experiences of teachers and community health workers implementing sexuality and life skills education in youth clubs in Zambia

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Abstract

Background

Zambia, like other low- and middle-income countries, faces numerous adolescent sexual and reproductive health (ASRH) challenges such as teenage pregnancies. Limited knowledge about SRH among adolescents appears to be one of the contributing factors. This study aimed at understanding teachers' and community health workers' implementation of comprehensive sexuality education (CSE) as part of a comprehensive support package for adolescent girls to prevent early childbearing.

Methods

Research Initiative to Support the Empowerment of girls (RISE) is a cluster randomized controlled trial that aims to measure the effectiveness of economic and community interventions in reducing teenage pregnancies and school dropout in Zambia. using thematic analysis. Data was collected using in-depth interviews [n=28] with teachers [n=15] and community health workers (CHWs) [n=3] and was analysed using thematic analysis.

Results

The teachers and CHWs reported that the use of participatory approaches and collaboration between them in implementing CSE enabled them to increase girls' and boys' participation youth clubs. However, some teachers and CHWs experienced practical challenges with the manuals because some concepts were difficult to understand and to translate into local language. In addition, some of the topics and activities were said to be slightly repetitive, and this affected the delivery of sexual and reproductive health education. Further the fact that spirituality was not

included as a topic, which was perceived as key in the local context, and the inclusion of topics on contraception, made some community members skeptical according to the teachers and CHWs. The participants perceived that the youth club increased knowledge on sexual and reproductive health, assertiveness and self-esteem among the learners.

Conclusion
Training and providing a detailed teaching manual with participatory approaches for delivering CSE, and collaborative teaching enabled teachers and CHWs to easily communicate sensitive SRH topics to the learners. However, for the adoption of CSE to be even more successful, piloting of the curriculum with local facilitators and translating the manuals into the local languages before they are implemented, is recommended.

Keywords: Sexual and Reproductive Health, Life Skills Training, Zambia, Comprehensive Sexuality

Plain English Summary
Teachers delivering Comprehensive Sexuality Education (CSE) in sub-Saharan Africa are reported to face challenges in communicating sensitive sexual and reproductive health (SRH) topics to adolescents. This study was conducted in Zambia within an intervention trial exploring whether teachers and community health workers together can effectively teach adolescents about sexual and reproductive health, and whether this can contribute to reducing teenage childbearing rates. Interviews were done with teachers and Community Health Workers (CHW) who had been trained for five days in SRH and life skills education one year before. They expressed that the use of participatory approaches such as group work, films and role plays during the implementation were key in improving leaners knowledge in sexual and reproductive health and made it easier to discuss sensitive topics with adolescents. The teachers and CHWs expressed that the manual had a wide variety of topics, simple illustrations and comprehensive guidelines. This also promoted acquisition of life skills; assertiveness, self-esteem and uptake SRH services. However, a few practical challenges with the manuals were reported such as some concepts being difficult to understand, challenges with translating the content into local language, and some of the topics and activities being slightly repetitive. The lack of inclusion of spirituality, which was perceived as key in the local context, and the inclusion of topics on contraception, made some community members express skepticism.

INTRODUCTION

Adolescents in low- and middle-income countries face many sexual and reproductive health (SRH) challenges such as early marriages, teenage pregnancies, unsafe abortions and contraction of sexual transmitted diseases (STDs). Tetteh et al (2020) study reports that every year, about 21 million teenage girls aged 15–19 years become pregnant, of which 16 million give birth (95% of which occur in low and middle-income countries (LMIC) (Tetteh et al., 2020).. Worldwide,

about 1.8 million adolescents aged 10–19 years were living with HIV in 2015. The majority (56%) were girls (G. A. UNAIDS, 2016). Nearly 80% of all new HIV infections in 2015 among adolescent girls aged 15-19 were in sub-Saharan Africa (Denno, Hoopes, & Chandra-Mouli, 2015; Organization, 2016; G. A. UNAIDS, 2016). Global evidence indicates that adolescent girls are disproportionately vulnerable to HIV infection due to greater physiological risk, gender inequality, unequal gender norms and gender-based violence including intimate partner violence (Gupta et al., 2013; UNAIDS, 2014; Vyas & Jansen, 2018). Adolescents and young people (including persons aged 10–24 years) constitute a significant proportion of those engaged in selling sex or suffering sexual exploitation (McClure, Chandler, & Bissell, 2015). Adolescent pregnancy is also related with higher rates of low birth weight, preterm delivery, infant respiratory diseases and infant mortality (Azevedo, Diniz, Fonseca, Azevedo, & Evangelista, 2015). These challenges are associated with limited sexual and reproductive health education (SRHE), which has been recognized by many stakeholders as a major concern (Amaugo, Papadopoulos, Ochieng, & Ali, 2014; Azevedo et al., 2015; Boonstra, 2015; Sychareun et al., 2018).

