

A systematic review of comprehensive sexuality education for South African adolescents



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Comprehensive sexuality education (CSE) was implemented in South African schools in the year 2000 as part of the subject Life Orientation, with the aim of contributing positively to adolescent sexual health in a holistic manner. Continued high rate of teenage pregnancy and HIV infection is an indication; however, that the programme is not entirely successful. To establish why the aims of the programme and the consequences of learners' sexual behaviour do not correspond, this systematic review aimed to determine how the programme contributes to the sexual health of adolescents and to make recommendations for its improvement. Nine databases were searched, after which two reviewers independently evaluated the methodological quality of the identified studies using an appraisal tool. The 22 articles that met the criteria for final inclusion were qualitative in nature and included cross-sectional and cohort studies. Results indicate that the contribution of the CSE programme is reflected in teachers, learners and the curriculum. Teachers are in need of expert training and learners are neither actively involved in the learning process nor the development of the programme as they need and would like to be. Recommendations include the development of context-specific training curricula for pre- and in-service teachers as developed collaboratively by various experts and stakeholders. Learners' voices, active involvement, cultural context and needs are fundamental to the development and delivery of CSE. The teaching method and content of sexuality education should meet the contemporary needs of the 21st century adolescent to ensure optimal sexual health.

Keywords: adolescents; comprehensive sexuality education; life orientation; South Africa; systematic review.

Introduction and background

According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO),¹ comprehensive sexuality education (CSE) is a curriculum-based process of teaching and learning about the cognitive, emotional, physical and social aspects of sexuality:

It provides opportunities to acquire comprehensive, accurate, evidence-informed, and age-appropriate information on sexuality. It addresses sexual and reproductive health issues, including, but not limited to: sexual and reproductive anatomy and physiology; puberty and menstruation; reproduction, modern contraception, pregnancy and childbirth; and sexually transmitted infections, including human immunodeficiency virus and acquired immunodeficiency syndrome (HIV and AIDS).^{1(p. 16)}

Comprehensive sexuality education has been part of the subject Life Orientation (LO) in South African (SA) schools since 2000.² The Minister of Basic Education in SA reported that despite this, pregnancy and HIV infection amongst learners remain high and claims that there has been 'no change' in the behaviour of learners.²

These claims can be confirmed by current statistics of the sexual health of adolescents in SA. The SA Child Gauge publication³ reports that between the years 2008 and 2017, the proportion of adolescent boys and young men engaging in sex at an early age increased, whilst condom use amongst young men and women (15–24) has decreased. Although the total number of new HIV infections have declined by 44% since 2012, young adults (15–24 years) continue to be at higher risk, accounting for over a third (38%) of all new infections in 2017. Females are particularly at risk in that the rate of new HIV infections each year is highest amongst young women (15–24) who were three times more likely to become infected than young men, with an estimated 66 000 new infections in young women compared to 22 000 in young men in 2017. Human immunodeficiency virus prevalence in SA (existing infections in the population) is also higher amongst adolescent girls and young women (15.6%), who account for three-quarters of 20–24-year olds living with HIV – whereas 4.8% of young men were HIV positive in 2017. Human immunodeficiency virus

prevalence increases with age: 28% of pregnant women (15–49) are HIV positive, with little or no change since 2005. Teen childbearing rates have remained steady at 7% in 2009 and 2018. Yet, HIV prevalence and teen pregnancy rates remain high and most of these pregnancies are unintended. As mentioned, even though CSE addresses more aspects of sexuality than merely the prevention of pregnancy and disease, these statistics could be viewed as concrete evidence that the impact of the CSE programme is not as desired.

In response to these alarmingly high rates of teenage pregnancy and HIV infection, the Department of Basic Education (DBE)² initiated a review process in 2011 to strengthen the LO CSE programme. The review process showed that teachers generally find it challenging to teach CSE. This process of review has led to the development of scripted lesson plans (SLP) – pre-planned comprehensive lessons with activities and assessment tasks that assist teachers with the teaching of sexuality education. According to the DBE,² the SLPs did not add any new content to the existing curriculum, but rather aimed to guide teachers in a step-by-step manner to deliver the existing CSE content more effectively.

Despite not adding any new content to the CSE curriculum, there was a sudden public concern and outcry from parents, teachers and other stakeholders (such as religious groups) that was portrayed in the media, late in 2019, in response to the SLP, because of the nature thereof. It led to the creation of a social media hashtag: '#LeaveOurKidsAlone' where, according to an article posted by Mail and Guardian⁴ in February 2020, a group of more than 100 000 members have strongly voiced their dissatisfaction with CSE. Some parents wanted their children to be excluded from CSE lessons and some teachers refused to teach CSE because the content was deemed to be inappropriate, age inappropriate, explicit, and they were concerned that it would sexualise children and encourage them to become sexually active.

