I am at the puberty stage ***(FGD1- L 2 female 13 years).***

Individual participants supported by the group said:

"I understand that everyone's body releases hormones such as testosterone and progesterone that make the individuals' feelings different, so those hormones make the body mature and make the sexual feelings possible, like liking someone. But I was unaware that I will experience erection of the penis and have wet dreams" **(*FGD*3 - L4 male *13 years).***

Another one said

"Mmm…. eish, with frowned face ……. what I did not know was I will see periods monthly. To me, I thought I would bleed once. When I discovered that I would menstruate every month, I felt bad. I did not want to bleed every month. I was not fully informed about monthly bleeding" ***(# FGD3- L 3 female 13 years).***

Inadequate knowledge about menstruation and how to manage menstrual periods

Participants verbalized that they were not informed about the menstrual cycle before menarche. It was indicated that few aspects regarding menstruation were communicated. In addition, personal hygiene was discussed, and participants felt embarrassed when spoiling their uniforms with menstruation. Though some participants were not informed, others were told about managing menstrual periods. One participant said:

"I had to figure it out on my own. How to wear a pad, whether to change it or not? I think they could have told me everything about menstruation in detail from the beginning" ***(#FGD4- L1 female 14 years).***

Another one said:

"I went to school with one pad. I sited in the class, not knowing whether I should play with other kids (learners) or not. I just realized that I messed my pants because I did not change my pad…. she took a breath, tears running down her face. So as the months went by, I started to notice other girls changing their pads in the toilet. So, I asked another girl to tell me how do I know when to change my pad. She explained to me that you could change after every 4 hours depending on the flow" ***(#*** **FGD3- L 3 female 13 years*).***

Another one said:

"During my periods, I used not to go to school because of shortage of pads, and I was not the only one who absents herself from school."

Contrary to what has been said by other learners. one participant said:

"My mother sat me down showing me how to apply a pad. She said now you are grown up. Menstruations will come every month and is normal" ***(# FGD2- L 6 female)***

Inadequate knowledge about pregnancy

Participants expressed that information they received from home and school about pregnancy is limited. The conversation is not clear, non-directional. Participants further indicated that parents' communication is focused on abstinence and never mentioned contraception. This was evidenced by:

One participant said:

I have learned it the hard way. I impregnated a girl at 15 years of age. To me, having sexual intercourse was fun. I was not told to practice safe sex. Impregnating a girl was a mistake, I regret but is late" ***#FGD2-L6 male.***

Another participant said:

"I find it difficult to talk with my parent about sexual intercourse. At home, parents do not openly discuss matters related to sex. 'In a harsh voice' *they will say, do not play with boys or girls, if you want to get HIV, do that….. yoo!* Then she claps hands **"(# FGD4 – L-7 female 15 years).**

Another participant said:

"*Our culture, religion, and tradition do not allow talking openly about sex and sexual matters*."

Individual participants supported by the group said:

"Parents should have told us when is the right time to have sex; the consequences of having sex without protection such as sexually transmitted infections and unplanned pregnancy. Hmm! Parents do not tell us all this" **[# FGD 3 -L 4 female 13 years].**

Inadequate Knowledge About Contraception

In this study, participants displayed insufficient information concerning contraceptives. Participants highlighted that communication about contraception was shallow, lacking details and directed to females than males.

one participant said:

"They [teachers] said it is for a married couple. These makes me become reserved to ask for clarity, especially about female condoms as I have not seen a female condom and I do not know how it is used" **(# FGD7-L2 female).**

Individual participant supported by the group said:

"I cannot access contraceptives because nurses usually say unpleasant words. Some send us back and say we are still young or even promise to disclose to our parents that we are using contraceptives. My mother said using contraceptives may cause infertility at a later stage" ***[FGD*4- L 2 female 14 years].**

Theme: Communication concerns

Findings revealed that sexuality information is poorly disseminated to grade 8 learners. Participants indicated that parents and teachers share the information with low confidence due to communication concerns such as Cultural barriers, Fear of embarrassment, Reactive sharing of information instead of being proactive, Use of media as a source of information, and Gender stereotype.

Cultural barriers

Cultural barriers are one of the concerns that hinder explicit communication regarding sexuality education. Participants said, discussing sexual related issues is a violation of culture. As indicated by participants, communication about sexuality is to be guided by certain norms and standards of that community. Participants indicated that they viewed sexuality education as taboo and did not feel free to express themselves on sexual health issues.

One participant, supported by others, said:

Our parents are still holding on old-style, that it is a taboo and culturally not accepted to talk about sex, menstruations, pregnancy, contraception including termination of pregnancy" [# **FGD1- L5 female 13 years**]

One participant said:

"I feel weird when parents try to communicate with me about sexual health problems, I am not used to it, mainly because these topics are culturally not discussed with us (children) hence, the feeling of being strange" **(# FGD2- L5 male 14 years).**

Fear of embarrassment.

The study revealed that fear of embarrassment contributes to poor communication regarding sexuality education. Participants indicated that fear of embarrassment limits them from expressing their sexual desire and feelings. The following statements evidenced this:

One participant said:

"Yoo! …With me, my mother told me to shut up in front of my siblings. When I was about to comment on TV news about street abortion, since that day, I did not want to ask her for any other information about sex or irregular menstruations. I did not want to get embarrassed in front of my siblings ***(# FGD 5-L6 female).***

One participant said:

"I felt that is embarrassing to talk about my feelings. I mean liking one of my boyfriends. I cannot talk about it because parents will not understand" **(# FGD2- L4 female 13 years).**

Reactive sharing of information instead of being proactive

The results revealed that parents give learners information on sexual health issues after a child displays unacceptable behaviour. Some parents recognize that children are sexually active when they find that a girl child is pregnant or suffering from sexually transmitted infections.

One participant said:

"My parent did not talk anything about sex until they realized that I am pregnant, with tears running on her face. Then, she took a deep breath……. they sit me down telling me that what I have done is wrong and it has brought shame in the family" ***(# FGD5-L3 15 years).***

Use of media as a source of information

Though parents did not talk to them about sexuality, most learners reported that the information was provided through reading materials such as books. Participants further verbalized that they acquire information from friends, television and other social media.

One participant, supported by others, said:

"I think my mom didn't want to talk about sex because she believes it is a taboo, but she still wanted me to be informed. She decided to buy a book so that she could communicate the message through" ***(#FGD 4, L 2 Female)***

"My friend said if I want to have sex, I must go to the clinic to get condoms, and it is safe to use it as it prevents unintended pregnancy and STIs" ***(# FGD 5 L 3 male)***

Gender stereotypes

Gender stereotyping was echoed to be another factor that leads to poor parent-child communication. Some of the learners expressed that mothers prefer to talk with girls and fathers with boys. They have indicated that parents talk more often with girls than boys because they perceive girls as more vulnerable than boys.

One participant said:

"I *think parents should normalize educating both girl child and boy child because in most cases, people who are taught are only girls and they forget that boys are the ones that initiate a relationship. So if boys are also taught, there will be fewer problems"* ***(#*** **FGD6- L7 female 14 years).**

Individual participant, supported by the group, said:

"yes, … both boys and girls should receive equal attention in sexuality education. Girls are more often talked to. As a girl, I feel that I am the only one who should be responsible for preventing pregnancy while boys are left behind. Boys too must be informed" ***(#*** **FGD6- L3 female 15 years).**

DISCUSSIONS

The purpose of this study was to explore the experiences of the Grade 8 learners regarding promoting sexuality education from home and in school. Findings revealed that grade 8 learners did not have sufficient knowledge of sexuality education. Findings exposed that most grade 8 learners lack knowledge and are confused about the physiological body because of unexplained body changes. A study conducted by Alimoradi et al.[23]and Rajapaksa-Hewageegana et al.[8] concurs with the findings of this study that learners lack appropriate knowledge about physical body changes during puberty and have no one to discuss sexual and reproductive issues with them. This implies that the confusion that the participants highlighted need an explanation to the learners about all the changes they will experience and the implications thereof. Such education will enable them to understand the changes experienced and take responsible decisions.

Findings exposed that awareness about the menstrual cycle before menarche was very low. Few aspects regarding menstruation were communicated. Information about the menstrual cycle and management of menstruations was insufficient. Findings further revealed a lack of support and effective materials to use during menstruations. Some participants felt embarrassed because of the poor management of menstruations. The results further exposed that some learners were absent from school due to a lack of sanitary towels during menstruations. Nevertheless, most learners cited school as informative about the menstrual cycle and personal hygiene. In support of current findings, it was discovered that knowledge and support around menstruation is lacking[39]. The lack of effective materials for the proper management of menstruations increases embarrassment and fear of teasing. However, in low resource countries, menstrual hygiene management was taken for granted[40]. At the same time, the use of sanitary pads is significantly associated with school attendance[41,42]. This suggests that learners were uninformed and unprepared for menarche; therefore, there is a need to educate learners in detail and, if possible, even demonstrate how to utilize the pads and provide information on personal hygiene to prevent infections which can affect the later reproductive health of the learners.

Findings revealed that little had been said about pregnancy. This may also be because learners felt not uncomfortable discussing such a sensitive topic. The discomfort with discussing pregnancy became a problem for many girls' families. However, learners perceived pregnancy as unintended and is associated with a misconception about sex and contraception. This denotes that learners must be informed about the consequences of not using contraceptives when a person is sexually active. Findings of the study conducted by Margaret et al.[43] showed that parents and teachers were not open to discussing pregnancy, and bringing up the subject was taboo. Inaccurate information about the fertility cycle is cited as Leaners' high risk of rapid repeat pregnancies among learners[44].

Findings revealed that learners lack support to use contraceptives from parents, teachers and health care providers as they are hesitant or unwilling to provide service to adolescents. Results of the current study exposed that there is increased teenage pregnancy among learners. This was also revealed by Ezenwaka et al.[45] that learners have poor knowledge about contraception, particularly the methods, types, and low turnout in accessing contraception because of the health providers' negative attitudes toward adolescents who seek contraception services. It was suggested that inadequate information about contraception exacerbates the risk of high teenage pregnancy. This means that there is a need to impart information about different contraceptives, such as female condoms. This study highlighted the importance of school health nurses visiting the schools to give more relevant information regarding contraception and to include both the male and female learners[46,47].

The current study's findings revealed that discussing sexual related issues is a violation of African culture. Communication about sexuality is guided by certain norms and standards of that community. Culturally (Tsonga and Venda), sexually related topics are discussed by/with elders, and that communication on sexuality is limited because culturally is a taboo. Participants felt uncomfortable and embarrassed to discuss sexual health issues as it is culturally unacceptable. It was revealed that parents were not socialized, and unusual for parents to have a meaningful talk about sexuality with their children[48,49]. Findings of the current study suggest that learners are restricted from expressing their sexual feeling and activities because it is not culturally acceptable[48]. This implies that parents, teachers, community, and policymakers need to examine cultural norms to establish a culturally sensitive sexuality education to accommodate all stakeholders in promoting a comprehensive and informative sexuality education. The study's findings revealed that learners, parents and the community might benefit from this study by empowering learners with comprehensive sexuality education. However, Parents lack interest in discussing sexual and reproductive health issues and feelings of shame. Cultural taboos also reported hindering learners from expressing their sexual desire and feelings[50]. Participants felt uncomfortable, and it was difficult for them to start such conversations with their parents[51]. This may also be because learners feel they are venturing into a private matter and are worried that parents might conclude that they are started to have sex; hence it brings a feeling of embarrassment. The findings of this study are in line with other researchers that discussing sexuality topic is

embarrassing[47,52]. This implies that there is a need to allow learners to have the opportunity to express their feeling without prejudice.

Findings exposed that parents provide information to learners on sexual health issues after things have gone wrong. As indicated by some of the participants, parents talk about sexual related issues after they realize that their children have affairs or showing behaviour of being sexually active. In support of the current findings, It was indicated that some parents delay discussions about sexual reproductive health issues as they think discussions of some sort encourage children to become sexual active[53]. This implies that parents need to be proactive and provide information about sexuality before learners reach puberty to prevent talking after the child is sexually active.

The findings of the current study verified that gender stereotypes inhabit child-parent communication. Results show that some learners did not discuss sexuality education with parents while growing up. The finding revealed gender-biased preference in discussions about sexuality among family members. While female and male participants preferred discussions with female adults and male adults[54]. This stereotypical gender role association may limit the intervention's effectiveness. Therefore, there is a need for reshaping the approach to challenge this gender dynamic to tailor more effective interventions

Limitations

Studies with qualitative nature are less generalizable. this constraint also applies to the present study, as the grade 8 learners in the range of 13-15 years old were in the focus of this study, so the findings cannot represent all the grade 8 learners of other age groups in Mopani and Vhembe. There is a need for more extensive sample studies to investigate this topic further to inform interventions to encourage and promote parent-child communication. Due to the topic's sensitivity, some of the learners might have kept their experiences to themselves due to stigma and social undesirability.

Conclusion

The study aimed to explore and describe the experiences of grade 8 learners in selected secondary schools. Two themes were revealed during data analysis which was participant experiences of sexuality education and communication concerns. The study's findings showed that most learners were not aware, especially in sensitive matters, of sexuality education. The language used to communicate was the most significant barrier to communication in sexuality education, including culture and belief. While most learners have not been well informed, few were informed about a few sexuality topics. Further, the results of this study indicated the need for interaction and cooperation between the authorities of the health system, education, family (parents) and policy-making institutions to achieve a strategy for empowering learners with a multi-level and comprehensive approach.

Recommendations

Parents and teachers need training about sexuality to acquire more knowledge and skills to enhance the provision of comprehensive sexuality education. Inclusion of cultural sensitive sexuality education in school curricula. Use of less conventional teaching strategy. Involving other stakeholders in the community. Implement appropriate adolescent sexual and reproductive health programmes such as counselling and educational campaigns, and support services to address sexual problems among the youth.

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This study was not funded.

Conflict of interest

The authors declare that they do not have a conflict of interest.

Ethical Approval

All procedures performed in this study involving human rights were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Assent form

assent form was completed and obtained from all participants included in the study.

Contribution of the Authors

MH, LRT and RD conceptualized and designed the study. MH and ML drafted the manuscript with input from all authors. MH collected and analyzed the data and was supervised by ML and RD. All authors participated in the preparation and approved the final manuscript for publication.

References

1. Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. International journal of environmental research and public health, 16(4), p.621.
2.

3. *Al Zaabi, O., Heffernan, M.E., Holroyd, E. and Jackson, M., 2021. Parent-adolescent communication about sexual and reproductive health including HIV and STIs in Oman. Sex Education, pp.1-17.*

4. *Paulina Ezer, Lucille Kerr, Christopher M. Fisher, Wendy Heywood & Jayne Lucke (2019) Australian students' experiences of sexuality education at school, Sex Education, 19:5, 597-613, DOI: 10.1080/14681811.2019.1566896*

5. *Carl W. Heslop, Sharyn Burns & Roanna Lobo (2020) Stakeholder perceptions of relationships and sexuality education, backlash and health services in a rural town, Sex Education, 20:2, 170-185,* DOI: 10.1080/14681811.2019.1634535

6. Mahmoud, S.F. and Ahmed, N.M.E.S., 2018. The effect of providing educational sessions about sexually transmitted diseases on knowledge and attitudes of secondary school students at Zagazig City. *J Nurs Educ Pract*, *8*(4), pp.16-27.

7. Melesse, D.Y., Mutua, M.K., Choudhury, A., Wado, Y.D., Faye, C.M., Neal, S. and Boerma, T., 2020. Adolescent sexual and reproductive health in sub-Saharan Africa: who is left behind. *BMJ global health*, *5*(1), p. e002231.

8. Shelby Astle, Paige McAllister, Sarah Emanuels, Jennica Rogers, Michelle Toews & Ani Yazedjian (2021) College students' suggestions for improving sex education in schools beyond 'blah blah blah condoms and STDs', Sex Education, 21:1, 91-105, DOI: 10.1080/14681811.2020.1749044

9. Hall, W.J., Jones, B.L., Witkemper, K.D., Collins, T.L. and Rodgers, G.K., 2019. State policy on school-based sex education: a content analysis focused on sexual behaviors, relationships, and identities. *American journal of health behavior*, *43*(3), pp.506-519.

10. Eze, SC, 2016. Childhood sex education facilitating zero HIV infection. Alternation Journal, 23(2), pp.266-288

11. Helsloot, J.J., 2020. Continuing Culture War? How the sex education policies of the Trump administration can be seen as the result of a continuing culture war.

12. Nilsson, B., Edin, K., Kinsman, J., Kahn, K. and Norris, S.A., 2020. Obstacles to intergenerational communication in caregivers' narratives regarding young people's sexual and reproductive health and lifestyle in rural South Africa. BMC public health, 20, pp.1-11.

13. Ingabire, C.M., Kagoyire, G., Habarugira, N., Rutayisire, T. and Richters, A., 2022. "They tell us little and we end up being confused": Parent–child communication on familial experiences of genocide and its aftermath in Rwanda. Transcultural Psychiatry, p.13634615221078483.

14. Alimoradi, Z., Kariman, N., Simba, M. and Ahmadi, F., 2017. Empowerment of adolescent girls for sexual and reproductive health care: A qualitative study. African Journal of Reproductive Health, 21(4), pp.80-92.

15. Emmanuel Mayeza & Louise Vincent (2019) Learners' perspectives on Life Orientation sexuality education in South Africa, Sex Education, 19:4, 472-485, DOI: 10.1080/14681811.2018.1560253.

16. Du Preez, A., Manyathi, D.G., Botha, A.J. and Rabie, T., 2019. Secondary school teachers' experiences related to learner teenage pregnancies and unexpected deliveries at school. *Health SA Gesondheid*, *24*(1), pp.1-7.

17. James, S., Pisa, P.T., Imrie, J., Beery, M.P., Martin, C., Skosana, C. and Delany-Moretlwe, S., 2018. Assessment of adolescent and youth friendly services in primary healthcare facilities in two provinces in South Africa. BMC health services research, 18(1), pp.1-10.

18. Strode, A. and Essack, Z., 2017. Facilitating access to adolescent sexual and reproductive health services through legislative reform: Lessons from the South African experience. South African Medical Journal, 107(9), pp.741-744.

19. Department of Justice and Constitutional Development, South Africa. Criminal Law (Sexual Offences and Related Matters) Amendment Act No. 32 of 2007.

20. McQuoid-Mason, D.J., 2018. Termination of pregnancy: Cultural practices, the Choice on Termination of Pregnancy Act and the constitutional rights of children. South African Medical Journal, 108(9).

21. Shayo, F.K. and Kalomo, M.H., 2019. Prevalence and correlates of sexual intercourse among sexually active in-school adolescents: an analysis of five sub-Sahara African countries for the adolescent's sexual health policy implications. *BMC public health*, *19*(1), pp.1-8.

22. Funmito Omolola, Fehintola Akintunde Olusegun, Ogunlaja Olumuyiwa A, Akinola Samuel Ebun, Awotunde Timothy Olufemi, Ogunlaja Idowu Paulin, and Ogundele Olorunfemi Akinbode, "Prevalence and Predictors of Early Sexual Debut among Adolescents in Ogbomoso, Nigeria." American Journal of Public Health Research, vol. 6, no. 3 (2018): 148-154. doi: 10.12691/ajphr-6-3-4

23. Kedzior, S.G., Calabretto, H., Drummond, H., Oswald, T.K., Lassi, Z.S., Moore, V.M. and Rumbold, A., 2021. Student perspectives on a state-wide relationships and sexual health programme in South Australian schools, 2006–2017. Sex Education, pp.1-16.

24. Olaitan, O.L., 2018. Perception of university students on unwanted pregnancy in South West Nigeria/Olukunmi' Lanre Olaitan. Malaysian Journal of Sport Science and Recreation, 14(1), pp.48-55.

25. .Brink, H., Vander Walt, C. & van Ransburg G. 2012.Fundmentals of Research Methodology for Health Care Professionals. Juta. Cape Town.

26. De Vos, A.S. Strydom, H., Fouche, C.B. & Delport, C.S.L. 2011. Research at Grassroots: For social Sciences and Human Services Profession, 4th ed., Pretoria: Van Schaik.

27. Gray, J.R., Grove, S.K. and Sutherland, S., 2016. Burns and grove's the practice of nursing Research-E-book: Appraisal, synthesis, and generation of evidence. Elsevier Health Sciences.

28. Polit, D. F, & Beck, C.T., 2017. Nursing Research: Generating, assessing and evidence for nursing practice, Wolters Kluwer/Lippincott, Williams & Wilkins

29. Creswell J.W., 2014. Research Designing: Qualitative, Quantitative and Mixed Method. International Students. 4th ed. Thousand Oaks: sage Publications Washington. DC.

30. Rajapaksa-Hewageegana, N., Piercy, H., Salway, S. and Samarage, S., 2015. Sexual and reproductive knowledge, attitudes and behaviours in a school going population of Sri Lankan adolescents. Sexual & Reproductive Healthcare, 6(1), pp.3-8.

31. Kumbeni, M.T., Otupiri, E. and Ziba, F.A., 2020. Menstrual hygiene among adolescent girls in junior high schools in rural northern Ghana. The Pan African Medical Journal, 37.

32. Schmitt, M.L., Hagstrom, C., Nowara, A., Gruer, C., Adenu-Mensah, N.E., Keeley, K. and Sommer, M., 2021. The intersection of menstruation, school and family: Experiences of girls growing up in urban areas in the USA. International Journal of Adolescence and Youth, 26(1), pp.94-109.

33. Miiro, G., Rutakumwa, R., Nakiyingi-Miiro, J., Nakuya, K., Musoke, S., Namakula, J., Francis, S., Torondel, B., Gibson, L.J., Ross, D.A. and Weiss, H.A., 2018. Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. BMC women's health, 18(1), pp.1-13.

34. Kuhlmann, A.S., Henry, K. and Wall, L.L., 2017. Menstrual hygiene management in resource-poor countries. Obstetrical & gynecological survey, 72(6), p.356.

35. Margaret L. Schmitt, Christine Hagstrom, Azure Nowara, Caitlin Gruer, Nana Ekua Adenu-Mensah, Katie Keeley & Marni Sommer (2021) The intersection of menstruation, school and family: Experiences of girls growing up in urban areas in the USA, International Journal of Adolescence and Youth, 26:1, 94-109, DOI: 10.1080/02673843.2020.1867207

36. Engel, D.M.C., Paul, M., Chalasani, S., Gonsalves, L., Ross, D.A., Chandra-Mouli, V., Cole, C.B., de Carvalho Eriksson, C., Hayes, B., Philipose, A. and Beadle, S., 2019. A Package of Sexual and Reproductive Health and Rights Interventions—What Does It Mean for Adolescents. Journal of Adolescent Health, 65(6), pp. S41-S50.

37. Ezenwaka, U., Mbachu, C., Ezumah, N., Eze, I., Agu, C., Agu, I. and Onwujekwe, O., 2020. Exploring factors constraining utilization of contraceptive services among adolescents in Southeast Nigeria: an application of the socio-ecological model. BMC public health, 20(1), pp.1-11.

38. Mitchell, E. and Bell, S., 2020. Premarital relationships and condom use among young people in Suva, Fiji. Sexual Health, 17(4), pp.337-343.

39. Yohannes Z, Tsegaye B (2015) Barriers of Parent-Adolescent Communication on Sexual and Reproductive Health Issues among Secondary and Preparatory School Students in Yirgalem, Town, South Ethiopia. Fam Med Sci Res 4: 181. doi:10.4172/2327-4972.1000181

40. Kimani, S., Kabiru, C.W., Muteshi, J. and Guyo, J., 2020. Exploring barriers to seeking health care among Kenyan Somali women with female genital mutilation: a qualitative study. *BMC international health and human rights*, *20*(1), pp.1-12.

41. Lebese, R.T., Davhana –Maselesele, M. & Obi, L.C., 2011, Teenagers' experiences of sexual health dialogue in the rural villages of the Vhembe District, Limpopo Province, Health SA Gesondheid 16 (1), Art. #502, 10 pages. Doi:4102/hsag.v16i1.50

42. Mcharo, R.D., Mayaud, P. and Msuya, S.E., 2020. Where and how do young People Like to Get their Sexual and Reproductive Health Information? Experiences from Students in Higher Learning Institutions in Tanzania: A Cross-sectional Study.

43. Ayehu, A.; Kassaw, T, Hailu, G (2016). Young people's parental discussion about sexual and reproductive health issues and its associated factors in Awabel woreda, Northwest Ethiopia.

44. Seif, S.A. and Kohi, T.W., 2014. Caretaker-adolescent communication on sexuality and reproductive health: my perceptions matter; a qualitative study on adolescents' perspectives in Unguja-Zanzibar. Health, 6(21), p.2904.

45. Nash, K., O'Malley, G., Geoffroy, E., Schell, E., Bvumbwe, A. and Denno, D.M., 2019. "Our girls need to see a path to the future"-perspectives on sexual and reproductive health information among adolescent girls, guardians, and initiation counsellors in Mulanje district, Malawi. *Reproductive health*, *16*(1), pp.1-13.

Challenges on sexual health communication with secondary school learners, Limpopo province

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See **Annexure H** for Author Guidelines

Abstract

Background: A conversation about sexuality is most likely to encourage healthy and positive sexual practices while reducing risky sexual behaviour among adolescents. Traditionally, sexuality is discussed in hushed tones in proverbs and is reserved for adults. On the other hand, adolescents must be well informed about their sexuality to assist them to make informed decisions about their sexual behaviour.

Objectives: The study determined parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo province.

