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Full Review: Effective Comprehensive Sexuality Education (CSE)

This is the full version of the review that informs the Article 'Effective CSE: What is known and what is needed?'

This report considers the literature evaluating the effectiveness of CSE interventions in development contexts, summarises common challenges faced by programmes, and draws together recommendations from this literature on how these challenges can be addressed in future interventions.

We firstly undertook a 'deep dive' structured literature review that was geographically focused on Sub-Saharan Africa (SSA). We then widened the geographic focus to search for literature on CSE effectiveness in Nepal, Lebanon, Asia and the Middle East. Finally, we reviewed more globally focused literature. We combined these searches into the following report. A table giving further details of each resource cited is also available. Only works written in English are included.

Introduction

In response to poor sexual and reproductive health (SRH) outcomes among young people in the Global South, including high rates of HIV infection, many countries have recognised the need for sexuality education. The aims of this education include empowering young people to protect themselves from sexually transmitted infections (STIs), unintended pregnancies and related unsafe abortions, as well as sexual violence and coercive sex. Educating young people about sexual and reproductive health services and how to access them when needed has also been highlighted as an important objective (Population Council, 2012). Sexuality education can help support the achievement of the UNAIDS development goals, specifically empowering young people to protect themselves from HIV. The countries of Eastern and Southern Africa (ESA) signed up to a UNESCO and UNAIDS commitment to address young people's SRH through a programme of comprehensive sexuality education (CSE) in 2013. Since that commitment, most ESA countries have developed central CSE curricula and have integrated their delivery into school programmes (Wekesah *et al.*, 2019). However, these programmes in ESA and elsewhere in the world have not been without their challenges and the need for continued focus on the provision of CSE at local, regional, national, and global scales is still warranted.

Methodology

The 'deep dive' review of published literature on CSE in SSA focused on the following research questions:

- What learning interventions have been designed and delivered around CSE in Africa over the last ten years?
- Of these, have any been evaluated and if so, what do the evaluations say?

A literature search was conducted using structured search query on the Cumulative Index of Nursing and Allied Healthcare Literature (CINHAL) using the search string below, with results limited to literature published between 2010 and 2020:

(CSE OR "sex education" OR SRE) AND (Africa*) AND (intervention* OR program*)*

The initial search returned 89 results of which 31 were relevant and form the core of this report.

Four further structured searches were then undertaken on CINHAL, to widen the geographical scope, with results also limited to literature published between 2010 and 2020:

1. (CSE OR "sex* education" OR SRE) AND (Nepal*). The initial search returned 9 results of which 1 was relevant.
2. (CSE OR "sex* education" OR SRE) AND (Lebanon OR Lebanese OR Beirut) The initial search returned 4 results of which 1 was relevant.
3. (CSE OR "sex* education" OR SRE) AND (Asia*) The initial search returned 67 results of which 1 was relevant and not already included in the SSA-focused review. 1 further paper focused specifically on the effectiveness of online interventions, so was carried forward to the planned evidence review on online and distance CSE.
4. (CSE OR "sex* education" OR SRE) AND (middle east* OR arab* OR levant*). The initial search returned 28 results, of which 1 was new and relevant.

These structured searches were supplemented with more open Google searches (e.g. for 'CSE evaluation' 'Sex education effectiveness') to locate other relevant findings from anywhere in the world, including works published before 2010. We did not include reports from UN agencies and iNGOs that are primarily summaries of other studies, although this is common practice in the sector, because we found slippage between the claims being made in these reports and what the literature cited actually said[i]. We did include key reports from such agencies that took the form of rigorous literature reviews (e.g. UNESCO, 2016; WHO, 2006).

In total, 47 primary and review studies were included and reported here. A table overviewing all studies reviewed is also available.