Providing comprehensive SRH education can play a key role in preventing and responding to teenage pregnancies(Amaugo et al., 2014; Boonstra, 2015; Goicolea et al., 2019; Mason-Jones et al., 2016). However, promotion of sexual abstinence is the most common form of SRH education despite studies showing that abstinence education has no or very limited effect on sexual risk behaviour and pregnancy risks (Denford, Abraham, Campbell, & Brusse, 2015; Ott & Santelli, 2007; Santelli et al., 2017). This is of concern considering that many primary school going children are already sexually active (Blum & Gates Sr, 2015; Kiani, Ghazanfarpour, & Saeidi, 2019). Gender-responsive and life-skills-based HIV and sexuality education is only covered in the national curriculum by 15% of the 78 countries analysed in the Global education monitoring report, published by UNESCO in 2016 (Activities, 2015; Women & UNICEF, 2018).

CSE refers to programmes that include medically accurate information on promotion and appropriate use of contraception and condoms but may also include topics on gender, self-esteem, gender equality and rights (Haberland, 2015; Women & UNICEF, 2018) and promotion of respectful, non-violent relationships among people, communication skills, and respectful relationships (Manguvo & Nyanungo, 2018) as well as counseling, skills, and socio-cultural factors (Boonstra, 2015; HIV/AIDS, 2018; McClure et al., 2015). CSE offers an opportunity for young people to acquire necessary information and skills about how their body functions, and to demystify sexuality and improve their abilities to make informed choices and decisions about their sexual and reproductive health (Haberland, 2015; Women & UNICEF, 2018). CSE can contribute to the reduction of early pregnancies, unsafe abortion, intimate partner violence, increased condom use and self-efficacy as well as overall improvement of sexual and reproductive health (Amaugo et al., 2014; Boonstra, 2015; Haberland, 2015; Vanwesenbeeck, Westeneng, de Boer, Reinders, & van Zorge, 2016). A Nigerian study on the effectiveness of a school-based HIV/AIDS and sexual health education programme indicated that CSE can reduce

prevalent abusive practices such as sexual abuse and coercion and contribute to creating a safe and respectful learning environment (Amaugo et al., 2014; Wood, Rogow, & Stines, 2015). Previous studies conducted in Nigeria, Ghana and Kenya found that CSE provides boys and girls with an opportunity to make informed decisions and gain skills that help prevent teenage pregnancies, early marriages and contraction of STIs (S. C. Keogh et al., 2018; Vanwesenbeeck et al., 2016; Joseph Mumba Zulu et al., 2019). CSE programmes work best if they take into account the setting in which they are implemented by ensuring they are culturally sensitive and appropriate (Amaugo et al., 2014; Reiss, 1993).

Facilitators' motivation, attitudes and skills are essential to CSE programme fidelity and effectiveness at the school level (Vanwesenbeeck et al., 2016). Teachers and other facilitators who implement sexuality education need to be adequately trained in the subject and prepared to take on interactive approaches (Boonstra, 2015; Vanwesenbeeck et al., 2016). A review conducted by Haberland (2015) indicates that the implementation of CSE has often not been successful because the facilitators find it difficult to deliver sensitive topics on SRHE (Haberland, 2015; Reiss, 1993). Facilitators should be comfortable to use participatory methods of teaching SRH such as 'games, drawing, role-plays, using flash cards, singing, and brainstorming answers' (Wood et al., 2015) because these methods enable facilitators to engage participants when leading discussions on sexuality, gender, and power in relationships (Amaugo et al., 2014; Haberland, 2015; Renold & McGeeney, 2017; Vanwesenbeeck et al., 2016; Zulu et al., 2018). However, studies have found that facilitators often poorly manage and implement participatory activities, avoid or limit activities related to skills building such as role plays because they think that students will find them difficult, or they lack confidence in facilitating them well enough because of large class sizes (Vanwesenbeeck et al., 2016).

Zambia has numerous sexual and reproductive health challenges. Adolescent girls in Zambia face risks and vulnerabilities that challenge their healthy development into young women including early marriage and childbearing, sexual- and gender-based violence, unwanted pregnancy and the acquisition of HIV and other sexually-transmitted infections (George et al., 2020; Kurebwa & Kurebwa, 2018). The Zambia Demographic and Health Survey [ZDHS] (2018–2019) shows that 29% of adolescents aged 15-19 have already begun childbearing (George et al., 2020). Poverty, low enrolment in secondary school, myths and community norms all contribute to early childbearing (Joar Svanemyr, 2020; Joseph Mumba Zulu et al., 2019). Preventing adolescent pregnancy and marriage is on the political agenda in Zambia. Many interventions have been piloted and implemented to find ways to mitigate the problem(Austrian, Soler-Hampejsek, Hachonda, & Hewett, 2018; Namukonda et al., 2020; Joseph Mumba Zulu et al., 2019).
Sexual and reproductive health knowledge is inadequate and unevenly distributed among Zambian adolescents, leading to considerable SRH-related problems (Joseph Mumba Zulu et al., 2019). in response to these overlapping SRH associated challenges, the Zambian government through the Ministry of Education completed the development of a CSE curriculum in 2014, and officially it has been rolled out to all schools throughout the country, targeting pupils aged 10–18 years in grades 5–12 (Birungi et al., 2015; Frederick Murunga Wekesah, 2019; J. M. Zulu et al.,

