ORIGINAL RESEARCH ARTICLE

Experiences of life orientation among teachers teaching sexuality education in secondary schools in Vhembe and Mopani Districts Limpopo Province, South Africa

DOI: 10.29063/ajrh2023/v27i3.6

Humbulani S. Munyai 1,2*, Lufuno Makhado3, Dora U. Ramathuba1 and Rachel T. Lebese4

Advance Nursing Science, School of Health Sciences, University of Venda, Thohoyandou, Limpopo, South Africa¹; Midwifery science, Limpopo College of Nursing, Thohoyandou campus, Limpopo, South Africa²; Public Health, School of Health Sciences, University of Venda, Thohoyandou, Limpopo, South Africa³; Research Office, School of Health Sciences, University of Venda, Thohoyandou, Limpopo, South Africa⁴

*For Correspondence: Email: humbusa@gmail.com; Phone: +27729568291

Abstract

Teachers' experiences regarding sexuality education are significant indicators of teaching sexuality in secondary schools. However, the importance of including sexuality education in the educational system is rising globally. This suggests that Life Orientation (LO) teachers have a unique and vital role to play, one for which they are not always ready, especially when sexuality education is a cross-curricular subject. This study examined teachers' experiences regarding teaching sexuality education in Limpopo Province. This study aimed to explore and describe the experiences of the Life Orientation (LO) teachers teaching sexuality education in secondary schools in Vhembe and Mopani districts Limpopo Province, South Africa. A qualitative, exploratory-descriptive phenomenological design was employed. In-depth face-to-face interviews were conducted with 14 LO teachers from four (4) sets of public secondary schools in Vhembe and Mopani districts. Interviews were audio recorded. Field notes were used to capture nonverbal communication from participants. Data saturation was reached on the seventh (7th) face to face interviews. A Qualitative thematic analysis was employed to analyses data. The results revealed four themes: Participant experiences of sexuality education; Communication concerns; Role shifting in imparting sexuality education and challenges experienced by LO teachers in the classes room. Ethical considerations and trustworthiness was ensured. The study concluded that participants experiences of sexuality education; communication concerns; role shifting in imparting sexuality education operate as barriers to comprehensive sexuality education. Recommendations: teachers need to be equipped with knowledge and skills and to teach various sexuality topics, including providing human and material resources. (Afr J Reprod Health 2023; 27 [3]: 47-55).

Keywords: Experiences, life orientation, sexuality education, teachers

Résumé

Les expériences des enseignants en matière d'éducation à la sexualité sont des indicateurs significatifs de l'enseignement de la sexualité dans les écoles secondaires. Cependant, l'importance d'inclure l'éducation sexuelle dans le système éducatif augmente à l'échelle mondiale. Cela suggère que les enseignants en orientation de vie (OL) ont un rôle unique et vital à jouer, rôle pour lequel ils ne sont pas toujours prêts, surtout lorsque l'éducation à la sexualité est une matière transversale. Cette étude a examiné les expériences des enseignants concernant l'enseignement de l'éducation sexuelle dans la province du Limpopo. Cette étude visait à explorer et à décrire les expériences des enseignants d'orientation de vie (OL) enseignant l'éducation sexuelle dans les écoles secondaires des districts de Vhembe et de Mopani, province du Limpopo, en Afrique du Sud. Une conception phénoménologique qualitative, exploratoire-descriptive a été employée. Des entretiens approfondis en face à face ont été menés avec 14 enseignants de LO de quatre (4) ensembles d'écoles secondaires publiques dans les districts de Vhembe et Mopani. Les entretiens ont été enregistrés sur bande audio. Des notes de terrain ont été utilisées pour capturer la communication non verbale des participants. La saturation des données a été atteinte au septième (7ème) entretien en face à face. Une analyse thématique qualitative a été utilisée pour analyser les données. Les résultats ont révélé quatre thèmes : les expériences des participants en matière d'éducation sexuelle; Problèmes de communication ; Changement de rôle dans la transmission de l'éducation sexuelle et défis rencontrés par les enseignants de LO dans la salle de classe. Les considérations éthiques et la fiabilité ont été assurées. L'étude a conclu que les expériences des participants en matière d'éducation sexuelle ; problèmes de communication; le changement de rôle dans la transmission de l'éducation sexuelle constitue un obstacle à une éducation sexuelle complète. Recommandations: les enseignants doivent être dotés de connaissances et de compétences et enseigner divers sujets liés à la sexualité, notamment en fournissant des ressources humaines et matérielles. (Afr J Reprod Health 2023; 27 [3]: 47-55).

