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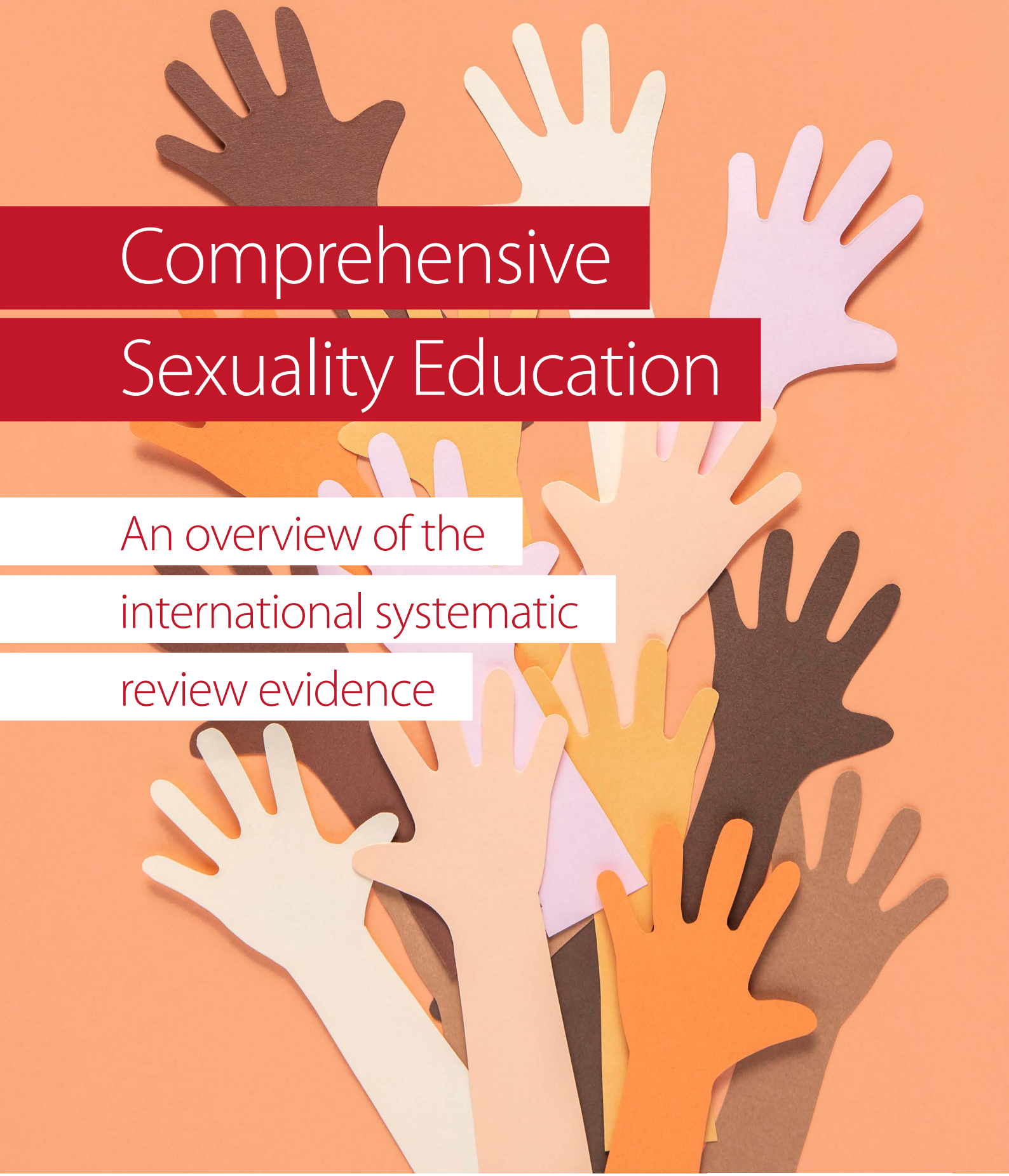