2019). Many organizations in Zambia, both governmental and non-governmental, are implementing sexuality and life-skills education in order to reduce SRH challenges such as teenage pregnancy, early marriages, and HIV infection. Zambia's CSE curriculum covers six thematic areas: relationships; values, attitudes and skills; culture, society and human rights; human development; sexual behaviours, and sexual and reproductive health. The revised CSE framework is not offered as a standalone subject, but is to be integrated in carrier subjects such as science and social studies (J. M. Zulu et al., 2019). The overall goal is for adolescents and young people in Zambia to enjoy better sexual and reproductive health and have better health outcomes overall (G. A. UNAIDS, 2016).

However, studies conducted in Zambia indicate that there is a discrepancy between what is stated in the CSE curriculum as an expected outcome and what is taught at the school level (Joseph Mumba Zulu et al., 2019). In addition, trainee teachers are not exposed to HIV/AIDS and SRHE at college, and consequently, most newly graduated teachers lack the knowledge and skills to deliver CSE to learners (Activities, 2015; Birungi et al., 2015). Furthermore, very few studies have been done to explore the perspectives of teachers and community health workers who are engaged as sexuality and life skills education facilitators. The paper seeks to explore, within the context of a cluster randomized controlled trial on support packages for adolescent girls in Zambia, the experiences of teachers and community health workers implementing sexuality and life skills education, and their perspectives on the relevance and acceptability of CSE in the communities. The aim is to contribute to the understanding of barriers and enabling factors for the implementation of CSE in a low/middle income country.

Methodology

Study context

RISE is a cluster randomized controlled trial (CRCT) with three arms. implemented by the University of Zambia in collaboration with the University of Bergen and Chr. Michelsen Institute (Norway). The clusters are rural schools with surrounding communities. Approximately 4900 girls in grade 7 in 2016 were recruited from 157 schools in 12 districts of Southern and Central Provinces; in Kalomo, Choma, Pemba, Monze, Mazabuka, Chikankata, Chisamba, Chibombo, Kabwe, Kapiri Mposhi, Luano and Mkushi. In one intervention arm, participating girls and their guardians were offered cash transfers and payment of school fees. In the second intervention arm, the participants received both economic support and a community intervention. The community intervention consisted of youth clubs which covered sexual and reproductive health and life-skills topics, and community dialogue meetings with parents and interested community members to discuss issues relating to adolescent pregnancies, child marriage and education (Sandøy et al., 2016). The interventions were implemented for approximately 2 years. One of the objectives of the trial is to measure the effectiveness of a combined economic and community intervention on childbearing, early marriage and school dropout (Sandøy et al., 2016). Our study

focused on the perspectives of teachers and CHWs implementing SRH and life-skills education in the second intervention arm.

One primary school teachers with minimum qualification of a diploma and one Community Health Worker (CHWs) (who are community-based volunteers with minimum qualification of grade 9 certificate) or Community Health Assistants (CHAs) (who have a one-year formal training) were engaged as facilitators for the youth club and community meetings for each of the 63 schools that had been randomly allocated to receive the community intervention (distributed across 11 of the 12 districts). RISE youth club meetings were held after regular school hours for girls and boys who were enrolled in grade 7 in 2016 and they were welcome to continue to participate in the youth club for the 2 years' duration even if they dropped out of school. The topics included prevention of pregnancies and early marriage, adolescence and puberty, communication, gender, self-esteem, assertiveness, decision-making, and peer pressure. The manual for the youth clubs was designed by the RISE team and based on the Tuku Pamoja Adolescent Reproductive Health and Life Skills Curriculum, produced by PATH, USAID, and Population Council (Benhague, Christenson, Martin, & Wysong, 2006). The RISE curriculum also included two fiction movies produced by RISE, one about the value of education and one about the risks of early pregnancy and early marriage. Since most learners were not fluent in English, the facilitators were instructed to hold the sessions on SRH in a local language although the manual was in English.

Facilitators were first trained in August 2016 before implementing the sexuality and life skills education in schools and communities. The training lasted five days. The participants went through a training programme consisting of plenary and group work where they practiced facilitation. The aim of the training was to make the teachers and CHWs acquainted with the youth club and community meeting manuals, to give them skills in facilitating discussions and using interactive teaching methods, and to give them confidence in talking about sensitive topics. during the training the teachers and CHWs also practiced how to facilitate discussions about the movies.