Mots-clés: Expériences, orientation de vie, éducation à la sexualité, enseignants

Introduction

Teachers' experiences concerning sexuality education are important predictors of their unwillingness to teach sexuality education programmes in schools¹. They are recognized as the primary providers in determining learners' collaboration in a cooperative learning setting through effective lesson planning in the field of education². In addition, Goal 3 of the Sustainable Development Agenda, Target 3.7, calls for ensuring by 2030 that all people have access to family planning services and that reproductive health is integrated into national plans and programs, which many African nations have not fully complied with. Progress in achieving the Millennium Development Goals in promoting sexuality education slowed down due to scarce Life orientation (LO) teachers who can provide sexuality education³.

Globally, it is commonly advocated that comprehensive sexuality education (CSE) should be adopted in classrooms around the world because it is successful at shielding teenagers from sexual health risks. However, the permissive and explicit nature of many CSE curricula 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 everywhere⁴. Comprehensive sexuality education plays a fundamental part in upholding sexual and reproductive health of the learners⁵ .In African countries, cultural values and taboos weaken the quality of learning and teaching sexuality education⁶ It is difficult for teachers to deal with delicate cultural issues when teaching and learning about sexual health issues. Teachers find it difficult to teach sexuality education because they are of the opinion that, teaching sexuality education is against their cultural norms and beliefs⁷. 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 topics⁸. Culturally sensitive topics influence the spread of messages that go against comprehensive sexuality education principles, mainly regarding gender norms and sexual harassment⁹. Alternative linguistic techniques are 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 teacher and learner¹⁰.

In Uganda and South Africa, Teachers are required to teach sexuality education, but doing so is considered unethical¹¹. LO teachers were worried that society would consider them immoral, particularly when demonstrating how to use a condom or other means of contraception, which might be interpreted as approval for learners to become sexually active¹¹.

In Kenya, aspects of sexuality education are covered in the Life Skills Education Curriculum and are split up among other subjects like biology and Christian Religious Education. Teachers believed the integration of sexuality education [SE] into other subjects had the disadvantage of allowing them [teachers] to skip over topics that were not controversial to them¹². However, teachers' provision of sexuality education was significantly hampered by a lack of training, the absence of CSE in the curriculum, and insufficient time allotted for it¹³.

A study conducted in Kenya revealed that teachers had some significant disparities in the content being taught as they must make decisions on their own regarding what and when to teach sexuality education¹⁴ This, resulted in holding back information from learners and focusing on abstinence as the only way of preventing sexual health risks or overlooking sexuality education teachings altogether¹⁵. In South Africa, sexuality education is a crucial content area in Life Orientation (LO) and a programme that was introduced as a learning area. 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 1990s¹⁶. After 1990, South African schools began to teach Life Orientation as a subject¹⁶. Additionally, South African sexuality education teachers frequently disregard sexuality education in the curriculum. This is problematic because the curricula for Life Orientation, Life Sciences, and Natural Sciences all include sexuality education. Teachers emphasized the importance of personality and life experience as important features for teaching sexuality. In addition, they felt that it was challenging to have an open discussion and keep classroom discipline simultaneously¹⁶. With their own cultural standards, personal values, and attitudes in conflict with the curriculum's goals, teachers struggle with the sexuality education curriculum¹⁷. Given that South African teachers have not had sufficient "training" in teaching sexuality education, it is not unexpected that they are struggling with the curriculum¹⁷. These teachers, specifically LO teachers, are typically female and come from various academic areas depending on their teaching duties¹⁸. The study sought to explore experiences of LO teachers' teaching sexuality education isecondary schools in the Mopani and Vhembe districts of Limpopo province.