Method: A qualitative, exploratory-descriptive and contextual approach was employed for the study. Fifty-six parents were purposively selected, resulting in five focus group discussions that had 8–12 members. One central question was asked, and based on the participants' responses, probing questions followed. Data were analysed using thematic analysis. Trustworthiness and ethical considerations were ensured.

Results: Three themes, namely communication concerns, role shifting in imparting sexuality education and poor parent–child relationships, and eight subthemes emerged from the data.

Conclusion: This study identified that communication concerns influence parent–child dialogue on sexuality education. Therefore, there is a need to address factors hindering communication such as cultural barriers, role shifting in imparting sexuality education and poor parent–child relationships. This study suggests that parents should be empowered in dealing with children's sexuality.

Contribution: Parents should be equipped with reproductive knowledge to enable them to talk freely about sexuality with their children. This should be complemented with broader programmes aimed at promoting sexual health education within the traditional family institution.

Keywords: parents; sexuality; sexuality education; learner; parent–child relationship; risky

sexual behaviours.

Introduction

Traditionally, sexuality is discussed in hushed tones in proverbs and is reserved for adults. On the other hand, adolescents require information about their sexuality to make informed decisions about their sexual behaviour (Baku et al. 2018:1). Science-based, realistic, non-judgemental information about sex and relationships is provided in sexuality education at an age-appropriate, culturally relevant level (Kemigisha et al. 2018:2; Leung et al. 2019:2). Promoting sexuality education through parent–child communication is a positive and effective strategy for achieving long-term behavioural change and thus a reduction in unintended pregnancy. Sexuality education can reduce sexually transmitted infections (STIs), early sexual debut, multiple sex partners and low, inconsistent condom use (Bonjour & Van der Vlugt 2018:14; Daminabo, Teibowei & Agharandu 2022:65). However, parents do not often discuss sexuality with their children because it is embarrassing and uncomfortable to communicate (Rodgers et al. 2018:628).

Globally, parent–child communication is recognised as a crucial strategy to reduce sexual health risks (Othman et al. 2020:313). Sexuality communication plays a vital role in the preparation of teenagers for a safe, productive, and fulfilling life. Effective and positive communication between parents and their children about sexual health helps adolescents to establish individual values and make sexually healthy decisions (Venketsamy & Kinear 2020:2). Several studies have shown that learners who have not been taught sexuality are more likely to engage in high-risk sexual behaviours than those who have been taught sexuality. Learners who received sexuality education were less likely to have several sexual partners, participate in unprotected sex, or become pregnant as teenagers. Additionally, they frequently use condoms or other contraceptive methods (Ram, Andajani & Mohammadnezhad 2020:2).

Despite the evidence that parent–child communication is globally recognised and that parents are acknowledged as the primary source of information that can best influence decision-making responsive to the adolescent's needs, however, it is still a hurdle because of various sociocultural and religious challenges such as lack of communication skills, low self-efficacy, ignorance and a lack of concrete information and parental underestimation of the child's sexual behaviour (Aventin et al. 2020:3). Learners are explorative, and with the advent of technology and social media content, they are usually misinformed as they do not know the right information. Döring (2021:9) indicates that learners may need help and support with sexuality information and strategies to build their confidence. In African countries, culture turns out to be a barrier for parents to openly discuss sexuality with their children.

Modise (2019:85) indicated that parents felt uncomfortable and believed that discussing sexuality was taboo. However, some parents discussed sexual and reproductive health with children, especially female parents. This is an indication that women are closer to their children as primary caregivers and men are culturally detached from their parental role, as they are only seen as providers. Research suggests that

children's age and gender do predict interaction of sexual communication with parents; parents are more likely to share messages with female than male teens, focusing on abstinence and resisting a partner's advances, while other research shows that teen girls are more likely than boys to talk with family members about sex (Grossman, Jenkins & Ritcher 2018:6). Parents who browsed the subjects preferred to address a few topics such as abstinence, menstruation, and human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS). Dioubaté et al. (2021:5–6) highlighted that condom use and contraception were hardly discussed because parents think that talking about such issues is promoting sexual immorality or encouraging children to engage in sexual relationships.

Problem statement and research objectives

Sexuality education is regarded as a cultural taboo subject by most African people, especially among black communities. Society feels that it is not appropriate to open such conversations with children; however, learners still get information from friends and social media. Literature has indicated that the timing of education, the lack of knowledge of parents and their reluctance in communicating with learners has resulted in sexual ill-health and misbehaviours of sexual activities. The South African government saw the importance of sexuality education and introduced life orientation in schools, because parents were reluctant to communicate with learners and shifted the responsibility to the schools. However, the status quo remains because teachers are parents from the same communities affected by sociocultural and religious barriers and fail to provide comprehensive sexual education. The involvement of the parents might have the potential to impact adolescents in decision-making and is often referred to as a primary and preferred source of sexual health information. Parents can play an important role in supervising learners' activities as primary caregivers by conveying appropriate sexual health information in a respectful manner. In relation to sexual health practices, role models can exert a considerable influence on adolescents' attitudes, values and beliefs.

For that reason, the researchers aimed to determine parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo province.

The objectives of the study were to explore and describe parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo province.

Research Design and Method

This study employed a qualitative, explorative, descriptive and contextual design. The study aimed to explore and describe parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo province. The study design was chosen as it provides an extensive discovery of information about promoting sexuality education for Grade 8 learners and was found suitable for this study.

Setting

Mopani and Vhembe Districts in the Limpopo province were the study areas. Mopani District is located on the eastern side of the Limpopo province, bordering Mozambique, while Vhembe District is located on the northern side of the Limpopo province, bordering Zimbabwe (municipalities.co.za n.d.). These two districts were purposefully selected because of the high sexual health issues that are prevalent in the district that might be attested to poor sexual health communication. The researcher approached public secondary schools with the aim of accessing a population of parents through the school governing bodies and committees.

Population and sampling (participants)

The target population were all parents with learners in the school where the study was conducted. Nonprobability purposive sampling was employed to recruit parents who were willing to be part of the study with the assistance of the principals and school governing bodies. The sample consisted of 56 participants from the eight schools within the two districts, resulting in a total of five focus groups.

Data collection

Data were collected from selected schools after making appointments with participants. Each meeting lasted for1 h – 1.5 h. A conducive climate was created for everyone to feel free to share their challenges, and the seating was arranged in a semicircle. Each focus group had 8–12 members. Data were collected by means of a focus group discussion, using an unstructured interview method. The purpose of using this method was to understand parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo province.

Different methods to enhance trustworthiness of data were used such as taking notes, observation and using an audiotape to reduce bias (De Vos et al. 2017:361). The focus group started with a central question: 'can you share your challenges regarding sexual health communication with your children?' The central question was asked to all five focus group discussion groups, followed by probing questions because the researcher wanted to understand more about their challenges regarding sexual health communication. Data saturation was achieved when no new information was upcoming from the focus group discussions, and there was no substantial addition to the codes and themes being developed (Brink, Van de Walt & Rensburg 2017:193). Termination of the focus group interviews occurred after a maximum of two visits for some three visits. Data were collected for a period of three months (May 2019 – July 2019).

Data analysis

The data were analysed conceptually, which included reading, coding and developing themes (Brink et al. 2017:193). Raw data were transcribed verbatim, including observational notes collected from the

focus group discussions. The data were condensed and organised into themes and subthemes to make sense. The researcher approached an experienced qualitative data coder to analyse the data again, then an agreement was achieved. Literature control was presented after data were analysed to compare findings of this study (Brink et al. 2017:193).

Measures to ensure trustworthiness.

The present study used the model of Lincoln and Guba (1985) to ensure trustworthiness. This model is characterised by four strategies for ensuring trustworthiness: credibility, transferability, dependability, and confirmability. Credibility was ensured through prolonged engagement with the participants, as more than one visit was made for focus group discussion interviews, and during transcription of data, when clarity was needed, the researcher contacted the participants for further clarity; furthermore, field notes and observational notes were captured to enhance credibility. Transferability is the extent to which the results can be transferred to other contexts or settings; this was ensured by the purposive sampling technique to make sure that the selected participants were representative of the different views of parents across the different settings in the Limpopo province. To enhance the dependability of the data, an audit trial was used where a track record of the data collection process was developed, and during analysis, field notes and observations written during data collection were compared with data and corroborated with the findings of this study (Brink et al. 2017:172). Confirmability is the extent of the confidence that the results would be confirmed or corroborated by other researchers; this was achieved through reflexivity, where weekly meetings with promoters and independent coder were held after data analysis to reflect on the transcripts and themes. Feedback from the promoters and independent coder confirmed that all the quotes used in the participants' transcripts supported the identified themes.

Ethical considerations

- **Permissions**

Ethical clearance was granted by the University of Venda Human and Clinical Trial Research Ethics Committee (HCTREC) (reference number SHS/19/PDC/37/2410). Provincial Department of Education Limpopo province and the district managers and principals granted permission. It was agreed that the researcher would not visit schools during examination time and would not disrupt classes. A written informed consent form was obtained from each participant.

- **Consent**

Consent is morally justified primarily on the basis of autonomy, as research participants' autonomy can be protected and supported through the consent process. A brief explanation of the research purpose and the fact that participants are not forced to participate were given to the participants. Based on the information given to them, they made a free choice.

- **Confidentiality and anonymity**

Once the researcher has information, confidentiality pertains to what the researcher does with it, specifically how much he or she discloses to others. The researcher gave an assurance that data would be reported anonymously; anonymity, in contrast, is concerned with the attribution of information. Participants were informed that the researchers would maintain their anonymity and would not report actual names or other identifying information. There is no control over participants breaking internal confidentiality in focus groups, but the researcher relies on the following ground rules and adheres to consent procedures. As the researcher explains the purpose of the study, he or she also explains that no information should be discussed outside the focus group meeting.

Results

The following themes emerged during data collection: communication concerns, role shifting in imparting sexuality education and poor parent–child relationships. Eight subthemes also emerged. The narratives of parents' views are presented as direct quotations of participants. Themes and subthemes are indicated in Table 1.

Demographic characteristics of participants

The study included 56 participants in focus groups consisting of parents from the Greater Giyani and Thulamela municipalities. Parents were aged between 35 -63 years old, both females and males. Most of the participants were females (n=42) and male(n=14). The majority of participants were not employed. The highest qualification held by 3 participants was a degree; 24 participants did not have a grade 12 certificate.

Table 1: Themes and sub-themes that emerged from data analysis.

Themes	Sub-themes
Communication concerns	Cultural barriers
	Uncertainty of time/age to impart knowledge
	Fear of embarrassment
	Reactive sharing of information instead of being proactive
Role shifting in imparting sexuality education	Parents shifting responsibility to school and religious institutions
Poor parent-child relationships	Parents lack confidence in the subject
	Reluctant and avoidance techniques of subject

Themes and sub-themes identified in the study are discussed in the following section, supported with direct quotations and the literature.

Theme 1: Communication concerns

Participants expressed that communication concerns inhibited parent-child dialogue about sexuality. However, some participants considered the provision of sexuality education only under conditions, while others did not. Communication concerns about promoting sexuality education were further classified into five sub-themes, namely: task-shifting of responsibilities, cultural barriers, the uncertainty of time/age to impart knowledge, fear of embarrassment, increased temptation and communication after things go wrong.

Sub-theme: Task-shifting of responsibilities

In this study, participants indicated that parent-child communication is lacking because they shift their responsibility to teach learners about sexuality. A parent assigns a family member such as a spouse, siblings or elders in the family to discuss information about sexuality with their children. One participant said:

> *"My wife is the one who is supposed to talk with children and only report to me (husband) back the child who is naughty"* ***(# FGDs 4– P7 Female 47 year).***

Another participant concurred:

> *"I would rather have another person talk to my child on my behalf. I believe that the other person will be much more open than me because I am afraid the child will disrespect me"* ***(# FGDs 1– P3 male 44 years).***

Task shifting has been observed in communities where parents as primary care givers are no longer staying with their children and have shifted the responsibility to the grandparents, especially grandmothers.

Sub- theme: Cultural barrier

Participants expressed that cultural barrier as a challenge that restricted parent-from communicating with their learners. Participants indicated that it is taboo and insult for adults to discuss sexuality matters with persons younger than them.

Another participant said:

> *"Culturally, we are not allowed to talk about sex-related issues with young people"* ***(# FGDs 3– P4 Female 38 years).***

Another participant said:

> *"In Venda culture, for us to talk to your child about sex, especially my daughter, is a taboo"* ***(# FGDs 4– P2 Female 53 years).***

Traditionally in many African cultures, sexual health communication is considered highly inappropriate when parents talk about sexuality matters but emphasising abstinence without explanations.

Sub- theme: Uncertainty of time/age to impart knowledge

The study revealed that uncertainty of time/age to impart knowledge about sexuality leaves some participants unsure about the age to have such a discussion with their children. Participants indicated that it is challenging to impart sexuality matters to grade 8 learners because they believe that learners are still young. The information may influence learners to become sexually active. A participant said:

> *"I do not know when the right time is and how to start teaching my child"* ***# FGDs 6– P2 Female 54 years.***

Another one said:

> *"I cannot talk about sex with my children. They are still young. I am unsure if I can start now"* ***# FGDs 3– P2 Female 37 years.***

Appropriate age specific time is difficult to determine as parents underestimate the sexual activity of their children, recent observations reveal early sexual debuts and incidences of teen pregnancies among the ages of 10-12years.

Sub-theme: Fear of embarrassment

Parent-child communication is limited by fear of embarrassment and parents' lack of knowledge about sexual matters. Participants pointed out that it is embarrassing to answer sexual intimate questions. When is the right time to have an intimate relationship? One participant indicated that*:*

> *"I did not know what to say when my daughter asked me when the right time was to start dating. I felt embarrassed to answer her because it is not culturally accepted. Thou, I know I should tell her the truth* ***# FGDs 5– P2 Female 56 years.***

Another participant said*:*

> *"Talking about contraception is embarrassing. As a parent, it was difficult for me to explain "* ***# FGDs 4– P3 female 43 years.***

Parents highlighted that sexuality communication is a shameful and embarrassing topic because it is usually associated with humiliation, self -guilt and stigma by society.

Sub-theme Reactive sharing of information instead of being proactive

Reactive sharing of information is viewed as an obstacle to promoting sexuality education. The study results revealed that parents are hesitant and feel unprepared for and uncomfortable communicating about sexuality with their children. Topics such as intimate relationships, pregnancy and contraception are discussed after parents realize that their children are sexually active or pregnant. An individual participant supported by the group had this to say:

> *"The challenge is that we start to talk to a girl child when realizing that the child is pregnant. Then the whole family gathers to talk about and with the pregnant child. We wait*

until the child has become pregnant. We only talk when it is no longer useful" ***# FGDs 2– P1 Female 56 years.***

Another participant added that*:*

"At our school, a certain pastor was invited to talk with learners after the school management realized that 20 learners were pregnant" **# FGDs 3– P1 male 58 years.**

Another participant said:

"I have communicated with my daughter while she was in grade 6 to see that she is in the puberty stage. We talked about menstruation, how to take care of menstruations, abstinence to prevent pregnancy ***# FGDs 4– P2 Female 58 years.***

Providing genuine and respectful communication in a genuine manner is very important because learners will be able to receive such information is a good way without feeling being judged. However, parents usually comment on issues in a passive manner and when sexual ill has occurred.

THEME 2: ROLE SHIFTING IN IMPARTING SEXUALITY EDUCATION

Participants found it particularly difficult to discuss sexually related matters. However, participants acknowledged their role in imparting knowledge about sex education but shifted that role to teachers and other professionals such as nurses and priests. The following two sub-themes emerged: Parent shift role to school and religious institutions.

Sub-theme: Parents shift roles to school and churches

Shifting roles to schools and churches was cited as a challenge regarding parent-child communication. Some participants believed that the provision of information about sexuality is the role of the teachers. Most participants highlighted a lack of knowledge and skill as a problem that shifted their primary teaching function to teachers. Participants felt there was no reason for them to talk about sexuality at home because learners are taught at school as subjects of life orientation and life science. An individual participant said:

"I thought it is the role of the teachers to teach ……. so they are going to teach children according to the curriculum and age of the learner unlike at home" ***#FGDs 5– P2 Female 35 years.***

Another participant said:

"….. teachers must continue teaching because we' parents do not have sufficient information about sex education and different types of contraceptives. I do not have that information" ***#FGDs 1– P3 male 42 years.***

Some participants indicated that it is difficult to have dialogue with their children because their parents did not discuss this topic with them as they grew up. An individual participant supported by the group said:

"During my school time, my parents did not tell us anything about sexuality. I was taught about menstruation in school when doing biology. So, I expect teachers to teach them likewise" ***#FGDs 4– P4 Female 52years.***

"I do not bother myself about teaching my children about sexuality because in our church they conduct workshops to guide youth on how to conduct themselves regarding their sex life and relationships" ***#FGDs 3– P5 Female 38 years.***

Another participant supported by saying:

"Children who are being guided at church have good morals. Pastors must emphasize sexuality" ***# FGDs 5– P2 Female 43 years.***

When parents fail to take their primary role of teaching, they shift their role to schools and churches, while these institutions and parents need to work together to communicate sexual health the information to learners. However, Christian parents turn to relax, think that the church will teach children about sexuality while pastors emphasize abstinence to reduce sexual risks, which has failed the learners.

THEME 2: POOR PARENT-CHILD RELATIONSHIPS

Parents play a major role in the life of their children; they should model healthy sexual practices. Literature asserts that children who relates well with their parents usually make good sexual health decisions.

Two sub-themes emerged: Parents' lack of confidence in the subject and reluctant and avoidance techniques of the subject

Sub- theme: Parents lack confidence in the subject

Participants indicated lack of confidence in communicating sexual health information because of poor parent child relationships. Culturally mothers are closer to their daughters than their sons which makes it difficult to browse such a subject.

An individual participant said:

"*It is difficult to discuss sexuality. Maybe it is because of my relationship with my son."* ***# FGDs 4– P6 Female.***

Another participant said:

"I am not confident to confront my children about sexuality education. It is difficult for me to talk or teach my son, but one person whom he relates well with is his elder brother" ***#FGDs 2– P7 male 37 years.***

Developing good parent-child relationships contributes to a positive open sharing of information, respecting the learner as an individual encourages the learner to develop better sexual health values.

Sub-theme: Reluctant and avoidance techniques of the subject

Participants verbalized that they are reluctant and avoid communicating about sexuality issues. Participants highlighted feeling embarrassed to watch Television with children when people are kissing. Some said they (parents) changed the channel on the social broadcast.

> *"……. In case of age-restricted shows, we just leave them watching Television without supervision to avoid them asking me questions"* ***#FGDs 4– P2 Female 55 years.***

Another participant added:

> *"I avoid making any comment on radio talks or Television shows. If we are watching Television and something occurs like kissing, or sex appears on screen, we look down or try to reach out for a remote to change the channel because we feel embarrassed"* ***#FGDs 5– P2 Male 40 years.***

Avoidance and being reluctant is about denying taking responsibility of parenting because parents need to control and supervise what the children are watching in the media and internet platforms. Social media and internet can negatively influence learners to adopt unhealthy sexual choices when parents do not interrogate media issues with them.

Discussion

This study revealed the views of parents regarding promoting sexuality education for grade 8 learners in Limpopo Province. They are often embarrassed or shy to discuss sensitive topics with their children; hence they shift the responsibility of communicating with their children about sexuality. However, the burden is shifted to the significant other or other family members. The current study further highlighted gender differences in alleviating difficulties in discussing sexuality education. Evans, Widman, Kamke, and Stewart (2019:182) highlighted that mothers discuss sexuality with the girl child and fathers with the boy child. This implies a need to empower parents in communication skills to avoid shifting responsibility. Children who receive information about sexuality from a parent are likely to be free to discuss sexual matters than learners who never received information from their parents. Those adolescents who are able to communicate with their parents easily are more likely to engage their parents in sexual conversation than adolescents who have trouble talking to them. Klu et al. (2022:7) found similar results. Findings of the current study cited cultural barriers as a critical obstacle to parent-child communication about sexuality. Talking about sexuality was taboo.

The barrier for parents is perceived as a social taboo on sexuality discussion and a lack of knowledge about the topic (Ram, Andajani & Mohammadnezhad, 2020:5; Mbachu et al. 2020:8). This implies that

cultural taboos and cultural beliefs about sexuality are deeply embedded in parents' lives and obstruct communication. Parents often do not openly discuss the subject because it is culturally sensitive, and they lack communication skills which makes them not feel free to discuss it with their children. This finding was similar to Bikila, Dida, Bulto, Debelo and Temesgen (2021:4) findings' which also exposed that parents were not allowed to discuss sexuality. In contrast, Shumlich and Fisher (2020:1118) suggested that clear and unambiguous talks can help reduce sexual risk behaviours and promote healthy adolescent sexual development. The findings further highlighted task shifting to the schools and churches. Study buy Mavhandu-Mudzusi and Mhongo (2021:11) revealed that some parents believe that external entities, including the educational system, should bear accountability.

Findings of this study highlighted that the appropriate age for initiating the discussion was cited as the greatest common barrier as parents were always not aware that their children were sexually active. Communication should relatively respond to participants' age and most parents only discuss physiological body changes with children and reserve important information such as being intimate, the consequences and responsibility thereof. Parents felt uncomfortable initiating discussions with their children about sexuality because of age uncertainty, findings from various studies revealed that some parents began talking to the learner children as early as ten years old because their bodies are undergoing physical changes at this age This dialogue is only initiated to protect children from sexual health risks (Thin Zaw, McNeil, Oo, Liabsuetrakul and Htay 2021:85).

Fear of embarrassment contributed to the lack of parent-child communication; parents felt they were not confident enough to talk about the subjects as they lacked accurate comprehensive sexual information. It is a common practice in black communities for parents to just say do not play with boys without providing accurate straight forward information. Parents struggle with their own lack of sexual knowledge and are frequently too embarrassed to discuss sexuality with their children since it is culturally inappropriate as children are usually sent to the aunt or elder member in the family to talk to the learner child. In support of the current findings, Othman et al. (2020:318); Mullis, Kastrinos, Wollney, Taylor and Bylund (2021:399) and Mekonen, Dagnew, Yimam, Yimam, and Reta (2018;5) revealed that lack of communication is linked to fear, an embarrassment to discussing with children and taboo attached to sexuality.

The current study highlighted that parents are reactive instead of being proactive, usually parents start talking about issues when something crops up such as seeing a pregnant teenager, they will comment in a negative way for the child learner to realize that it is not acceptable, without directly communicating fruitful sexual education information. This finding is consistent with the findings of Mbachu *et al.* (2020:7) and Flores, Docherty, Elf, McKinney and Barroso Flores, ocherty, Elf, McKinney and Barroso (2019:541) which showed that unpleasant events were used as opportunities for parents to talk with their children. Jones, Whitfield, Seymour, Hayter (2019:766) also reiterated that parents began

commenting about sexuality issues on various occasions about an indecent television scene. However, other researchers articulated that the discussion was limited to reprimand for abstinence, preserving virginity and avoiding pregnancy Rouhparvar, Javadnoori, Shahali (2022:8.) Abstinence is promoted but it is not realistic as society has transformed and acculturation has occurred, and values and beliefs have shifted. The advent of social media and technology have changed the landscape of sexuality information. This does not benefit the children, rather, it exposes them to sexual health risks. Therefore, it is essential for parents to become proactive regarding the provision of sexuality education.

The current study revealed that parents lacked content knowledge and the skills to approach this socially taboo subject. Sexual health education is a broad subject that do not only encompass issues like HIV/AIDS and STIs but a broad range of factors such as responsible dating, negotiating a safe sex, choosing the right contraceptives to mention a few. Therefore, parents need to be empowered to have this information so that they can assist the learner children. A similar finding was reported that parents' role as educators is hampered by a lack of knowledge, the method of engaging children on sexuality issues (Ezenwaka, Ezumah, Eze, Agu, Agu & Onwujekwe 2020: 11).

Findings specifying that parents did not feel confident or comfortable in communicating with their children on sexuality, partially due to poor parent-child relationships. In support of this finding, Szkody, Rogers, and McKinney (2018:2643) argued that an excellent parent-child relationship must be established with the child when they are young, as this will encourage parent-adolescent communication when children are older. The results of the study conducted by Benharrousse (2020:34). suggested that parents were more conservative in giving sexuality education. Maintaining a good parent-child relationship forms a strong foundation of communication skills. This implies that self-confidence builds an individual's self-esteem. Hence, one could be able to share information. Being shy makes parents reluctant and ignorant to open about sexuality education. This also applies to parents who have a good relationship with children. They do not encounter the problem of communication with their children about sexuality. Klein, Becker, Štulhofer (2018:1493) Therefore, parents and children need to maintain an excellent relationship to promote therapeutic talks.

Strengths and limitation

As for strengths, the community liked the lecturer (nurse educator) who collected data, which made parent discussions on such sensitive topics easier. Data analysis was done in an reiterative process with supervisors to ensure that the yielded themes were fully uprooted from the collected and transcribed data, which assisted in ensuring the findings' reliability and validity. Apart from these advantages, there were some drawbacks. Although we anticipated that using focus groups rather than in-depth interviews would allow active engagement of participants to more in-depth dialogue and deliberation, those who

held minority viewpoints may have felt uncomfortable to freely expressed themselves or speaking up. Furthermore, participants shared theoretical stories than talking directly about their own children to avoid dishonouring their children. Male participants were also more problematic for researchers to probe, so they represent a significant population for future research. It was thought that the in-depth interviews could have been more effective at this early stage for one to gain a more comprehensive perspective on certain issues, like contraceptives, sex education, termination of pregnancy and preferences for when to begin sexuality education. This could be a research topic in the future. Our goal-directed selection method was not intended for generalizability to the Vhembe or Mopani districts. Rather than reflecting the distribution of both nationalities within the population, we fixated our goal on warranting sufficient sample size to attain acceptable depth of information from participants' responses and arrive to the point of data saturation when choosing the sample size.