Contrary to this belief, a study by Speizer et al.⁵ explained how SLP could positively assist youth in SA to receive high-quality sexuality and HIV prevention education; and it is a recommendation of this study that SLP should be implemented nationally. In fact, research shows that delayed initiation of sexual intercourse, decreased frequency of sexual intercourse, decreased number of sexual partners, reduced risk-taking, increased use of condoms and increased use of contraception have been reported as a result of exposure to CSE.¹ A systematic review by Fonner et al.⁶ that included 64 studies, reported that CSE does not increase sexual activity, sexual risk-taking behaviour, or sexually transmitted infections (STI)/HIV infection rates. On the contrary, programmes that promote a one-sided approach, such as abstinence only, have been found to be ineffective in delaying sexual initiation, reducing the frequency of sex, or reducing the number of sexual partners.⁷

As a result of the fact that: (1) even though CSE has been part of the LO curriculum since 2000, learner pregnancy and HIV infection rates remain alarmingly high, (2) research indicates various advantages of CSE and (3) some

stakeholders in SA are not convinced of this fact and are opposed to CSE, it is necessary to investigate the contribution of CSE as part of LO in SA schools. A systematic review by Mukoma and Flisher⁸ has been completely linked to this topic, but the focus was not on CSE *per se*, but rather on school-based HIV or AIDS prevention programmes in SA. A desktop review has also been performed by Francis⁹ with the focus on sex and sexuality teaching practices in the classroom. To date, no systematic review on the contribution of CSE as part of the LO subject, specifically within the SA context, is available. The aim of this article was consequently to systematically review previously published primary research to determine the contribution of the SA CSE programme towards the sexual health of adolescents with the ultimate goal to make recommendations to improve the CSE programme.

To reach this aim, the research question was formulated using the well-known Participant, Intervention, Outcome (PIO) framework, which is considered a useful strategy to formulate research questions for systematic reviews.^{10,11} *Participants* include school-going adolescents in SA, the *Intervention* is the CSE programme as part of LO in SA schools, the *Outcome* is to promote the sexual health of adolescents in SA. The resulting research question was: what is the contribution of CSE within the subject of LO in the SA school context to promote the sexual health of adolescents?

The objectives were to:

- review literature on the current status of CSE as part of LO in SA
- critically appraise the methodological quality of the prevalence of studies related to adolescent CSE
- describe how the CSE programme within the context of LO in the SA schools contributes to the sexual health of adolescents
- identify opportunities to improve CSE to promote the sexual health of adolescents and inform future research.

Method

Systematic review methodology was employed to satisfy the before-mentioned aim and objectives, and to answer the research question. A systematic review can be defined as a study of the findings of research that has already been undertaken.¹² It is an explicit and systematic method used to amalgamate empirical evidence on a proposed topic to produce reliable and unbiased findings from which rational and informed decisions can be made.¹³ By making use of such accountable and rigorous research methods, it is possible to provide a reliable account of the state of CSE in schools in SA by appraising and synthesising the results of existing research in this regard.¹²

Eligibility criteria

The first step of this rigorous process was to decide upon the eligibility criteria for study selection.

Inclusion criteria

The first curriculum revision of CSE happened in 2002. This study therefore included research that was completed between January 2002 and November 2019 (the date when data analysis of the included articles started). Studies considered for inclusion had to focus on CSE as part of LO directed at SA school going adolescents as the target population. Studies were required to be full-text, published and peer-reviewed; be in English; and qualitative in nature. Seeing that the researchers were interested in rich descriptions such as of how the CSE programme contributes to the sexual health of adolescents, the inclusion of qualitative studies was deemed appropriate.

Exclusion criteria

Studies were excluded from the review if they were quantitative, not published within the designated time frame, if they were not peer-reviewed, full-text or in English. Studies not focussing on or failing to include adolescents and any CSE programmes outside of the SA schooling system were excluded from the review. Comprehensive sexuality education studies that focus exclusively on HIV or AIDS interventions were also excluded because CSE does include HIV or AIDS intervention, but HIV or AIDS intervention on its own is not comprehensive in nature and could also fall outside of the school context. Furthermore, as a vast number of articles on HIV or AIDS interventions have become available since the publication of Mukoma and Flisher's⁸ review, it deserves a systematic review on its own.

Keywords and databases

A preliminary search of keywords and search terms was carried out to eliminate possible already existing systematic reviews on this topic. These keywords and search terms were then organised into Boolean strings and entered into the respective databases for the identification of studies to be included in the review. Initial search terms and keywords included: sexuality education, sex education, CSE, LO and South Africa. 'Adolescents' was not added as a keyword, because it did not show any additional studies. The search was performed between July and November 2019, exploring nine databases namely, EbscoHost Web (Academic Search Complete, E-Journals, Health Source – Consumer Edition, MEDLINE, PsycARTICLES, SocINDEX with Full Text), PubMed, Sabinet African Journals and GenderWatch.

Search strategy

The review utilised a four-step search strategy process as outlined by Moher et al.¹⁴ for the extraction and recording of data:

- **Title identification:** During the initial search, studies were selected from each database based on the relevance of their titles.
- **Abstract review:** Two reviewers independently screened the abstracts of all identified titles to determine further

relevance. Abstracts satisfying the inclusion criteria progressed to the next level of full-text review.