# Comprehensive Sexuality Education

## An overview of the international systematic review evidence

Education 2030

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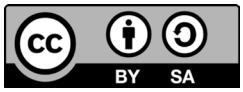




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# Comprehensive Sexuality Education

## An overview of the international systematic review evidence

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# List of abbreviations

| | |
|---|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| AOUM | Abstinence – Only – Until – Marriage approach |
| CAS-Carrera | Children's Ais Society – Carrera programme |
| CSE | Comprehensive Sexuality Education |
| HIV | Human Immunodeficiency Virus |
| LGBTQ | Lesbian, Gay, Bisexual, Transgender and Questioning (Or Queer) |
| NATSAL | National Survey of Sexual Attitudes and Lifestyles |
| PATHS | Parents and Adolescents Talking about Healthy Sexuality |
| PS | Peer Supporter |
| QUB | Queen's University Belfast |
| RCT | Randomised Controlled Trial |
| RSE | Relationships and Sexuality Education |
| SE | Sex Education |
| SRH | Sexual and Reproductive Health |
| SRHR | Sexual and Reproductive Health and Rights |
| SRE | Sex and Relationship Education |
| STASH | Sexually Transmitted Infections and Sexual Health |
| STD | Sexually Transmitted Diseases |
| STI | Sexually Transmitted Infections |
| UNCRC | United Nations Convention of the Rights of the Child |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNFPA | United Nations Population Fund |
| WHO | World Health Organization |

# INTRODUCTION

## AIM OF THE REPORT

The aim of this report is to offer a policy-maker audience an overview of the systematic review evidence on programme effectiveness of Comprehensive Sexuality Education (CSE), as well as the mechanisms within CSE that increase its effectiveness and acceptability. In particular, we address:

- Content and approaches
- Innovative practices
- Implementation modalities
- Links with families and communities

## WHAT TYPES OF SEX EDUCATION DO WE REFER TO IN THIS REPORT?

Comprehensive Sexuality Education is defined by UNESCO as:

> *'a curriculum-based process of teaching and learning about the cognitive, emotional, physical and social aspects of sexuality. It aims to equip children and young people with knowledge, skills, attitudes and values that will empower them to: realize their health, well-being and dignity; develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others; and, understand and ensure the protection of their rights throughout their lives'.*[1]

CSE is education delivered in formal and non-formal settings. It includes the principles of being: scientifically accurate, incremental, age- and developmentally-appropriate, curriculum based, incorporating a human rights and gender equality approach, culturally-relevant and context-appropriate content, transformative and oriented to the development life skills needed to support healthy choices.[1]

The terms Sex Education (SE) and Sex and Relationship Education (SRE) and Relationship and Sexuality Education (RSE) are also used widely in this field and may also be based on all, most, or some of the principles above, depending on the constellation put forward by national governments. Comprehensive sexuality education can however be distinctly contrasted with the Abstinence-Only-Until-Marriage approach (AOUM). The AOUM approach teaches abstinence as the only morally correct option of sexual expression for teenagers. It usually censors information about contraception and condoms for the prevention of Sexually Transmitted Infections (STIs) and unintended pregnancy.[2]

CSE teaches young people about abstinence also—but more usually delaying sex until ready and prepared as the best method for avoiding STIs and unintended pregnancy. However, crucially, CSE also teaches about condoms and contraception to reduce the risk of unintended pregnancy and of infection with STIs, including HIV. It also teaches interpersonal and communication skills and helps young people explore their own values, goals, and options to support healthy choices.[2]

## COMPREHENSIVE SEXUALITY EDUCATION AS A HUMAN RIGHT

Young people have a right to high quality comprehensive sexuality education. The United Nations Convention of the Rights of the Child (UNCRC), Article 24 (health and health services) states:

> *'Every child has the right to the best possible health. Governments must provide good quality health care… and education on health and well-being so that children can stay healthy. Richer countries must help poorer countries achieve this'.*[3]