Evaluation of CSE interventions

A relatively small literature evaluates the outcomes and impact of individual CSE programmes and interventions and presents a mixed picture of both the effectiveness of the interventions and the methods employed to evaluate them. One systematic review found positive evidence of intended outcomes and recommended wider roll-out of existing

programmes (WHO, 2006). However, a review conducted in 2008 highlighted the relative paucity of evidence for school-based interventions, and noted that knowledge and attitude-related outcomes were the most associated with statistically significant change and actual behaviour change was least likely to occur. In addition, behaviour change in favour of abstinence and condom use appeared to be greatly influenced by pre-intervention sexual history (Paul-Ebhohimhen, Poobalan and Van Teijlingen, 2008). A later review of SRH behavioural interventions in 13–19 year-olds also found few publications, highlighting that some studies employed methods that carried a significant risk of bias (Picot *et al.*, 2012). This review also found that of the remaining programmes, few met their objective of achieving behaviour change, or did so only in some subgroups. A 2016 review of interventions found that there is strong evidence that CSE leads to self-reports of improved knowledge, increased condom use, decrease in multiple partners, increase in self-efficacy for HIV protection, favourable attitudes to safer sex and delays in initiation of first sexual intercourse (UNFPA-Southern Africa Region, 2016). However, the same review concluded that there was also evidence that these interventions were ineffective at reducing the incidence of HIV and STIs. There is also clear evidence across low and middle-income countries globally that school-based HIV prevention programmes increase self-report of protective behaviours (Fonner, Armstrong, Kennedy, O'Reilly, & Sweat, 2014) but not of actual changed behaviours. It is, however, clear that CSE combined with available contraception reduces unintended teenage pregnancy (Oringanje et al., 2009) and that programmes that discuss power and gender explicitly are more effective than those that do not (Haberland, 2015).

In-school programmes

Most in-school CSE is delivered to older adolescents, although the significance of CSE to pre-pubescent and younger adolescents is widely recognised (Tiendrebeogo, Meijer, & Engelberg, 2003). A study of Saudi Arabian girls aged 14-19 who had not previously received any reproductive health education found significant increases in knowledge of menstruation and puberty after a brief intervention (Tork & Al hosis, 2015). A controlled trial of a school-level intervention developed through a 15-month participatory process with 14–17 year-old school children KwaZulu-Natal in South Africa, the Mpondombili curriculum, found improvements in self-efficacy and partner communication among intervention participants compared with control schools, but no impact on condom use five months after the programme (Harrison *et al.*, 2016). Similarly, two programmes of lessons about HIV and SRH high schools in Ghana found improvements in knowledge about reproduction and HIV, but one did not examine behavioural change (Krugu *et al.*, 2018) and the other found some change in behavioural intentions only in female students (van der Geugten *et al.*, 2015). Van der Geugten and colleagues suggested that low levels of consistent attendance among participants and the delivery of sessions by foreign volunteers unfamiliar with the cultural context could explain the lack of impact on behaviour. A CSE programme based on the Theory of Planned Behavior was trialled in 10–14 year-olds in Uganda and after one year found significant differences in knowledge and behavioural intention between young people who took part in the programme compared with those in a control group. The study also found lower rates of early sexual debut, although this difference was not statistically significant (Kemigisha *et al.*, 2019). The importance of a holistic and integrated approach to programme development is illustrated by the experience of the Niger University Leadership for Change programme, which engaged students as peer-educators and volunteers to

promote awareness of SRA and develop a student network. While the programme was successful in its aims to engage students with the need for SRH and distributing condoms, as there was no change in SRH service provision at the university clinic, the impact on SRH outcomes among students was limited (Benevides *et al.*, 2019). However, a comprehensive approach is not a guarantee of success: a recent study in Malawi consisting of an educational intervention for young women, coupled with the provision of youth-friendly SRH services and conditional cash transfers to participants did not achieve its aim of reducing sexual activity, multiple partnerships or transactional relationships with older partners (Rosenberg *et al.*, 2020).