Problem statement

Sexuality education is a curriculum-based method of instruction and knowledge about the cognitive, emotional, physical, social and even spiritual aspects of sexuality. It is delivered in both formal and non-formal settings. The International technical guidance on sexuality education was developed to assist education, health and other relevant authorities in developing and implementing schoolbased and out-of-school sexuality education programmes¹⁹. In the late 1990s, South African schools began to teach Life Orientation as a subject. Sexuality education is a key content area in the Life Orientation programme that was introduced as a learning area. Teachers are given a considerable amount of responsibility and autonomy in respect of the implementation of the LO. However, Teachers felt that teaching LO, in general, was culturally more challenging than teaching about HIV and AIDS²⁰. The risks for sexuality education in South Africa are high because of inadequately trained teachers and often add to the silence about sexuality education. Teachers are a critical resource sexuality education. The shortage information on their perspectives is an important gap in understanding the most aspects contributing to the current provision of sexuality education to learners.

Nevertheless, educators' confidence, values, knowledge, and skills concerning sexuality have the power to bring about long-term change in

sexuality education. The researcher observed a lack of training and support for the LO teachers. Therefore, the researcher sought to explore and describe the experience of LO teachers regarding sexual sexuality education in public schools in Limpopo Province.

Methods

In this study a qualitative, explorative, descriptive and phenomenological designs was employed. This method was employed because the researcher aimed to explore the experiences of LO teachers regarding promoting sexuality education to grade 8 learners in Vhembe and Mopani districts. A nonprobability purposive sampling was used four (4) sets of public secondary schools in Thulamela and Greater Giyani Municipalities. A heterogeneous group of fourteen (14) participants were purposive sampled based on high rate of teenage pregnancy in selected schools. Four (4) participants were males and 10 Females with ages ranging from thirty to sixty (30-60) years old. The sample size was determined by data saturation. In-depth face-to-face interview was conducted to get rich information from each participant. Interviews were conducted in English. All participants were interviewed at schools during a free period in a quite room (office). The interviews lasted 40-60 minutes. One central question was asked. Can you explain in your own words what are your experiences regarding teaching sexuality education to grade 8 learners? Probing questions were asked to allow the participants describe their experiences to 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 recorder²¹. Data was analyzed conceptually, which included reading, coding, and developing themes²². Raw data was transcribed verbatim, including observational notes collected from in-depth face-to-face interviews. 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 analyze the data again, and then an agreement was achieved. A literature control was presented after data were analyzed to compare the findings of this study²³.

Data credibility was achieved through prolonged engagement with the participants during in-depth face to face interviews. 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. 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 was achieved by auditing the entire research process^{22,23}.

Results

The demographic characteristics of participants in the face-to-face in-depth interviews were fourteen (14) LO teachers from all the selected schools where the study was conducted. The group of participants were heterogeneous, with ages between thirty (30) and sixty (60) years old with teaching experiences between five (05) to thirty-five (35) years. The study's objective was to explore and describe the experiences of the LO teachers teaching sexuality education in Vhembe and Mopani district. Four themes (4) and eight (8) subthemes developed according to the meaning that participants attached to their experiences. The following themes emerged from data analysis: Participant experiences of sexuality education, Communication concerns, Role shifting imparting sexuality education and challenges experienced by LO teachers in the classroom.

Theme: Participants' experiences of sexuality education

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

Sub-theme: Bringing awareness about physiological body changes

The LO teachers understood sexuality education as information on physical development provided to

adolescents (learners) to make them aware of and help them cope with the changes occurring in their bodies. However, some of the topics were less communicated to learners.

"we discuss with them about the 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. Cleanliness and do supply them with sanitary pads and show them how to use them." [T5 - Female 50 years]

"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." [T6-Male 35 years]

"Emphasis is on abstinence as a method of prevention. We do not talk about going to the clinics to get contraceptives." [T4- Male 43 years]

"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." [T3-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 are obliged to teach about sexuality because the Department of Education introduced an integrated school health policy and curriculum that urge teachers to teach sexuality in class. Two themes emerged: Cultural barriers and Teachers lacking knowledge and skill to tackle sexuality topics.

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

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

"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 has good technique about it." [T1-Female 43 years] Other participants believed that learners should be empowered with information on contraceptives: "My problem is how to start presenting this sensitive topic to learner." [T4 - Male 43 years] "I feel I cannot talk about using a condom it is not culturally acceptable to talk about that. They will know more about that when they get married." [T7-Male 55 years]

Sub-theme: Cultural barriers

A participant said culture contributes to the amount of information to be discussed with learners in class. Some of the topics cannot be discussed in class because sexuality discussions with children is regarded as taboo. Therefore, as teachers, they ignore teaching sexuality education because of the societal values and standard within that society.