Article 34 (sexual exploitation) states:

> *'Governments must protect children from all forms of sexual abuse and exploitation'.*[3]

Flowing from these fundamental rights, international human rights standards require that governments guarantee the rights of adolescents to health, life, education and non discrimination by providing them with CSE in primary and secondary schools that is scientifically accurate and objective, and free of prejudice and discrimination.[4]

The Committee on the Rights of the Child has further indicated that:

> *'States parties should provide adolescents with access to sexual and reproductive information, including on family planning and contraceptives, the dangers of early pregnancy, the prevention of HIV/AIDS and the prevention and treatment of sexually transmitted diseases (STDs)'.*[5]

The right to sexual and reproductive health is also protected under the 'right to the highest attainable standard of physical and mental health', enshrined in Article 12 of the International Covenant on Economic, Social and Cultural Rights.[6] And finally, the right information and education to promote sexual and reproductive health and rights is also linked in the United Nations sustainable development goals (targets 3.7 and 5.6).[7]

However, few countries follow human rights standards[8] for CSE curricula to be part of the mandatory school curriculum or implement and sustain large-scale CSE programmes.[9] Hence, the *Guttmacher–Lancet Commission on Sexual and Reproductive Health and Rights*[10] recognises the need for all countries to establish national curricula for comprehensive sexuality education based on evidence and drawing from international technical guidance, such as that provided by the international policy community.[11] Furthermore, the Commission noted that to be comprehensive, sex education must include strategies to increase gender equality and holistic health more broadly.

## COMPREHENSIVE SEXUALITY EDUCATION EXPRESSED AS A NEED

The need for comprehensive sexuality education is expressed from the perspectives of young people themselves[12–18] and human rights standards state the curricula should be developed with young people's input, including co-design of services and programmes with young people (Article 12 UNCRC).[6]

The international multi-lateral policy community also expresses the need. The United Nations[11] and the World Health Organization (WHO) concludes from the evidence that 'CSE can help adolescents to develop knowledge and understanding; positive values, including respect for gender equality, diversity and human rights; and attitudes and skills that contribute to safe, healthy and positive relationships'.[9]

## SCOPE OF THE LITERATURE

The report prioritises evidence from systematic reviews of evidence because systematic reviews provide more robust evidence of different strategies to promote behavioural change over single studies.[19] In addition, in systematic reviews the quality of the evidence is assessed, often in terms of the *risk of bias* of the evidence and overall *confidence level* of the evidence within the systematic review.[20] While we do cite individual studies as examples, the analysis is primarily drawn from systematic review evidence. Table 1 provides a list of the systematic reviews that inform the evidence on CSE in this report. Systematic reviews of both quantitative (randomised controlled trials; quasi-experimental research and observational cohort studies) and qualitative research and mixed methods research will be included. The focus is on English-language systematic reviews, to complement a prior synthesis of Latin American research available in Spanish to the United Nations Population Fund (UNFPA, Latin America).[A]