Table 1: Overview of Youth Club Meetings SRHR Topics

First Cycle Youth Meetings	Second Cycle Youth Meeting
1. Film on the importance of education 2. The value of education 3. School drop-out (including re-entry) 4. Adolescence and puberty. 5. Reproduction Myths 6. Film on early pregnancy and marriage 7. Early pregnancy 8. Early marriage	1. The menstrual cycle and the risk of pregnancy 2. Myths about sexuality and how women get pregnant 3. How to prevent pregnancy 4. How to deal with peer pressure 5. Communication with friends and parents about feelings and relationships.

9. Communication 10. Healthy Relationships 11. Gender relations 12. Gender stereotypes 13. Peer pressure 14. Self-Esteem 15. Being Assertive 16. Decision Making 17. Setting Goals 18. Romantic Relationships 19. Love and Infatuation 20. Sexual behaviour and desire 21. Sexual decision making and abstinence 22. Ways to prevent pregnancies including contraception. 23. Sexually transmitted infections (STIs) 24. HIV prevention	6. Gender and decision-making: communication with the other sex 7. Self-esteem. 8. The right to decide for yourself and to access information and services. 9. Unwanted sex and sexual abuse 10. School re-entry 11. Decision making and setting goals 12. Summary and evaluation

Study methods

The interviews for this study were done in July 2017 during a refresher course organized almost one year after the initial training when the facilitators had taught 13 sessions out of 36 youth club sessions. This study employed a qualitative case study approach, which was considered appropriate to explore the perspectives of teachers and community health workers implementing sexuality and life skills education for RISE [24]. We used the Standards for Reporting Qualitative Research (SRQR) reporting guidelines when preparing this manuscript (O'Brien, Harris, Beckman, Reed, & Cook, 2014).

Data collection and Sampling Strategy

We collected primary data using in-depth semi-structured interviews in 2017. We selected teachers and community health workers purposively based on their role in implementing sexuality and life skills education. We selected at least one teacher and CHW from each of the 11 districts in central and southern provinces of Zambia. All the participants were trained in 2016 and had implemented the youth club and community meetings for almost one year at the time of the interview. A total of 28 interviews were conducted by the first author. The face to face interviews were conducted in English and local languages (Bemba and Nyanja) at a private and safe location. The interviews were 30 to 55 minutes long.. The interviews were recorded using a digital recorder and in addition notes were taken.

Data analysis

The data analysis process started with transcription of the recorded interviews by the first author. All transcripts were imported into Nvivo 12 for data management and coding. Thematic data analysis was used to develop codes that were merged into sub themes, and then themes focusing on the experiences and perspectives of teachers and community health workers. The analysis, which was conducted mainly by the first author with support from co-authors, was an interactive process including cross-checking, discussions, and redrafting of the analysis.

Ethical approval

Ethical approval to conduct the study was obtained from the University of Zambia Biomedical Research Ethics Committee, (REF. No 063-06-17) and National Health Research Authority. Informed consent was sought from study participants after explaining to them the purpose of the study, and they were informed that they were free to withdraw from the study at any point without any penalty. Participants were assured of confidentiality during and after data collection. Any information linking the respondents to the data was removed. Recordings and transcripts were stored in a password-secured computer.

FINDINGS

This section presents findings on experiences of teachers and community health workers implementing sexuality and life skills education in youth clubs in Zambia. While the first sub-section describes teachers' and CHWs' demographic characteristics, the second sub-section presents teachers' and CHWs' experiences in implementing the SRHE in youth clubs, the second sub-section presents collaboration between CHWs and teachers in providing SRHE. The third sub-section presents the teachers' and CHWs' perspectives on the benefits of sexuality and life skills education and acceptability of sexuality education by community.

Participant demographic characteristics

A total of 28 teachers and CHWs were interviewed from Central and Southern provinces of Zambia. The table below shows participants' demographic characteristics.

Table 2: Participant Demographic Characteristics

Per Category	**Provincial Demographic Data**				**Gender**		**Total number of participants**
	Central		Southern		Male	Female	
	Male	Female	Male	Female			
Teachers	4	3	3	5	7	8	15 Teachers
CHWs	2	4	2	5	4	9	13 CHWs
TOTAL	6	7	5	10	11	17	28 Interviewees
Age: Oldest respondent= 53 years, Youngest respondent= 24 years, Average= 33 years							

Experiences on implementing the SRHE in youth clubs

Language and instructions in the manual

Teachers and CHWs narrated that they received adequate preparation for them to use the manual relatively effectively. Most of them said that conveying SRH information to pupils was easy because the language and instructions in the manual were clear and simple. This enabled them to conduct activities during the sessions with little difficulty. Some participants reported they encountered challenges with the manual's terminology, but they were able to consult among themselves about the meaning of the terms in question. Examples of concepts respondents found difficult to understand themselves and explain to the learners included: 'stereotypes', 'assertive', 'gender', 'conceiving', and 'exploitation'.

> "Yes, they are clear and easy to understand because the English used is not difficult. If you do not understand you can ask a teacher to explain a word which is difficult, and then we read together, then you understand." (021, Male, CHW).