"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." [T2- Male 40 years])

Role shifting in imparting sexuality education

Participants indicated that when they encounter sensitive topics, they shift responsibility to teach sexual-related topics to a person they think can present the information better.

Sub-theme: teachers shifting responsibility to nurses

"What I tell them is that they should go to the nearest clinic and nurses will give you thorough information about contraception." [T9-Female 40 years]

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

Challenges experienced by LO teachers in the classroom

Participants raised that teaching life orientation is an extra burden in the absence of support from Department of Education. They further said that it is more challenging to teach the content that I have not been trained. This compromises education and learning.

Sub-theme: lack of support by colleagues

"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 and it 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 seriously" [T2- Male 57 years]

"Some teacher have an attitude and they influence other teachers to have negative attitudes towards LO teachers. [T8 - Female 46 years]

"I do not feel eager to teach life orientation when I come across such attitudes where teacher influences parents. she continued by saying, "there is no support from other teachers may be due to cultural belief. Oon the other hand, the [school] Principal would be telling you to do what you have been hired for because teachers are adults who are deciding to criticize than giving support." [T3-Female 40 years]

Sub-theme: lack of support by the government

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

"The government does not support us. they do not allocate periods equally as in to mathematic or Life science. "In our timetable if you can check only 2 periods per week allocated LO." [T9 - 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.

"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." [T5-Male 50 years]

"Workshops that are conducted are not enough. We need more training. Maybe teachers should be sensitized throughout our training because it is only a few teachers who are called to attend workshops". [T6-Male 35 years]

"I am just given a textbook to pass the information to the learners but I am not trained" [T1- Female 40 years]

Sub-theme: Lack of motivation

Participants argued that, all teachers are expected to teach life orientation; some teachers do not have an interest.

"Some teachers lack interest in teaching life orientation and we see that during the allocation of subjects amongst teachers. LO will not have any person to take it until the principal allocates it. Some teachers will refuse to take teach it" [T3-Female 40 years).

Discussion

The present study highlighted several experiences of the teachers across Thulamela and Greater Giyani municipality. It shed light on the need to be well prepared, and motivated to support and protect the sexual development of grade 8 learners transiting from adolescence to adulthood. In addition, LO teachers are qualified teachers who can provide sexuality education to the learners.

The results of this study revealed that LO teachers bring awareness of physical changes by providing information to the learners regarding the physiological changes, such as the changes in their body, menstruation, including prevention of sexual health risks. Alomair et al.²⁴ concurred with the results of this study that, young girls frequently experienced mental discomfort due to their ignorance of menstruation. Most LO teachers were communicating of not favour contraception and pregnancy. The results revealed that teachers believed it is not culturally acceptable to converse with learners about sexuality 25. In support of this notion, some teachers felt that it is controversial to communicate openly about sexualrelated issues with learners. This implies that grade 8 learners will remain unequipped; hence, the statistic of learners suffering with sexually transmitted infections and teenage pregnancy is alarming. therefore, lack of information exposes learners to sexual health risks, which could be prevented²⁶.

The study finding exposed that, communication concerns open many gaps, such as poor teacherlearner communication. The language barrier is one of the communication anxieties whereby the terminology used is unfamiliar to the learners. On the other hand, a lack of resources contribute to poor communication. Teachers found it difficult to convey the relevant message using appropriate language in this case. The language barrier might mislead both teachers and learners. Providing learners with a clear and unambiguous information reduces early sexual debut. If information is well conveyed, there would be no need to shift responsibility to nurses²⁷. Furthermore, the findings revealed that participants shifted responsibility because they are reluctant to deal with sensitive issues related to sexuality⁷. Avoiding talking about sensitive topic leave them uninformed about crucial information; hence they end up falling pregnant because teachers and parents decide to be silent about sensitive issues. A study conducted in Europe revealed that sexuality education is still a sensitive and something heavily disputed issue²⁸.