**Table 1: List of systematic reviews included in this review**

| Systematic Reviews | | | | |
|---|---|---|---|---|
| **Author(s)** | **Year** | **Topic Area** | **Title** | **Journal** |
| Bennett SE, Assefi NP | 2005 | Pregnancy prevention<br>Adolescents<br>School-based | School-based teenage pregnancy prevention programs: a systematic review of randomized controlled trials. | J Adolesc Health;36:72–81. https://doi.org/10.1016/j.jadohealth.2003.11.097 |
| Harden A, Brunton G, Fletcher A, Oakley A. | 2009 | Pregnancy prevention<br>Social disadvantage<br>Adolescents | Teenage pregnancy and social disadvantage: systematic review integrating controlled trials and qualitative studies. | BMJ;339:b4254. https://doi.org/10.1136/bmj.b4254 |
| Oringanje C, Meremikwu MM, Eko H, Esu E, Meremikwu A, Ehiri JE. | 2009 | Pregnancy prevention<br>Adolescents | Interventions for preventing unintended pregnancies among adolescents. | Cochrane Database Syst Rev 4:CD005215. https://doi.org/10.1002/14651858.CD005215.pub2 |
| Chin HB, Sipe TA, Elder R, Mercer SL, Chattopadhyay SK, Jacob V, et al. | 2012 | Pregnancy prevention<br>HIV/STIs | The effectiveness of group-based comprehensive risk-reduction and abstinence education interventions to prevent or reduce the risk of adolescent pregnancy, human immunodeficiency virus, and sexually transmitted infections: two systematic reviews for the Guide to Community Preventive Services. | Am J Prev Med;42:272–94. https://doi.org/10.1016/j.amepre.2011.11.006 |
| Shepherd J, Kavanagh J, Picot J, Cooper K, Harden A, Barnett-Page E, et al. | 2010 | HIV/STIs<br>Adolescents | The effectiveness and cost-effectiveness of behavioural interventions for the prevention of sexually transmitted infections in young people aged 13–19: a systematic review and economic evaluation. | Health Technol Assess;14(7). https://doi.org/10.3310/hta14070 |

A Baez, J. (2023). Estudio bibliográfico sobre la efectividad y prácticas innovadoras de la ESI/EIS en América Latina y el Caribe (2011 – 2021). Montevideo: UNESCO, UNFPA.

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|---|---|---|---|---|
| Mason-Jones AJ, Sinclair D, Mathews C, Kagee A, Hillman A, Lombard C. | 2016 | HIV/STIs<br>Pregnancy prevention<br>Adolescents<br>School-based | School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. | Cochrane Database Syst Rev 11:CD006417. https://doi.org/10.1002/14651858.CD006417.pub3 |
| Mirzazadeh A, Biggs MA, Viitanen A, Horvath H, Wang LY, Dunville R, et al. | 2018 | HIV/STIs<br>School-based | Do school-based programs prevent HIV and other sexually transmitted infections in adolescents? A systematic review and meta-analysis. | Prev Sci;19:490–506. https://doi.org/10.1007/s11121-017-0830-0 |
| Bailey JV, Murray E, Rait G, Mercer CH, Morris RW, Peacock R, et al. | 2010 | Sexual health<br>Digital interventions | Interactive computer-based interventions for sexual health promotion. | Cochrane Database Syst Rev ;9:CD006483. https://doi.org/10.1002/14651858.CD006483.pub2 |
| Guse K, Levine D, Martins S, Lira A, Gaarde J, Westmorland W, Gilliam M. | 2012 | Sexual health<br>Digital interventions<br>Adolescents | Interventions using new digital media to improve adolescent sexual health: a systematic review. | J Adolesc Health;51:535–43. https://doi.org/10.1016/j.jadohealth.2012.03.014 |
| Tuong W, Larsen ER, Armstrong AW. | 2014 | Digital interventions | Videos to influence: a systematic review of effectiveness of video-based education in modifying health behaviors. | J Behav Med;37:218–33. https://doi.org/10.1007/s10865-012-9480-7 |
| Peterson AJ, Donze M, Allen E, Bonell C. | 2018 | Sexual health | Effects of interventions addressing school environments or educational assets on adolescent sexual health: systematic review and meta-analysis. | Perspectives on Sexual and Reproductive Health. 2018;44(3):11–131. https://doi.org/10.1363/44e6818. |
| Blank L, Baxter SK, Payne N, Guillaume LR, Pilgrim H. | 2010 | Contraception<br>Adolescents | Systematic review and narrative synthesis of the effectiveness of contraceptive service interventions for young people, delivered in educational settings | Journal of Pediatric and Adolescent Gynecology. 2010;23(6):341–51. https://doi.org/10.1016/j.jpag.2010.03.007. |
| Lopez LM, Bernholc A, Chen M, Tolley EE. | 2016 | Contraception<br>School-based | School-based interventions for improving contraceptive use in adolescents. | Cochrane Database Syst Rev;6:CD012249. https://doi.org/10.1002/14651858.CD012249 |
| Oosterhoff M, Bosma H, Van Schayck OCP, Evers SMAA, Dirksen CD, Joore MA. | 2018 | Economic evaluation | A systematic review on economic evaluations of school-based lifestyle interventions targeting weight-related behaviours among 4–12 year old: issues and ways forward. | Prev Med;114:115–22. https://doi.org/10.1016/j.ypmed.2018.06.015 |
| Ruane-McAteer E, Gillespie K, Amin A, Aventin Á , Robinson M, Hanratty J, et al. | 2020 | Gender transformative<br>SRHR | Gender transformative programming with men and boys to improve sexual and reproductive health and rights: a systematic review of intervention studies. | BMJ Glob Health;5:e002997. https://doi.org/10.1136/bmjgh-2020-002997 |