An evaluation of the Stepping Stones programme (Jewkes *et al.*, 2007) compared outcomes between villages in which the intervention was deployed and control villages that received no intervention. Differences in HIV and HPV infection rates between villages two years after the intervention were not statistically significant. However, qualitative research carried out with individuals who had taken part in the intervention reported changes in their attitudes towards sex, HIV and intimate partner violence. Despite this the authors noted that although some participants became more assertive they did not challenge their partners, nor the prevailing cultural norms around conservative femininity (Jewkes, Wood and Duvvury, 2010). In contrast, a programme aimed at young men aged 15-24 years-old in South Africa, MenCare+, found that following the intervention, participants were able identify harmful gender norms and actively questioned these constructs both within their personal lives and in the broader community. Study authors credited the comprehensive nature of the MenCare+ programme, which comprised a series of complementary and integrated interventions over a 3-year period with its impact, over programmes which consisted of isolated components (Kedde *et al.*, 2018). A further qualitative study of a pilot sexuality education intervention in South Africa assessed participants' engagement with a series of nine discursive sessions and debates constructed to promote critical consciousness of implicit gender and sexuality norms. By establishing a context in which participants could engage in discussion and debate, the programme led to some participants taking up safe-sex messages in a reflexive and considered manner. In addition, the dialogical learning environment enabled some participants to individualise and personalise messages and allowed 'hidden' aspects of sexuality, such as female desire and same-sex attraction to emerge. This contrasts with the didactic approach adopted by other school based CSE programmes and the study authors conclude that dialogues are better able to meet young peoples' needs than traditional educational approaches (Jearey-Graham and Macleod, 2017). Similarly, a study of a participatory programme of CSE in which pupils co-created the curriculum in schools in Kenya, Ghana and Swaziland highlighted further benefits of adopting a participatory approach: not only did the programme better meet students' needs, it also helped to recontexualise CSE in students' social and emotional landscapes in a way that medical models of sex education do not (Cobbett, McLaughlin and Kiragu, 2013).

A discursive participatory approach is also adopted by the 'Aunty Stella' resource, which uses 'agony aunt' letters as the basis for peer-to-peer discussions about sexuality, relationships and their bodies. The programme has been designed to operate with minimal intervention from facilitators, supporting a relaxed atmosphere and helping minimise issues of self-censorship or power relating to teacher intervention (Wikigender, 2015). The programme has been highlighted as an example of best practice based on Southern Africa

Development Community criteria including cost effectiveness, relevance, ethical soundness, relevance, innovation, replicability and sustainability (SAfAIDS, 2009).

Out-of-school programmes

Out-of-school programmes can engage young people who have disengaged or never engaged with education systems, who face similar challenges to their sexual and reproductive health as their in-school peers and may experience greater stigma when accessing services. They offer scope for more informal, flexible styles of learning and potential for more targeted content designed for young people with shared stigmatised experiences. In Uganda, young people who were out of school reported preferring to get SRH information from trained community members rather than from clinic staff, with ssenga (maternal aunts) highlighted as important sources of relationship advice and information, particularly for young women. In addition, young people highlighted a need for information on becoming a 'good adult' that came from parents, grandparents or church leaders (Nobelius *et al.*, 2010).. A trial of peer-led 'study circles' for young people living in South African rural towns found that although they initially faced challenges, by developing a culturally and age-appropriate programme they were able to engage young people who otherwise faced poor SRH outcomes and increase their awareness of not only HIV risk but also their rights and access to SRH programmes (Thokoane, 2015). A 2016 review of programmes in the Southern Africa region found that out-of-school interventions showed evidence of decreasing STI incidence and promising evidence of increases in knowledge about HIV and reduced rates of intimate partner violence. However, these interventions showed no evidence of reducing HIV incidence (UNFPA-Southern Africa Region, 2016).

A comprehensive reproductive health programme in Northern Nigeria aimed at 10-24 year-olds, Y Access, demonstrated an increase in HIV testing rates and behavioural changes (including delay of sexual initiation, fewer sex partners, increase in condom use, consistent condom use and increased use of contraceptives) among young people participating in the intervention. Y Access involved provision of CSE through youth groups and mobile phones and was able to reach a large proportion of its target age group in the region. In addition to education, the programme also involved building capacity of health care service providers in the region, creation of referral networks between youth groups and service providers, a voucher scheme for individuals to address financial barriers to SRH access and microgrants for youth groups, working with community stakeholders (including parents/guardians, teachers and religious/community leaders) to highlight the importance of young people's SRH and advocacy activities with state and local government to provide further funding for SRH (Onyemocho, 2016). The importance of addressing structural barriers, such as poverty among target populations has been highlighted as a feature of successful programmes (Sani *et al.*, 2018).