Lack of information delays accessibility of sexual health services. The availability of condoms at school can reduce teenage pregnancy and sexually transmitted infections at school. The study results revealed that LO teachers experience challenges in the classroom ranging from lack of support from the colleagues and the Department of Education. In contrast with this finding, Robinson *et al.* ²⁹ 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 learners.

Teachers face significant challenges in the classroom, ranging from lack of time, materials or resources to perceived community opposition, their own discomfort, and lack of knowledge or training on the topics. Effective sexuality education requires the backing of authorities and other key players. Most teachers expressed that their colleagues and the principal do not support their efforts to teach sexuality education³⁰. In addition to the lack of time for sexuality education in a packed schedule. Results further showed that lack of support from colleagues. This means that lack of support may discourage LO teachers from providing

comprehensive sexuality education and limit learners' right to sexual education ¹⁶.

Limitations

This was a convenient and relatively small sample size. Therefore, it does not represent the views of all LO teachers working within public secondary schools 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 even though permission was obtained from the Department of education Limpopo province. Budgetary considerations restricted the sample of schools to four (4) in each district and the results for each district are not nationally representative.

Ethical considerations

Ethical clearance was granted by the University of Venda **Ethics** committee project code (SHS/19/PDC/37/2410 District managers principals granted permission. It was decided that the researcher wouldn't visit schools when students were taking exams and would not 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 to participate. 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. Sexuality education is a sensitive topic that may violate the internal confidentially 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

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 four (4) themes: participant experiences of sexuality education; communication concerns; Role shifting in imparting sexiality education 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 were cited as the most significant hinderances to teacher-learner communication. Teacher also experiences challenges in classroom as the one in control in delivering sexuality education. The results of this study also highlighted the need to train and supporting teachers with human and material resources. Results of this study revealed the need to liaise with stakeholders in the community including learner to promote good rapport amongst all stakeholders. Findings from this study add to the existing body of research on empowering teachers and parents with knowledge and skills in sexuality education by focusing on teacher-learner and parent-learner communication on education and sensitising cultural barriers through encouraging open communication about sexuality.

Recommendations

This study revealed that all LO teachers acknowledge what sexuality education meant and what is expected from them. However, most of the teachers shows unpreparedness to outlined objectives on sexuality education. 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 should take place in schools, Department of Health and Department of education. Inclusion of culturally

sensitive sexuality education in school curricula. Use of less conventional teaching strategy and involving other stakeholders in the community to support teachers providing reproductive health issues should be considered.

Acknowledgements

The author acknowledges the learners for participating in this study.

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 analyzed 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.

Funding

This study was not funded.

Conflict of interest

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

References

- Leung H, Shek DT, Leung E and Shek EY. 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, 2019, 16(4), p.621.
- Jimmyns CA and Meyer-Weitz A. 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, 2020, 17, pp.364-377.
- Kantorová V, Wheldon MC, Dasgupta, A.N., Ueffing, P. and Castanheira, H.C., 2021. Contraceptive use and needs among adolescent women aged 15–19: regional and global estimates and projections from 1990 to 2030 from a Bayesian hierarchical modelling study. PLoS One, 16(3), p.e0247479.
- Panchaud C, Keogh SC, Stillman M, Awusabo-Asare K, Motta A, Sidze E and Monzón AS. Towards comprehensive sexuality education: a comparative analysis of the policy environment surrounding school-based sexuality education in Ghana, Peru, Kenya and Guatemala. Sex Education, 2019, 19(3), pp.277-296