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|---|---|---|---|---|
| Kim CR, Free C. | 2008 | Peer-led interventions Sex education | Recent evaluations of the peer-led approach in adolescent sexual health education: a systematic review | Perspect Sex Reprod Health 2008;40:144–51. https://doi.org/10.1363/4014408 |
| Tolli MV. | 2012 | Peer-led interventions<br>HIV/STIs<br>Pregnancy prevention<br>Sexual health<br>Adolescents | Effectiveness of peer education interventions for HIV prevention, adolescent pregnancy prevention and sexual health promotion for young people: a systematic review of European studies. | Health Educ Res 2012;27:904–13. |
| Sun WH, Miu HYH, Wong CKH, Tucker JD, Wong WCW | 2018 | Peer-led interventions<br>Sexual health<br>Sex education | Assessing participation and effectiveness of the peer-led approach in youth sexual health education: systematic review and meta-analysis in more developed countries. | J Sex Res 2018;55:31–44. https://doi.org/10.1080/00224499.2016.1247779 |
| Siddiqui M, Kataria I, Watson K, Chandra-Mouli V. | 2020 | Peer-led interventions<br>Sexual health<br>Sex education | A systematic review of the evidence on peer education programmes for promoting the sexual and reproductive health of young people in India. | |
| Lameiras-Fernández M, Martínez-Román R, Carrera-Fernández MV, Rodríguez-Castro Y. | 2021 | Sex education | Sex education in the spotlight: what is working? systematic review. | Int J Environ Res Public Health ;18:2555. https://doi.org/10.3390/ijerph18052555 |
| Vaina, Alexandra & Perdikaris, Pantelis. | 2022 | Sex education | School-based sex education among adolescents worldwide: Interventions for the prevention of STIs and unintended pregnancies. | British Journal of Child Health. 3. 229-242. 10.12968/chhe.2022.3.5.229. |
| Gavin LE, Williams JR, Rivera MI, Lachance CR. | 2015 | Parent Engagement<br>SRHR | Programs to Strengthen Parent–Adolescent Communication About Reproductive Health: A Systematic Review. | Am J Prev Med. 2015;49:S65–72 Available from: https://www.sciencedirect.com/science/article/pii/S0749379715001440. |
| Santa Maria D, Markham C, Bluethmann S, Mullen PD. | 2015 | Parent Engagement<br>SRHR | Parent-based adolescent sexual health interventions and effect on communication outcomes: a systematic review and meta-analyses. | Perspect Sex Reprod Health. 2015;47:37–50 Available from: http://www.ncbi.nlm.nih.gov/pubmed/25639664. |
| Sarkar A, Chandra-Mouli V, Jain K, Behera J, Mishra SK, Mehra S. | 2015 | SRHR<br>Community-based | Community based reproductive health interventions for young married couples in resource-constrained settings: A systematic review. | BMC Public Health. 2015;15:1037 Available from: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943547423&doi=10.1186%2Fs12889-015-2352-7&partnerID=40&md5=f431bd519457c0fa1e4e0449af527c96 |
| **Systematic Reviews of Reviews** | | | | |
| Swann C, Bowe K, McCormick G, Kosmin M. | 2003 | Pregnancy prevention | Teenage Pregnancy and Parenthood: a Review of Reviews. Evidence Briefing. | London: Health Development Agency;. |