Recommendations

The study recommends that community starts forums where sexual health issues are discussed, and parents be empowered on issues of sexual health. The traditional leadership should revise and revisit the traditional institutions where young boys and girls attend for initiation to include issues of sexual health education. Parents should also be empowered with comprehensive sexual education and services available that support teenagers and adolescents. Parents need to be involved in their children's lives by engaging in sexual health topics while watching Tv's with them.

The education system should continuously update the curriculum on sexual health education and communicate comprehensive sexual education unlike limiting to HIV/AIDS. Health services should also promote the provision of comprehensive sexual health information.

There is a need to address socio-cultural taboos and religious beliefs that hinder communication. In addition, the development of the strategy to support parents to have confidence in promoting sexuality education.

Conclusion

This study disclosed that parent-child conversation toward sexuality health matters was limited if not absent in Mopani and Vhembe Districts. Challenges identified as obstructing sexual health communication were issues such as cultural and religious barriers, uncertainty in imparting knowledge, role shifting in imparting sexuality education and poor parent-child relationships. Open supportive communication between parents and young people related to sexual and reproductive health matters have the potential to postpone engagement into sexual activity, protection from risky sexual behaviours, and supporting the healthy sexual socialization among youth. This study, therefore, recommends effective parent-learner conversations regarding issues around sexuality, the cultural norms and

religious beliefs that hinder the communication as well as lack of knowledge and confidence of parents should be addressed. Furthermore, programs aimed at supporting parents in getting more involved in their adolescents' lives and to engage in healthier talk with their children about their sexuality need to be applied in the local communities. Educational pamphlets can be of good assistance.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

H.S.M., R.T.L. and D.U.R. conceptualised and refined the study idea. H.S.M. collected and analysed the data. H.S.M. and L.M. drafted the manuscript with input from all authors. All authors critically reviewed and approved the final article.

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Data availability

The data used to support the findings of this study are available from the corresponding author, H.S.M., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

Aventin, Á., Gough, A., McShane, T., Gillespie, K., O'Hare, L., Young, H., Lewis, R.,Warren, E., Buckley, K. and Lohan, M., 2020. Engaging parents in digital sexual and reproductive healtheducation: evidence from the JACK trial. *Reproductive Health*, *17*(1), pp.1-18.

Baku, E.A., Agbemafle, I., Kotoh, A.M. and Adanu, R.M., 2018. Parents' experiences and sexual topics discussed with adolescents in the Accra Metropolis, Ghana: a qualitative study. *Advances in Public Health*, *2018*.

Benharrousse, R., 2020. Towards Sexual Education: Moroccan Youth's Perception Between globality and Islam. *Pacha*, *1*(3), pp.26-38.

Bikila, T.S., Dida, N., Bulto, G.A., Debelo, B.T. and Temesgen, K., 2021. Adolescents'' Communication on Sexual and Reproductive Health Matters with Their Parents and Associated Factors among Secondary and Preparatory School Students in Ambo Town, Oromia, Ethiopia. *International Journal of Reproductive Medicine*, *2021*.

Bonjour, M. and Van Der Vlugt, I., 2018. Comprehensive sexuality education. *Knowledge File*.

Dagnachew Adam, N., Demissie, G.D. and Gelagay, A.A., 2020. Parent-Adolescent Communication on Sexual and Reproductive Health Issues and Associated Factors among Preparatory and Secondary School Students of Dabat Town, Northwest Ethiopia. *Journal of Environmental and Public Health*, *2020*.

Daminabo, D.A. and Agharandu, A.E., 2022. AJSHR, Vol. 3, No. 3, March 2022.

De Vos, A.S. Strydom, H., Fouche, C.B. & Delport, C.S.L. 2017. Research at Grassroots: For social Sciences and Human Services Profession, 4th ed., Pretoria: Van Schaik. De Vos, A.S.,

Döring, N., 2021. Sex education on social media. *Encyclopedia of sexuality and gender. Cham: Springer*.

Evans, R., Widman, L., Kamke, K. and Stewart, J.L., 2020. Gender differences in parents' communication with their adolescent children about sexual risk and sex-positive topics. *The Journal of Sex Research*, *57*(2), pp.177-188.

Ezenwaka, U., Mbachu, C., Ezumah, N., Eze, I., Agu, C., Agu, I. and Onwujekwe, O., 2020. Exploring factors constraining utilization of contraceptive services among adolescents in Southeast Nigeria: an application of the socio-ecological model. *BMC Public Health*, *20*(1), pp.1-11.

Flores, D., Docherty, S.L., Relf, M.V., McKinney, R.E. and Barroso, J.V., 2019. "It's almost like gay sex doesn't exist": Parent-child sex communication according to gay, bisexual, and queer male adolescents. *Journal of adolescent research*, *34*(5), pp.528-562.

Grossman JM, Jenkins LJ, Richer AM. Parents' perspectives on family sexuality communication from middle school to high school. International journal of environmental research and public health. 2018 Jan;15(1):107.

Johnson, E.R., 2020. Sex education in the United States: Implications for sexual health and health policy. *The Corinthian*, *20*(1), p.14.

Jonas, K., Duby, Z., Maruping, K., Dietrich, J., Slingers, N., Harries, J., Kuo, C. and Mathews, C., 2020. Perceptions of contraception services among recipients of a combination HIV-prevention interventions for adolescent girls and young women in South Africa: a qualitative study. *Reproductive Health*, *17*(1), pp.1-14.

Kemigisha, E., Bruce, K., Ivanova, O., Leye, E., Coene, G., Ruzaaza, G.N., Ninsiima, A.B.,

Klein, V., Becker, I. and Štulhofer, A., 2018. Parenting, communication about sexuality, and the development of adolescent womens'' sexual agency: A longitudinal assessment. *Journal of youth and adolescence*, *47*(7), pp.1486-1498.

Klu, Klu, D., Agordoh, P., Azagba, C., Acquah, E., Doegah, P., Ofosu, A., Ansah, E.K. and Gyapong, M., 2022. Determinants of communication on sexual issues between adolescents and their parents in the Adaklu district of the Volta region, Ghana: a multinomial logistic regression analysis. *Reproductive Health*, *19*(1), pp.1-9.

Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. *International journal of environmental research and public health*, *16*(4), p.621.

Mabunda, A. and Madiba, S., 2017. The context of parent-child communication about sexuality and HIV prevention; the perspectives of high school learners in gauteng province, South Africa.

Mbachu, C.O., Agu, I.C., Eze, I., Agu, C., Ezenwaka, U., Ezumah, N. and Onwujekwe, O., 2020. Exploring issues in caregivers and parent communication of sexual and reproductive health matters with adolescents in Ebonyi state, Nigeria. *BMC Public Health*, *20*(1), pp.1-10.\

Mekonen, M.T., Dagnew, H.A., Yimam, T.A., Yimam, H.N. and Reta, M.A., 2018. Adolescent-parent communication on sexual and reproductive health issues and associated factors among high school students in Woldia town, Northeastern Ethiopia. *Pan African Medical Journal*, *31*(1).

Modise, MA, 2019. Parent sex education beliefs in a rural South African setting. *Journal of Psychology in Africa*, *29*(1), pp.84-86.

Mullis, M.D., Kastrinos, A., Wollney, E., Taylor, G. and Bylund, C.L., 2021. International barriers to parent-child communication about sexual and reproductive health topics: a qualitative

Othman, A., Shaheen, A., Otoum, M., Aldiqs, M., Hamad, I., Dabobe, M., Langer, A. and Gausman, J., 2020. Parent–child communication about sexual and reproductive health: perspectives of Jordanian and Syrian parents. *Sexual and reproductive health matters*, *28*(1), p.1758444.

Pleaner, M., Milford, C., Kutywayo, A., Naidoo, N. and Mullick, S., 2022. Sexual and reproductive health and rights knowledge, perceptions, and experiences of adolescent learners from three South African townships: qualitative findings from the Girls Achieve Power (GAP Year) Trial. *Gates Open Research*, *6*, p.60.

Ram, S., Andajani, S. and Mohammadnezhad, M., 2020. Parent''s perception regarding the delivery of sexual and reproductive health (SRH) education in secondary schools in Fiji: A qualitative study. *Journal of environmental and public health*, *2020*.

Rodgers, K.B., Tarimo, P., McGuire, J.K. and Diversi, M., 2018. Motives, barriers, and ways of communicating in mother-daughter sexuality communication: A qualitative study of college women in Tanzania. *Sex education*, *18*(6), pp.626-639.

Rouhparvar, Z., Javadnoori, M. and Shahali, S., 2022. Parents' approaches to sexuality education of their adolescent boys: a qualitative study in Ahvaz, Iran. *Reproductive Health*, *19*(1), pp.1-10.

Shams, M., Parhizkar, S.A., Mousavizadeh, A. and Majdpour, M., 2017. Mothers' views about sexual health education for their adolescent daughters: a qualitative study. *Reproductive health*, *14*(1), pp.1-6.

Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. International journal of environmental research and public health, 16(4), p.621.

Szkody, E., Rogers, M.M. and McKinney, C., 2018. Risky sexual behavior: the indirect effects between parent–child relationship quality and quality of life in emerging adults. *Quality of Life Research*, *27*(10), pp.2639-2645.

Thin Zaw, McNeil, Oo, Liabsuetrakul and Htay, 2021. Abstinence-only or comprehensive sex education at Myanmar schools: Preferences and knowledge among students, teachers, parents and policy makers. *Sex Education*, *21*(1), pp.75-90.

Venketsamy, T. and Kinear, J., 2020. Strengthening comprehensive sexuality education in the curriculum for the early grades. *South African Journa*

Yohannes Z, Tsegaye B (2015) Barriers of Parent-Adolescent Communication on Sexual and Reproductive Health Issues among Secondary and Preparatory School Students in Yirgalem, Town, South Ethiopia. Fam Med Med Sci Res 4: 181. doi:10.4172/2327-4972.1000181

Zulu, I.Z., Zulu, J.M., Svanemyr, J., Michelo, C., Mutale, W. and Sandøy, I.F., 2022. Application of community dialogue approach to prevent adolescent pregnancy, early marriage and school dropout in Zambia: a case study. *Reproductive Health*, *19*(1), pp.1-9.

Experiences LO Teachers Teaching Sexuality Education in Secondary Schools in Vhembe and Mopani Districts Limpopo Province South Africa

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See **Annexure J** for Author Guidelines

Experiences LO Teachers Teaching Sexuality Education in Secondary Schools Vhembe and Mopani Districts Limpopo Province South Africa

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Abstract

The need for sexuality education to be integrated into the education system is becoming increasingly important worldwide. As a result, Life Orientation (LO) teachers have an essential and unique role to play, which they may not always be adequately prepared for, especially when it comes to teaching a cross-curricular subject like sexuality education. This research focused on exploring and describing the experiences of LO teachers who teach sexuality education in secondary schools in Limpopo Province. The study used a qualitative, exploratory, descriptive, and phenomenological design, collecting data through in-depth face-to-face interviews with LO teachers until data saturation was achieved after the eighth participant. Nonverbal communication was also captured through field notes. The study identified four themes: Participant experiences of sexuality education, communication concerns, role shifting in imparting sexuality education, and challenges faced during LO classes. The results highlighted that these concerns present barriers to comprehensive sexuality education. Therefore, it is recommended that teachers be provided with knowledge, skills, and confidence to teach various sexuality education topics, as well as access to human and material resources.

Keywords: Experiences, Life Orientation, Sexuality education, Teachers

Introduction

The experiences of teachers regarding sexuality education are considered a crucial factor in their reluctance to teach sexuality education programs in schools. They are acknowledged as the key drivers in promoting learners' engagement in cooperative learning environments through efficient lesson

planning within the education field[1]. Furthermore, Target 3.7 of Goal 3 in the Sustainable Development Agenda aims to guarantee universal access to family planning services and integrate reproductive health into national plans and programs by 2030, which many African nations have yet to fully comply with[2]. Progress in achieving the Millennium Development Goals in promoting sexuality education slowed down due to scarce Life orientation (LO) teachers who can provide sexuality education [3].

Globally, it is commonly advocated that comprehensive sex education (CSE) should be adopted in classrooms around the world because it is successful at shielding teenagers from these dangers. However, the permissive and explicit nature of many CSE curriculums raises issues regarding its legitimacy, and the flimsy criteria of "effectiveness" employed in most reviews of CSE research raise severe problems over the research's actual significance. The effectiveness of CSE in educational settings must be determined if it is to be deployed globally to truly protect youngsters everywhere[3]. In African countries, the quality of learning and teaching sexuality education is weakened by cultural values and taboos[4]. It is difficult for teachers to deal with delicate cultural issues when teaching and learning about sexual health issues. Teachers perceived that what was taught, and local cultural values clashed. As a result, it was challenging for the teachers to use the proper vocabulary to deliver the intended message. Therefore, LO teachers avoided talking about sexuality with students particularly communicating about abortion, homosexuality, and masturbation are examples of culturally sensitive topics that teachers may avoid, overlook, approach negatively. Culturally sensitive topics influence the spread of messages that go against comprehensive sexuality education principles, mainly when it comes to gender norms and sexual harassment[5]. Alternative linguistic techniques used to convey sensitive information to sustain social norms. To uphold societal norms, teachers resort to other linguistic strategies to articulate certain topics. However, this was limiting communication between the teacher and the learners[6].

In both Uganda and South Africa, it is mandatory for teachers to provide sexuality education; however, some teachers are concerned that teaching such content may be viewed as unethical by society. Specifically, they worry that demonstrating how to use contraceptives, such as condoms, could be seen as promoting sexual activity among learners, leading to concerns about their own morality[7].

Teachers in Kenya cover aspects of sexuality education within the Life Skills Education Curriculum, which is distributed across multiple subjects including biology and Christian Religious Education. Some teachers feel that integrating sexuality education into other subjects allows them to avoid teaching controversial topics[8]. However, providing sexuality education is impeded by a lack of training, the absence of comprehensive sexuality education in the curriculum, and insufficient time allocated for it[9].

A study carried out in Zambia found that teachers faced challenges in deciding what and when to teach sexuality education, resulting in significant disparities in the content being taught[10]. This often led to teachers withholding information from learners and focusing solely on promoting abstinence as the only way to prevent sexual health risks or disregarding sexuality education teachings altogether[11].

LO There has been a growing interest in effective Life Orientation teaching over the last century. Since its inception as a non-examination subject in the late 1990s. After 1990, South African schools began to teach Life Orientation as a subject[12].Additionally, South African sexuality education teachers frequently disregard sexuality education in the curriculum. The situation is concerning as sexuality education is already included in the curricula of subjects such as Life Orientation, Life Sciences, and Natural Sciences. Teachers highlighted that personal qualities and life experience are essential factors for teaching sexuality education effectively. They also found it difficult to maintain classroom discipline while promoting open discussions on the topic[12]. With their own cultural standards, personal values, and attitudes in conflict with the curriculum's goals, teachers struggle with the sexuality education curriculum. Given that South African teachers have not had sufficient "training" in teaching sexuality education, it is not unexpected that they are struggling with the curriculum. These teachers, and more specifically LO teachers, are typically female and come from a variety of academic areas depending on their teaching duties[13]. The study sought to explore teachers' experiences in teaching sexuality education in secondary schools in Mopani and Vhembe district Limpopo province.

Problem statement

Sexuality education is an educational approach that covers various aspects of sexuality, including cognitive, emotional, physical, social, and spiritual aspects. It is provided in formal and non-formal settings, and the International technical guidance on sexuality education has been developed to help authorities in developing and implementing school-based and out-of-school sexuality education programmes[14,15]. In the late 1990s, South African schools started teaching Life Orientation as a subject, which included sexuality education as a key content area. Teachers have significant responsibility and autonomy in implementing the LO programme, but they often find teaching LO culturally challenging. Moreover, the shortage of adequately trained teachers contributes to the silence surrounding sexuality education topics in South Africa. Therefore, it is important to understand the perspectives of teachers regarding sexuality education, as they are a critical resource in providing sexuality education to learners. The researcher noted a lack of training and support for LO teachers and plans to explore their experiences teaching sexuality education in public schools in Limpopo Province. Enhancing teachers' confidence, values, knowledge, and skills related to sexuality can lead to long-term improvements in sexuality education.

Methods

The present study was conducted using qualitative, explorative, descriptive, and contextual designs. This method was chosen because the researcher sought to explore the experiences of LO teachers regarding promoting sexuality education to grade 8 learners at Thulamela and Greater Giyani Municipalities. A non-probability purposive sampling of four-teen (14) LO teachers were sampled

from four (4) set of schools selected schools in Thulamela and Greater Giyani Municipalities. School selected based on rate of teenage pregnancy in that setting. Four (4) of participants were males and 10 Females with the age ranging from 30- 60years. The sample size was determined by data saturation. Data saturation was reached on the fifth face to face in-depth interview. However the researcher continued to collected to cover all the setting for data triangulation. In– depth face to face interview was conducted to get rich information with each participant. Interviews were conducted in English. All participants were interviewed at schools during free period in quite room (office). The interviews lasted 40-60 minutes. One central question was asked. ***Can you explain your experiences regarding teaching sexuality education to grade 8 learners in your own words?*** Probing – question asked to allow the participants to describe their experiences thoroughly and to verify what the researcher heard was what the participant articulated. Observational note of what the researcher heard, and saw was written down as field notes. Interviews were recorded using an audio recorder[16] Data was analysed conceptually, which included reading, coding, and developing themes[17]. Raw data was transcribed verbatim, including observational notes collected from in-depth face to face interviews. To make sense of the collected data, it was condensed and organized into themes and sub-themes. The researcher approached an experienced qualitative data coder to analyse the data again, then an agreement was achieved. Literature control was presented after data were analysed to compare findings of this study[18].

Data credibility was achieved through prolonged engagement with the participants during focus group discussions. The researcher ensured member checking by giving the transcripts of the interviews and extracting codes to some of the participants and that the agreement of their opinion with that of the researcher was evaluated. Peer checking was ensured by submitting transcripts, codes, themes, and sub-themes to the supervisors and an independent coder. The researchers ensured transferability by utilizing purposive sampling, contextualizing the study, and providing a detailed description of the data. To ensure dependability, they provided a thorough account of the data collection, analysis, and interpretation process. Confirmability was achieved by subjecting the entire research process to an audit [18,19].

Ethical considerations

Ethical clearance was granted by the University of Venda Ethics committee project code (SHS/19/PDC/37/2410District managers and principals granted permission. It was decided that the researcher wouldn't visit schools when students were taking exams and wouldn't interfere with lessons. Each participant signed a written consent form after being fully informed. Because the permission procedure allows for the protection and promotion of study participants' autonomy, consent is morally justified largely in terms of autonomy. a succinct explanation of the study's goals and the fact that participation is voluntary. Based on what they have been informed, they make a free choice. Once the researcher has information, confidentiality pertains to what the researcher does with it, specifically how

much he or she discloses to others. Data will be reported anonymously, the researcher promised; nonetheless, anonymity is concerned with the attribution of information. Sexuality education is a sensitive topic that may violate internal confidentially of the participants, but the researcher depends on adherence to ground rules and consent procedures. The researchers also mention that no material should be revealed outside of the interview room (office) as they describe the study's goal

Findings

The demographic characteristics of participants in face-to-face in-depth interview were fourteen (14) LO teachers from all the selected schools where study was conducted. The group of participants were heterogeneous with the age between thirty (30) – sixty (60) years old with teaching experiences between five (05) to thirty-five (35) years. The objective of the study was to explore and described the experiences of the LO teachers about teaching sexual and reproductive topics in class situation. Four themes and sub-themes developed according to the meaning that participants attached of their experiences. The following are themes that emerged from data analysis: Participant experiences of sexuality education; Communication concerns; Role shifting in imparting sexuality education and challenges experienced by LO teaching teachers.

Theme: Participants experiences of sexuality education:

LO Teachers articulated that sexuality education is the way of providing information about sexual health issues that will raise awareness about physical body changes. The participants further indicated that providing learners with sexuality reduces sexual health risks.

Sub-theme: Bringing awareness about physiological body changes

The LO teachers understood sexuality education as information on physical development that is provided to adolescents (learners) to make them aware of and help them cope with the changes occurring in their body. However, some of the topics were less communicated with learners.

T5 "we *discuss with them about menstrual circle, how it comes and how to handle themselves during menstruations. We do tell them that if they sleep with boys, they may fall pregnant we do tell them. Cleanliness and we do supply them with sanitary pads and show them how to use them." (**Female -50 years).***

T6 "*Sex education is not taught in detail. ……. the only thing we talk about is hair that grow in their private part, breast and hips that widen." (**Male - 35 years**)*

T4 *"emphasis abstinence as a method of prevention. we do not talk about going to the clinics get contraceptives." (**Male - 43 years**)*

T3 *"with pregnancy we dwell much on prevention by telling learners that if they sleep with boys, they will fall pregnant, but we do not advise learners to use contraception."* ***(Female - 40 years)***

Theme: Communication concerns

Participants expressed that communication concerns inhibited teacher -learner communication about sexuality. However, LO teachers considered teaching about sexuality because of school health policy and curriculum that urge teachers to teach about sexuality in class. However, LO teachers obliged to teach about sexuality because the department of education introduced integrated school health policy and curriculum that urge teachers to teach about sexuality in class. Two themes emerged: Cultural barrier and Teachers lacking knowledge and skill information to tackle sexuality topics

Sub theme: Teachers lacking knowledge and skills to tackle sexuality topics

LO teachers verbalised that giving lecture about contraception was not easy. Teachers indicated that they lack skills and insufficient material to equip them with information.

T1, *I do not have enough information about different types of contraceptives. I think sexuality education is a very sensitive topic it needs a person who have good technique about it."* ***(Female - 43 years)***

Other participants were of opinion that learners should be empowered with information on contraceptives:

T4, "*my problem is how to start presenting this sensitive topic for learner."* ***(Male – 43 years)***

T7, *I feel I cannot talk about using a condom it is not cultural acceptable to talk about that. They will know more about that when they get married."* ***(Male - 55 years)***

- ***Sub-theme: Cultural barriers***

Participant said cultural contribute on the amount of information to be discuss with learners in class. Some of the topics cannot be discussed in class because is a taboo. Therefore, as teacher they turn to ignore sexuality education because of the societal values and standard within that society.

T2 "Due to our culture we hide the information. We do not tell our learners about sexuality. In Venda culture it is taboo to talk with children about sexuality." ***(Male - 40 years)***

Role shifting in imparting sexuality education

Participant indicated that when they come across sensitive topics, they shift responsibility to teach sexual related topic to person whom they thick can present the information better.

Sub-theme: teachers shifting responsibility to nurses

T9 "*what I tell them is that go to the nearest clinic and nurses will give you thorough information about contraception." (**Female - 40 years**)*

***T5**" We pastors to come and explain to them about risks of becoming pregnant at young age because in our school more than 20 learners were pregnant." what I have observed parents leave everything to us teachers." (**Male - 50 years**)*

2. ***Challenges experienced by LO teachers in the classroom***

Participants raised that teaching life orientation is an extra burden in the absence of support by teachers, government. And further said it is more challenging to teach the content that I have not trained for. sufficient training. This compromise education and learning for us and learners.

- ***sub-theme: lack of support by colleagues***

T2 *"Aah! (With a high voice and facial expression change as an indication that it hurts) no support at all they are lowering the standard of LO as teacher who is teaching. LO is regarded less as if you are not teaching a commendable subject. In many schools our managers do not consider it serious even the learners do not take it serious (**Male - 57 years**)*

T8 "*Some teacher has attitude and influence other teacher to say teacher so so is wrong. so, I do not like that.* ***(Female 46 years)***

***T3** when I come across such attitudes where teacher influence parents, I do not feel eager to teach life orientation. ……..* she continued by saying*, "there is no support from other teachers may be is due to cultural believe. on the other hand, the principal will be telling you to do what you have hired for because teachers are adult who are taking decision of criticizing than giving support." (*Female **- 40 years**)*

- ***sub-theme: lack of support by the government***

lack of support by the government increase burden to us. I feel that working condition are not conducive as we struggle to get material. Hours of teaching allocated for it is only two period in a week.

***T9** "The government does not support us by not allocating periods equally as in mathematic or Life science.* "In *our timetable if you can check only 2 periods per week allocated LO." **(Female - 40 years**)*

- **sub-theme lack of trained teachers**

majority of participants articulated that they felt less interested teaching sexuality education because they have not received proper training. They have only attended workshop that are done once at the beginning of the year.

T5*"I think there is a need for all of us teachers to attend workshops than sending only teachers who are teaching life orientation because all teachers can teach."* ***(Male - 50 years)***

T6 *Workshops that are conducted is not enough we need more training. May be teachers should be sensitised throughout of our training because it is only few teachers who are called to attend workshops.* ***(Male - 35 years)***

T1*"I am just given textbook to pass the information to the learners but some of the topic I do not have broader information about them"* ***(Female - 40 years)***

- ***sub-theme: Lack of motivation***

However, all teachers are expected to teach life orientation some teachers are not having interest.