Some teachers and CHWs experienced challenges of translating the content into local language to young people in meetings. Respondents reported that certain concepts were not easy to apply because they related to taboo topics in the communities.

> "We had challenge with some words to construct them in our local language, they were not easy, even seem to be more like a taboo in local language" (007, Female, Teacher).

> "We have like private parts when we talk about them in our languages they seem as if you are insulting, as if you do not have respect [for the people you speak with], but we could handle them in a way that at least the people around [like] learners themselves could understand. We said "you know these are the things that you are supposed to learn" (027, Male, Teacher).

Therefore, the participants recommended developing and translating SRHE curriculum into common languages spoken in particular regions to make it easier for facilitators.

Content in the training manual

The majority of respondents expressed that most of the important SRHE topics had been covered in the manual, and that the manual also gave useful advice on how to facilitate discussions of sensitive topics and avoid one-way communication.

> "The content was adequate…on sexual and reproductive health, the overview of RISE, the objective, and is very rich on how you can really handle such sensitive topics to the

> learners without offending them, and how you can let them or persuade learners to openly discuss other things like a taboo…how we can make the learners participate actively without them being shy and the like…" (002, Female, Teacher).

Some of the interviewees proposed the inclusion of additional subjects to the curriculum such as a spiritual component and value clarification to influence adolescents' morality, and laws on early marriage. Some respondents reported that moral education might help some girls to abstain from sexual behaviour thereby contributing to a reduction in teenage pregnancies and early marriage.

> "I think they have tackled it all. Maybe the spiritual part, behaviour change and moral education has been left out as it plays a big role…" (016, Male, Teacher).

Respondents said the manual was comprehensive and included an appropriate mix of topics, it was accurate and the sequencing of the following topics was logical: setting goals, romantic relationships, love and infatuation, sexual behavior and desire and others. However, they felt that some of the topics (early pregnancies and marriages) were repeated too many times in the manual.

Variation of activities and use of participatory methods in the training manual

Another component which participants mentioned on the implementation of the SRHE in schools and communities was the variation of activities. Most respondents indicated that there was a good variation in the manual in terms of how the activities (group discussions, role plays, introduction and summary) were arranged. This was important to avoid boredom during the training sessions.

> "Yes, there was, there was for example the group discussions, plenary, role plays yes. The variations in the activities were good because it also aroused learners' interest in learning. For example, there was the part where learners were being told to watch a film" (009, Female Teacher).

Most of the participants found that teaching SRHE in schools using participatory methods enhanced the pupils' understanding of SRH related topics and engaged the participants to get actively involved, hence they fostered good interaction between learners and facilitators.

> "We do the same thing...the role play, group work - they are very much useful in this programme. They make learners to get involved and they understand more of the content. They are now getting to understand the benefit of education, the importance of school, puberty changes, reproduction …" (016, Male, Teacher).

The barrier of communicating sensitive topics such as preventing pregnancies, early marriages and family planning was overcome by emotionally engaging the participants through films and role plays. It enabled both girls and boys to discuss these topics together without being shy.

> "The films, watching films and role plays…where I'm coming from it has really done a great job in the sense that it keeps - it keeps them excited. They're happy, they want to learn more over those films, what is going to happen" (004, Male, CHW).

> "You involve them in role plays. This one wants to participate, "me, I'm the mother", "me, I'm the girl friend", they are happy and it keeps them motivated. I think these two really worked out well… It is not easy for them to forget because they have done it and they can remember it as they are participating." (001, Female, CHW).

However, some teachers and CHWs expressed that it was important to vary the activities from session to session as even participatory activities could become monotonous if there was no variation in how they were implemented.

> "Yes, activities in terms of group work… Others say it has been too much of group work. The moment you present your introduction, you give objectives, the pupils… know to say when she finishes…too much of group discussion. Although it's good but too much of it. (001, Female, CHW).

Experiences in implementing training using Audio Visual Aides -Films

The application of audio-visual training materials was most appreciated by most teachers and CHWs because it aroused interest to learn and elicited and encouraged youth to come for sexuality sessions and also to actively participate in the programme. The respondents believed the pupils learnt easily from films because they were emotionally engaged, which improved their awareness:

> "…lessons, like for example … the film for Mulilo [on the value of education], it taught a lot of people, as well as that of Mutinta [on the dangers of early childbearing]to say even if a child gets pregnant on the way, she is supposed to go back to school. Now that film rose awareness to the people and taught us that even if a person gets pregnant on the way she has a right to go back to school and continue with her studies, so that she can secure her future." (I.D.I. 018, Female, CHW, Kabwe).

Collaboration between CHWs and teachers in providing SRHE

The collaboration between teachers and CHWs helped to ensure that all topics, including those teachers were uncomfortable to teach, were covered. Teachers and CHWs worked together to deliver sessions, which enabled them to complement each other in areas where they could not handle the topics alone effectively.