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|---|---|---|---|---|
| Ellis S, Grey A. | 2004 | HIV/STIs | Prevention of Sexually Transmitted Infections (STIs): A Review of Reviews Into the Effectiveness of Non-Clinical Interventions to Reduce the Risk of Sexual Transmission | Evidence Briefing. London: Health Development Agency |
| Downing J, Jones L, Cook PA, Bellis MA. | 2006. | HIV/STIs | Prevention of Sexually Transmitted Infections (STIs): a Review of Reviews into the Effectiveness of Non-Clinical Interventions. Evidence Briefing Update. | Liverpool: Centre for Public Health; |
| Shackleton N, Jamal F, Viner RM, Dickson K, Patton G, Bonell C. J | 2016 | Health education<br>Adolescents<br>School-based | School-based interventions going beyond health education to promote adolescent health: systematic review of reviews. | Adolesc Health;58:382–96. https://doi.org/10.1016/j.jadohealth.2015.12.017 |
| Denford S, Abraham C, Campbell R, Busse H. | 2017 | Sexual health<br>School-based | A comprehensive review of reviews of school-based interventions to improve sexual-health. | Health Psychol Rev;11:33–52. https://doi.org/10.1080/17437199.2016.1240625 |
| Ruane-McAteer E, Amin A, Hanratty J, Lynn F, Corbijn van Willenswaard K, Reid E, et al. | 2019 | Male engagement in SRHR | Interventions addressing men, masculinities and gender equality in sexual and reproductive health and rights: an evidence and gap map and systematic review of reviews. | BMJ Glob Health ;4:e001634. https://doi.org/10.1136/bmjgh-2019-001634 |
| **Other reviews** | | | | |
| Bonell C. | 2004 | Teenage pregnancy<br>Adolescents | Why is teenage pregnancy conceptualized as a social problem? A review of quantitative research from the USA and UK. | Cult Health Sex;6:255–72. https://doi.org/10.1080/13691050310001643025 |
| Fullerton D. | 2004 | Sexual Health<br>Pregnancy prevention<br>Adolescents | Promoting Positive Adolescent Sexual Health & Preventing Teenage Pregnancy: A Review of Recent Effectiveness Research. | Dublin: Crisis Pregnancy Agency;. |
| Robin L, Dittus P, Whitaker D, Crosby R, Ethier K, Mezoff J, et al. | 2004 | HIV/STIs<br>Pregnancy Prevention<br>Adolescents | Behavioral interventions to reduce incidence of HIV, STD, and pregnancy among adolescents: a decade in review. | J Adolesc Health;34:3–26. https://doi.org/10.1016/S1054-139X(03)00244-1 |
| Marston C, King E. | 2006 | Sexual behaviour<br>Adolescents | Factors that shape young people's sexual behaviour: a systematic review | Lancet 2006;368:1581–6. https://doi.org/10.1016/S0140-6736(06)69662-1 |
| Savio Beers LA, Hollo RE. | 2009 | Teen parenting<br>Adolescents | Approaching the adolescent-headed family: a review of teen parenting. | Curr Probl Pediatr Adolesc Health Care;39:216–33. https://doi.org/10.1016/j.cppeds.2009.09.001 |