*"****T3*** *As teachers lack interest on teaching life orientation. we see that during the distribution of subject amongst teachers. LO will not have any person to take it until the principal allocate it. Some teachers will refuse to take teach it"* ***(Female - 40 years)***

Discussion

The present study highlighted several experiences of the teachers across Thulamela and Greater Giyani municipality, highlighted a need to be well prepared, comfortable and motivated sexuality reproductive health issues to support and protect sexual development of grade 8 learners transiting from adolescent to adulthood. In addition, LO teachers are seen as being qualified to provide sexuality education because of their understanding of their students, their expertise in the learning environment, and their constant involvement in the lives of their students.

The results of this study revealed that LO teachers bring awareness' physical changes by providing information to the learners regarding physiological changes, information about the changes in their body, menstruation and how to manage menstruation including prevention of sexual health risks disseminated to the learners[20].et al concurred with the results of this study that, young girls frequently experienced mental discomfort due to their ignorance of menstruation. Girls said they felt anxious and self-conscious about their bodies changing during puberty, and most named menarche as the worst part of the process. Physical and psychological problems for women were associated with sex-related ignorance and ingrained anti-sex prejudice. Majority of LO teachers were not in favour of

communicating about contraception, pregnancy. The results revealed that teachers believed that it is cultural not accepted to have conversation with learners about sexuality[21]. In support of the current some teachers felt that it is controversial to communicate openly about sexual related issues with learners. This implies that grade 8 learners will remain unempowered and unequipped hence they the statistic of learners suffering from sexual transmitted infection and teenage pregnancy is alarming. This means that lack of information exposes learners to sexual health risk. Which could be prevented[22].

The study finding exposed that communication concerned open many gaps such as poor teacher -learner communication. Language barrier is one of the communication anxieties whereby the terminology used is unfamiliar to the learners. On the other hand, lack resources contribute to poor communication. In this case teachers found it difficult to convey the relevant message using appropriate language. Language barrier might mislead both teacher and learners. Providing learners with clear and unambiguous information reduces early sexual debut. If information is well conveyed there will be no need for teachers to shift responsibility to nurses. Study revealed that participants shift responsibility relucted to deal with sensitive issues related to sexuality. Avoiding talking about sensitive topic leaves learners uninformed about crucial information hence they end up falling pregnant because teachers and parent decided to be silent about sensitive issues. Study conducted in Europe revealed that sexuality education is still a sensitive and something heavily disputed issue [23]

Lack of information delays accessibility of sexual health services. Availability of condoms at school can reduce teenage pregnancy and sexual transmitted infection at school. Study results revealed that LO teachers experiences challenges in the classroom ranging from lack of support from the colleagues, government in contrast with these findings, Robinson et al.[24] argued that, despite the contentious nature of the subject, the majority of parents in this study agreed that sexuality education should be a joint effort between families and schools and that it should be relevant and vital for primary school students. Teaching sexuality education in the classroom is a challenging task for teachers due to various reasons such as time constraints, lack of resources, community opposition, and their own lack of knowledge or training in the field. To deliver effective sexuality education, the support of authorities and other stakeholders is crucial. However, most teachers feel unsupported by their colleagues and principals in their efforts to teach sexuality education[25].

The challenges faced by teachers in the classroom are considerable, encompassing a lack of time, materials, or resources, community opposition, their own discomfort, and insufficient knowledge or training on the topics at hand. In addition, lack of time for sexuality education in packed schedule. Results further showed that lack of support by colleagues. These means that lack of support may discourage LO teacher to provide a comprehensive sexuality education and limit learners from right to sexual education. This was also revealed by Sidze et al. [26] exposed that teacher has experience had actual opposition regarding sexuality education from community leaders, government regulation and school

administration. This implies that effective sexuality education needs the assistance of authorities and other parties.

Limitations

This was a convenient and relatively small sample size. Therefore, it does not represent the views of all LO teachers working with in public secondary Limpopo Province South Africa. Another weakness of the study was the method of recruiting the participants some school principal requested a written approval from district manager schools even though permission the Department of education Limpopo province obtained. Budgetary considerations restricted the sample of schools to 4 in each district and the results for each district are not nationally representative.

Conclusion

The study aimed to explore and describe the experiences of LO teachers at selected secondary schools in Vhembe and Mopani Municipalities. Data analysis revealed three (3) themes: participant experiences of sexuality education and communication concerns and challenges experienced by LO teacher in classroom. The study findings revealed that teacher understand their expected role as stipulated by department of education regarding teaching sexual reproductive health. Cultural barrier and lack of training cited as the most significant barrier of teacher-learner communication. Teacher also experiences challenges in classroom as the one in control in delivering sexuality education. The results of this study exposed the need to train and supporting teacher with human and material resources. Results of this study indicated the need liaise with stake holders in the community including learner to promote good rapport amongst all stakeholders.

Recommendations

This study revealed all LO teachers acknowledge what sexuality education meant and what is being expected from them however most of the teachers shows unpreparedness to outlined objectives on sexuality education sexuality. This means that there is a need for training the teachers to acquire knowledge and skills relevant to teaching sexuality. The government must fund the training of teacher so that teachers would be able to transmit information comprehensively. Cultural sensitisation through workshops, seminars, imbizo and other means of communication. Inclusion of culturally sensitive sexuality education in school curricula. Use of less conventional teaching strategy. Involving other stakeholders in the community to support teachers providing reproductive health issues

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Contribution of the Authors

MHS, LRT and RD conceptualized and designed the study. MHS and ML drafted the manuscript with input from all authors. MHS collected and analysed the data and was supervised by ML and RD. All authors reviewed the manuscript and edited it by ML. MHS, ML, LRT and DUR approved the final manuscript for publication.

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Conflict of interest

The authors declare that they do not have a conflict of interest.

REFERENCES

1. Jimmyns, C.A. and Meyer-Weitz, A., 2020. Factors That Have an Impact on Educator Pedagogues in Teaching Sexuality Education to Secondary School Learners in KwaZulu-Natal, South Africa. *Sexuality Research and Social Policy*, *17*(3), pp.364-377.
2. Jessica R. Botfield, Christy E. Newman & Anthony B. Zwi (2017) Drawing them in: professional perspectives on the complexities of engaging 'culturally diverse' young people with sexual and reproductive health promotion and care in Sydney, Australia, Culture, Health & Sexuality, 19:4, 438-452, DOI: 10.1080/13691058.2016.1233354
3. Ham, Miriam; Dekkers, John (2019): What role do teachers' beliefs play in the implementation of educational reform?: Nepali teachers' voice. CQUniversity. Journal contribution. https://hdl.handle.net/10018/1324094
4. Weed, S.E. and Ericksen, I.H., 2019. Re-Examining the Evidence for Comprehensive Sex Education in Schools: A Global Research Review
5. Vanwesenbeeck, I., Westeneng, J., De Boer, T., Reinders, J. and Van Zorge, R., 2016. Lessons learned from a decade implementing Comprehensive Sexuality Education in resource poor settings: The World Starts With Me. Sex education, 16(5), pp.471-486.
6. Kah, F., 2021. Parental Perceptions, Experiences, and Expectations on the Teaching of Sexuality Education in and Out of Gambian Schools
7. Magaya, S. and Maphalala, M.C., 2020. The Quality of Primary School Teacher Training in HIV/AIDS Pedagogy in Manicaland Province, Zimbabwe. International Journal of Educational Development, 5(1).

8. De Haas, B. and Hutter, I., 2019. Teachers' conflicting cultural schemas of teaching comprehensive school-based sexuality education in Kampala, Uganda. *Culture, health & sexuality*, *21*(2), pp.233-247.
9. Keogh, S.C., Leong, E., Motta, A., Sidze, E., Monzón, A.S. and Amo-Adjei, J., 2021. Classroom implementation of national sexuality education curricula in four low-and middle-income countries. Sex Education, 21(4), pp.432-449.
10. Ogolla, M.A. and Ondia, M., 2019. Assessment of the implementation of comprehensive sexuality education in Kenya. African Journal of Reproductive Health, 23(2), pp.110-120.
11. Zulu JM, Blystad A, Haaland ME, Michelo C, Haukanes H, Moland KM. Why teach sexuality education in school? Teacher discretion in implementing comprehensive sexuality education in rural Zambia. International journal for equity in health. 2019 Dec;18(1):1-0.
12. Jimmyns, C.A. and Meyer-Weitz, A., 2020. Factors That Have an Impact on Educator Pedagogues in Teaching Sexuality Education to Secondary School Learners in KwaZulu-Natal, South Africa. *Sexuality Research and Social Policy*, *17*(3), pp.364-377.
13. Jessica R. Botfield, Christy E. Newman & Anthony B. Zwi (2017) Drawing them in: professional Likupe, G., Chintsanya, J., Magadi, M., Munthali, A. and Makwemba, M., 2021. Barriers to sexual and reproductive education among in-school adolescents in Zomba and Mangochi districts, Malawi. *Sex Education*, *21*(4), pp.450-462.
14. Msutwana, N.V., 2021. Meaningful teaching of sexuality education framed by culture: Xhosa secondary school teachers' views. Perspectives in Education, 39(2), pp.339-355.
15. Joint United Nations Programme on HIV/AIDS, 2018. International technical guidance on sexuality education: an evidence-informed approach. *International technical guidance on sexuality education: an evidence-informed approach.*
16. Brink H, Vander Walt C and van Ransburg G. Fundmentals of Research Methodology for Health Care Professionals. Juta. Cape Town, 2012.
17. De Vos AS, Strydom H, Fouche CB and Delport CSL. (4th ed.) Research at Grassroots: For social Sciences and Human Services Profession. Pretoria: Van Schaik, 2014.
18. Gray JR, Grove SK and Sutherland S, Burns and Grove's the practice of nursing research: (8th ed.). Appraisal, synthesis, and generation of evidence St. Louis, MO: Elsevier 2017.
19. Polit DF and Beck CT. Nursing Research: (10th ed). Generating, assessing and evidence for nursing practice, Wolters Kluwer/Lippincott, Williams & Wilkins, 2017.

20. Alomair, N., Alageel, S., Davies, N. and Bailey, J.V., 2022. Sexual and reproductive health knowledge, perceptions and experiences of women in Saudi Arabia: a qualitative study. *Ethnicity & Health*, *27*(6), pp.1310-1328.
21. Mayeza, E. and Vincent, L., 2019. Learners' perspectives on Life Orientation sexuality education in South Africa. *Sex Education*, *19*(4), pp.472-485.
22. Li, C., Cheng, Z., Wu, T., Liang, X., Gaoshan, J., Li, L., Hong, P. and Tang, K., 2017. The relationships of school-based sexuality education, sexual knowledge and sexual behaviors—a study of 18,000 Chinese college students. Reproductive health, 14(1), pp.1-9.
23. Ketting, E., Brockschmidt, L., Renner, I., Luyckfasseel, L. and Ivanova, O., 2018. Sexuality education in Europe and Central Asia: Recent developments and current status. *Sex education*, pp.75-120.
24. Robinson, K.H., Smith, E. and Davies, C., 2017. Responsibilities, tensions and ways forward: Parents' perspectives on children's sexuality education. Sex Education, 17(3), pp.333-347.
25. Arynov, Z., 2018. Changing perceptions of the European Union in central Asia. L'Europe en Formation, (1), pp.61-73.
26. Sidze, E.M., Stillman, M., Keogh, S., Mulupi, S., Egesa, C.P., Leong, E., Mutua, M., Muga, W., Bankole, A. and Izugbara, C., 2017. From paper to practice: sexuality education policies and their implementation in Kenya

CONCEPTUAL FRAMEWORK FOR PROMOTING SEXUALITY EDUCATION FOR CARE GIVERS OF PRIMARY SCHOOL LEARNERS IN LIMPOPO PROVINCE.

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See **Annexure k** for Author Guidelines

Abstract

Background: The need to promote sexuality education for primary school caregivers is a topic that has received little attention globally, particularly in low and middle income countries. Caregivers, including parents and teachers, are the primary source of information on sexuality education, which can help reduce sexual health problems. However, there is currently a lack of sexuality education in Sub-Saharan Africa, including South Africa's Vhembe and Mopani districts. Thus, the aim of this study was to create a conceptual framework for promoting sexuality education among caregivers of primary school learners in Limpopo Province, South Africa.

Method: A qualitative, explorative, descriptive and contextual design was employed. Care-givers and grade 8 learners ere Purposive sampled. Focus group discussions conducted with grade 8 learners and parents. While face to face interview was conducted to obtained data from the teachers. Interviews were audio record, Fields note taken used to recorded and transcribed verbatim coded and analysed thematically. Three phases were followed: an empirical phase, a classification of concepts and a development phase. There was therefore a need to develop a conceptual framework of promoting sexuality education for caregivers.

Results: conceptual framework of promoting sexuality education for caregivers of primary school learners was developed; consists of six components, namely agents, recipients, context, procedures, dynamics, and terminus.

Conclusion: The framework acts as a reference for future research that aim to build support programs and models for caregivers, as well as a roadmap for how caregivers might be effectively supported in mental healthcare institutions.

Keywords: Conceptual framework; Promote; Sexuality; caregiver; Learners.

1. Background

A conceptual framework is a tool used to visually or in writing explain the main concepts, variables, and relationships to be studied [1]. This framework serves as a guide to help researchers achieve their study objectives and represents their synthesis of the literature related to a phenomenon [1].

Sexuality education is considered a protective factor, but communication about sexuality between parents/caregivers and children is often difficult due to discomfort with the subject [2]. This study aimed to explore how caregivers in Vhembe and Mopani districts promote sexuality education, specifically examining primary discourses in caregiver narratives and their role as conversation partners for adolescents [3]. However, barriers such as embarrassment, inaccurate knowledge, low self-efficacy, religious and cultural beliefs, and parental underestimation of their child's sexual behavior can impede comprehensive sexuality education [4].

Caregivers play a crucial role in providing information and influencing decision-making that is responsive to the needs of learners [2,5]. It is widely recommended that sexuality education (SE) should be implemented in classrooms as it has been shown to effectively reduce sexual health risks among teenagers [3]. The objectives of promoting SE go beyond prevention and also include promoting the well-being of learners and facilitating good decision-making [6]. Caregivers are key players in shaping the sexual practices of adolescents as they serve as a primary source of values, morality, and standards that significantly impact the sexual socialization and decision-making of learners [7].

According to research, caregivers are the most important source of information for promoting sexuality education and influencing decision-making that is responsive to learners' needs [2,4]. It is widely recommended that promoting sexuality education in classrooms is effective in reducing sexual health risks for teenagers. The goals of promoting sexuality education for caregivers of school learners include not only preventing sexual health risks, but also promoting learners' well-being and good decision-making [6]. Caregivers play a crucial role in shaping adolescents' sexual practices as they are the primary source of values, morality, and standards that greatly influence learners' sexual socialization and decision-making [7]. Furthermore, promoting sexuality education for caregivers has been linked to delaying the onset of sexual activity, increased use of contraception, and decreased sexual risk behaviors.

Sociocultural and religious challenges have been identified as obstacles to discussing sexuality matters, as they are often considered taboo or culturally unacceptable, as indicated by several studies [8]. In addition, a lack of information and communication skills among caregivers of school-going learners in Limpopo Province, particularly in Vhembe and Mopani, has been noted through a literature review [9]. These issues are further compounded by high rates of teenage pregnancy and sexually transmitted infections, indicating that current sexuality education and intervention efforts are inadequate [10].

While the primary goal of promoting sexuality education for caregivers of primary school learners is to equip them with knowledge and skills, promoting SE for caregivers can also improve communication between parents, teachers, and learners and address sociocultural and religious communication barriers [11].

Promoting sexuality education for caregivers is important to safeguard learners' rights and equip them with the necessary knowledge, attitudes, skills, and values to make informed decisions about their sexual and reproductive health and maintain healthy relationships [12,13]. To ensure that caregivers can continue providing support, they need access to various forms of support that help them build resilience. However, there is a disconnect between the available support and what caregivers need. Thus, it is important to better understand their expectations and find ways to nurture their resilience [14]. Some factors that hinder caregivers from providing adequate support include low parental self-efficacy, as well as cultural and religious norms that create a discomforting environment. As a result, peers, media, teachers, and siblings become significant sources of sexual health information [14].

2. Method

Table 1: summary of research design

Method	Phase of empirical study
	Qualitative multistage Explorative, Descriptive and Contextual design
Objectives	**Phase1a**:Explore and describe views of parents regarding promotion of sexuality education **Phase 1b**:Explore Life orientation (LO) teachers teaching sexuality education in secondary school Vhembe and Mopani district Limpopo province South Africa
Setting	Mopani and Vhembe districts
Population	Phase 1a: Parents Phase 1b: LO teachers
	Non- probability purposive sampling
Data collection	Face-to face interviews for Lo teachers & using unstructured interview

	Focus group discussion for learners using semi structured interviews
Data analysis	Thematic analysis-(qualitative)
Conceptualization of findings into a conceptual framework to guide the development of strategies.	

2.1 Research design

A qualitative, explorative descriptive and contextual research design was employed. The designs were chosen to allow the researcher to explore the topic and allowed the participants of the study to the development of new knowledge [13]. The researcher attested that qualitative, explorative, descriptive, design assist the researcher to understand the experiences of the participants as lived in real life [13]. This study was conducted at Limpopo Province particularly in Mopani and Vhembe districts. Study population comprises of LO teachers and parents. A purposive, nonprobability sample conducted to select teachers and parents using convenience sampling. Purposeful sampling entails the deliberate selection of participants based on examples from which one can learn a great deal about the study's principal topic or purpose. It is the most effective way for gaining insight into a new field of study or gaining a thorough knowledge of a complex experience or incident [14]. Face to face interviews conducted with LO teachers and focus group discussion was conducted with parents. All interviews were recorded and transcribed verbatim, fields' notes taken. Data was analysed thematically. Data were condensed and organized into themes and sub-themes to make sense of the collected data. The researcher approached an experienced qualitative data coder to analyse the data again, and then an agreement was achieved. A literature control was presented after data were analysed to compare the findings of this study[14].

2.2 Ethical considerations

Ethical clearance was granted by the University of Venda Ethics committee project code (SHS/19/PDC/37/2410District managers and principals granted permission. It was decided that the researcher wouldn't visit schools when students were taking exams and wouldn't interfere with lessons. Each participant signed a written consent form after being fully informed. Because the permission procedure protects and promotes study participants' autonomy, consent is morally mainly justified in terms of autonomy. a succinct explanation of the study's goals and that participation is voluntary. Based on what they have been informed, they make a free choice. Once the researcher has information, confidentiality pertains to what the researcher does with it, specifically how much they disclose to others. Data will be reported anonymously, the researcher promised; nonetheless, anonymity is concerned with the attribution of information. SE is a sensitive topic that may violate the internal confidentially of the participants, but the researcher depends on adherence to ground rules and consent

procedures. The researchers also mention that no material should be revealed outside of the interview room (office) as they describe the study's goal findings.

2.3 Trustworthiness

The data's authenticity was supported by participants' extended participation in focus group discussions. The researcher guaranteed member checking by providing transcripts of the interviews and codes to a subset of participants, as well as evaluating the extent to which their opinions aligned with those of the researcher. By submitting transcripts, codes, themes, and subthemes to supervisors and an independent coder, peer review was ensured. Transferability was achieved through the use of targeted sampling, contextualization, and a detailed description. A detailed explanation of data collection, processing, and interpretation ensured dependability. Authenticity was attained by auditing the entire study procedure. Trustworthiness ensured. [13;14].

2.4 Discussion of the results

The findings from the interviews can be summarized as follows: The outcomes of learners and their carers (i.e., instructors and parents) these findings are broken down as follows:

Table 2: Results from learners

Themes	Sub-themes
Participant experiences of sexuality education.	Confusion regarding physiological body changes. Inadequate knowledge about menstruation and how to manage menstrual periods Inadequate knowledge about pregnancy. Inadequate knowledge about contraception.
Communication concerns	Cultural barriers. Fear of embarrassment. Reactive sharing of information instead of being proactive. Use of media as a source of Information. Gender stereotype.

The parent also raised communication barriers that predispose them not to communicate or discuss sexual health information with their children as being influenced by culture, fear of embarrassment and thinking that their children are not ready yet. Learners have confidence and trust in their parents unlike strangers outside the home environment. Parents are early role models in the child's life, learners look

up to their parents and as role models they should be upfront with communication, but due to customs, values and norms within communities they hamper appropriate sexual health behaviours and lifestyles.

Table 3: Findings from parents

THEMES	SUB-THEMES
Communication concerns	• Cultural barriers • Fear of embarrassment • Reactive sharing of information instead of being proactive. • Use of media as a source of information • Gender stereotype
Role shifting in imparting sexuality education	• Parents shifting responsibility to schools. • Involvement of religious institutions • Poor parent-child relationship • Parents lack confidence on the subject. • Reluctant and avoidance techniques

Learner children have confidence and trust in their parents unlike strangers outside the home environment. However, parents do not want to take responsibility, they shift the tasks to other institutions, and lack of knowledge was one aspect identified which contributed to reluctance and avoidance techniques. Parents are early role models in the child's life, learners look up to their parents and as role models they should be upfront with communication, but due to customs, values and norms within communities they hamper appropriate sexual health behaviours and lifestyles.

Table 4: Findings from teachers

THEMES	SUB-THEME
Sexuality education communication concerns	• Brining awareness about physiological changes
Role shifting in imparting communication concerns	• Teachers lacking knowledge and skill in tackling sexuality issues. • Cultural barriers
Challenges expressed by teachers in the classroom	• Lack of support by colleagues • Lack of support by government • Lack of trained teachers • Lack of motivation

The teachers also shared their experiences concerning communicating physiological body changes, that they only present what is visible, the other underlying issues they do not browse. Culturally talking about sexual health is a taboo, and when one is vocal about it, you are labelled as an outcast. Lack of information and cultural barriers are predisposing factors that makes learners to be ill-equipped with the right and comprehensive sexual health information.

2.5 Classification of concepts

The aim of the study was to develop a conceptual framework of caregivers to promote sexuality education, guided by results of the empirical phase. Manuscripts from empirical results were three two published and one under review. Munyai [11] results from the learner revealed two themes, participants' experiences of sexuality education and communication concerns. Results from the parents revealed three themes namely, revealed three Communication concerns, Role shifting in imparting sexuality education and Poor patient-child relationship. Results from the LO Teachers revealed four themes. Participants' experiences of sexuality education, Communication concerns, Role shifting in imparting sexuality education, Challenges experienced by LO teachers in the classroom.

Classification of concept was employed based on [15].

Table 5: steps of conceptual framework development

Steps	Explanation of steps	Who or what are those?
Step 1 Recipient	Who or what performs the activity	People who will implement the framework
Step2 Content	Who or what receives the activity	People who will receive the framework
Step3 Procedure	In what context the activity performed	This is the place where the framework will be implemented
Step 4 Dynamics	The guiding procedure, technique, or protocol of the activity	This involves the path or the steps to be taken when implementing the framework
Step 5 Dynamics	Power sources such as agents, recipients and context to ensure success of a framework	It includes the activities to be performed to ensure the success of the framework
Step 6 Terminus	The end point or accomplishment of activity	This is the end product or outcome of the framework

Source: Dickoff,J.,James, P & Wiedenbach, E., 1968, Theory in practice discipline: practice oriented theory', Nursing research 17(5), 415-434.https://doi.org/10.1097/00006199- 196809000-00006

2.5.1 Concept classification, utilising steps of Dickoff et al. (1968:422).

To create a framework, Meyer and Schotter [15] suggest using a variety of sources such as books, articles, newspapers, essays, interviews, and practices, which should accurately reflect the relevant social, cultural, political, and environmental phenomena or social behaviors. In this study, the researcher utilized ideas obtained from the results of the empirical phase to create the framework.

Description of the conceptual framework

A conceptual framework was created to promote SE for caregivers of school-going learners in Limpopo Province Using the six phases outlined by Dickoff et al [15]. The blue contour in Figure 2. The agent is blue on the left, represents the framework's initial step. The next is procedure on the centre, and it serves as the terminal point. In the yellow rectangle on the upper right is the recipient. The next below yellow is the terminus and represented by the dark green rectangular form on the right at the bottom, and the framework's dynamic aspect is represented by the sky blue in the bottom left corner.