> "The one I am not comfortable teaching is Gender, so sometimes I give the teacher to carry out the lesson. The problem that I encounter when presenting this lesson to the learners is that they become difficult so the only person who manages to handle them is their teacher". (10 Female, CHW, Kabwe).

Perceived benefits of sexuality and life skills education

The teachers and CHWs believed that the youth clubs increased pupils´ knowledge and understanding on prevention of teenage pregnancies and early marriages. The SRH teaching helped to demystify cultural practices and norms in communities where teenage pregnancies and early marriages were accepted. Respondents reported that some parents appreciated the importance of educating their children, especially the girls.

By improving adolescents' knowledge and skills on prevention of teenage pregnancies, early marriages and STIs, the facilitators believed that the SRHE training could help young people to adopt protective behaviour by promoting safer sex, condoms and contraception. They had the impression that some were able to adopt and implement what they learned. However, this did not apply to all:

> "…. Some listen and implement what we teach them but others do not listen… That is why we teach them some preventive measures." (004, Female CHW).

The other aspect the facilitators felt was helpful was the promotion of assertiveness and self-esteem among adolescents. They narrated that previously girls accepted to be subjugated or dominated by the boys. The respondents noted that girls' participation increased during youth club meetings compared to before the programme was introduced.

> "In the past girls than boys were passive and quiet, a little bit uninterested but as time went by, you could see a change that even girls want to participate, they begin to gain self-esteem and assertiveness, confidence comes in and they are able to stand in front and present and show themselves..." (001, Female CHA).

In addition, the acquisition of like skills such as assertiveness and self-esteem enabled some of the learners to privately approach the CHWs to find out about sensitive questions on SRH such as menstruation. Some teachers said the girls appeared to feel free to ask questions that they could not previously ask before the introduction of the youth club meetings.

> "One of the adolescent girls approached me to say "Madam, we were discussing over this problem, only that my friends they are shy, they are failing to come out so that they can ask from you, we were saying to say during menstruation period,.." (007, Female, Teacher).

Acceptability of Sexuality Education by Community

However, sexuality education had not been fully accepted by some parents. Some respondents reported that whenever adolescents would want to indulge in sexual relationships, teachers and CHWs told them that they could use contraceptives to prevent pregnancy. In contrast, most respondents revealed that the use of contraception among adolescents had not been accepted by parents. They thought it could encourage them to engage in disapproved behaviour such as prostitution.

> "…The only challenge we encountered was on family planning, because some [guardians] did not welcome it. We explained to them to say "no, this is just a way of preventing pregnancies". They were in disagreement and gave their reasons to say "If we allow our children to use pills they will become prostitutes and we emphasize mostly on letting the children complete their education without falling pregnant…Initially we had challenges, you know, traditionally us Zambians, it was not easy to point out sensitive topics where we mention the reproductive organs. But now during the discussion we are able to mention the sensitive parts. At the end of the day adolescents were able to accept and feel free so that they benefit from the meetings." (018, Female, CHW).

DISCUSSION

This study uncovered that teachers and CHWs reported they were prepared adequately and hence found it easy for them to implement the SRH education. This was attributed to the training they received, and clear instructions and simple language contained in the manual. Participatory approaches helped overcome the barriers of communicating about sensitive topics such as contraceptive usage among adolescents. Teachers and CHWs reported that the adolescents had appreciated the SRHE sessions and the learners were now opening up and approaching them with questions, both inside and outside the classroom.

Although the manuals were reported to be simple to use, some facilitators experienced challenges in explaining some difficult words like 'stereotype' and 'menstruation'. Providing the sessions in a local language was sometimes experienced by the teachers and CHWs as challenging since the local terminology emerged as more insulting than the English words (Francis, 2016; Joseph Mumba Zulu et al., 2019). This is in line with the findings of other studies, such as from South Africa (Francis, 2016) and Nigeria that highlighted that mentioning sex organs in local languages is perceived as taboo and an insult when teachers facilitate discussions with girls and boys (29, 40). Translation of SRH education curriculum into common local languages would help the facilitators with local language terms that are more acceptable. Studies in Guatemala and Peru have also documented the importance of making CSE curricula and materials available in local languages (S. C. Keogh et al., 2018).

The facilitators expressed that they had been given adequate resources such as manuals and films to enable them implement SRH education in youth clubs. In contrast, a study on the government's implementation of CSE in Zambian schools found that absence of training and teaching materials such as manuals made it difficult for teachers to deliver the content in the curriculum (Haberland, 2015; Vanwesenbeeck et al., 2016; Joseph Mumba Zulu et al., 2019). Papers from Guatemala, Ghana and Kenya on recent CSE initiatives have commented that pilot programs of CSE which have included distributing manuals, providing technical support and training staff have been successful and have typically been spearheaded by organisations like UNFPA. However, teachers and other facilitators trained in CSE by the government in many countries frequently lack materials and necessary resources to enable them to provide good quality CSE in schools. This situation has been attributed to government support not being wholehearted (S. C. Keogh et al., 2018), but competition for scarce resources is also probably a contributing factor.