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|---|---|---|---|---|
| Gavin LE, Catalano RF, David-Ferdon C, Gloppen KM, Markham CM | 2010 | SRHR<br>Adolescents | A review of positive youth development programs that promote adolescent sexual and reproductive health. | .J Adolesc Health;46(Suppl. 3):75–91. https://doi.org/10.1016/j.jadohealth.2009.11.215 |
| Lohan, M., Cruise, S., O'Halloran, P., Alderdice, F. and Hyde, A. | 2010 | Teen pregnancy<br>Adolescents<br>Male engagement | Adolescent men's attitudes in relation to pregnancy and pregnancy outcomes: A systematic review of the literature from 1980-2009. | Journal of Adolescent Health, 47(4), 327-345. https://doi.org/10.1016/j.jadohealth.2010.05.005 |
| Kane, J., Lohan, M., & Kelly, C. | 2018 | Teen pregnancy<br>Adolescents<br>Male engagement | Adolescent men's attitudes and decision making in relation to pregnancy and pregnancy outcomes: An integrative review of the literature from 2010 to 2017 | Journal of Adolescence, 72, 23-31. https://doi.org/10.1016/j.adolescence.2018.12.008 |
| Weed SE, Ericksen IH. | 2019 | Sex education | Re-examining the evidence for comprehensive sexuality education in schools: a global research review | Issues Law Med;34:161–82. |
| Leung H, Shek DTL, Leung E, Shek EYW. | 2019 | Sex education<br>Adolescents | Development of contextually-relevant sexuality education: lessons from a comprehensive review of adolescent sexuality education across cultures. | Int J<br>Environ Res Public Health;16:621. https://doi.org/10.3390/ijerph16040621 |
| **Qualitative Synthesis** | | | | |
| Pound P, Langford R, Campbell R. | 2016 | Sex education<br>Adolescents | What do young people think about their school-based sex and relationship education? A qualitative synthesis of young people's views and experiences. | BMJ Open;6:e011329. https://doi.org/10.1136/bmjopen-2016-011329 |
| Pound P, Denford S, Shucksmith J, Tanton C, Johnson AM, Owen J, et al. | 2017 | Sex education | What is best practice in sex and relationship education? A synthesis of evidence, including stakeholders' views. | BMJ Open;7:e014791. https://doi.org/10.1136/bmjopen-2016-014791 |
| Templeton M, Lohan M, Kelly C, Lundy L. | 2017 | Sexual readiness<br>Adolescents | A systematic review and qualitative synthesis of adolescents' views of sexual readiness. | Journal of Advanced Nursing, Nov, 1-14. |

# EVIDENCE ON APPROACHES

## WHAT IMPACT MIGHT WE EXPECT FROM CSE AND THE ARGUMENT TO REFRAME IMPACT

Before we look at the evidence for the impact of approaches with CSE, it is important to consider what impact we might expect overall from CSE. High-quality systematic reviews of schools-based sex education rarely report that CSE has an impact on biological markers of health outcomes such as human immunodeficiency virus (HIV), terminations of pregnancy or unintended pregnancy.[21–25] This is partly because these are relatively rare outcomes and would require prohibitively large population samples in randomised controlled trials to detect an effect.[24]

However, high quality systematic reviews do suggest that schools-based sex education positively impacts on equipping young people with the knowledge, attitudes and skills to make healthy choices, which are the foundational building blocks for the reduction of HIV and unintended adolescent pregnancy.[21–24] In addition, there is some systematic review evidence[21] on school-based sex education leading to changes in behaviour, such as an increase in condom use. The systematic review authors conclude that this is more likely when programming increases access to contraceptives/health services alongside providing education.