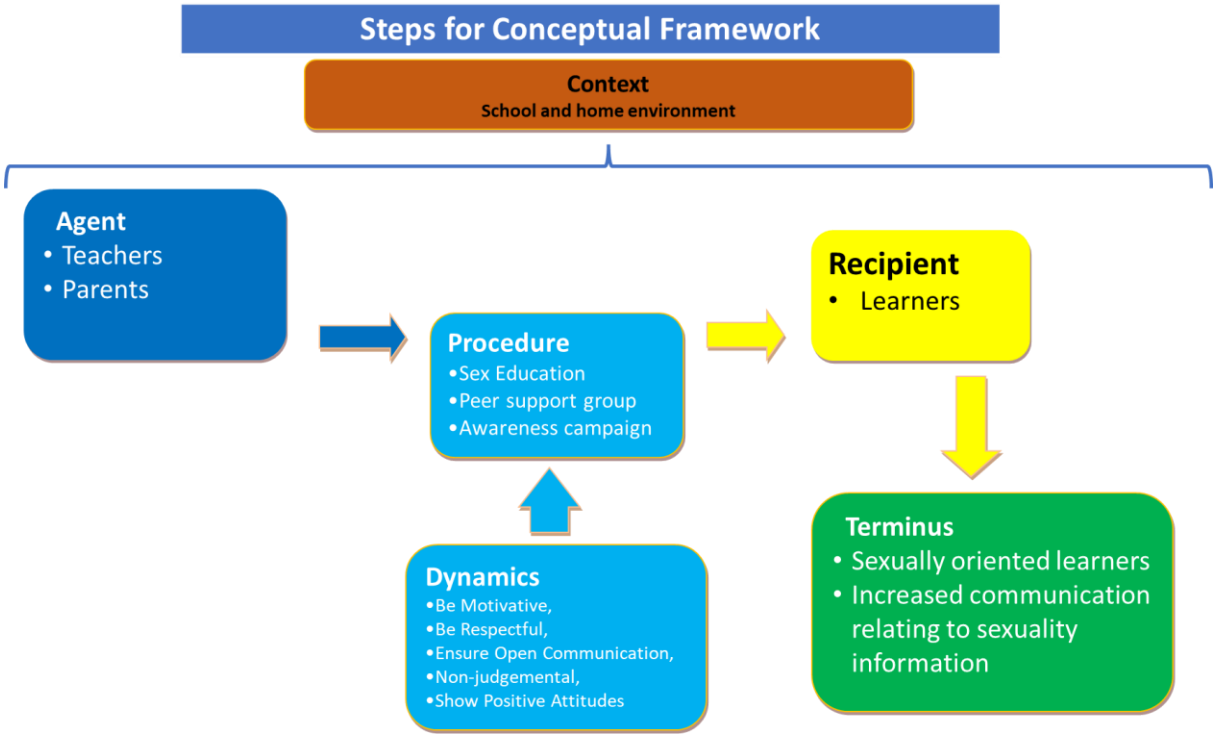

Figure 1: a conceptual framework to promote sexuality education for caregivers of children with insufficient sexuality education (Figure

Relationships between these operations are represented by arrows that connect all of the shapes.

- **Relevancy of the conceptual framework**

The conceptual framework is not merely a compilation of ideas; it is a structure in which each concept has a critical role. According to De Vos AS et al. [15], each concept has its own parts that define it, and its shape is defined by these parts. Every concept incorporates "bits" or components from other concepts, and all concepts are interrelated. Each concept is viewed as a point where its components converge, condense, or accumulate, and it must be understood in relation to its own components, other concepts, and the context in which they exist. Given this context, the fundamental premise of this conceptual framework is that each concept will contribute to achieving the desired outcome of promoting effective sexuality education for caregivers of school learners, ultimately leading to healthy sexual development among learners.

- **Assumptions of the conceptual framework**

A conceptual framework is not merely a collection of concepts but rather a construct in which each concept plays an integral role According to [15] every concept has components and is defined by them; every concept has an irregular contour defined by its components; every concept contains 'bits' or components originating from other concepts; all concepts relate back to other concepts; every concept is considered as the point of coincidence, condensation or accumulation of its own components; and every concept must be understood relative to its own components, to other concepts, to the plane on which it is defined and to the problem it is supposed to resolve. It is against this background that the assumption of this conceptual framework is that every concept of this framework will add value to the outcome intended to be reached, which is ensuring effective promotion of sexuality education for the caregivers of school going learners.

2.5.2 Components of the conceptual framework

- **Agents**

The study aimed to determine who would implement the conceptual framework, which is known as agents. According to De Vos AS et al. [15], agents are the people or things that perform the activity. The results of the research showed that the agents of this framework are teachers and parents. To ensure that caregivers' needs are met, subject advisors must enhance communication with them, making them feel comfortable enough to trust and communicate any issues affecting learners. It is crucial for subject advisors to be approachable, as teachers may be hesitant to express their work-related frustrations with them as managers, resulting in stress and overwhelm.

Recipients

The question that was asked is: who are recipients of this framework? Recipients are who or what receives the activity [15]. Recipients are learners who will receive sexuality education. From the introductory statement, promoting sexuality education is a global problem. Caregivers experience communication concerns, sociocultural and religious barriers that had a negative influence on learners sexual wellbeing [16].

- **Context**

The question that was asked is: in what context will the framework be implemented [15] The context for this framework is all public secondary school and at homes both governmental and non-governmental in Mopani and Vhembe district. Often times, parents and guardians bring learners to schools and do not even involve themselves in their academic work [17] (assisting them on school homework) on the other hand teachers are having limited time to teach LO and having other subject to teach. It is therefore not surprising that teachers become overwhelmed and stressed because of lack of support from home and school [18],

- **Procedures**

The question that was asked is: what are the guiding procedures, techniques, or protocols to implement this framework [15].

To design a framework, certain steps need to be followed, one of which is to establish policies that provide sufficient support for caregivers. Policies are a set of principles that guide actions, and they can be developed by governments or organizations. Some policies are legally binding and require compliance from individuals and institutions [17,18,19]. Guidelines must address issues such as cultural barrier, lack by department support, lack of teachers training and home taboo. There must be collaboration among all stakeholders. Collaboration between parents, teachers, department of health (DOH) and Department of education (DOE). Therefore, collaboration among stakeholders will assist to support caregivers, because where an individual institution is unable to provide services, perhaps because of budgetary constraints – for example, training of caregivers on sexual health issues such sector or service that is not financially constrained can easily come in and assist with training of caregivers. Cultural barrier, departmental deficit, lack of teacher preparation, and household taboos must be addressed in the guidelines.

Finding of the study revealed that care caregivers lack access to appropriate resources. Resources must include tangible, monetary, and intangible assets. Staffing levels must be sufficient to alleviate the instructional load. There must be relevant resources, such as instructional materials, to enhance communication. Owing to the difficulty of communication, it is essential to provide caregivers with the reading materials, posters, and contraceptives needed to conduct sexuality education. The accessibility of resources enhances communication skills. Monitoring and evaluation processes must be ongoing [21]. The outcomes can enlighten, inform, make sense of a complex contextual environment, and simplify complicated circumstances. Thus, this procedure is required to assure the success of the framework's intended purpose on communication skills.

- **Dynamics**

What are the dynamics of this framework? was the inquiry posed. Power sources for dynamics include agents, recipients, and context. The dynamics of a framework consist of tasks that must be undertaken to ensure its success [15]. This framework's dynamics include sufficient staffing competent LO teachers, enough budget, in-service trainings, effective communication, commitment and dedication from all stakeholders, and mutual respect and empathy. To provide comprehensive sexuality education (CSE), it is evident that strong communication skills, sensitization of taboos, and passion and determination must break down obstacles to communication [21].

- **Terminus**

Terminus is the framework's final product or result [15]. The objective of this framework is the effective implementation of strategies that promote sexuality education amongst caregivers of school learners in the province of Limpopo, with the support of all departments of education and health, thereby promoting comprehensive sexuality education for students.

3.0 Discussion

The lack of knowledge and communication skills as outlined by participants, are very concerning issues because they promote poor parent – child communication [23] It is therefore indicated that stakeholders within department of health and education take seriously all challenges and needs as outlined and bring changes within departments by ensuring that there is collaboration between the departments of education and health, be they financial, human or material, become available for the provision of comprehensive sexuality education. In this study six steps of Dickoff et al. (1968:422). were utilising to develop conceptual framework for care givers. The framework further guides stakeholders on how to effectively promote sexuality education for caregivers.

4.0 Declaration

4.1 Ethical approval

This research was conducted as part of a doctoral program at the University of Venda, and ethical approval was obtained from the University of Venda's Ethics Clearance Committee (Ethics Number: SSHS/19/PDC/37/2410).

4.2 Consent for publication

Not applicable

5.3 Availability of data and material

Not applicable

4.4 Competing interest

Not applicable

4.5 Funding not applicable.

Not applicable

4.6 Authors' contribution

HSM is currently pursuing their doctorate at the University of Venda's Faculty of Health Science. The author considered the protocol as a means of partially satisfying the criteria for the Doctorate that was necessary. Co-Promoters DU and RT participated to the project by assisting the PhD student in conceptualizing the study proposal, carrying out the research, and preparing the article. The Promoter

of this project is L Makhado, and the Co-Promoters are DU and RT. The final paper was read and approved by all of the authors.

4.7 Acknowledgements

All individuals who participated in this strategy Validation process

4.8 Authors' information

HSM is a PhD faculty of health science student at the University of Venda in South Africa.

4.9 List of abbreviations

LO	Life Orientation
SE	Sexuality Education
CSE	Comprehensive Sexuality Education

References

1. Ruseckaite, R., Maharaj, A.D., Krysinska, K., Dean, J. and Ahern, S., 2019. Developing a preliminary conceptual framework for guidelines on inclusion of patient reported-outcome measures (PROMs) in clinical quality registries. Patient Related Outcome Measures, pp.355-372.

2. Babayanzad Ahari, S., Behboodi Moghadam, Z., Azin, S.A. and maasoumi, R., 2020. Concerns and educational needs of Iranian parents regarding the sexual health of their male adolescents: a qualitative study. Reproductive health, 17(1), pp.1-9.

3. Ahinkorah , B.O., Hagan Jr, J.E, Seidu, A.A., E., Hormenu, T., Mintah, J.K., Sambah, F. and Schack, T., 2019. Access to adolescent pregnancy prevention and services in Ghana: a community-based case-control study. Frontiers in Public Health, 7, p.382.

4. Rashid Y, Rashid A, Warraich MA, Sabir SS, Waseem A. Case study method: A step-by-step guide for business researchers. International journal of qualitative methods. 2019 Jul 22;18:1609406919862424

5. Aventin, Á., Gough, A., McShane, T., Gillespie, K., O'Hare, L., Young, H., Lewis, R., Warren, E., Buckley, K. and Lohan, M., 2020. Engaging parents in digital sexual and reproductive health ed
6. Charles, L., Brémault-Phillips, S., Parmar, J., Johnson, M. and Sacrey, L.A., 2017. Understanding how to support family caregivers of seniors with complex needs. Canadian Geriatrics Journal, 20(2), p.75.
7. Nilsson, B., Edin, K., Kinsman, J., Kahn, K. and Norris, S.A., 2020. Obstacles to intergenerational communication in caregivers' narratives regarding young people's sexual and reproductive health and lifestyle in rural South Africa. BMC public health, 20, pp.1-11.
8. Aventin, Á., Gough, A., McShane, T., Gillespie, K., O'Hare, L., Young, H. et al., 2020, 'Engaging parents in digital sexual and reproductive health education: Evidence from the JACK trial', Reproductive Health 17(1), 1–18. https://doi.org/10.1186/ Involving care givers in developing conceptual framework ensures that tough, relevant, and acceptable s12978-020-00975-
9. Jivani, K.K. and Minaz, A., 2019. Sex health education: A cultural taboo in pakistan. i-Manager's Journal on Nursing, 9(3), p.38.
10. Venketsamy, T. and Kinear, J., 2020. Strengthening comprehensive sexuality education in the curriculum for the early grades. South African Journal of Childhood Education, 10(1), pp.1-12.
11. Garoutte, N., 2022. The Journey Towards Global Implementation of Holistic Sexuality Education: A Comparative Case Study of Sexuality Education Guidelines from UNESCO (Global), WHO (Europe), and SIECUS (USA
12. Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. International journal of environmental research and public health, 16(4), p.621
13. Wangamati, C.K., 2020. Comprehensive sexuality education in sub-Saharan Africa: adaptation and implementation challenges in universal access for children and adolescents. Sexual and Reproductive Health Matters, 28(2), p.1851346.
14. Munyai, H.S., Makhado, L., Ramathuba, D.U. & Lebese, R.T., 2022, 'Challenges on sexual health communication with secondary school learners, Limpopo province', Curationis 45(1), a2321. https://doi.org/10.4102/ curationis.v45i1.2321
15. Parmar, J., Anderson, S., Abbasi, M., Ahmadinejad, S., Brémault-Phillips, S., Chan, K., Charles, L., Dobbs, B.M., Khera, A.S., Stickney-Lee, J. and Tian, P.G.J., 2020. Support for family caregivers: A scoping review of family physician's perspectives on their role in supporting family caregivers. Health & social care in the community.
16. De Vos AS, Strydom H, Fouche CB and Delport CSL. (4th ed.) Research at Grassroots: For social Sciences and Human Services Profession. Pretoria: Van Schaik, 2014.
17. Polit DF and Beck CT. Nursing Research: (10th ed). Generating, assessing and evidence for nursing practice, Wolters Kluwer/Lippincott, Williams & Wilkins, 2017.

18. Dickoff, J., James, P. & Wiedenbach, E., 1968, 'Theory in a practice discipline: Practice oriented theory', Nursing Research 17(5), 415–434. https://doi.org/10.1097/ 00006199-196809000-00006.

19. Meyer, K.E., Li, C. and Schotter, A.P., 2020. Managing the MNE subsidiary: Advancing a multi-level and dynamic research agenda. Journal of International Business Studies, 51, pp.538-576.

20. . Uhlenbrook, S., Roser, S. and Tilch, N., 2004. Hydrological process representation at the meso-scale: the potential of a distributed, conceptual catchment model. *Journal of Hydrology*, *291*(3-4), pp.278-296.

21. Dunn, B., Constable, S., Martins, T. and Cammuso, K., 2016. Educating children with autism: Collaboration between parents, teachers, and medical specialists. The Brown University child and adolescent behavior letter, 32(7), pp.1-6. 21\

22. Kalid, N., Zaidan, A.A., Zaidan, B.B., Salman, O.H., Hashim, M. and Muzammil, H.J.J.O.M.S., 2018. Based real time remote health monitoring systems: A review on patients prioritization and related" big data" using body sensors information and communication technology. Journal of medical systems, 42, pp.1-30.

23. Tavrow, P., Schenker, L. and Johnson, M.R., 2023. A Student-Centered Approach for Assessing Sexuality Education in the Classroom. American Journal of Sexuality Education, 18(1), pp.1-23.

STRATEGY TO PROMOTE SEXUALITY EDUCATION FOR CARE GIVERS OF SECONDARY SCHOOL GOING LEARNERS' LEANERS IN MOPANI AND VHEMBE DISTRICT, SOUTH AFRICA

Submitted to Journal as:

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See **Annexure G** for Author Guidelines

Abstract

Background: Sexuality education for caregivers of primary school learners is a pressing issue worldwide, including in African countries like South Africa, where research on prevention and other sexual health matters is lacking. In the districts of Vhembe and Mopani, the aim of this study was to create a strategy to encourage sexuality education among caregivers, given the concerning sexual trends observed.

Method: The research consisted of two phases. The first phase involved a preliminary assessment that combined findings from three papers. The SWOT analysis was used to identify strengths, weaknesses, opportunities, and threats, followed by the Basic Logic Model to determine critical aspects that need to be considered when building strategies. In the second phase, the BOEM model was used to develop strategies based on the SWOT findings. The developed strategies would be validated through the application of the Delphi technique and the administration of a checklist to selected key stakeholders through organized parent meetings and workshops.

RESULTS: Five strategies were proposed to facilitate promoting sexuality education these included Care givers' awareness about Sexual Health and Wellness, Establishment of school health committee with all stake holder to facilitating access to sexual health information, Rebuilding of traditional initiation schools. Involving religious and social leader, involving religious and social leader, and Ensuring provision of sufficient information on sexuality education

Conclusions: Implementing these intervention strategies could enhance promotion of sexuality education by caregivers.

Key: Caregiver, promote, sexuality education. Strategy, SWOT, BOEM, Delphi technique

1. Background

This is in response to the realization that this type of conversation is crucial to the success of sex and relationship education, as well as the enhancement of sexual health outcomes for care givers and learners [1]. In order to improve sexual health outcomes for care givers and learners, it is argued that honest communication plays a critical role in promoting sexuality education, raising awareness and enhancing resources for better sexual health among learners [1,2]. Family life relies heavily on conversation as a means of communication. Certain conversational patterns between caregivers and children have been connected to children's socio-cognitive growth and the quality of their relationships with others outside the home [3]. In Vhembe and Mopani setting, both caregivers and learners encountered personal obstacles, such as shame, discomfort, and fear; communal obstacles, such as outside sources and a shift in responsibility; and institutional obstacles, such as language limitations [4]. As well as barriers imposed by culture, such as the prohibition of sexual activity [5]. Understanding Sub-Saharan Africa's forbidden sexuality and its cultural context is crucial [6]. Limited research has been conducted on the promotion of sexuality education. sexuality education for care givers in Sub-Saharan Africa. Furthermore, evaluations of sexuality education programs often report outcomes of risky sexual practices, yet positive aspects of sexuality are hardly studied and rarely reported [7]. Findings from studies conducted in developing countries suggest that sexuality education has the potential to positively impact knowledge, attitudes, norms, and intentions, although sexual behaviour change has been more limited [8]. How and what caregivers communicate with their adolescent depends on their knowledge, comfort level, and attitudes around sexuality [9].

Most obstacles stemmed from caregivers lack of self-efficacy. For instance, caregivers were unable to find the proper words in their native language to depict anatomy or directly discuss sexual concerns. Some rural caregivers particularly in Vhembe and Mopani districts did not know how to approach sexual health conversations with their children [10] The belief that their children were more educated and had more experience with sexual health concerns contributed to parental lack of confidence. However, poor conversation on topics related to sexual reproductive matters has been associated with lack of knowledge, interpersonal skills, sexual negotiation skills including language to address the sensitive topic about sexual reproductive issues [2]. These unsettling patterns imply that current interventions and programs for sexuality education may be insufficient and/or ineffective.

Since well before the 1994 International Conference on Population and Development (ICPD) in Cairo, the feminist literature on gender and development has emphasized the importance of addressing gender equality as part of a human rights-based approach to improving health, including sexual and reproductive health [11] . On the other hand, learning about sexuality and shaping one's own perspectives is an ongoing endeavour. It hopes to aid in the reduction of sexually hazardous behavior, including sexual assault and abuse, as well as unwanted and unprotected sexual encounters. that

information should be based on curricula and that SE is rights-based, culturally influenced, age-appropriate, and scientific [12].

The Programme of Action of the International Conference on Population and Development (ICPD), commonly known as the Cairo Family communication, especially parent-child communication, is a potentially effective form of sexuality education.[13] Conference on Population and Development's (ICPD) Programme of Action highlighted the roles of Governments to offer sex education to young people to promote teenage reproductive health, yet inconsistency exists in the related initiatives in the global context [14]. However, educating learners about sexual health issues is often difficult for care givers with teenager aged 13 to 15 disproportionately affected by increases in sexual health risks worldwide [4]. Previous research on sex education in Indonesia revealed that widespread conservatism stifled discussions about SRH and contributed to the widespread belief that adolescents did not require education on the topic until they were engaged or married. In addition, most nations have SE-supporting strategies, few have successfully implemented and maintained extensive SE programs [14]A potentially successful method of sexual education is family communication, particularly parent-child dialogue. However, educating a child about sexual health is often difficult for parents [13] However Caregivers are shifting the narrative about sex to engage in conversations with adolescents. Developing intervention strategies to promote adolescent-caregiver sexual health conversations may improve adolescents' sexual health knowledge in order to make informed decisions.

2.0 Methods

There would be two main stages to developing a strategy, with the first one being the analysis of the results from three different papers. The preliminary evaluation would combine findings from the three studies to provide a baseline for the next stage. In phase was build upon the first phase's interpretation of the combined facts by formulating actionable goals (though done in stages). Experts in sexuality education, adolescent sexual health, culture, and policies controlling sexual health and human rights would collaborate with other key stakeholders to establish this plan. So, the strategies would be developed via the following steps:

2.1 Preliminary assessment

2.1.1 Incorporating information from three separate studies.

This stage involved a side-by-side comparison of the results from these three publications in order to get a full picture of the current status of the issue regarding sexuality education. This allowed for a combined output to be developed, providing an overarching perspective of essential aspects that needed to be considered and handled in the triangulated creation of the strategies.

The first paper titled "Challenges on sexual health communication with secondary school learners, Limpopo province" Curations 45(1),a2321 journal open access accepted 27 September 2022) paper explore the parents' views regarding challenges of sexual health communication among secondary school learners in the Limpopo Province. The participants were further probed to on the challenges that were likely to be experienced in discussing sexual health issues among learners and how best these could be overcome to maximize communication skills. The second paper titled "Experiences of grade 8 learners on sexuality education from home and school at Mopani and Vhembe districts" published by African Journal of Reproductive Health august 2022; 26[8: 41-52]) the paper examined the experiences of Grade 8 learners) the study aimed to assess the level of knowledge acquired from home and school regarding sexual reproductive issues. The participants were further probed to explore the extent at which learners access sexual reproductive health information to scale up the provision for sexual health information. Third paper titled "Experiences of LO Teachers Teaching Sexuality Education in Secondary Schools Vhembe and Mopani Districts Limpopo Province South Africa" submitted to African Journal of Reproductive Health) the paper aimed to explore the experience of teachers teaching life orientation as a subject in grade 8.

2.1.2 The Strengths, Weaknesses, Opportunities, And Threats (SWOT) analysis.

SWOT analysis was employed to the merged findings of all three papers. Employing SWOT analysis framework will assist determine the strength, weaknesses that could influence sexuality education. The framework further identifies the possible threats that could hinder communication about sexuality.

2.2 Strategy Development

2.2.1 Application of the BOEM model.

This model constructs strategies with the intention of assisting in goal attainment and impact realization by conquering, eliminating, or reducing potential obstacles that could undermine the impact of developed methods [17,]. The model is novel and has not been widely applied, but it allows for a thorough evaluation of the current state of affairs and seeks to enhance the application of strategies by taking into account a variety of contextual elements. Preliminary assessment of findings will be used to inform the development of strategies for dealing with or mitigating the identified threats [9].

2.2.2 Proposed strategies.

These procedures are described in this work as potential preliminary tactics that might be further examined through an independent validation procedure to verify their acceptability, applicability, relevance comprehensiveness and flexibility. As stated in the introduction, the purpose of this research

is to propose measures that would help in promoting sexuality education. The process of validation would then be based on this desired outcome.

3.0 Results

3.1 Merged Results

The findings of this study point out that it is difficult for care givers to deal with delicate cultural issues when teaching and learning about sexual health issues. Care giver perceived that what was taught, and local cultural values clashed. As a result, it was challenging for the care givers to use the proper vocabulary to deliver the intended message [19]. The findings further point learners who are able to communicate with their parents easily are more likely to engage their parents in sexual conversation than adolescents who have trouble talking to them [10] Parents struggle with their own lack of sexual knowledge and are frequently too embarrassed to discuss sexuality with their children because it is culturally inappropriate, as children are usually sent to the aunt or elder member in the family to talk to the learner child [20]. Maintaining a good parent–child relationship forms a strong foundation of communication skills. This implies that self-confidence builds an individual's self-esteem. Hence, one could be able to share information [18]. These findings are presented in **Table 1.**

3.2 The SWOT Analysis Outcome

Basing on the merged findings of the outcome of this research, Strengths, Weaknesses, Opportunities, and Threats were identified to evaluate what is obtaining in as far as Health Services are concerned in Mopani and Vhembe Districts. These findings are presented in **Table 2.**

Table1: Merging of findings from three papers

Experiences of grade 8 learners about promoting sexuality education from home and at school	**Challenges regarding sexual health communication with secondary school learners in Limpopo province: parents views**	**Challenges regarding sexual health communication with secondary school learners in Limpopo province: parents views**	**Findings of the merged analysis**
Lack of knowledge regarding: ✓ menstruation and how to manage menstrual periods. ✓ Inadequate knowledge about pregnancy. ✓ Inadequate knowledge about contraception Poor dissemination of information ✓ Cultural taboo ✓ Fear of embarrassment. ✓ Reactive sharing of information instead of being proactive. ✓ Use of media as a source of Information. ✓ Gender stereotype.	Poor dissemination of information ✓ Shifting of responsibility ✓ Cultural barrier. ✓ Uncertainty of time and age to impart sexuality education. ✓ Reactive sharing of information instead of being proactive. ✓ Use of media as a source of Information. ✓ Gender stereotype. Role shifting in imparting sexuality education. ✓ Parent Shifting responsibilities to school. ✓ Involvement of religious institutions Poor relationships ✓ Parents lack confidence in the subject. ✓ Reluctant and avoidance techniques of subject ✓ Poor parent-child relationships ✓ Parents lack confidence in the subject. ✓ Reluctant and avoidance techniques of subject	Participants' experiences of sexuality education ✓ Lack of knowledge and skills communication concerns ✓ Cultural barriers Role shifting in imparting sexuality education. ✓ shifting responsibility to nurses Challenges experienced by LO teachers in the classroom. ✓ lack of support / motivation of teachers ✓ lack of training	Poor sexuality education: Participant experiences of sexuality education, Inadequate knowledge about physiological body changes, menstruation, contraception, and pregnancy, Challenges relating to sexuality education: Cultural barriers, Poor parent-child relationships, Fear of embarrassment, Reactive sharing of information instead of being proactive, information obtained from unreliable sources and role shifting among stakeholders, challenges experienced by LO teachers in the classroom lack of collaboration between Department of health and Department of education in implementing policy on condom distribution in schools. Strategies to overcome the challenges: Empowering parents with knowledge and skills regarding sexuality education Training of Life orientation teachers on sexual health issues Foster good parent-child relationships, Involvement of religious institutions Collaboration between Department of health and Department of education Rebuilding of traditional structures where young people were taught about sexuality

Table 2: SWOT analysis outcome

Strength	**Weaknesses**
• Availability of School Health Policy which have aspects of sexuality education to promote a healthy sexual behaviour among adolescents. • Availability of reproductive health services to provide information on reproductive health issues such as prevention of pregnancy, STIs, • Availability of School health nurses who give support and can give sexuality education • Availability of Life orientation teachers who have methodology • Involvement of school (Availability of Life orientation teachers) • Curriculum –syllabus • Some parents have knowledge • Dept. of education & dept. of health policies	• lack of collaboration between Department of health and Department of education in implementing policy on condom distribution in schools • lack of commitment and imparting information about the available program by parents and teachers. • Lack of human resource support by the government to hire sufficient nurses. who can visit schools at least quarterly • Communication concerns • Role shifting • Cultural barriers • Parents feeling of embarrassment and shame
Opportunities	**Threats**
• Curriculum design: LO • Use of social-media: face-book, WhatsApp, Television, magazine • Educational policy (ISHP) •	• Increased exposure to sexuality in social media which is not guided may increase risks of sexual behaviour. • poor sustainability in the provision of sexuality education due to religious believe that sex before marriage is a sin • Peer group influence. • Cultural barriers. • Gender stereotype. • Uncontrolled social media

3.3 The BLM outcome

The BLM applied to the SWOT analysis findings presents key aspects that are needed under the 5 key areas. There is a need for funding and investments in human and material resources to enhance promotion of sexuality educations.