- **Full-text review:** Again, two reviewers independently reviewed the full texts of potential studies to ascertain methodological rigour prior to the decision for final inclusion in the review. This was determined along the indicators of an appraisal tool as guided by the Critical Appraisal Skills Programme (CASP).¹⁵ Specifically, the CASP Qualitative studies checklist was used, which is a 10-item checklist designed to assist authors to improve the reporting of systematic reviews. Each section of the checklist consists of a series of items assessing the study and its associated outcomes. Each item is scored 'Yes' if the information necessary to answer the item was provided in the study and 'No', if the required information was not reported. Some items were scored 'N/A', if the item did not pertain to the study design. One mark was awarded to 'yes' and zero was awarded to 'No'. Items scored 'N/A' were removed from the total items, so that an overall composite percentage could be calculated, presenting its methodological rigour and quality ranging from weak (0% – 30%), to moderate (31% – 64%), to strong (65% – 80%) and to excellent (81% – 100%). Apart from two studies with a moderate quality rating that were included as a result of the value of the content, only studies that rated strong and above were included in the review. Disagreements between reviewers on inclusion were resolved by consensus. Table 1 shows evidence of how each study was appraised.¹⁵

TABLE 1: Appraisal results of articles guided by critical appraisal skills programme.

Author	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Score (%)
Adams Tucker et al. ¹⁶	1	1	0	1	1	1	1	1	1	1	90
Beyers ¹⁷	1	1	1	1	1	1	0	1	1	1	90
Beyers ¹⁸	1	1	1	1	1	0	1	1	1	1	90
Beyers ¹⁹	1	1	1	1	1	1	1	0	1	1	90
DePalma and Francis ²⁰	0	1	0	1	1	1	0	1	1	0	60
Eccles and Francis ²¹	1	1	1	1	1	0	1	0	0	1	70
Essop et al. ²²	1	1	1	1	1	0	1	1	1	1	90
Francis and DePalma ²³	1	1	1	1	1	1	1	1	1	1	100
Francis and DePalma ²⁴	1	1	1	1	1	0	1	1	1	1	90
Francis ²⁵	1	1	1	1	1	0	1	0	1	1	80
George et al. ²⁶	1	1	1	1	1	0	1	1	1	1	90
Helleve et al. ²⁷	1	1	0	0	1	0	0	0	0	0	30
Helleve et al. ²⁸	1	1	1	1	1	1	0	1	1	1	90
Jacobs ²⁹	1	1	1	1	1	1	1	1	1	1	100
Jearey-Graham and Macleod ³⁰	1	1	1	1	1	1	1	1	1	1	100
Kruger et al. ³¹	1	1	1	1	1	0	1	1	1	1	90
Mayeza and Vincent ³²	1	1	0	1	1	1	1	1	1	1	90
Mturi and Bechuke ³³	1	1	1	1	1	1	1	1	1	1	100
Ngabaza et al. ³⁴	1	1	0	1	0	0	1	0	1	1	60
Roy ³⁵	1	1	1	1	0	0	0	0	0	0	40
Runhare et al. ³⁶	1	1	1	1	1	0	1	1	1	1	90
Shefer and Ngabaza ³⁷	1	1	1	0	1	0	1	1	1	1	80
Shefer et al. ³⁸	1	1	1	1	1	0	1	1	1	1	90
Swanepoel and Beyers ³⁹	1	1	1	1	1	0	1	1	1	1	90
Swanepoel et al. ⁴⁰	1	0	0	0	0	0	0	0	0	0	10

Note: Please see the full reference list of the article, Koch R, Wehmeyer W. A systematic review of comprehensive sexuality education for South African adolescents. *J transdiscipl res S Afr* 2021;17(1), a1087. <https://doi.org/10.4102/td.v17i1.1087>, for more information.

Data extraction

After appraisal, the same two reviewers independently carried out data extraction from the 22 finally included articles. Any disagreements on data extraction were again resolved by consensus.

The reporting of this systematic review is based on the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines as proposed by Moher et al.¹⁴ Preferred Reporting Items for Systematic reviews and Meta-Analyses consists of a 27-item checklist and 4-phase flow diagram (Figure 1) to help authors improve the reporting process. This flow diagram shows how the researchers systematically worked through 193 initial articles to reach the point where 22 were finally included through a rigorous process of appraisal.