In this study teaching using Audio Visual Aides such as films helped to deliver SRH content without making the facilitators feel uncomfortable. According to the teachers, the pupils in youth clubs always wanted to watch films on SRH. In comparison, the recent study conducted by Ike and Anderson (2018) on teaching bioethics in high schools using appropriate visual education tools also found that the use of Visual aids in a classroom may help to open up discussions about very sensitive and challenging topics (Ike & Anderson, 2018). There is a need for more interdisciplinary collaboration to develop films and stories that illustrate SRH topics and can produce desired effects on classroom learning. In many instances there may also be a need to invest in infrastructure such as solar power or a genset and a projector to be able to screen audio visual materials considering that many schools in low and middle income countries lack such resources.

As a way of dealing ensuring SRH is well implemented in schools, this study reported benefits of multisectoral collaboration in delivering SRH education and services in schools. The collaboration between teachers, CHWs and community actors to support delivery of CSE content in youth clubs was crucial to achieve acceptance and make the youths comfortable to talk about SRH issues. Others have found that many organizations promoting CSE are still working in silos causing fragmentation (Barr, Garrett, Marten, & Kadandale, 2019). Parallel CSE programs have been observed at national, provincial, district and local levels in countries such as Kenya, Ghana, and Guatemala and Peru (Sarah C Keogh et al., 2018). Similarly, a study conducted in Zambia indicated that there is need for strengthened collaboration and coordination between sectors to support adolescents' health related issues including delivering of SRH services (Schneider, Zulu, Mathias, Cloete, & Hurtig, 2019). The study conducted by Mulubwa (2020) also stressed the significance of community actors such as community members, teachers, CHWs and adolescents to support and create safe shared spaces for improved communication on SRHR (Mulubwa et al., 2020).

The findings of this study further report that teachers and CHWs experienced some resistance from parents who indicated that some topics were not appropriate for adolescents. Several studies from sub-Saharan Africa also found similar challenges with implementers of CSE in schools admitting that they omitted some topics that they perceived as inappropriate from the community perspective in order to avoid conflicts with the community (Vanwesenbeeck et al., 2016; Joseph Mumba Zulu et al., 2019). Similarly, a Nigerian study on preparing teachers to deliver gender-focused sexuality/HIV education, found that teachers were more comfortable teaching about the benefits of abstaining from sexual activities (29). Zulu and colleagues (2019) found that Zambian teachers expressed that training girls on SRH had been perceived by the community as turning pupils into 'sex experts,' putting them at risk of pregnancies in situations where there was no contraception or contracting an STI if condoms were not available. Teachers struggled to strike a balance between teaching sexuality education to their pupils and maintaining the broader parental role of shaping them into responsible adults. Parents were against the teaching of some components of CSE in schools as they considered SRH topics to be sacred and only to be taught by traditional counsellors at community level (Joseph Mumba Zulu et al., 2019). Other studies have also documented that norms consistently indicate that unmarried girls in Zambia should not use contraception and educating young girls on contraception and condoms is perceived to encourage girls to 'experiment' or to become 'prostitutes' (J. Svanemyr, 2019). In Zambia and Uganda, teachers have reported to feel that teaching CSE is in conflict with dominant socio-cultural and religious norms (Sarah C Keogh et al., 2018; Vanwesenbeeck et al., 2016; Joseph Mumba Zulu et al., 2019). Many teachers share this understanding with the community and have difficulties discussing sexuality issues and using sexuality terminology, particularly with the youngest learners (Joseph Mumba Zulu et al., 2019). This is also in line with other studies that have found that implementation of CSE is challenging for teachers due to concerns about the legitimacy of the CSE (Godia et al., 2013; Haberland, 2015; McClure et al., 2015; Vanwesenbeeck et al., 2016). Some communities often hold that grandparents are the best to teach about sexuality (Vanwesenbeeck et al., 2016; Joseph Mumba Zulu et al., 2019). Conflicting inter-generational discourses on sexuality between teachers and community members as well as taboos associated with discussion of sexuality (Browes, 2015; Reiss, 1993; Joseph Mumba Zulu et al., 2019), and gender-related challenges (Wood et al., 2015; Joseph Mumba Zulu et al., 2019), have been reported to affect the acceptability of sexuality education in studies from South Africa and Botswana.