Furthermore, there is a need to training teachers and parents including stakeholders by conducting seminars, workshops and campaign to empower them with knowledge and skills. Furthermore, there is need for engaging the stake holders in community to fasten the roll out sexual reproductive health programs.

3.4 Build the strategies.

The BOEM outcome**.** The outcome of the BOEM framework revealed that there is a need to develop strategies that overcome insufficient information about sexual reproductive health, communication barriers and eliminating lack of training, ignorance and unclear platform for collaboration. Minimise Dissemination of wrong information about sexuality and Communication barriers.

Table 3 : Outcome of the BOEM analysis

BUILD	OVERCOME	ELIMINATE	MINIMISE
Strategy to overcome communication anxieties	Insufficient information	Lack of training	Dissemination of wrong information about sexuality
Strategy that facilitates multidisciplinary teamwork in promoting quality healthy life of the leaners	Role-shifting	Inadequate information, Unclear platform for collaboration	Communication barriers Conflict
Strategy that facilitates community involvement	Financial constrain	Dependence to the government	Misuse of available resources
Strategy that values cultural norms and behaviour	Insufficient information	Cultural barriers	Misinformation
Strategy to facilitate promotion of accurate information	Lack of training	Ignorance	Sharing of incorrect information

3.5 Proposed strategies.

Five strategies are proposed to enhance sexuality education for care givers of primary school going children. These are the pillar to facilitate communication and minimise sharing of misinformation and build confidence. Strategies so lay a foundation for developing a clear terms of reference procedures to ensure that community stakeholders, teachers, traditional leader, and parent they work as a team. These were represented in **Table 4**.

Table 4: Proposed strategies.

Proposed strategy	Goal/target	indicator	Responsible stakeholders
Raise awareness About Sexual Health and Wellness	Reduce communication barriers, make it easier for both parents and teachers to providing sexuality education utilizing channels like social media	Adolescents' rate of internet usage, followers on that page	Health care practitioners, parent/teachers with different stakeholders
Establishment of school health committee with all stake holder to facilitating access to sexual health information	At least four committee meetings per year The proportion of Stakeholders knowledgeable and involved in the integrated programs. Available resources to fund the ASH activities and services	Minimum of four meetings per year for each committee; Percentage of Stakeholders who understand and participate in integrated program. Funding opportunities for sexuality programs and services	Involved Parties: Researchers; Police; Traditional Leaders; Non-Governmental Organizations (NGOs); teachers, Parents/Guardians; and Health Care Workers
Rebuilding of traditional initiation schools	Continuous teaching sexual reproductive issues like managing menstruations impotence of remaining virgin until marriage. Respect, sensitizing cultural taboos	Sexual behaviour modification e.g. reduce teenage pregnancy and sexual transmitted infection.	Family members, traditional leaders and community member and peers
Involving religious and social leader	Improve knowledge and communication skills. Infusion of sexual health topics in a curriculum Empower care givers with relevant/appropriate information. Open sexual communication	Increased confidence Good learner-teacher and learner parent relationship Reduced early sexual debut	Parent/teachers, pastors, stakeholders
Ensuring provision of sufficient sexuality education	Foster teamwork and information	improvement of community support and preparedness	Social media influencer, pastors

Table 5: Refined strategies

Proposed strategies	Goal/target	Indicators	Responsible stakeholders
Empower care givers about Sexual Health and Wellness	Reduce communication barriers. Make it easier for both parents and teachers to providing sexuality education utilizing channels like social media	Adolescents' rate of internet usage, followers on that page	Health care practitioners, parent/teachers with different stakeholders
Establishment of school health committee with all stake holder to facilitating access to sexual health information	At least four committee meetings per year. The proportion of Stakeholders knowledgeable and involved in the integrated programs. Available resources to fund the ASH activities and services	Minimum of four meetings per year for each committee; Percentage of Stakeholders who understand and participate in integrated program. Funding opportunities for sexuality programs and services	Involved Parties: Researchers; Police; Traditional Leaders; Non-Governmental Organizations (NGOs); teachers, Parents/Guardians; and Health Care Workers
Rebuilding of traditional initiation schools	Continuous teaching sexual reproductive issues like managing menstruations impotence of remaining virgin until marriage. Respect, sensitizing cultural taboos	Sexual behaviour modification e.g. Use condom, contraception avoids test for HIV and avoid multiple partners	Family members, traditional leaders and community member and peers
Involving religious and social leaders	Foster teamwork and information	improvement of community support and preparedness	Social media influencer, pastors
Ensuring provision of sufficient information on sexuality education	Improve knowledge and communication skills Infusion of sexual health topics in a curriculum Empower care givers with relevant/appropriate information	Increased confidence Good parent-learner and parent learner relationship Open sexual communication	Parent/teachers, pastors, stakeholders

4. Discussion

The merged findings demonstrated that sexuality education was muffed by Poor sexuality education: leading to inadequate knowledge about physiological body changes, menstruation, contraception and pregnancy; challenges relating to sexuality education due to cultural barriers, Poor parent-child relationships, Fear of embarrassment, reactive sharing of information instead of being proactive, obtaining information from unreliable sources and role shifting among stakeholders, challenges experienced by LO teachers in the classroom lack of collaboration between Department of health and Department of education in implementing policy on condom distribution in schools.

The SWOT analysis revealed the strength as: availability of School Health Policy which have aspects of sexuality education, availability of reproductive health services, availability of School health nurses who give support and can give sexuality education, Availability of Life orientation teachers, curriculum –syllabus, availability of Dept. of education & dept. of health policies. The effort should be directed to ensuring that sexuality education is realized than being a far to reach goal. Threats identified in this study were: increased exposure to sexuality in social media which is not guided may increase risks of sexual behaviour, poor sustainability in the provision of sexuality education, peer group influence, cultural barriers, and gender stereotype. To address the threats, it is important that all those charged with education of leaners (parents/caregivers, teachers, traditional and religious leaders) share similar reliable, and untainted information which will assist them to make informed decisions.
The BLM in this study inclines on the on the SWOT analysis to find solutions on the central issues that needed to be considered to ensure that developed strategies would assist in sexuality education of learners in schools and within the communities where they leave. There is therefore a need for funding and investments in human and material resources to enhance promotion of sexuality educations. Furthermore, there is a need to training teachers and parents including stakeholders by conducting seminars, workshops, and campaign to empower them with knowledge and skills. Furthermore, there is need for engaging the stake holders in community to fasten the roll out sexual reproductive health programs.

VALDATION OF STRATEGIES

5.The validation of strategies

Validation of the strategy seeks to determine whether or whether these strategies are feasible, applicable, acceptable, relevance, comprehensiveness, flexibility and acceptable in terms of achieving the goals that are sought. It is necessary for key stakeholders to conduct an analysis of the developed strategies to ensure that they do not compromise or go against the values held by various caregivers. The review of the strategy would proceed through Delphi technique and checklist would be distributed to a select group of key stakeholders**.**

5.1.1 The Delphi Technique

The Delphi technique is used to systematically combine expert opinion to arrive at an informed group consensus on a complex problem. This is achieved using iterative rounds of sequential surveys interspersed with controlled feedback reports and the interpretation of experts' opinion.

5.1.2 Population and sampling

The Delphi Technique is used to further clarify or validate findings from surveys, focus groups, and interviews. The population of expert panellist were from Vhembe and Mopani, they were approached using purposive theoretical sampling methods.

Table 6: Demographic data of the panel members

Demographics		**Frequency**	**Percent**
Gender	Male	3	37.5%
	Female	5	62.5%
Age	35-44	2	25%
	45-54	3	37.5%
	55-64	3	37.5%
Experience in Education	5-9 years	2	25%
	10-14 years	3	37.5%
	20-24 years	3	37.5 %
Level of Education	Degree/	3	37.5 %
	Diploma	2	25 %
	Senior certificate	3	37.5%
Job Title	SGB members (parents)	2	25%
	Religious leader	1	12.5%
	Curriculum expert	2	25 %
	LO teachers	3	37.5%
Total		8	100%

5.1.3 Data Collection process and management

The developed sexual health promotion strategies were sent through a WhatsApp to participant experts in round one and a developed questionnaire with Likert scale (1-5) was attached for them to indicate their scores for the criteria indicated on the Likert scale.

Table 7: Data collection tool for refinement of proposed strategy

In your own opinion please rank statements in each statement in the questionnaire provided according to their applicability, relevance comprehensiveness flexibility and acceptability, add any commence or possible items that are not in this questionnaire						
Data distribution	5	4	3	2	1	Commence
1. Applicability						
2. Relevance						
3. Comprehensive ness						
4. Flexibility						
5. Acceptability						
Key: 5 = strongly agree, 4= agree, 3= neutral, 2= disagree and 1= strongly disagree						

5.1.4 Data analysis

Data from the first round was analysed using both qualitative and quantitative data analysis. The researcher used the quantitative descriptive statistics for the ranked statements and content analysis for statements provided in the comment section of the Likert scale.

Table 8: Ranking agreement and importance of round one

Criteria		Criteria1		Criteria2		Criteria3		Criteria4		Criteria5	
		n	%	n	%	n	%	n	%	n	%
Agreement	1										
	2										
	3			1	12,5%						
	4	2	25%	2	25%	3	37.5%	2	25%	4	50%
	5	6	75%	5	62.5	5	62.5%	6	75%	4	50%
Importance	Mean	4		4		4		4		4	
	Median	4		4		4		4		4	
	Mode	2		3		3		2		4	

5.1.4.1 Analysis of round one

After the expert panellist sent back their responses, they were analysed using descriptive statistic, the mean, median, mode and percentages for each criterion. Initially twelve participants agreed to participate, however only eight responded, as the other experts were no longer responding to WhatsApp.

Comments were highlighted on the qualitative aspect concerned the applicability, relevance, comprehensiveness, flexibility and acceptability. Participants made inputs under applicability establish health committees; under relevance they indicated provision of sufficient sexuality education, under applicability participants indicated Empowerment of caregivers about sexuality education.

Table 9: Some Inputs from first round

In your own opinion please rank statements in each statement in the questionnaire provided according to their applicability, relevance comprehensiveness flexibility and acceptability, add any commence or possible items that are not in this questionnaire						
Data distribution	5	4	3	2	1	Commence
1. Applicability						Establish school health committee
2. Relevance						Provision of sufficient sexuality education
3. Comprehensiveness						
4. Flexibility						
5. Acceptability						Empowerment of caregivers about sexuality education
Key: 5 = strongly agree, 4= agree, 3= neutral, 2= disagree and 1= strongly disagree						

5.1.4.2 Round two

The second questionnaire was sent out and after a week all respondents returned the feedback and qualitative and quantitative analysis was done and the scores were above 70%which meant that the experts reached consensus of the statements.

Table 10: Ranking agreement and importance of round two

Criteria		Criteria1		Criteria2		Criteria3		Criteria4		Criteria5	
		n	%	n	%	n	%	n	%	n	%
Agreement	1										
	2										
	3										
	4	2	25%	2	25%	2	25%	2	25%	2	25%
	5	6	75%	6	75%	6	75%	6	75%	6	75%
Importance	mean	4		4		4		4		4	
	median	4		4		4		4		4	
	Mode	2		2		2		2		2	

5.1.4.3 Analysis of round 2

Of the eight responses in round 2 questionnaire consensuses was achieved as no comments.

5.1.6 Discussion

This study revealed that there is a need to empower parents/caregivers regarding sexuality education so as to facilitate parent–child conversation towards sexuality health matters. The other significant aspect is the rebuilding of traditional initiation schools. These was achieved using Delphi technique as a means of validating instrument. interactive method used in forecasting into the future regarding proposed methods, strategies and the likely impact they could have if implemented. In this study the validation was through a whatsapp. The experts were sent the developed strategies together with data collection tool. The technique's objective was to seek expert views on the developed strategies or implementation plans and predict their possible impact in attaining set goals and objectives and their appropriateness. This method was suitable for guiding strategy development in this research. Ten experts involved with sexuality education of learners. Of ten experts only 8 responded positively. These were people who had extensive knowledge on the subject of interest, as proven by their academic and scholarly background, and they were purposively selected. These experts were briefed of the findings from the triangulation mixed-method study, the SWOT analysis, the Basic Logic Model, and the BOEM model and successively developed strategies. They were then tasked to analyse the developed strategies based on the context and whether they can assist in the sexuality education of learners. The call conferences were held twice as consensus was reached on the second arranged call conference meeting. The experts' feedback was used to fine-tune the strategies.

6. Declaration

The authors have no conflict to declare

6.1 Ethical approval

This paper was part of the PHD studies that were conducted at the University of Venda. Ethical clearance was sought from the University of Venda's Ethics Clearance Committee (Ethics Number: SSHS/19/PDC/37/2410).

6.2 Consent for publication

Not applicable

6.3 Availability of data and material

Not applicable

6.4 Competing interest

Not applicable

6.5 Funding not applicable.

Not applicable

6.6 Authors' contribution

HSM is currently pursuing their doctorate at the University of Venda's Faculty of Health Science. The author considered the protocol as a means of partially satisfying the criteria for the Doctorate that was necessary. Co-Promoters DU and RT participated to the project by assisting the PhD student in conceptualizing the study proposal, carrying out the research, and preparing the article. The Promoter of this project is L Makhado, and the Co-Promoters are DU and RT. The final paper was read and approved by all of the authors.

6.7 Acknowledgements

All individuals who participated in this strategy Validation process

6.8 Authors' information

HSM is a PhD faculty of health science student at the University of Venda in South Africa.

6.9 List of abbreviations

DOH	Department of Health
DOE	Department of Health
SWOT	Weaknesses, Strength, Opportunities and Threats
CF	Conceptual Framework
BLM	Build, Logic, Model
BOEM	Build, Overcome, Eliminate, Minimise

References

1. Ruseckaite, R., Maharaj, A.D., Krysinska, K., Dean, J. and Ahern, S., 2019. Developing a preliminary conceptual framework for guidelines on inclusion of patient reported-outcome measures (PROMs) in clinical quality registries. Patient Related Outcome Measures, pp.355-372

2. Kamangu, A.A., John, M.R. and Nyakoki, S.J., 2017. Barriers to parent-child communication on sexual and reproductive health issues in East Africa: A review of qualitative research in four countries. Journal of African Studies and Development, 9(4), pp.45-50.

3. Shin, H., Lee, J.M. and Min, J.Y., 2019. Sexual knowledge, sexual attitudes, and perceptions and actualities of sex education among elementary school parents. *Child Health Nursing Research*, *25*(3), p.312
4. Svodziwa, M., Kurete, F. and Ndlovu, L., 2016. Parental knowledge, attitudes and perceptions towards adolescent sexual reproductive health in Bulawayo. *International Journal of Humanities Social Sciences and Education (IJHSSE)*, *3*(4), pp.62-71.
5. Wangamati, C.K., 2020. Comprehensive sexuality education in sub-Saharan Africa: adaptation and implementation challenges in universal access for children and adolescents. Sexual and Reproductive Health Matters, 28(2), p.1851346.

6. Garoutte, N., 2022. The Journey Towards Global Implementation of Holistic Sexuality Education: A Comparative Case Study of Sexuality Education Guidelines from UNESCO (Global), WHO (Europe), and SIECUS (USA

7. venkantsam
8. Mullis, M.D., Kastrinos, A., Wollney, E., Taylor, G. and Bylund, C.L., 2021. International barriers to parent-child communication about sexual and reproductive health topics: a qualitative systematic review. *Sex Education*, *21*(4), pp.387-403
9. Munyai, H.S., Makhado, L., Ramathuba, D.U. & Lebese, R.T., 2022, 'Challenges on sexual health communication with secondary school learners, Limpopo province', Curationis 45(1), a2321. https://doi.org/10.4102/ curationis.v45i1.2321

10. .Leung, H., Shek, D.T., Leung, E. and Shek, E.Y., 2019. Development of contextually-relevant sexuality education: Lessons from a comprehensive review of adolescent sexuality education across cultures. International journal of environmental research and public health, 16(4), p.621.

11. Othman, A., Shaheen, A., Otoum, M., Aldiqs, M., Hamad, I., Dabobe, M., Langer, A. and Gausman, J., 2020. Parent–child communication about sexual and reproductive health: perspectives of Jordanian and Syrian parents. *Sexual and reproductive health matters*, *28*(1), p.1758444
12. De Vos AS, Strydom H, Fouche CB and Delport CSL. (4th ed.) Research at Grassroots: For social Sciences and Human Services Profession. Pretoria: Van Schaik, 2014.

13. Brink H, Vander Walt C and van Ransburg G. Fundmentals of Research Methodology for Health Care Professionals. Juta. Cape Town, 2012.

14. Dickoff, J., James, P. & Wiedenbach, E., 1968, 'Theory in a practice discipline: Practice oriented theory', Nursing Research 17(5), 415–434. https://doi.org/10.1097/ 00006199-196809000-00006

15. Kamaludin, N.N., Muhamad, R., Mat Yudin, Z. and Zakaria, R., 2022. Barriers and concerns in providing sex education among children with intellectual disabilities: Experiences from Malay mothers. International Journal of Environmental Research and Public Health, 19(3), p.1070.

16. Ngabaza, S. and Shefer, T., 2019. Sexuality education in South African schools: deconstructing the dominant response to young people's sexualities in contemporary schooling contexts. Sex Education, 19(4), pp.422-435.

17. Hayes, S.D. and Derrington, M.L., 2023. School leadership in uncertain times: identifying dimensions of effective principal leadership. School Leadership & Management, pp.1-18.

18. Making Health Services Adolescent Friendly: Devloping National Quality Standards for Adolescent Friendly Health Services. Geneva (2012).
19. Meyer, E.J. and Keenan, H., 2018. Can policies help schools affirm gender diversity? A policy archaeology of transgender-inclusive policies in California schools. *Gender and Education*, *30*(6), pp.736-753.
20. . Nelson, B., Odberg Pettersson, K. and Emmelin, M., 2020. Experiences of teaching sexual and reproductive health to students with intellectual disabilities. Sex Education, 20(4), pp.398-412.
21. Lukanda, I.N., 2020. Cultural values and modern media as drivers of science communication. T. Gascoigne, B. Schiele, J. Leach, M. Riedlinger, BV Lewenstein, L. Massarani, & P. Broks, Communicating Science: A Global Perspective, pp.907-930.

22. Hurst, J.L., Widman, L., Maheux, A.J., Evans-Paulson, R., Brasileiro, J. and Lipsey, N., 2022. Parent–child communication and adolescent sexual decision making: An application of family communication patterns theory. Journal of Family Psychology, 36(3), p.449.

Section 3: Conclusions, Recommendation, and Study Limitations

Conclusions

Experiences of grade 8 learners on sexuality education from home and school at Mopani and Vhembe districts. *African Journal of Reproductive Health*, 26(8), 41-52: Conclusion

The study aimed to explore and describe the experiences of LO teachers at selected secondary schools in Vhembe and Mopani Municipalities. Data analysis revealed three (3) themes: participant experiences of sexuality education and communication concerns and challenges experienced by LO teacher in classroom. the study findings revealed that teacher understand their expected role as stipulated by department of education regarding teaching sexual reproductive health. Cultural barrier and lack of training cited as the most significant barrier of teacher-learner communication. Teacher also experiences challenges in classroom as the one in control in delivering sexuality education. The results of this study exposed the need to train and supporting teacher with human and material resources. Results of this study indicated the need liaise with stake holders in the community including learner to promote good rapport amongst all stakeholders.

Challenges on sexual health communication with secondary school learners, Limpopo province; Conclusion

Sexuality health matters was limited if not absent in Mopani and Vhembe Districts. Challenges identified as obstructing sexual health communication were cultural and religious barriers, uncertainty in imparting knowledge, role shifting in imparting sexuality education and poor parent– child relationships.

Experiences LO Teachers Teaching Sexuality Education in Secondary Schools Vhembe and Mopani Districts Limpopo Province South Africa: Conclusion

The study aimed to explore and describe the experiences of LO teachers at selected secondary schools in Vhembe and Mopani Municipalities. Data analysis revealed three (3) themes: participant experiences of sexuality education and communication concerns and challenges experienced by LO teacher in classroom. Cultural barrier and lack of training cited as the most significant barrier of teacher-learner communication.

Conceptual framework for promoting sexuality education of care givers of primary school going children in Limpopo Province South Africa: conclusion

The study was conducted to develop a conceptual framework of promoting sexuality education for caregivers of school going learners in Limpopo Province. The study adopted a qualitative, exploratory, descriptive, and contextual research design. In this method, three phases were followed: an empirical phase, a classification of concepts and a development phase. Results of the empirical phase were used

to classify concepts and to develop a conceptual framework, utilising the six steps of Dickoff et al. (1968:422). The developed framework serves as a guiding tool for future studies aiming at developing strategy. The framework further guides stakeholders on how caregivers can effectively be supported to promote quality care services for children diagnosed with intellectual disabilities.

Development and validation of strategy to promote sexuality education of care givers of primary school going children in Limpopo Province South Africa: Conclusion

Researchers, stakeholders, and policy makers can influence strength and opportunities in schools and homes and address weaknesses, and threats with further attention by Dept. of education and Dept. of health.

General Conclusion

The study was conducted to develop strategies to promoting sexuality education for caregivers of school going learners in Limpopo Province. The study adopted a qualitative, exploratory, descriptive and contextual research design. In this method, three phases were followed: an empirical phase, development of strategies and validation of strategies. Results of the empirical phase were used to classify concepts and to develop a conceptual framework, utilising the six steps of Dickoff et al. (1968:422). The developed framework serves as a guiding tool for future studies aiming at developing strategy. Add a conclusive remark indicating the implication of this study Two papers were published and strategies developed to enhance the sexuality education for primary school going learners.

Recommendations

The study reveals that, there is lack of knowledge and communication skills as outlined by participants, are very concerning issues because they promote poor parent–child communication. Therefore, recommended are:

Recommendations for learners

- Learners need to be empowered with sexuality education.
- Learners needs to be proactive.
- Learners need to be respected and treated as people.

Recommendations for Parents

- Parents should be empowered with sexual health knowledge.
- Parent – teacher meetings on sexuality education
- Online advised.
- video to share ideas.
- Formation of parent support groups
- Parents are encouraged to discuss on their children's homework and input in matters of sexuality.

Recommendations for Teachers

- Teachers also need empowerment and training.
- Teachers should be equipped with counselling skills.
- Continuous in-service training
- Provision of support for teachers
- Provision of educational materials resources such as videos, chart
- Parents, teachers, and learners to identify topics to discuss as part of extra curriculum meetings.

Collaboration between the two departments (DBE and DoH)

- Curriculum reviews
- Capacity building for teachers and parents
- Peer mentoring and support

Contribution of the Thesis

The developed strategies serve as a guiding tool for future studies aiming at developing strategy. The study highlighted gaps in sexual health knowledge sharing and the developed strategies are applicable, relevant, comprehensive to be used in schools, parent organisations and community settings.

Summary

The study revealed sexual health education is lacking in schools and at home. There is role shifting taking place between teacher, parents, and religious leaders. The study findings highlighted that learners require information on matters such as pregnancy, menstruation, and contraception but communication is not happening effectively. Strategies developed may enhance the parent- teacher-leaner interaction to promote sexuality education.

Limitations of the Study

The researcher used qualitative research method, semi structured interviews were conducted with parents, learners, and unstructured interview with LO teachers. As a result of the qualitative nature of the study, this framework cannot be generalised, but can be applied in other provinces of South Africa or internationally

Annexures

ANNEXURE A: Ethics clearance Certificate (University of Venda)

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:
Ms HS Munyai

Student No:
11636538

PROJECT TITLE: **Strategy to promote sexuality education for care givers of Primary School Learners in Limpopo Province, South Africa.**

PROJECT NO: **SHS/19/PDC/37/2410**

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr L Makhado	University of Venda	Promoter
Prof DU Ramathuba	University of Venda	Co - Promoter
Prof RT Lebese	University of Venda	Co - Promoter
Ms HS Munyai	University of Venda	Investigator – Student

ISSUED BY:
UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: October 2019
Decision by Ethical Clearance Committee Granted
Signature of Chairperson of the Committee: .....
Name of the Chairperson of the Committee: Senior Prof. G.E. Ekosse

UNIVERSITY OF VENDA
DIRECTOR
RESEARCH AND INNOVATION
2019 -10- 28
Private Bag X5050
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University of Venda
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"A quality driven financially sustainable, rural-based Comprehensive University"

ANNEXURE B: Permission from the Department of Education Limpopo Province

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

Ref: 2/2/2 Enq: Mabogo MG Tel No: 015 290 9368 E-mail: MabogoMG@edu.limpopo.gov.za

Munyai HS
P O Box 1444
Lwamondo
0940

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

1. The above bears reference.
2. The Department wishes to inform you that your request to conduct research has been approved. Topic of the research proposal: **STRATEGY TO PROMOTE SEXUALITY FOR CARE GIVERS OF PRIMARY SCHOOL LEARNERS IN LIMPOPO PROVINCE, SOUTH AFRICA."**
3. The following conditions should be considered:

3.1 The research should not have any financial implications for Limpopo Department of Education.

3.2 Arrangements should be made with the Circuit Office and the School concerned.

3.3 The conduct of research should not in anyhow disrupt the academic programs at the schools.

3.4 The research should not be conducted during the time of Examinations especially the fourth term.

3.5 During the study, applicable research ethics should be adhered to; in particular the principle of voluntary participation (the people involved should be respected).