A series of mobile apps (Frisky, Diva and Link Up) were developed for use in the Nigerian Federal Capital Territory to support uptake of CSE and SRA services among young people in urban settings. The apps were created and marketed in collaboration with young people and were successfully deployed, although no outcome or impact data are available (Education as a Vaccine, 2019). Other innovative approaches reported in the literature included a report of how Marie Stopes and Africa Direction developed 'Diva Centres' Zambia which provide young women with free beauty services and peer education on CSE and SRH

services. Similarly 'Safe Spaces' provide sports and exercise facilities as well as training in technical skills for young people, with on-site educators and counsellors who deliver CSE and SRH services. A mobile-accessible website 'TuneMe' provides CSE information aligned with the national curriculum for young people to access on their phones (Wekesah *et al.*, 2019)

Challenges and unmet needs

Sociocultural barriers

The African Population Health Research Centre (APHRC) highlights that sociocultural norms remain a major obstacle to the implementation of CSE (Wekesah *et al.*, 2019). Even programmes assessed as successful, achieving improvements in adolescent sexual and reproductive health outcomes, did not deliver truly comprehensive sexuality education. In line with local norms, programmes were renamed as 'family life education' or 'family, life and HIV education' with topics such as masturbation and same-sex attraction omitted from curricula in some programmes. In others, abstinence-only education was delivered. Although a wide range of stakeholders have been involved in the development of CSE programmes, including government departments, local and international NGOs and community and faith-based groups, young people themselves are rarely involved in curriculum development (Wekesah *et al.*, 2019) or, where they are consulted, feel that their views are not sufficiently taken into consideration (Keogh *et al.*, 2018). Young people themselves may not always support the formal provision of sexuality education: a Lebanese study found that poorer, female, younger, more socially conservative youth, who did not speak to their parents about sexual matters, and who had little previous experience of SRH education, were more likely to answer 'no' to the question 'Do you support being taught about reproductive health topics in school classes?' (Mouhanna et al., 2017).

Topics that some young people do want to learn about, such as relationships, norms and values associated with sexuality, transition to adulthood and intergenerational communication (Njue, Voeten and Ahlberg, 2011) are often omitted from curricula that overemphasise a medical-STI focused model of SRH. Nevertheless, as Wekesah and colleagues surmise, achieving the roll-out of CSE took significant multi-agency collaboration and effort – over up to 8 years in the example of Nigeria's national programme – and even without a fully comprehensive programme, some education may be better than none at all (Wekesah *et al.*, 2019).

One of the key barriers to full CSE implementation cited in the region has been resistance from parents. Although parents are not necessarily opposed to CSE, and may support the role of teachers in delivering education about STIs and even STI testing in schools (Wanje *et al.*, 2017) several studies highlighted that they take issue with curricula that are perceived to be delivered to age groups that are too young, or that contain subjects or ideas that contradict the guidance that parents themselves give their children. Parents have been found to support CSE that fulfilled a moralistic or warning approach, emphasising abstinence and the avoidance of negative health outcomes, such as HIV, but were less likely to support content that included sexuality and relationships (Wekesah *et al.*, 2019). Accordingly, a 2012 review of the sexuality education curricula in ten Eastern and Southern African countries concluded that while curriculum content was generally age appropriate and addressed communications skills adequately, most were lacking in key basic

information about contraception and other aspects of sexual health (Population Council, 2012). While most curricula included information on gender, the way the topic was approached was often limited and contradictory, neglecting key aspects such as the influence of media on gender norms. Sexuality was often framed negatively and adopted fear-based moralistic approaches, neglecting the social context of sexual activity and obscuring power dynamics (Population Council, 2012). The implementation of the Life Skills curriculum in South Africa was also found to be heavily influenced by gender norms, undermining the critical engagement with gender that the curriculum embodies (Sisa, Shefer and Macleod Catriona, 2016; Mayeza and Vincent, 2019). Even where counter-normative sexualities were included in Life Skills lessons, an analysis of the lessons in which they were taught revealed that they were contextualised in a heteronormative framework of pity, tolerance and blame, with individuals with non-normative sexualities presented as vulnerable, childlike or hypersexualised (Francis, 2019).