- Baran B, Kaptanoğlu ŞN, Esen E, Siyez DM. Reproductive system augmented reality application for sexual health classes. International Journal of Sexual Health. 2020 Oct 1;32(4):408-20.
- De Haas B, Hutter I. Teachers' conflicting cultural schemas of teaching comprehensive school-based sexuality education in Kampala, Uganda. Culture, Health & Sexuality. 2019 Feb 1;21(2):233-47.
- 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;18:1-0.
- Mbarushimana V, Conco DN, Goldstein S. "Such conversations are not had in the families": a qualitative study of the determinants of young adolescents' access to sexual and reproductive health and rights information in Rwanda. BMC Public Health. 2022 Dec; 22(1):1-4.
- 9. Vanwesenbeeck I, Westeneng J, De Boer T, Reinders J and Van Zorge R. Lessons learned from a decade implementing Comprehensive Sexuality Education in resource poor settings: The World Starts With Me. Sex education, 2016; 16(5), pp.471-486
- Zhao P, Yang L, Sa Z and Wang X. Propriety, empowerment and compromise: Challenges in addressing gender among sex educators in China. Sex education 2020, 20(5), pp.552-567.
- 11. Magaya, S and Maphalala MC. The Quality of Primary School Teacher Training in HIV/AIDS Pedagogy in Manical and Province, Zimbabwe. International Journal of Educational Development, 2020, 5(1).
- Haas B and Hutter I. Teachers' conflicting cultural schemas of teaching comprehensive school-based sexuality education in Kampala, Uganda. Culture, health & sexuality, 2019; 21(2), pp.233-247.
- 13. Keogh SC, Leong E, Motta A, Sidze E, Monzón AS and Amo-Adjei J. Classroom implementation of national sexuality education curricula in four low-and middle income countries. Sex Education, 2021; 21(4), pp.432-449.
- 14. Ogolla MA and Ondia M. Assessment of the implementation of comprehensive sexuality education in Kenya. African Journal of Reproductive Health, 2019 23(2), pp.110-120.
- 15. Zulu JM, Blystad A, Haaland ME, Michelo C, Haukanes H and 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.
- 16. Seherrie AC and Mawela AS. Incorporating a Cooperative Teaching and Learning Approach in Life Orientation Lesson Planning.International Journal of Educational Methodology, 2021; 7(2), pp.373386.Seherrie et al.,2021.
- 17. Francis, D.A., 2019. What does the teaching and learning of sexuality education in South African schools reveal about counter-normative sexualities?. Sex Education, 19(4), pp.406-421

- 18. Likupe G, Chintsanya J, Magadi M, Munthali A and Makwemba M. Barriers to sexual and reproductive education among in-school adolescents in Zomba and Mangochi districts, Malawi. Sex Education, 2021; 21(4), pp.450-462.
- Msutwana NV. Meaningful teaching of sexuality education framed by culture: Xhosa secondary school teachers' views. Perspectives in Education, 2021; 39(2), pp.339-355.
- Venketsamy R. and Kinnear J. Accommodating Comprehensive Sexuality Education within the Grades R-3 Curriculum in South Africa. The Education Systems of Africa, 2020 pp.1-25.
- Brink H, Vander Walt C and van Ransburg G. Fundmentals of Research Methodology for Health Care Professionals. Juta. Cape Town, 2012.
- 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.
- 23. Polit DF and Beck CT. Nursing Research: (10th ed). Generating, assessing and evidence for nursing practice, Wolters Kluwer/Lippincott, Williams & Wilkins, 2017.
- 24. Alomair N, Alageel S, Davies N and Bailey JV. Sexual and reproductive health knowledge, perceptions and experiences of women in Saudi Arabia: a qualitative

- study. Ethnicity & Health, 2022; 27(6), pp.13101328.
- Mayeza E and Vincent L. Learners' perspectives on Life Orientation sexuality education in South Africa. Sex Education, 2019; 19(4), pp.472-485.
- 26. Li C, Cheng Z, Wu T, Liang X, Gaoshan J, Li L, Hong P and Tang K. The relationships of school-based sexuality education, sexual knowledge and sexual behaviors—a study of 18,000 Chinese college students. Reproductive health, 2017; 14(1), pp.1-9.
- 27. Munyai HS, Makhado L, Ramathuba DU, Lebese RT. Experiences of grade 8 learners on sexuality education from home and school at Mopani and Vhembe districts. African Journal of Reproductive Health. 2022 Sep 14;26(8):41-52.
- 28. Ketting E, Brockschmidt L, Renner I, Luyckfasseel L and Ivanova O. Sexuality education in Europe and Central Asia: Recent developments and current status. Sex education, 2018; pp.75-120.
- Robinson KH, Smith E and Davies C. Responsibilities, tensions and ways forward: Parents' perspectives on children's sexuality education. Sex Education, 2017; 17(3), pp.333-347.
- 30. Arynov Z. Changing perceptions of the European Union in central Asia. L'Europe en Formation, 2018; (1), pp.61-73. Sidze EM, Stillman M, Keogh S, Mulupi S, Egesa CP, Leong E, Mutua M, Muga W, Ba.