3.6 Upon completion of research study, the researcher shall share the final product of the research with the Department.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH MUNYAI HS

CONFIDENTIAL

Cnr. 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700, Private Bag X9489, POLOKWANE, 0700
Tel: 015 290 7600, Fax: 015 297 6920/4220/4494

The heartland of southern Africa - development is about people!

4 Furthermore, you are expected to produce this letter at Schools/ Offices where you intend conducting your research as an evidence that you are permitted to conduct the research.

5 The department appreciates the contribution that you wish to make and wishes you success in your investigation.

Best wishes.

21/11/2019

Ms NB Mutheiwana
Head of Department

Date

ANNEXURE C: UNIVEN Information Sheet

RESEARCH ETHICS COMMITTEE

UNIVEN Informed Consent

LETTER OF INFORMATION

Title of the Research Study : Strategy to promote sexuality education for care givers of primary school learners of Limpopo South Africa

Principal Investigator/s/ researcher : Munyai HS, MCur)

Co-Investigator/s/supervisor/s : (Prof L *Makhado, Prof DU Ramathuba, Prof RT Lebese*)

Brief Introduction and Purpose of the Study: To develop strategies to promote sexuality education for care givers of primary school learners at Limpopo Province, South Africa.

Outline of the Procedures: (you have been chosen to take part in this study. You are requested to participate in data collection about promoting sexuality education sexuality education. Information will be gathered through the means of focus group discussions with learners and parents and face to face interviews with LO teachers. Face to face interviews would take 30 to 45 whilst focus group discussion would take 45 of your time. Consent form will be obtained from parents, teachers and guardians.

Risks or Discomforts to the Participant: there are no foreseen risks that would occur related to participation in this study.

Benefits: there are no benefits that you would get from participating in this study. However, the implementation of developed strategies would empower care givers in promoting sexuality education. The researcher has published one article, another one accepted and to be released, the third one is under review, while the last two are draft.

Reason/s why the Participant May Be Withdrawn from the Study: participants are free to withdraw from the study if they do not want to continue to take part in the study. Participants are informed that withdrawing from the study would not have any adverse consequences.

Participants taking part in focus group discussions would be given so disclosed, me refreshments because inter views would be conducted after school. Participants will be not get payment for participating in this study.

Cost on the study: participants would not be expected to cover any cost towards the study

Participation would be voluntary. Costs of the Study: Participants would not be expected to cover any costs towards the study.

Confidentiality: names of the participants would not be disclosed. Participants would be assigned numbers that are not traceable to the actual participants.

Research-related injury: there are no injuries anticipated, however if any may occur in the process of the data collection, the individual will be appropriately assisted to get assistance but there shall not be any compensation.

Data Re-use: collected data would be used for publication and but the participants identity is not displayed and nothing will be traceable to them.

Persons to Contact in the Event of Any Problems or Queries:

(Supervisor and details) Please contact the researcher (tel no.0729568291), my supervisor (tel no. 015 962 8684) or the University Research Ethics Committee Secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof GE Ekosse on 015 962 8313 or Georges Ivo.Ekosse@univen.ac.za

General:

Potential participants must be assured that participation is voluntary and the approximate number of the participants to be included should be disclosed. A copy of information letter and consent form must be translated and provided in the primary spoken language of the research population.

ANNEXURE D: CONSENT FORM ADULT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, (*name of researcher*), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _,
- I have also received, read and understood the above written information (*Participant Letter of Information*) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant Date Time Signature

I, ……. …… …… …….. …
(*Name of researcher*) herewith confirm that the above participant has been fully

Informed about the nature, conduct and risks of the above study.

Full Name of Researcher ……

…… Date**……time…….** Signature**……**
Full Name of Witness (If applicable)

……Date **…… time ……..** Signature**…….**

Full Name of Legal Guardian (If applicable)

Date**……** Signature**……**

STRATEGY TO PROMOTE SEXUALITY EDUCATION FOR CARE GIVERS OF PRIMARY SCHOOL LEARNERS IN LIMPOPO PROVINCE, SOUTH AFRICA

I Munyai HS, student number 11636538 from University of Venda, I am conducting a study. The purpose of the study is developing the Strategy to Promote Sexuality education for care givers of Primary School learners in Limpopo Province, South Africa. The study will improve reproductive health of learners under the age of 16 years. I am asking you to take part in the research study because you will able to provide the researcher with information acquired in life orientation as part of your subject taught in primary school. The participants in this study should be below 16 years old and in grade 8.

For this research, the researcher will *ask you to* explain your views on promoting sexuality education for primary school learners.? Followed by probing questions:

(a) Explain how do you feel talking about sexuality with your teacher / parent?

(b) Explain how you would like sexuality education by parent/teacher can be done.

(c) Explain to me what information you have received regarding sexuality.

The interview will take 40–60 minutes. The interview will be conducted as a group discussion. Focus group will consist of 8 participants. An audio recorder will be used during interview. The researcher will ask permission to use an audio recorder and you can agree or disagree. The researcher will keep all your answers (information) private, and the information provided by you will not be shared either with your teacher or parent (s) / guardian. Your identity will remain anonymous. The researcher will use codes to identify the participants. Only the promoter and co-promoters working on the study will see them.

Participating in this study will not pose you to physical harm. The researcher also does not anticipate causing you pain as part of this study, but you might feel uncomfortable to provide some information about sexuality.

You should know that:

- You have the right to refuse to participate in this study, if you do not want to. You will not get into any trouble for refusing to participate.
- You may decide to stop at any time in the study at any time. If there is a question you don't want to answer.
- Your parent(s)/guardian(s) are asked if they allow you to participate in the study. Even if they agreed, you make a final decision to participate or not to participate.

- You can ask any questions you have, now or later. If you think of a question later, you or your parents can contact me at 0846228386 or 0729568291

Sign this form only if you:

- have understood what you will be doing for this study,
- have had all your questions answered,
- have talked to your parent(s)/legal guardian about this project, and
- agree to take part in this research.

_____ _____ _____

Your Signature Printed Name Date

_____

Name of Parent(s) or Legal Guardian(s)

_____ _____ _____

Researcher's Signature Printed Name Date

ANNEXURE F: Letter to request permission to the Department of Education

P.O Box 1444
Lwamondo
0985

The Department of Education
Attention: Research Directorate
Department of Education
Limpopo Province Polokwane
0700
Sir/Madam

REQUEST FOR PERMITION TO CONDUCT RESEARCH

I am a PHD student at the University of Venda in the Department of Advance Nursing Science. I am presently to conducting a study titled **"Strategy to Promote Sexuality Education for care givers of Primary School learners in Limpopo Province, South Africa".** The objectives are:

To explore knowledge and skills of care givers in promoting sexuality education of primary school children in Limpopo Province, South Africa

To describe knowledge and understanding of the teenagers regarding promotion of sexuality education for care giver of primary school learners in Limpopo Province, South Africa

I will need to conduct interview with LO teachers, grade 8 learners, and SGB. The interview will be conducted for ± 45 minutes. Interviews will be audio recoded for verification of the findings by my promoter and independent coder. The following ethical standards will be observed through the research process to preserve the name and dignities of all participants.

Informed consent (right to full disclosure)

The participants have the right to make informed consent.

Informed consent (right to full disclosure)

The participants have the right to make informed consent.

Voluntary participation and respect for human rights

In this study participant will have right to choose whether to partake in the study without any risk of penalty.

Right to privacy

The researcher will ensure privacy and anonymous by using codes during data collection.

Freedom from harm (protection from exploitation)

The researcher will have a responsibility to avoid or reduce hurt, and not subject participants to preventable dangers or discomfort.

Raw material will be kept under lock and key to ensure confidentiality. Name of the participants will not be mentioned during discussions audio tapes will be erased and field notes will be destroyed. The research summary will be made available if participants so wish.

Granting me an opportunity to conduct study will benefit community at large and the department of health and education in Limpopo Province.

Thank you, researcher, Munyai H.S

ANNEXURE G: INTERVIEW GUIDE

The following interview guides were used to collect data when conducting unstructured interview in qualitative research.

Teachers

- What are your experiences about promoting sexuality educations?
- In your view do you think sexuality education should be taught at primary level?
- In your view what information can be included?
- what can be done to promote sexuality education for primary learners.
- Do you think this promoting sexuality education from primary level would help reduce sexual health risks among teenager and how

Focus Group Discussions.

SGB

- What do you understand about sexuality?
- In your view do you think sexuality education should be taught at primary level?
- In your view what information can be included?
- what can be done to promote sexuality education for primary learners.?
- Do you think this promoting sexuality education from primary level would help reduce sexual health risks among teenager and how

School learners

- What do you understand about sexuality?
- In your views do you think sexuality education should be taught at primary level?
- In your view what information can be should be communicate with you?

- In your opinion in what ways should parent /teacher communicate with you?
- what can be done to promote sexuality education for primary learners?
- What are the benefits of promoting sexuality education?

ANNEXURE E: APLCATION TO LIMPOPO PROVINCE DEPARTMENT OF EDUCATION

P.O Box 1444

Lwamondo

0985

The Chief Executive Officer
Vhembe District
Department of Education

Thohoyandou
0950

Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a PHD student at the University of Venda in the Department of Advance Nursing Science. I am presently to conducting a study titled "Strategy to Promote Sexuality Education for Primary School learners in Limpopo Province, South Africa". The objectives are:

To explore the experiences of the learners on sexuality education at home and school.

To explore experiences of Life Orientation teachers providing sexuality education for the learners.

To explore and describe the views of the School Governing body (SGB) regarding provision of sexuality education at school.

The interview will be conducted for ± 45 minutes. Interviews will be audio recoded for verification of the findings by my promoter and independent coder.

The following ethical standards will be observed through the research process to preserve the name and dignities of all participants.

Informed consent (right to full disclosure)

The participants have the right to make informed consent.

Informed consent (right to full disclosure)

The participants have the right to make informed consent.

Voluntary participation and respect for human rights

In this study participant will have right to choose whether to partake in the study without any risk of penalty.

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Raw material will be kept under lock and key to ensure confidentiality. Name of the participants will not be mentioned during discussions audio tapes will be erased and field notes will be destroyed. The research summary will be made available if participants so wish.

Granting me an opportunity to conduct study will benefit community at large and the department of health and education in Limpopo Province.

Thank you

Munyai H.S

ANNEXURE H: Author Guidelines, Curationis Submission Guidelines-2022

INPAGE MENU

Abridged structure

- Original Research Article
- Corrections
- Cover Letter

Full structure

- Original Research Article

Overview

The author guidelines include information about the types of articles received for publication and preparing a manuscript for submission. Other relevant information about the journal's policies and the reviewing process can be found under the about section. The **compulsory cover letter** forms part of a submission and must be submitted together with all the required **forms.** All forms need to be completed in English.

Original Research Article

An original article provides an overview of innovative research in a particular field within or related to the focus and scope of the journal, presented according to a clear and well-structured format.

Word limit	7000 words (excluding the structured abstract and references)
Structured abstract	250 words to cover a Background, Objectives, Method, Results and Conclusion
References	60 or less
Tables/Figures	no more than 7 Tables/Figure
Ethical statement	should be included in the manuscript
Compulsory supplementary file	ethical clearance letter/certificate

Corrections

A correction provides the platform to communicate important, scientifically relevant errors or missing information in a published article. Any changes after publication that affect the scientific interpretation (e.g., changes to a misleading portion of an otherwise reliable publication, an error in a figure, error in data that does not affect conclusions or addition of missing details about a method) are announced using a Correction. Read our submission procedure for **corrections** and **publishing policies**.

Compulsory title	The title of the submission should have the following format: 'Corrigendum: Title of original article'.
Submission File	completed **Correction Submission Form** (required)
Compulsory supplementary file	any supporting documents or emails, **Author Change Request Form** (if applicable), **Corresponding Author Change Request Form** (if applicable)

Cover Letter

The authorship, disclosure statements, copyright, and license agreement form is our compulsory cover letter which needs to form part of your submission. Kindly download and complete, in English, the provided **form**.

Anyone that has made a significant contribution to the research and the paper must be listed as an author in your cover letter. Contributions that fall short of meeting the criteria as stipulated in our policy should rather be mentioned in the 'Acknowledgements' section of the manuscript. Read our **authorship** guidelines and **author contribution** statement policies.

Original Research Article full structure

Title: The article's full title should contain a maximum of 95 characters (including spaces).

Abstract: The abstract, written in English, should be no longer than 250 words and must be written in the past tense. The abstract should give a succinct account of the objectives, methods, results and significance of the matter. The structured abstract for an Original Research article should consist of five paragraphs labelled Background, Objectives, Method, Results and Conclusion.

- Background: *Why do we care about the problem?* State the context and purpose of the study. (What practical, scientific or theoretical gap is your research filling?)
- Objectives: *What problem are you trying to solve*? What is the scope of your work (e.g. is it a generalised approach or for a specific situation)? Be careful not to use too much jargon.
- Method: *How did you go about solving or making progress on the problem*? State how the study was performed and which statistical tests were used. (What did you actually do to get the results?) Clearly express the basic design of the study; name or briefly describe the basic methodology used without going into excessive detail. Be sure to indicate the key techniques used.
- Results: *What is the answer*? Present the main findings (that is, as a result of completing the procedure or study, state what you have learnt, invented or created). Identify trends, relative change or differences on answers to questions.
- Conclusion: *What are the implications of your answer*? Briefly summarise any potential implications. (What are the larger implications of your findings, especially for the problem or gap identified in your motivation?)

Do not cite references and do not use abbreviations excessively in the abstract.

Introduction: The introduction must contain your argument for the social and scientific value of the study, as well as the aim and objectives:

- Social value: The first part of the introduction should make a clear and logical argument for the importance or relevance of the study. Your argument should be supported by use of evidence from the literature.
- Scientific value: The second part of the introduction should make a clear and logical argument for the originality of the study. This should include a summary of what is already known about the research question or specific topic, and should clarify the knowledge gap that this study will address. Your argument should be supported by use of evidence from the literature.
- Conceptual framework: In some research articles it will also be important to describe the underlying theoretical basis for the research and how these theories are linked together in a conceptual framework. The theoretical evidence used to construct the conceptual framework should be referenced from the literature.
- Aim and objectives: The introduction should conclude with a clear summary of the aim and objectives of this study.

Research methods and design: This must address the following:

- Study design: An outline of the type of study design.
- Setting: A description of the setting for the study; for example, the type of community from which the participants came or the nature of the health system and services in which the study is conducted.
- Study population and sampling strategy: Describe the study population and any inclusion or exclusion criteria. Describe the intended sample size and your sample size calculation or justification. Describe the sampling strategy used. Describe in practical terms how this was implemented.
- Intervention (if appropriate): If there were intervention and comparison groups, describe the intervention in detail and what happened to the comparison groups.
- Data collection: Define the data collection tools that were used and their validity. Describe in practical terms how data were collected and any key issues involved, e.g. language barriers.
- Data analysis: Describe how data were captured, checked and cleaned. Describe the analysis process, for example, the statistical tests used orsteps followed in qualitative data analysis.
- Ethical considerations: Approval must have been obtained for all studies from the author's institution or other relevant ethics committee and the institution's name and permit numbers should be stated here.

Results: Present the results of your study in a logical sequence that addresses the aim and objectives of your study. Use tables and figures as required to present your findings. Use quotations as required to establish your interpretation of qualitative data. All units should conform to the **SI convention** and be abbreviated accordingly. Metric units and their international symbols are used throughout, as is the decimal point (not the decimal comma).

Discussion: The discussion section should address the following four elements:

- Key findings: Summarise the key findings without reiterating details of the results.
- Discussion of key findings: Explain how the key findings relate to previous research or to existing knowledge, practice or policy.
- Strengths and limitations: Describe the strengths and limitations of your methods and what the reader should take into account when interpreting your results.

- Implications or recommendations: State the implications of your study or recommendations for future research (questions that remain unanswered), policy or practice. Make sure that the recommendations flow directly from your findings.

Conclusion: Provide a brief conclusion that summarises the results and their meaning or significance in relation to each objective of the study.

Acknowledgements: Those who contributed to the work but do not meet our authorship criteria should be listed in the Acknowledgments with a description of the contribution. Authors are responsible for ensuring that anyone named in the Acknowledgments agrees to be named. Refer to the acknowledgement structure guide on our *Formatting Requirements* page.

Also provide the following, each under their own heading:

- Competing interests: This section should list specific competing interests associated with any of the authors. If authors declare that no competing interests exist, the article will include a statement to this effect: *The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article*. Read our **policy on competing interests**.
- Author contributions: All authors must meet the criteria for authorship as outlined in the **authorship** policy and **author contribution** statement policies.
- Funding: Provide information on funding if relevant
- Data availability: All research articles are encouraged to have a data availability statement.
- Disclaimer: A statement that the views expressed in the submitted article are his or her own and not an official position of the institution or funder.

References: Authors should provide direct references to original research sources whenever possible. References should not be used by authors, editors, or peer reviewers to promote self-interests. Refer to the journal referencing style downloadable on our *Formatting Requirements* page.

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Curationis | ISSN: 0379-8577 (PRINT) | ISSN: 2223-6279 (ONLINE)

This study used a qualitative grounded theory research design to explore and describe professional nurses' conceptualisation of spiritual nursing care.

ANNEXURE J: Authors Guideline African Journal of Reproductive Health 2022

African Journal of Reproductive Health

Information for Authors

The African Journal of Reproductive Health (AJRH) is a multidisciplinary and international journal that publishes original research, comprehensive review articles, short reports and commentaries on reproductive health in Africa. The journal strives to provide a forum for African authors, as well as others working in Africa, to share findings on all aspects of reproductive health and to disseminate innovative, relevant and useful information on reproductive health throughout the continent.

The AJRH will publish manuscripts written in English or French. AJRH will ensure that abstracts of all published papers are translated into English or French, and that both language versions accompany the manuscript.

Type of Articles

AJRH publish original research, review articles, short reports and commentaries. A cover page should accompany each manuscript and should include:

1. the **Title** and sub-title (running title -- no more than 5 words);
2. the name(s) of the author(s);
3. the affiliation(s) of the author(s);
4. Abstract;
5. three to six **Keywords** for indexing and retrieval purposes; and
6. Corresponding author's email address and telephone number.

Original Research — The journal welcomes articles reporting on original research, including both quantitative and qualitative studies. The subject matter should be organized under appropriate headings and sub-headings such as: Introduction, Methods, Results, Discussion, and Acknowledgements.

Maximum length should be 4,000 words and the Figures and/or Tables should not exceed five (5) e.g., 2 figures and 3 tables. Where any Table occupies a full page, no more than 4 tables and/or figures should be included.

Review Articles — Comprehensive review articles on all aspects of reproductive health in Africa will also be considered for publication in the journal.

Reviews should provide a thorough overview of the topic and should incorporate the most current research. The length of review articles and the organizational headings and sub-headings used are at the author‘s discretion.

Short Reports — Brief descriptions of preliminary research findings or interesting case studies will be considered for publication as short reports. The length and organization of short reports are left to the author‘s discretion.

Commentaries — Commentaries or editorials on any aspect of reproductive health in Africa will be considered for publication in the journal. Opinion pieces need not reference previous research, but rather reflect the opinions of the author(s).

Plagiarism Policy *Definition*

Plagiarism is the intentional use of other people’s work or words without giving them credit.

Types

Direct Plagiarism: Word-for-word copying of a portion of another person works without citation or acknowledgment.

Self-Plagiarism: aka auto-plagiarism, happens when an author reuses significant portions of previously published work without attribution or citing the initial source. Or a student provides the same assignment in different classes without the permission of earlier professors.

Mosaic Plagiarism: When an author uses statements from a source without using quotation marks or finds synonyms to replace the source statement while maintaining the general sentence structure.

Aka "patchwriting,"

Accidental Plagiarism: Occurs when an author fails to cite their sources or misquotes or unintentionally paraphrases their origin by using the same words or groups of words, and sentence structure without citation.

Policy and Implementation

The AJRH expects all authors submitting manuscripts to abide by ethical standard and refrain from plagiarism, in any form. Our Editors will investigate every suspected case of plagiarism before and after the publication of the manuscript.

When the text plagiarized is minor (less than 25% of the text), the author(s) will be given an opportunity to make the necessary corrections. When the piracy is extensive (greater than 25% of the text) the author(s) will be provided a chance to explain within two weeks. If no response from the author(s) after the deadline period, the manuscript will be rejected, and the authors will be barred for three years from submitting a manuscript to the journal. When an already published manuscript is found to be plagiarized, the article will be retracted from the AJRH and any third party websites where the paper is listed and indexed.

Code of Publishing Conduct Policy

The AJRH has adopted the best practice guidelines on the Code of Conduct for Journal Editors recommended by the Committee on Publication Ethics and published at the following link: https://publicationethics.org/files/Code_of_conduct_for_journal_editors_Mar11.pdf

Submission of Manuscripts *Format* — All manuscripts should be typed on A4 paper size with 1.25 inches margin on all sides. The preferred font for entire text is Times New Romans. The AJRH abhors the stigmatization of people with a medical diagnosis, individuals with a disability, and the socioeconomically disadvantaged groups such as the homeless. Authors are required to use the people-first language when referring to these individuals. Additional information on the issue can be accessed at:

https://ajrh.info/index.php/ajrh/article/view/1703

***Ethical Clearance* —** Consistent with the ethical standards of the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards, authors submitting the findings of research

investigation that involve human subjects, must include a statement in the Methodology Section to the fact that the protocol was approved by the Institution Review Board or the Human Experimentation and Ethics Committee.

All manuscripts should be in their final form when submitted and should be in triplicate.

Authors may mail documents to the journal's editorial office at the following address: The Editor

African Journal of Reproductive Health,

Women's Health and Action Research Centre, Igue-Iheya Village, Benin-Lagos Express Road

P. O. Box 10231, Ugbowo, Benin City, Nigeria.

Additionally, manuscripts are accepted via e-mail at: wharc@hyperia.com or online at the publisher's webpage:

africanjournalofreproductiveH@gmail.com

No faxed submissions will be accepted. A cover letter must accompany the manuscript should certify that the article has not been previously published and is not being considered for publication elsewhere. All authors are advised to submit an electronic copy along with a hard copy of their manuscript, as this will spare remarkable time in the reviewing and typesetting processes.

Abstract — Articles and short reports should be accompanied by an abstract of not more than 150 words. The abstract should be unstructured in one paragraph and this should provide a concise description of the objectives of the study, methods used and major findings and conclusion.

Body — The body of manuscripts reporting on original research should be organized under appropriate headings and sub-headings such as Introduction, Methods, Results, Discussion, conclusion and references. Authors of review articles and short reports are requested to organize the body of their manuscripts using headings and sub-headings appropriate to the material and discipline represented.

Tables and figures: Use 9 points font size all through. Data in Tables MUST be provided in the cells inside Tables and aligned to the left. The Tables should be in single line paragraphing and 0‖ spacing. An example is shown in Table 1

Table 1: Distribution of educational status

Educational level	Number (%)
Non-literate	3,043 (61.5)
Completed primary	986 (19.9)
Completed secondary	585 (11.8)

The use of TABS and spacing between lines using line should be avoided. Attempts should be made to

.

stretched. Any Table that can fit into half column of a page must not be stretched into entire width of page. Table must be in usual format. Authors must not use spaces to create demarcation between lines inside table. Coloured tables and figures may be reprinted in black and white unless the authors indicate they wants them in coloured prin. In which case, the cost will be borne by the author.

Figures: Images should preferably be reduced to a width of about half of A4 size paper (with 1.25 inches margins) with very clear text (if any) of about 9-12 points. Larger images are acceptable provided that the sizes are justifiable and if there is need to reduce the sizes, any text will not be less than 9 points in size when reduced. As much as possible, figures labels should be such that they should not be less than 9 points in size when reduced to a width of about 2.5 inches. All images (picture) must be of high-resolution and of sufficient quality for both archival and print purposes. Images in which colors are not realistic, text is illegible, or images are pixilated will be rejected. Unless the authors are prepared to pay for the printing of the pages of the journal with colored images in their articles in colors, all images should be presented in black and white or gray format.

Acknowledgements should be included on a separate sheet of paper and should not exceed 100 words. Funding sources should be noted here

Citing of References inside text: Use numbers in superscript. The number should appear before the punctuation mark (e.g. Previous reports justify the need for this work[5-8].) and not after a comma or period.

References — References should be numbered in the order in which they occur in the text. These numbers should be inserted above the line on each occasion a reference is cited (e.g., . . . as noted in other studies.1-4). Numbered references should appear at the end of the article and should include the names and initials of all authors. The format of references should be as published by the International Committee of Medical Journal Editoin the British Medical Journal 1988, volume 296, pages 401-405.