Results

An overview

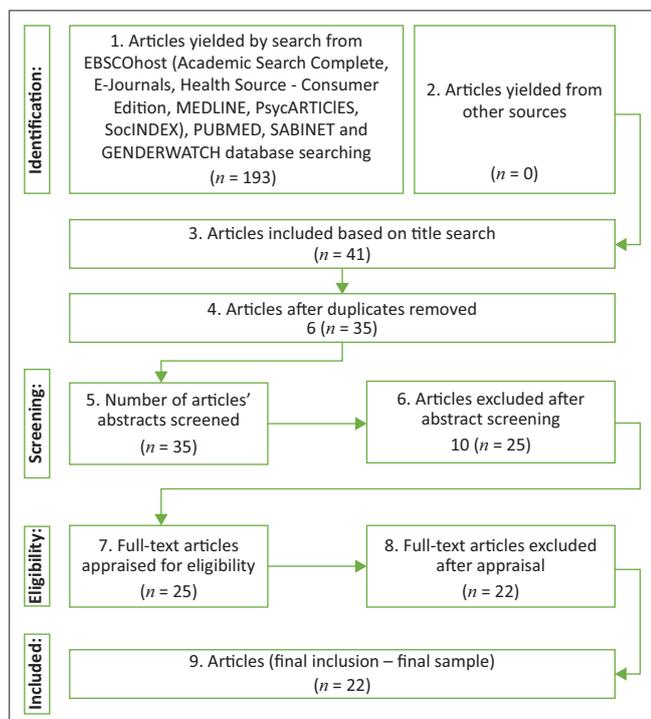
Of the initial 193 articles that were screened, 22 articles met the criteria for final inclusion in this review. The sample consisted of two main groups of participants: that is, the deliverers and/or managers of CSE: 255 LO teachers, 16 Heads of Department (HOD), Lesbian, gay, bisexual, transgender, intersex, queer (LGBBTIQ) seven principals, two deputy principals and 20 student teachers enrolled for an honours degree in education; and the recipients of CSE: 589 learners ranging between Grades 6 and 12 of which 167 were boys, 194 were girls, and the gender of the rest was not

specified. Seventy-five first-year students enrolled at a university were also included because they reflected retrospectively upon the CSE that they had received in high school. Regarding race, black, coloured, Indian, and white participants formed part of the 22 included studies, and therefore the sample is representative of a multiracial and multicultural SA. As determined by inclusion criteria, all studies were qualitative in nature, with three studies being participatory, learner-centred and experiential in nature, three had an ethnographic orientation, two studies employed a feminist/critical gender lens, one study was social constructivist, two studies had a case study design and one study employed a critical semantic analysis. Data were gathered by a variety of methods: interviews (semi-structured, in-depth and open-ended); focus group discussions (semi-structured, unstructured and participatory workshops); a Facebook forum; questionnaires; drawings and one textual analysis of LO materials.

Regarding the studies' specific aims, most of the studies focussed on the LO teacher.^{17,18,19,20,21,23,24,25,26,28,33,34,36,39} More specifically, studies were directed to understand: how LO teachers teach CSE²⁵; the challenges that LO CSE teachers generally face^{26,33}; the profile, characteristics and qualification(s) that a LO CSE teacher needs to possess^{16,24,33}; whether and how qualified, prepared and comfortable LO teachers are to teach CSE²⁵; how teachers' own life experiences (such as past trauma and how they themselves were sexually educated) impact on how they teach and deliver content^{19,25}; how teachers' cultures, social background, values and morals impact on how the subject is delivered and what is taught and promoted^{20,21,23,25,28,39}; teachers' understanding of learners' context and why they engage in risky sexual behaviour,¹⁷ and to investigate the discrepancy between what teachers believe learners need from CSE and what learners actually need.¹⁸

The remainder of the studies focussed on learners: how learners experience, understand and perceive LO CSE,¹⁶ as well as their voices around what they learn in the LO CSE class and how it is perceived, which was performed to make recommendations for the improvement of the programme.^{16,29,32,33,38} Furthermore, learners' perceptions of LO as a subject²⁹; where learners get information about sexual and reproductive health from²²; how LO shapes specifically girls' sexual agency, and a focus on gender justice, particularly how the content of LO CSE lessons send intentional and unintentional messages via the curriculum and from teachers to learners about supposed gender roles (i.e. what is typically, stereotypically and traditionally expected of males and females, i.e. specific to a culture).^{31,34,37}

The aim of some studies was to investigate the LO CSE curriculum content: the implications of what learners are being taught at school and what they determine informally from other sources (such as at their homes, from peers and the media)²²; a focus on how the curriculum could be improved, teachers' and learners' perceptions of the inclusion of CSE curriculum within the broader school curriculum and



Source: Adapted from Davids EL, Roman NV, Leach L. The link between parenting approaches and health behavior: A systematic review. *J Hum Behav Soc Environ.* 2017;27(6):589–608. <https://doi.org/10.1080/10911359.2017.1311816>⁴¹

FIGURE 1: Preferred reporting items for systematic reviews and meta-analyses four-phase flow diagram.

how the curriculum impacts on learners regarding the prevention of sexual illness and disease with a focus on the detrimental effects of being sexually active.³⁶ Only one of the selected studies considered communication between parents and their children about the child's sexuality as an aspect to take note of when doing research about CSE.²⁷

How the comprehensive sexuality education programme contributes to adolescent sexual health

The contribution of the CSE programme as part of LO in SA schools to the sexual health of adolescents is reflected in three main themes that arose from the data: (1) LO teachers, (2) learners and (3) the CSE curriculum. A summary of the findings are presented according to the inductive dendrogram technique as adapted from Schutte⁴² (Figure 2).