Teacher training

The lack of appropriate training for educators in how to effectively deliver CSE has been highlighted as a limitation in the rollout of CSE in SSA (Population Council, 2012; Wekesah *et al.*, 2019). Inconsistencies in the delivery of the curricula have frequently been found, as well as a tendency for lessons to be delivered in a conservative way which undermined the personal engagement and critical thinking that support successful CSE (Browes, 2015). Teachers involved in providing CSE lessons in Kenya and South Africa were untrained and felt ill equipped to provided classes, particularly without the support of classroom resources (Mturi and Bechuke, 2019; Ogolla and Ondia, 2019). The lack of specialist training for teachers led to their personal beliefs and biases forming part of the CSE taught to pupils. In Nepal, one study found that students perceived teachers to have low levels of knowledge and commitment to the topic (Shrestha et al., 2013). Other reviews of trends in CSE highlighted that even where they are included in the CSE curriculum, teachers may omit sensitive topics such as abortion, homosexuality and masturbation because they feel uncomfortable discussing taboo subjects or consider that they would be acting contrary to the law (Population Council, 2012). Where these topics are covered, teachers sometimes do so in a way that contradicts the tenets of CSE, especially with regard to gender norms and sexual harassment (Rijsdijk *et al.*, 2014; Wekesah *et al.*, 2019). In addition, the participatory dialogic approach described above that supports effective CSE contrasts with the didactic approach often adopted in other areas of the curriculum and teachers describe feeling unempowered to deliver education that they worry contradicts local cultural norms or runs contrary to parents' wishes (Wekesah *et al.*, 2019). Most curricula failed to support agency building and advocacy skills among young people and, in particular, were undermined by the lack of attention to the safety of the school environment as key determinant of young people's safety and security (Population Council, 2012).

Implementation challenges

The fidelity of programme implementation has been highlighted as a second major barrier to effective CSE programming and may help to explain the relatively minor impact of many programmes. For example, schools that enrolled in the World Starts With Me (WSWM) programme of CSE typically implemented fewer than half of the 14 lessons in the curriculum (Rijsdijk *et al.*, 2014; Wekesah *et al.*, 2019). These findings were echoed in the 2016 assessment of barriers to effective sexuality education in ESA, which included weak

implementation at country and school levels, which were linked to poor teacher training and a school and local environment that featured bullying, sexual harassment and violence. In addition, the review highlighted the lack of clear legal frameworks for CSE, resistance from parents and educators, and a lack of accessible health and SRH services for young people as limitations to the effectiveness of CSE programmes in the region (UNFPA-Southern Africa Region, 2016). These challenges can be addressed by providing detailed lesson plans for teachers to follow, in conjunction with training and capacity building within schools (Sani *et al.*, 2018).

Infrastructure challenges, such as access to computers, reliable internet access and electricity, can undermine the effectiveness of CSE programmes that rely on them, such as WSWM (Rijsdijk *et al.*, 2014; Wekesah *et al.*, 2019). In addition, in some areas the lack of provision of classroom resources to support CSE teaching also undermined the effectiveness of its implementation (Ogolla and Ondia, 2019). The Nepalese study also identified a problematic lack of resources for teaching beyond textbooks (Shrestha et al., 2013).

Additionally, the fact that CSE curricula do not contribute to national qualifications that are of interest to universities and colleges may be a disadvantage - evidence from South Africa suggests that teachers and schools do not consider them important (Mturi and Bechuke, 2019).

Mechanisms for coordination and evaluation remain weak across the region, as most countries lack frameworks for monitoring and evaluating CSE programs (Wekesah *et al.*, 2019). Even where programmes were evaluated, they were often process evaluations, recording whether sessions occurred rather than assessing outcomes or impact (Population Council, 2012). A study of young people's understanding of HIV and HIV risk in Zambia highlighted that although the country had implemented a national CSE curriculum, it was not a high priority in schools and was rarely taught, highlighting the issues that can occur without routine evaluation, as well as the need for engagement with CSE at local school level as well as by governmental agencies (Butts *et al.*, 2018). The need for long-term evaluation of CSE programmes, including assessment of their impact on HIV incidence and safer sex behaviour, demand for youth-friendly services and their cost effectiveness was highlighted by the UNFPA report into CSE in the Southern African Region (UNFPA-Southern Africa Region, 2016). Further research into the impact of out-of-school programmes is warranted as well as studies comparing different curriculum implementation approaches. The report also outlined the need for more qualitative research to provide insight into young people's experiences of CSE.