We also found that some of the interviewees proposed the inclusion of additional subjects to the curriculum such as a spiritual component and value clarification in order to influence adolescents' morality, and laws on early marriage. Some studies conducted in Ghana, Nigeria and Senegal reported that many teachers and other facilitators find it difficult to go beyond moral education because of lack of engagement or resistance to CSE (Amaugo et al., 2014; Chau, Traoré Seck, Chandra-Mouli, & Svanemyr, 2016; Huaynoca, Chandra-Mouli, Yaqub Jr, & Denno, 2014; Krugu, Mevissen, Münkel, & Ruiter, 2017; Joseph Mumba Zulu et al., 2019). A

Nigerian study exploring the scaling up of comprehensive sexuality education found that stakeholders rejected the teaching of CSE because they were not engaged in the planning and implementation process. Zulu et al's study from Eastern Zambia also concluded that lack of acceptability and ownership probably emanated from leaving out relevant stakeholders including religious leaders, traditional leaders, civic leaders, parents and youth groups in the process of developing and disseminating CSE curriculum or content (Joseph Mumba Zulu et al., 2019). In Nigeria, a CSE curriculum produced by a partnership between the federal government, health care workers, Action Health, and NGOs in collaboration with religious leaders, educators, and other stakeholders were able to design an accurate content, contraception including topics on gender roles, sexual orientation, masturbation, and abortion – related to young people's sexual health and rights (Haberland, 2015; Wood et al., 2015). Keogh and others (Sarah C Keogh et al., 2018) have stressed the importance of involving stakeholders early in the development and debate of CSE curriculum options. They argue in particular that the participation and inclusion of young people in curriculum development is key to ensuring the content is adequately tailored to their needs. Moreover, including adolescents at an early stage may encourage their engagement with the material and enhance their views of themselves as agents of their own change (Boonstra, 2015; Gupta et al., 2013; Sarah C Keogh et al., 2018; McClure et al., 2015).

This study found that using participatory methods such as group work and role plays increases adolescents' understanding of SRH related topics and can potentially enable adolescents to become confident, increase their self-esteem and make them knowledgeable (2, 24, 25, 39, 42). South African study on HIV/AIDS and integrated sexuality education pedagogy (Manguvo & Nyanungo, 2018) also reported that participatory approaches were perceived to increase levels of participation among both boys and girls. Similar research carried out in Tanzania and Zambia showed that participatory teaching methods foster a two-way dialogue and encourages more interaction with the adolescents as opposed to traditional methods with the facilitator dominating the teaching (Mkumbo, 2012; Vanwesenbeeck et al., 2016; Wood et al., 2015). Furthermore, some studies in Tanzania and Kenya (S. C. Keogh et al., 2018) suggested that one of the most effective aids to implementation of CSE is to involve learners through having prolonged engagement with them, repetition of some activities, short educational expositions, practicing skills, direct feedback, coaching, peer collaboration and small group discussions; games, drawing, enacting role-plays, using flash cards, singing, and brainstorming answers (Denise Poston, 2003; Van de Mortel, Bird, Chown, Trigger, & Ahern, 2016). The participatory approach is effective in teaching SRH content; gender, and power in relationships requires applying participatory pedagogic approaches (Wood et al., 2015). This can overcome barriers of communicating uncomfortable topics such as preventing pregnancies, early marriages and family planning usage to adolescents.

Limitations of the study

The participants were recruited and the interviews were conducted during a RISE training workshop by a person associated with the project. This could potentially lead the respondents to speak more positively about the implementation of SRHE youth clubs than they would have done in a more neutral setting. However, the number of participants and the consistency of the reports indicate that the findings are reliable. The lack of inclusion of RISE trial participants (pupils) in the study limited the understanding of the benefits of the SRH and life-skills sessions. The perspectives of the trial participants will be reported in another study. Further research is also needed to find out on collaborative governance in the delivery comprehensive sexuality education in community health systems.

Conclusion

This study indicated that teachers and CHWs reported they were prepared adequately and hence found it easy to implement the SRHE in youth clubs. This was attributed to the training they received, and clear instructions and simple language contained in the manual. Participatory approaches overcame the barriers of communicating uncomfortable topics such as preventing pregnancies, early marriages and contraception usage to adolescents. Our study indicates that implementation of CSE creates an environment for adolescents to gain SRH knowledge and life skills that can potentially help reduce to school dropouts, teenage pregnancies and early marriages among girls. To enhance the understanding of sensitive and challenging SRH topics among youth, visual tools such as films should be employed for their potential to engage young people emotionally and thus facilitate attention and comprehension.

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CHWs	Community Health Workers
CSE	Comprehensive Sexual Education
UNAIDS	United Nations Programme on HIV/ Acquired Immune Deficiency Syndrome
UNESCO	United Nations education Scientific and Cultural Organisation
RISE	Research Initiative for the Empowerment Girls
SRHR	Sexual Reproductive Health and Rights
STDs	Sexual Transmitted Diseases

Declarations

Ethical approval and consent

Ethical approval was granted by University of Zambia Biomedical Ethical Committee.

Consent for publication

Not applicable

Availability of data and materials

The study data can be requested from the author.

Competing Interest

The authors declare that they have no competing interests.

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Author's contribution

MPC conceived, designed, conducted interviews, analyzed the study and drafted the manuscript, whereas, IFS, JS and JMZ guided the development & implementation of the study and revised and approved the final version of the manuscript.

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Availability of data and materials

The anonymized transcripts from the interviews can be made available upon request.

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