Life orientation teachers

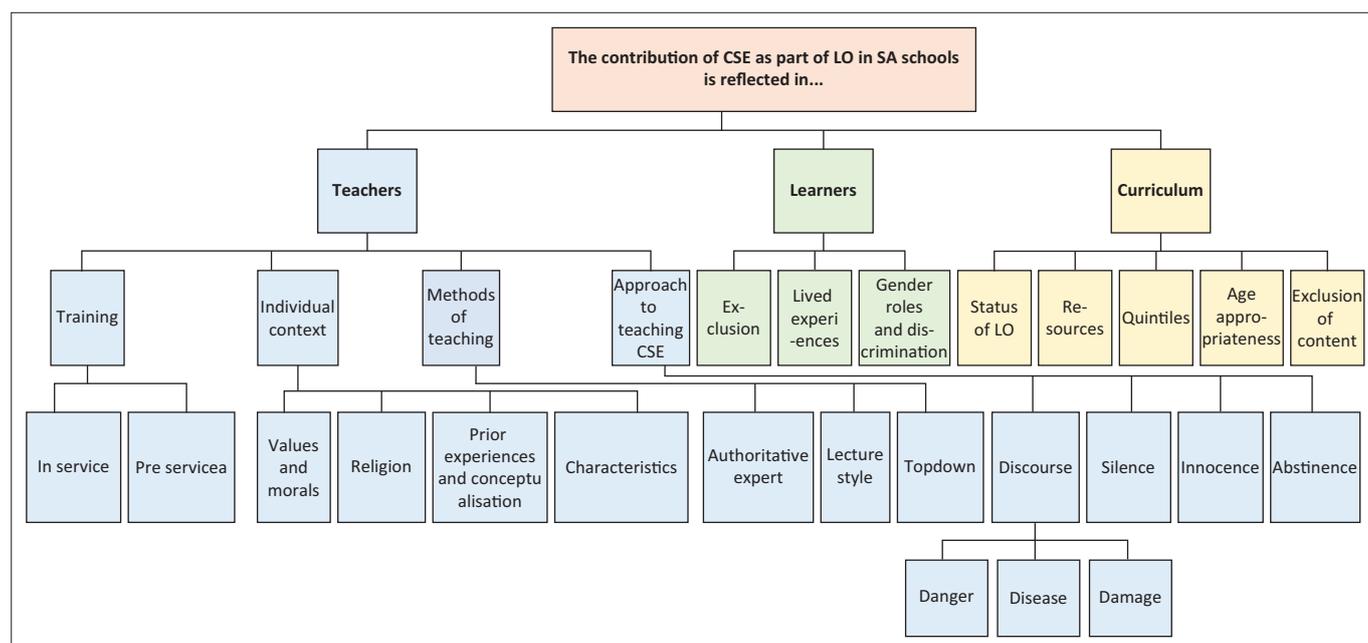
As the deliverers of the LO CSE curriculum, it is not surprising that the contribution of the CSE programme is reflected in various aspects surrounding the LO teacher, a theme that most often emerged from the sample of reviewed articles. The LO teacher's contribution to the impact of CSE is reflected in:

Teacher training: Insufficiencies and discrepancies regarding pre- and in-service training of CSE teachers are reported.^{26,28,33,36} There are variations in how and whether tertiary training institutions approach the training of CSE teachers, so teachers enter the field with different levels of exposure to training and thus preparedness to teach.²⁵ Some teachers report having received no pre-service training.^{24,26,33} In-service teachers sometimes end up teaching sexuality education, not because they are adequately trained, but because they have space available on their timetables.^{24,31,32} This results in vast

differences and subjectivity in how CSE is presented to learners.

The teacher as an individual with a unique context: The teachers' unique context such as their culture, religious convictions, values and past events from their own lives has an impact on the way in which they interact with content, curriculum, pedagogy and learners.^{19,20,25,28,30,39} Teachers are as a result not necessarily considerate of adolescents' needs or what is best for them, but teach according to their own context and what they deem as appropriate.^{18,30} Some teachers' culture and values imply that sexuality should not be openly discussed with children and that it is meant for adults only.^{18,20} This silence about sexuality seems to be a cultural practice.^{17,19,20} Not only does the culture of the teacher has an impact on how CSE is delivered, but it could also be that the cultural values of the community are in contrast with what is expected to be taught at school,^{20,28} resulting in resistance from the community and pressure on the teacher on how, what and whom they are expected to teach.

Regarding the unique characteristics of a LO CSE teacher, Francis and DePalma²⁴ reported on LO teachers' perceptions of themselves as agents of change and having the opportunity to let learners experience care and trusting relationships. Tucker et al.,¹⁶ mentioned what LO teachers are doing correctly according to learners, such as listening to them, guiding them in life, giving them answers, talking to them about things their parents do not want to talk about, telling what parents will not tell and being someone to confide in. The contradicting opposite is true for some learners who report fearing the teacher that the



Source: Schutte DW. The dendrogram technique as a tool to develop questionnaires. *J Public Adm.* 2006;41(1):616–630. CSE, comprehensive sexuality education; LO, life orientation; SA, South African.