The following are sample references for an article published in a journal and for a book:

- Nichols D, Ladipo OA, Paxman JM and Otolorin EO. Sexual behaviour, contraceptive practice, and reproductive health among Nigerian adolescents. Stud Fam Plann 1986; 17(2): 100-6.
- Oppong C. Responsible fatherhood and birth planning. In: Oppong C (Ed.). Sex Roles, Population, and Development in West Africa. New Hampshire: Heinemann, 1987, 165-78.

Author(s) Guarantee Form

All authors will be asked to complete and submit an author(s) guarantee form certifying that all authors named have contributed sufficiently to the work submitted and that the content of the manuscript has neither been previously published nor being considered for publication elsewhere.

Publication charge

Authors of manuscripts accepted for publication will be required to pay publication charge of US$500.00 before the accepted article is published.

ANNEXURE L: Author Guidelines Public Health journal

Home (l) Article Guidelines (/for-authors/article-guidelines)Research Articles

How to Publish

< ARTICLE GUIDELINES (FOR-AUTHORS/ARTICLE-GUIDELINES)

Preparing a Research Article

This page provides information about writing a Research Article for Fl 000Research, including the key sections that must be present in the article. Please also refer to Fl 000Research's editorial policies (/about/policies).
A template for Research articles is available here (https://fl 000 research.s3.amazonaws.com/resources/Research_article_template.docx).

Criteria

Research Articles should present originality in findings and insights and offer theoretical, empirical, experimental and/or methodological advances to their respective fields of research. Null and negative findings and reanalyses of previous studies leading to new results, as well as confirmatory results, are also encouraged.

Language

All articles must be written in good English. Both UK English and US English are accepted but this must be consistent throughout the manuscript. Please note that the article will not undergo editing by Fl 000Research before publication and a manuscript could be rejected during the initial checking process if it is deemed unintelligible and unsuitable for peer review.

For authors whose first language is not English, it may be beneficial to have the manuscript read by a native English speaker with scientific expertise. There are many commercial editing services that can provide this service at a cost to the authors.

Main Sections

1 . Authors
2. Title
3. Abstract
4. Keywords
5. Main Body
6. Data and Software Availability
7. Reporting Guidelines
8. Ethics and Consent
9. Author Contributions

1 0. Competing Interests

1 1 . Grant Information

Acknowledgments

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1. Authors

All authors should have made a significant contribution to the work and agree to be accountable for the parts of the work they have done. All authors should approve the final version for publication (see the ICMJE's Uniform Requirements for Manuscripts Submitted to Biomedical Journals (https://www.icmje.org/about-icmje/faqs/icmje-recommendations/) for more details). Being an author implies full responsibility for the article's content and that the work conforms to our editorial policies (/about/policies). For large, multi-centre collaborations, the individuals who accept direct responsibility for the manuscript must be listed as authors.

Details of each author's contribution must be listed in the Author contributions section.

Anyone who has contributed but does not meet the criteria for authorship should be listed in the Acknowledgments section. The involvement of any professional medical writer assistance must be declared.

2. Title

Please provide a concise and specific title that clearly reflects the content of the article.

3. Abstract

Abstracts should be up to 300 words long and provide a succinct summary of the article. Although the abstract should explain why the article might be interesting, the importance of the work should not be overemphasized. Citations should not be used in the abstract. Abbreviations, if needed, should be spelled out. Abstracts are structured into Background, Methods, Results, and Conclusions.

4. Keywords

Authors should supply up to eight relevant keywords that describe the subject of their article. These will improve the visibility of your article.

5. Main Body

The format of the main body of the article is flexible: it should be concise, making it easy to read and review, and presented in a format that is appropriate for the type of study presented. A Research Article should be no more than 20,000 words.

For most Research Articles, the following standard format will be the most appropriate:

- Introduction
- Methods
- Results
- Conclusions/Discussion

Introduction

The background to the research should be presented with reference to previous work. The research question should be presented.

Methods

Fl 000Research is committed to serving the research community by ensuring that all articles include sufficient information to allow others to reproduce the work. With this in mind, Methods sections should provide

vvllere appncaLJle, we also el ICOU1age aut1101S UePOSlL a SœP-OY-SœP UeSC11PL1011 Ol PIOIOCOIS 011 protocols.io (https://www.protocols.io/), where they obtain a persistent digital object identifier (DOI), which can be included in the Methods section of the article, using https://doi.org/10.17504/protocols.io.[PROTOCOL DOI] as the format (e.g. https://doi.org/10.17504/protocols.io.hrkb54w (https://doi.org/1 0.17504/protocols.io.hrkb54w)). Authors should note that the protocol is only made public once they select "Publish" on protocols.io.

If the study involves the use of a questionnaire that has been validated by a previous study, this should be cited and a URL link provided to the validated questionnaire. If the authors have created a novel questionnaire (or performed a translation), the article must state if the questionnaire has been validated, and provide the following information:

- Initial ace validity testing
- Preliminary pilot testing
- Reliability testing (internal consistency, test-retest, inter-rater) • Any changes implemented resulting from preliminary testing

The novel questionnaire should be provided as extended data.

Results

Results should be presented clearly with all underlying data either in the main body of the manuscript or deposited in a publicly accessible repository in line with our data guidelines (/for-authors/data-guidelines).

Discussion

Results should be discussed in the context of existing literature. Strengths and weaknesses of the study should be presented and discussed. Future directions for work should be raised.

Preregistered data analysis

Authors must include a statement to indicate if they did or did not preregister the research with or without a data analysis plan at an independent registry (e.g., https://clinicaltrials.gu[_(https://clinicaltrials.gu[), https://www.socialscienceregistry.org[_(https://www.socialscienceregistry.org[), https://openscienceframework.org[_(https://openscienceframework.org[), https://egap.org/design/registration/ (https://egap.org/design/registration/), https://ridie.3ieimpact.orgL (https://ridie.3ieimpact.org[).).

Please include all pre-registered analyses in the text and disclose any changes from the analysis plan. Clearly distinguish between analyses that were preregistered and those that were not.

A link to the preregistration must be made available in the manuscript and will be verified prior to publication.

6. Data and Software Availability

Underlying data

All articles must include a Data Availability Statement, even where there is no data associated with the article see our data guidelines (/for-authors/data-guidelines) and policies (/about/policies#dataavail) for more information.

The Data Availability Statement should provide full details of how, where, and under what conditions the data underlying the results can be accessed; for practical guidance please see our data guidelines (/forauthors/data-guidelines) page; and our list of approved data repositories.

- Title of file. (Description of data in file).
- Title of file. (Description of data in file).

Data is available under the terms of the [Name of license].

For example:

OSF: Ethics issues identified by applicants and ethics experts in Horizon 2020 grant proposals. https://doi.org/1 0.17605/OSF.lO/T765V (https://doi.org/1 0.17605/OSF.lO/T765V). (Buljan et al. ,2021).

This project contains the following underlying data:

- Data file 1. Datasets.xlsx

Data are available under the terms of the Creative Commons Zero "No rights reserved" data waiver (https://creativecommons.org[publicdomain/zero/l.0/) (CCO 1 .0 Public domain dedication).

Example taken from: Buljan l, Pina DG and Marušié A. Ethics issues identified by applicants and ethics experts in
Horizon 2020 grant proposals [version 2; peer review: 2 approved]. Fl 000Research 2021, 10:471 (https://doi.org/1 0.1 2688/f1000research.52965.2 (https://doi.org/1 0.12688/f1000research.52965.2)).

If you have deposited your dataset in a structured, subject-specific repository, for example an INSDC member repository (https://www.insdc.org[), you may receive an accession code as a persistent identifier and a Creative Commons license will not be applicable.

In this case, your data availability statement should follow the following format:

NCBI Gene: lhel intestinal helminth expulsion 1 [Mus musculus (house mouse)]. Accession number 107537 (https://www.ncbi.nlm.nih.guLgene/107537).

Restricted data

Some data may be restricted for legitimate reasons including data protection, copyright or reasons related to ethics or privacy. In these cases, the Data Availability statement should provide full details of the restrictions on the data, and how, where, and under what conditions the data underlying the results can be accessed.

Please provide the required information listed under the relevant exception in our data policy. .(/about/policies#dataavail).

Extended data

There are no figure or table limits for articles in Fl 000Research. Additional materials that support the key claims in the paper but are not absolutely required to follow the study design and analysis of the results, e.g., questionnaires, supporting images or tables, can be included as extended data; descriptions of the materials and methods should be in the main article. Extended data should be in a format that supports reuse under a CCO (https://creativecommons.org[publicdomain/zero/l .0/). or Public Domain Dedication or CC-BY 4.0 Attribution-Only (https://creativecommons.org/licenses/by/4.0/) license. Care should be taken to ensure that the publication of extended data in this instance does not preclude primary publication elsewhere. If you intend to publish additional research articles based on the extended data with another journal, you should ensure that publishing your extended data in this way will not be considered 'prior publication' by your chosen journal.

This project contains the following extended data:

- Title of file. (Description of data in file.)
- Title of file. (Description of data in file.)

Data is available under the terms of the [Name of license].

For practical guidance please see our data guidelines (/for-authors/data-guidelines) page; and our list of approved data repositories.

Please note, information which can be used to directly identify participants should not be included in underlying and extended datasets, unless they have provided explicit permission to share their details. Please see our data guidelines for further information.

Software and Code

All articles should include details of any software and code that is required to view the datasets described or to replicate the analysis. Please see our data guidelines (/for-authors/data-guidelines) and policies .(/about/policies#dataavail) for more information.

Where software is used to process, store or analyse data, please include the version number of the software used.

Where proprietary software is used, please also include an open-access alternative that can perform the same function. We recognise that there may be cases where this may not be feasible. Please see our software availability policy (/about/policies#dataavail) for more information or contact the editorial team if this is the case.

If you are describing new software, please make the source code available on a Version Control System (VCS) such as GitHub, BitBucket or SourceForge, and provide details of the repository and the license under which the software can be used in the article. Please also deposit an archived copy of the software at the time of submission to a recognised repository. You should include a statement in the manuscript as follows:

- Software available from: URL for the website where software can be downloaded from, if applicable.
- Source code available from: URL for versioning control system (for example GitHub).
- Archived source code at time of publication: DOI and citation for project in Zenodo (please select the appropriate DOI for the version which underlies your article).
- License: Must be an open license and preferably an OSI-approved license (https://opensource.org/licenses).

7. Reporting Guidelines

Standards of reporting guidelines help authors to ensure that they have provided a comprehensive description of their research, making it easier for others to assess and reproduce the work; for more detail and a comprehensive overview, see the FAIRSharing (https://fairsharing.orgL) initiative. Available reporting guidelines for biological research can be found using the MIBBI Foundry filter (https://fairsharing.org/search? selected facets=isMlBBl%3Atrue&fairsharinaReaistrv=Standard) on the FAIRSharina website.

Checklists are available for a number of reporting guidelines, including:

- Randomized controlled trials (CONSORT (http://www.consort-statement.org/downloads))
- Observational studies (STROBE (https://www.strobe-statement.org[))
- Qualitative research (COREO (https: fl 000research.s3.amazonaws.com resources CORE checklist.pdf); SRQR (https://fl 000research.s3.amazonaws.com/resources/SRQR_checklist.pdf))
- In vivo animal studies (ARRIVE (https://arriveguidelines.org/arrive-guidelines))

Please deposit completed reporting checklists and flow charts in an approved general repository; include the guideline type, name of the repository, the DOI, and license in the manuscript's Data availability statement in the style of, for example:

> Repository: CONSORT checklist for 'Title of paper'. https://doi.org/1 0.5256/repository.4591.d34639.
>
> Data are available under the terms of the Creative Commons Zero "No rights reserved" data waiver (https://creativecommons.org[publicdomain/zero/l.0/). (CCO 1 .0 Public domain dedication).

Clinical Trials: Articles in Fl 000Research that report clinical trials must adhere to the CONSORT (http://www.consort-statement.org/downloads) reporting guidelines. For reporting of the intervention methodology itself, Fl 000Research endorses the TIDieR checklist (http://www.consortstatement.org/resources/tidier-2)J an extension of the CONSORT statement. We ask authors to include a copy of the original trial protocol and a completed CONSORT checklist (http://www.consortstatement.org/checklists/view/32--consort-201 0/66-title) and flow diagram

(http://www.consortstatement.org/consort-statement/flow-diagram) as supporting files, which will be published alongside the article. The trial registration number and registration date must be included in the Methods section. Any deviation from the original trial protocol must be explained in the article. If the data associated with your article relate to a clinical trial then the Trial Registration details must be provided: name of registry, registry number, registration date and URL of the trial in the registry database. We support the public disclosure of all clinical trial results (as mandated in the US FDA Amendments Act, 2007), for example on a public website, such as clinicaltrials.gov. The disclosure of results on such sites does not preclude the publication of articles reporting and/or analyzing the same datasets in Fl 000Research. For further details about trial registration, see our editorial policies (/about/policies).

Research with animals: Fl 000Research endorses the ARRIVE (https://arriveguidelines.org/arrive-guidelines) guidelines; we encourage authors to consult the guidelines before the start of their study and all research involving animals must be reported in line with these guidelines. The guidelines apply to all species, including non-protected species and invertebrates.

All articles reporting in vivo experiments must conform with the ARRIVE Essential 10 checklist (https://arriveguidelines.org/sites/arrive/flles/documents/Author%20Checklist%20-%20E10 ^{0}/0200nly=pdf), and we encourage authors to ensure they report in line with the full ARRIVE 2.0 checklist (https://arriveguidelines.org/sites/arrive/files/documents/Author%20Checklist%20-%20Full.pdf). Authors should include a completed ARRIVE checklist with their article and this will be included in the Reporting Guidelines section of the article when published. As the online version of your article will not have page numbers please use section names rather than page numbers when completing the checklist.

The NC3Rs provide detailed explanations of each item of the guidelines with examples of good reporting from

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- Authors should ensure that the terms sex and gender are used correctly throughout the article.
- Title/abstract: it should be clear if the results can only be applied to one sex or gender.
- Introduction: if sex and gender differences are expected in the results, these should be stated.
- Methods:
- if sex and gender differences were taken into consideration for the design of the study these should be stated. If they were not taken into consideration, the rationale should be given.
    - explanation of how sex of participants was defined should be stated, either based on selfreport, assigned following external or internal examination of body characteristics, or through genetic testing or other means.
- Results: data should be presented disaggregated by sex and gender.
- Discussion: implications of sex and gender differences in the results should be discussed. If sex or gender analysis was not conducted, the rationale should be given.

We encourage authors to consult the guidelines before performing their research and when writing their article. Our SAGER guideline checklist can be found here (https://fl 000 resea rch.s3.amazonaws.com/resources/SAG ER_FI 000_checkli st. pdf).

8. Ethics and Consent

Ethics Policies: All research must have been conducted within an appropriate ethical framework. For studies involving humans or animals, details of approval by the authors' institution or an ethics committee must be provided in the Methods section. Please refer to the detailed 'Ethics' section in our editorial policies .(/about/policies) for more information.

Consent: For articles involving patient/participant data or information (e.g. personal genomics articles, case reports, clinical trials, questionnaires, observations), authors must ensure that they have written informed consent from all the subjects involved (or their legal guardian for a minor, or next of kin if the participant is deceased). Please be ready to provide copies of such consent forms, if requested by the Fl 000Research team. For details, see our editorial policies (/about/policies).

If applicable, please include a section entitled "Consent" and state 'Written informed consent for publication of the participants/patients' details and/or their images was obtained from the participants/patients/parents/guardian/relative of the participant/patient.,

9. Author Contributions

We are using the CRediT Taxonomy to capture author contributions as we believe that having more detail of who did what brings transparency, enables recognition for researchers, and provides greater accountability for all involved. For more information click here (http://credit.niso.org).

You do not need to include an Author Contributions section in your manuscript: on submission, you will be asked for the contributions made by each author, to be selected from the list below. Anyone who has contributed but does not meet the criteria for authorship should be listed in the Acknowledgments section.

Contributor Role	Role Definition
Conceptualization	Ideas; formulation or evolution of overarchina research aoals and aims.
	research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse.
Formal Analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data.
Funding Acquisition	Acquisition of the financial support for the project leading to this publication.
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.
Methodology	Development or design of methodology; creation of models.
Project Administration	Management and coordination responsibility for the research activity planning and execution.
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.

Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.
Validation	Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.
Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.
Writing - Original Draft Preparation	Creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).
Writing - Review & Editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision including pre- or post-publication stages.

10. Competing Interests

Articles published in Fl 000Research must not contain content that could be perceived as 'advertising' and must include a Competing Interests section. Any financial, personal, or professional competing interests for any of the authors that could be construed to unduly influence the content of the article must be disclosed and will be displayed alongside the article. More information on what might be construed as a competing interest is available in our editorial policies (/about/policies#compint).

If you do not have any competing interests, add the text 'No competing interests were disclosed'.

11. Grant Information

Please state who funded the work, whether it is your employer, a grant funder etc. Please do not list funding that you have that is not relevant to this specific piece of research. For each funder, please state the funder's name, the grant number where applicable, and the individual to whom the grant was assigned.

If your work was not funded by any grants, please include the section entitled "Grant information" and state: 'The author(s) declared that no grants were involved in supporting this work'.

include the name and affiliation, from all those mentioned in the Acknowledgments section. Please note that grant funding should not be listed here.

13. Supplementary Material

To ensure all materials associated with a manuscript are visible, FAIR, and subject to peer review, Fl 000Research does not accept submission of supplementary materials. For more information, please see the extended data section in Data and Software Availability.

14. References and footnotes

References and footnotes can be listed in any standard style if it is consistent within a given article. We allow both references and footnotes within an article (a full reference list within text citations, and explanatory footnotes).

Our basic requirements include:

- Abbreviations and journal names should align with discipline specific standards.
- Preprints can be cited and listed in the reference list.
- Unpublished abstracts, papers that have been submitted to a journal but not yet accepted, and personal communications should instead be included in the text; they should be referred to as 'personal communications' or 'unpublished work' and the researchers involved should be named. Authors are responsible for getting permission to quote any personal communications from the cited individuals. • Web links should be included as hyperlinks within the main body of the article, and not as references. • Datasets published or deposited elsewhere (for example, in a general repository) should be listed in the "References" section and the citation to the dataset should follow one of these examples (https://www.dcc.ac.uk/guidance/how-guides/cite-datasets).

15. Figures and Tables

All figures and tables should be cited and discussed in the article text. There is no limit to the number of figures and tables you can have. Figure legends and tables should be added at the end of the manuscript. Tables should be formatted using the 'Insert Table' function in Word or provided as an Excel file. For larger tables or spreadsheets of data, please see our data guidelines (/for-authors/data-guidelines) for further information. Files for figures are usually best uploaded as separate files through the submission system (see below for information on formats).

Any photographs must be accompanied by written consent to publish from the individuals involved. Any distinguishing features, including medical record numbers or codes in the case of clinical images that could be used to identify the patient or participant concerned must be removed from the images.

Titles and legends: Each figure or table should have a concise title of no more than 1 5 words. A legend for each figure and table should also be provided that briefly describes the key points and explains any symbols and abbreviations used. The legend should be sufficiently detailed so that the figure or table can stand alone from the main text.

Permissions: If reusing a figure or table from a previous publication, the authors are responsible for obtaining permission from the copyright holder and for the payment of any fees (if applicable). Please include a note in the legend to state that: 'This figure/table has been reproduced with permission from [include original publication citation]'.

Figure formats: For all figures, the colour mode should be RGB or grayscale.

displayed (between 75-150 mm width, which converts to one or two columns width, respectively), and that the font size and type is consistent between images. Figures should be created using a white background to ensure that they display correctly online.

If you submit a graph, please export the graph as an EPS file using the program you used to create the graph (e.g., SPSS). If this is not possible, please send us the original file in which the graph was created (e.g., if you created the graph in Excel, send us the Excel file with the embedded graph).

If you submit other forms of line art such as flow charts, diagrams or text to be displayed as an image, please export the image as an EPS file (e.g., if creating phylogenetic trees with specialized programs), or send us the original file that was used to create the image (e.g., EPS or Al files if Adobe Illustrator was used, or a DOC, DOCX, PPT, PPTX or equivalent file if Word or PowerPoint was used).

If none of the above options is possible then we also accept uncompressed TIFFs with a resolution of at least 600dpi at the size they are likely to be displayed at (see above).

Photographs and microscopy images: Photographs and microscopy images should be submitted as uncompressed TIFFs with a resolution of at least 300dpi at the size they are likely to be displayed (see above).

Mixed images: Images that are a mix of half-tone images and line art (e.g., annotated gels or images with scale bars) should be submitted as TIFF files at a resolution of 500dpi or vector files (e.g. EPS or Adobe
Illustrator files). Please ensure that the text size is at least 8pt and lines are thick enough to be clearly visible at the size the image will be displayed.

Images to be used as data: If you are submitting photographic images as part of your raw dataset, please submit them as uncompressed TIFF files.

Electronic manipulation of images: The clarity of figures may be improved using image-editing software, but this must be done transparently and without misrepresenting the data (and the original, unaltered source data must be provided with the article). Brightness, contrasts or colour balance may be used to enhance electronic images, but such changes must be applied to the whole image; any non-linear adjustments must be made explicit in the figure legend. Specific features within an image must not be added or changed (e.g., amplified, removed or obscured); and if figures are composed from images that have come from different sources, such as different gels, or from different parts of the same source, this must be made clear on the figure (e.g., by adding dividing lines). Authors are required to include details of all modifications made to images published as figures or uploaded as data in the Methods section of an article, including the name of the software (with version number) used to make these modifications. Please see our Policies on Image Manipulation (/about/policies#imagemanip) for more information.

16. Units, Symbols and Mathematical Scripts

There are no strict rules on the format of mathematical scripts however, here is some useful advice:

- Special care should be taken with mathematical scripts, especially subscripts and superscripts and differentiation between the letter "ell" and the figure one, and the letter "oh" and the figure zero.
- It is important to differentiate between: K and k; X, x and x (multiplication); asterisks intended to appear when published as multiplication signs and those intended to remain as asterisks, etc.
- In both displayed equations and in text, scalar variables must be in italics, with non-variable matter in upright type.
- For simple fractions in the text, the solidus "/" should be used instead of a horizontal line, care being taken to insert parentheses where necessary to avoid ambiguity. Exceptions are the proper fractions available (e.g., $^{1}/4$, $^{1}/2$, $^{3}/4$).
- The solidl/s is not aenerallv used for units• m s-1 not m/s- blit note electrons/s-counts/channel etc.

- Braces, brackets, and parentheses are used in the order {[( ) }, except where mathematical convention dictates otherwise (e.g., square brackets for commutators and anticommutators; braces for the exponent in exponentials).
- For units and symbols, the Sl system should be used. Where measurements are given in other systems, please insert conversions.

If your article contains special characters, accents, or diacritics and you are preparing your manuscript in Microsoft Word, we recommend the following procedure:

For European accents, Greek, Hebrew, or Cyrillic letters, or phonetic symbols: choose Times New Roman font from the dropdown menu in the "Insert Symbol" window and insert the character you require. For Asian languages such as Sanskrit, Korean, Chinese, or Japanese: choose Arial Unicode font from the dropdown menu in the "Insert Symbol" window and insert the character you require.

We can accept specific fonts but only those that are Unicode; this font should be submitted with the article. Please also see the Unicode character code chart (https://www.unicode.org/charts/).

For transliterated Arabic: you may choose either Times New Roman or Arial. For ayns and hamzas choose Arial Unicode font from the dropdown menu in the "Insert Symbol" window and then type the Unicode hexes directly into the "Character Code" box. Use 02BF for ayn, and 02BE for hamza.

17. Authors' Role in the Peer Review Process

Fl 000Research has a post-publication peer-review model, where the peer-review process takes place after the article has been published. As the peer-review process is author-led, we ask our authors to provide at least 5 reviewer suggestions which are suitable according to our Reviewer Criteria before the article can be published (please see our Finding Article Reviewers (/for-authors/tips-for-finding-referees) page for an explanation of our Reviewer Criteria and tips for finding reviewers).

Once the article is published, authors are expected to continue providing reviewer suggestions until the article receives two peer review reports - our editorial team will contact the authors when more reviewers are required and as soon as a peer-review report is published.

After two reports have been published, we strongly encourage our authors to revise their article according to the reviewers' comments - this is particularly important if the article hasn't passed the peer-review process after the first two reports are published, as reviewers can only re-review an article to provide an updated report (possibly with an updated Approval Status) after a revised article version has been published.

Once the revised article version is published, we will notify the original reviewers to ask them to re-review the article as soon as possible. Authors are also welcome to continue providing reviewer suggestions while waiting for any re-reviews from the original reviewers.

Appendix

FACULTY OF HUMANITIES, SOCIAL SCIENCES AND EDUCATION

10 March 2023

TO WHO IT MAY CONCERN

Sir/Madam

This serves to confirm that I have proof-read the following sections of Ms HS Munyai's thesis:

- **Section 1: Thesis Overview**
- **Experiences of LO Teachers Teaching Sexuality Education in Secondary Schools in Vhembe and Mopani districts, Limpopo Province, South Africa**
- **Conceptual Framework for Promoting Sexuality Education for caregivers of Primary School Learners in Limpopo province**

The proof-reading entailed editing some parts of the document; for example, to avoid wordiness, redundancy, sub-dividing sentences, and so on, to enhance the readability of the document.

However, I have not tampered with the content of the document, except where this constituted repetition or made the document confusing.

Sincerely

.....

Mr. F. Mahori

Lecturer: Department of English, Media Studies and Linguistics

University of Venda

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