Recommendations for CSE implementation in SSA and globally

The APHRC review of the effectiveness of CSE in SSA recommended involving community and faith-based organisations in the design and delivery of local curricula in order to reduce the delivery of contradictory messages about CSE in different settings and to enhance awareness and uptake of the curriculum. Negotiating with authorities about the specifics of programmes, providing clarification and reassurance were successful strategies to deal with challenges from external stakeholders (Sani *et al.*, 2018). Policy levers also play a vital role (Panchaud et al., 2019). Incorporating CSE into both primary and secondary school curricula was also highlighted as a key recommendation based on evidence that programmes that are

age-appropriately targeted at younger groups before sexual debut have greater impact (Poobalan *et al.*, 2009; Sani *et al.*, 2018). There is also a need for programmes to be updated with the latest risk reduction techniques, including pre-exposure prophylaxis (PrEP) and voluntary male circumcision (Sani *et al.*, 2018).

As highlighted above, negative parental attitudes can inhibit teachers' delivery of CSE: anticipating complaints, teachers altered their lessons to omit or water down content they perceived to be problematic. Focusing teacher training on not only the content of the curriculum but also its delivery can have a positive impact on teachers' attitude towards CSE and enhance the effectiveness of programmes, even where the full curriculum is not taught because of cultural sensitivities (Wekesah *et al.*, 2019). Researchers with experience of implementing sexual health programmes in SSA recommend that programmes select teachers who are already comfortable with or enthusiastic about SRH, providing them with training to boost their confidence in delivering potentially sensitive sexually related material. In addition, including training for teachers on participatory approaches can also help to strengthen the delivery of programmes (Sani *et al.*, 2018). The 'Breaking the Silence' programme aimed to provide educators of learners with disabilities in South Africa with the skills, approaches and tools to deliver comprehensive sexuality education in the classroom by overcoming personal and community driven social and cultural barriers (Hanass-Hancock *et al.*, 2018). A three-day course helped educators feel supported to deliver not only the content of the CSE programme but also the participatory approach that the curriculum demanded.

At a global level, the most authoritative current summary of evidence is UNESCO's 2016 *Review of the Evidence on Sexuality Education* (UNESCO, 2016). This recommends, among other things, explicit recognition that CSE includes sensitive topics and so more support and training for educators in broaching difficult topics. It also recommends the development of digital tools to support CSE, noting their potential to reach young people who are not in school. Reflecting on a decade of the World Starts With Me programme, Vanwesenbeeck and colleagues highlight the need for CSE that embraces empowering methods that place young people and their priorities at the heart of programmes, as well as supporting teachers to be able to deliver this approach (Vanwesenbeeck *et al.*, 2016). A whole-school approach can support ownership of programmes and supporting they argue that supporting this is as important as designing the programmes themselves. They also emphasise the importance of provision of high quality SRH services in and out of school in order to be able to achieve real change and how these stands of CSE need to be carefully coordinated and implemented in order to overcome the complexities of delivery. Despite the challenges and setbacks faced by CSE they are optimistic, highlighting the studies that suggest a positive impact of education even in the face of implementation challenges points to the power and transformative potential of CSE and emphasises the importance of the continued advancement of programmes.

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[i] For example, Oringanje et al.'s (2009) review, is cited in a UNESCO report (UNESCO, 2015) as showing that CSE reduces unwanted teenage pregnancy, but the review actually shows that CSE combined with the availability of contraception reduces unwanted pregnancy. Similarly, in the same report, Fonner et al.'s (2014) review is cited as demonstrating that CSE

increases contraception and condom use, reduces number of sexual partners and leads to later initiation of first sexual intercourse. However the review itself is clear that all outcomes are based on self report – we cannot say that CSE actually led to these behaviours, just to intentions or reports of these behaviours.