FIGURE 2: Systematic review results on CSE presented according to the inductive dendrogram technique.

teacher is not available to listen to them, not being a confidante and teachers gossiping about what learners tell them.^{16,33}

Methods of teaching: The main teaching method adopted by sexuality teachers is lecture style with an authoritative expert approach. 'Teachers rather use didactic, authoritative pedagogical techniques, which do not acknowledge young people's experience, nor do they facilitate their sexual agency',^{25,31,34} This top-down and teacher-centred approach discourages learners to ask questions and to participate. This way of communicating with learners in the CSE class does not offer the opportunity to establish a teacher-learner relationship that is conducive for enquiry and it therefore does not meet the contemporary needs of adolescents.^{30,39} This teaching method is adopted because of the fact that teachers are uncomfortable when they have to teach CSE.^{30,31}

Approaches to teaching: Sexuality education occurs in a discourse of danger, disease and damage; with the promotion of silence, abstinence and innocence. Teachers tend to place emphasis on the negative consequences²² of sexual behaviour with abstinence being favoured.^{18,21,23,28,39} Silence around sexuality^{17,19,20,38} is used because teachers believe that withholding information from adolescents is a way of protecting them against the dangers of sexuality.^{22,32} These approaches often undermine the key points of a CSE curriculum in that a one-sided approach, as opposed to a comprehensive approach, is adhered to.^{21,23,25,28,39} What teachers perceive as good practices could actually be obstacles in the teaching of CSE.^{18,22,23,25,30,37}

Whilst some teachers do acknowledge the value of the broader issues of CSE such as relationships and safe sex, they still favour innocence and promote abstinence as the appropriate choice for young people^{21,22,23,24} whereas others combine abstinence and safe sex teaching.^{17,23} Many teachers view teaching topics about sexuality as a response to declining moral standards, therefore portraying sex and sexual needs as something that is 'wrong'.²⁸ This preferred moralistic approach leads to the exclusion of issues such as homosexuality and other sensitive topics.²⁸ There is also an absence of the notions of pleasure, desire and fulfilment.³⁹

Learners

The contribution of the CSE programme to the sexual health of adolescents is reflected in learners' reports:

Level of involvement: Even though learners indicate a need to be actively involved in the teaching of CSE,¹⁶ the opposite seems to be the norm: there is a top-down approach where learners are often passive receivers of CSE lessons.³² Adolescents' needs are thus not considered.²² The fact that they are left uninformed and excluded, fuels adolescents' curiosity and drives them to informal sources of knowledge on sexuality such as observing and learning from what happens at home, the media and their peers.^{18,22,29}

Perceptions of life orientation as a subject: There is a contradiction in the way in which LO, the subject of which CSE forms a part, is experienced by learners. Some learners enjoy the subject whereas others experience it negatively, describing it as not helpful, boring, irrelevant and unnecessary.^{16,29,33} The subject is also not externally examined in Grade 12 and does not contribute to university admission point scales.¹⁶ The implication is that because of the status of LO, CSE is not taken seriously by learners and could be one of the reasons why the intended aims as set out in the curriculum are not reached.²⁹

Discrimination and gender roles: From the perspective of learners, heterosexuality is promoted as the normal and preferred sexual orientation. There seems to be a moralistic approach to sexuality that disregards homosexuality.^{16,32,37} Gender roles are also reinforced rather than challenged^{31,34,38} in that specifically girls are often silenced and if they do ask questions, they tend to be judged and blamed as being sexually active.³¹ They are tasked with the responsibility to resist pressure from males to be sexually active and the possible negative consequences thereof, with desire being dismissed.^{16,32,37,38}

Life orientation comprehensive sexuality education curriculum

The contribution of the CSE programme is reflected in reported discrepancies, omissions and shortcomings as to what is envisioned for the LO CSE curriculum, compared to what happens in practice.³² Although sexuality education is supposed to be comprehensive, the content of the curriculum is mostly occupied with the physical aspects of sexuality, HIV or AIDS and abstinence.³³ Whilst there is a component in the LO curriculum called 'decisions regarding sexuality', sexual diversity or LGBTIQ issues are not explicitly mentioned.²¹ Moreover, the content of the curriculum is left up to the interpretation of the teacher. Curriculum content delivery depends on the teacher's subjective discretion and context, and thus lacks uniformity.³⁹

What is needed for improvement of the comprehensive sexuality education programme

This review provides the opportunity to consolidate reported recommendations for the CSE programme's improvement.

Recommendations for comprehensive sexuality education teachers

Conceptualisation of comprehensive sexuality education: Teachers need to be made aware of how aspects such as religious and gender-role convictions, values and prior personal experiences can impact, and at times be counterproductive, and therefore go through 'value clarification', 'reflective dialogues'¹⁹ or 'self-reflexive practices' to interrogate attitudes towards youth sexuality.²⁵ This will enable them to deal with their own discomfort and convince them that proper CSE has important benefits and not the negative consequences they fear. This new level of understanding could impact the teaching of CSE in a more positive, less fatalistic way,¹⁹ and remind teachers not to let their personal convictions interfere with what needs to be taught.²⁵

Positive approach: As opposed to focussing exclusively on risk and illness, teachers should not refrain from highlighting positive aspects of sexuality.²¹ Teachers should consider learners' needs and move away from the negative discourse of danger, damage and disease^{23,38} where they are conditioned to fear sex and its negative consequences. Thus, discussions about sexuality should encourage positive thoughts and feelings towards their bodies and sexuality as sources of pleasure and not something to be feared or ashamed of.²¹

A participatory, learner-centred approach: Emphasis is placed on the participatory, learner-centred and empowering approach to the teaching of CSE, condemning the 'chalk and talk' method that puts all focus on teachers. Teaching methods should shift from a top-down approach to a more inclusive approach, where learners are viewed as sexual agents with valuable information that they bring to the classroom.^{22,31,34,37,38} Adults teaching CSE to adolescents must acknowledge their sexual knowledge and curiosity about sexuality and that it is a normal part of sexual development.²² Teachers must aim to build a sense of agency and responsibility and not alienate young people by focussing on what is morally right and wrong.²³ Learners should be free to ask questions and to express their views without fear of being judged.³² Learners are then given the power to control and determine what is included and what is silenced in the classroom.³⁸ Styles and methods of communication with youth about sexuality should be inclusive of their realities and provide space for meaningful conversations where their voices and experiences can be heard and made part of the discussions, which will consequently lead to learning experiences that are more responsive to their needs.³⁰

Gender consciousness: Teachers must become aware of how they contribute to the reinforcement of gender stereotypes which confirm and strengthen gender inequality and male dominance against the disadvantage of female adolescents.³⁸ They should oppose gendered injustices and steer clear of a judgemental approach that promotes heteronormativity.³² They ought to adopt an approach where both males and females take equal responsibility to manage their sexual health and its outcomes.

Collaboration with parents and other stakeholders: An improved level of interaction between teachers and other stakeholders is beneficial to overcome misconceptions and disjuncture between schools and communities to facilitate change.³² Wider support could be obtained by integrating CSE with other subject areas, and collaborating with the community and parents as well as with members who engage with adolescents outside the school context.³⁶ Francis²⁵ suggested that LO teachers keep parents and the community informed on the critical need for a CSE curriculum.

Recommendations for curriculum development and delivery

Intercultural conversations could assist curriculum planners to understand how different cultures engage with CSE to ensure that it is culturally responsive.²⁰ Conceptuality-based

research is essential to gain a better understanding of the challenges unique to various schools in different contexts within SA.³⁹ This means that voices that have been traditionally excluded must be included in research.²⁰ That includes learners' voices, opinions and needs that must also be considered when curriculum content is developed.²⁹

It is important to have a sound theoretical and research base for CSE programmes.²⁰ It is recommended that a curriculum should be devised that is more explicit and more clearly structured in terms of both negative behaviour and positive desire.²¹ Seeing that there were recommendations that teachers take on a more positive approach when teaching CSE, it makes sense that there is also a critical need for a curriculum that is more invitational to young people, one which covers the whole spectrum from pleasure to risk, and that does not exclusively focus on risk where sex is portrayed as something to be scared of and feared.²³ Learners should furthermore be provided with more than merely content knowledge about sexuality; they also need skills such as critical thinking, decision-making, interpersonal and intrapersonal skills²¹; and the curriculum needs to be developed to make provision for this.

For a curriculum to be successfully delivered, expert qualification, training and preparation of teachers are necessary. Pre- and in-service educator training, structured activity plans and monitoring are recommended.^{30,36} Universities must explore outreach refresher programmes for in-service teachers who are currently teaching in this field.²⁵ George et al.,²⁶ made recommendations about the unique context of the LO teacher and mentioned that determining the level of support that is respectively required must be taken into account. Some contexts provide an inequality of services and this must be addressed and guarded against.²⁶ Support to teachers must be dealt with at district level. They also suggest that the novice LO teacher in the first term of appointment should be offered additional support where necessary. It is important that support is provided on a continuous basis.

Discussion and recommendations

This systematic review report found that there is not uniformity in the way in which CSE teachers are trained, with some teachers having received no formal training at all. Together with the unique context of each teacher and their subjective interpretation of what needs to be taught, CSE is presented in a way which does not correspond with what is set out to be the aims of the sexuality education curriculum that is comprehensive in nature. Whereas some LO teachers do possess characteristics that are responsive to learners' needs that promote the successful delivery of CSE, certain other characteristics alienate learners and work against it. Because of lack of training and to counter discomfort, teachers often use authoritarian methods of teaching that excludes children further from the learning experience. Teachers furthermore employ a discourse of danger and disease when teaching about sexuality, where negative consequences are

used as scaring tactics and pleasure and fulfilment are disregarded. Some prefer to use silence to preserve innocence, believing that children should not receive any information about sex. Most teachers use an abstinence-only approach, whereas some use a hybrid approach where abstinence and safe sex are combined, both of which contrast with a comprehensive approach. Consequently, issues such as homosexuality are intentionally left out and a heteronormative approach is favoured. Gender roles tend to be confirmed in a way that undermines females in that they are viewed as the ones having to take responsibility for upholding abstinence and the possible harmful consequences of sexual activity.

Learners indicate a need to be actively involved in CSE lessons where their needs are considered. As the subject through which CSE is delivered, the status of LO as a result of learners' perceptions thereof as irrelevant, can do harm to the successful implementation and delivery of CSE. Learners also perceive the subject as one that is offered from a moralistic and hegemonic masculinity point of view where sensitive issues are often omitted.

For the programme to improve, it is necessary for LO teachers to reflect upon their subjective approaches to sexuality education, to become aware of their discomfort and how their approach could counter the successful delivery of CSE. They should be trained to divorce from the exclusive focus on danger and disease, and a heteronormative, gender biased, moralistic and alienating approach to one where positive aspects of sexuality are acknowledged and where learners are actively included in learning. Parents and other stakeholders should also be included so that misconceptions regarding CSE could be countered and that they do not perceive themselves and their children as victims of a curriculum that they disapprove of. If all stakeholders (such as learners, parents, teachers, principals, religious groups and community members), are included and the advantages of the CSE curriculum are thoroughly explained, they will most likely take ownership and be more positive towards it, which will make the implementation of CSE more effective.

Successful curriculum development and delivery depends on equal and sufficient teacher training on a pre- and in-service level. This systematic review included primary research as conducted by experts in sexuality education from eight out of the nine provinces of South Africa (with the exclusion of the Northern Cape). It shows that there are numerous experts in South Africa who are doing valuable research that contributes to the body of knowledge. These experts must meet on a national and provincial level to consolidate knowledge and determine what is contextually needed to respond to the unique demands that each province and district bring. They must do so by collaborating with various stakeholders and encourage interdisciplinary conversations so that communities can share expertise and take ownership in the sexual health of adolescents. The Department of Higher Education and Training (DHET) should draw from this expertise and respond to the fact that no mandated national curriculum for sexuality

education for pre-service teachers in tertiary institutions exists.⁴³ It is imperative that it is developed as part of Method of LO modules to ensure that teachers enter the profession with a solid and uniform level of exposure to training to be prepared to teach. This will simultaneously restore the status of LO as a subject, because when training and teaching occur at a level of expertise, it would leave less room for poor practice and subsequent criticism.

It is commended that the DBE is giving much needed attention to the development of CSE in SA schools by means of the national roll out of SLP and should continue to do so to ensure that it is successfully implemented in all provinces. Efforts are made in the provision of training workshops to assist in-service LO teachers to become comfortable with mediating very sensitive topics with learners⁴⁴ and this should persist. It is our recommendation that the DBE trains and employs province-specific specialist CSE subject advisors to ensure that these structures that are already in place are built upon and expanded. In-service teachers across all quintiles should be trained by subject advisors to ensure that the challenges identified in this review are responded to, to ensure quality sexuality education for all.

A limitation was that this review focussed on CSE for adolescents in the SA context only. The strength of this study is that prior research is consolidated in a reliable and unbiased way that makes it possible for future research to be more rationally informed.¹³ As most of the studies in this review emphasised various shortcomings of the programme, future research should be solution focussed and directed towards the development and successful implementation of the LO CSE curriculum. We suggest that learners from diverse contexts are asked to provide insight into why they believe CSE in SA schools is unable to report a significant impact on their lives. In this way, their traditionally excluded voices are included, and cross-cultural conversations are stimulated, which could provide valuable answers and direction. From this, a praxis for educators could be developed which could encourage uniformity in how learners are educated.

Conclusion

This study aimed to systematically review published primary research to determine how the CSE programme that forms part of the LO curriculum in the SA school context, contributes towards the sexual health of adolescents. This was performed to make recommendations for the improvement of the programme to promote adolescent sexual health and inform future research.

The review has shown that even though CSE has the potential to improve the sexual health of adolescents in various ways, the current CSE programme in SA schools as part of LO still fails in doing so to the extent it should. Teachers must be trained by expert CSE advisers to provide experiential spaces for sexuality education that is inclusive of learners' voices and needs, and exclusive of the typical one-sided abstinence only, safe-sex, heteronormative, gender

discriminative approaches driven by morality. Teachers should come to understand that their subjective interpretation of what must be taught does not necessarily respond to learners' needs. A well-implemented and presented sexuality education curriculum that is comprehensive and inclusive of learners' needs provides them the opportunity to make fully informed decisions about all aspects of sexuality in order to become individuals who are adequately able to make responsible sexual decisions, enjoy and take care of their sexual health.

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Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

R.K. was the primary researcher, responsible for data collection, data analysis and the writing of the article. W.W. independently evaluated the methodological quality of data and reviewed and edited the final manuscript.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

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Data availability

The data that support the findings of this study are openly available at https://docs.google.com/document/d/13S-oUux5NhOcBPrxepuG4_yXWOOzL75i12-KXEdW9us/edit?usp=sharing (Initial search of databases) and https://docs.google.com/document/d/16k7a2BxM6A6kvnX_3-Jk4MjGEy7obtLsU4cAY1UwC7c/edit?usp=sharing (Data extraction).

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