Overall, however, there has also been a long-standing debate that there needs to be a shift away from measuring the impact of CSE through purely risk-avoidance health outcomes (such as HIV, adolescent pregnancy and STIs) in favour of measuring more holistic educational outcomes that are also linked to the content of tuition within CSE. [26,27] The arguments for this are as follows:

- Enshrined in the rights of the child are the principles of providing access to knowledge and building skills to protect health, and so comprehensive sexuality education should primarily be judged on these kinds of educational and skill-building outcomes.
- There is a need to focus on outcomes that may be more meaningful to young people, such as the quality of sexual relationships, for example, the reduction of sexual violence (including discrimination) and improved sexual experience.[28,29] Positive romantic relationships are associated with both good physical health and mental health, and supportive social networks, providing support for synergistic and wider health benefits in young people's lives.[27] There are calls to place greater emphasis on sexual enjoyment to reduce sexual risks (e.g. promoting the pleasurable use of condoms).[30]
- There is an understanding that comprehensive sexuality education is necessary, but may be insufficient on its own to shift complex health inequalities that underpin health outcomes such as adolescent pregnancy.[31,32]

In conclusion, we merely present this debate here for consideration. In order to maximise the utility of this report to a range of policymakers, we will be considering the evidence of impact of CSE education and mechanisms within CSE on a range of biological health, psychosocial and educational outcomes.

## EVIDENCE ON CONTENT AND APPROACHES TO CREATE IMPACT

### Evidence supporting a theory-based approach

Using a theory-based approach for sexual health education programmes is considered key to their effectiveness, ensuring that the most important determinants of young people's sexual behaviour are targeted.[33–38] A theory-based approach is a broad category that captures an intentional approach to start with the outcomes the programme will impact and to 'think back' from these outcomes to the theoretical

mechanisms that impact those outcomes. The approach identifies the intervention components that need to be put in place in order to impact those mechanisms and outcomes. It is most often modelled through a logic model.

A common underpinning theoretical framework for CSE interventions is the *Theory of Planned Behaviour*[39,40] The core components of this are: knowledge; skills; beliefs about consequences; social influences; beliefs about capabilities; and intentions.[31,41,42] There are, however, critiques of this theory of planned behaviour and associated social-cognitive approaches, primarily because they are *psychological* theories and aimed at changing individuals and small groups. More recent critiques of the theory of planned behaviour point to the need for a broader ecological approach with a stronger understanding of the macro socio-environmental factors, such as religiosity and gender ideologies which are known to also influence sexual and reproductive health behaviours and outcomes [40,43] Acknowledgement of the influence of both micro and macro factors has also led to a call for *multi-level based approaches* to intervention design which would seek to address change not only at an individual and group level, but also more broadly in communities and societies simultaneously as part of programming. A recent systematic review has highlighted that the use of multi-level strategies to address SRHR demonstrates efficacy, but is an under-used approach in the field.[44]

## Evidence supporting the use of culturally relevant interventions

Systematic review evidence suggests that it is important to harness the potential for sex education to be enjoyed, especially by those who are less engaged in the wider school curriculum.[17,31,42,43] This is informed by research suggesting the need to engage with young people both empathetically and cognitively in order to increase the relevance of the issues being raised.[33,38,47–49] One systematic review especially endorses the varied uses of theatre. For example, the *Jack trial* and its forerunner studies[16,50,51,B] demonstrated that the use of locally-produced contemporary drama, in the form of an interactive video drama, made sex education more enjoyable and engaging for pupils. The qualitative research conducted alongside the trials reported that an ability of users to identify with the key characters in the interactive drama, along with the overall culturally tailored nature of the intervention, including links to local services, was central to its appeal and acceptability to school pupils.

## Evidence supporting the use of skills-building components

Simply providing information to young people does not lead to behaviour change, but rather, young people must be supported to develop their own communication skills in relation to preventing risky sexual behaviours.[31,33,55,56,35–38,48,52–54] The evidence suggests the need for active participation and deliberation by young people in order to increase self-awareness and encourage 'stop and think' strategies in relationships and the practicing of 'verbal scripts'[33] to help develop the communication skills for safe, consensual and pleasurable relationships.

## Evidence supporting the use of interactive digital-based interventions

Recent systematic reviews on the impact of digital media, more generally, such as the use of the internet etc., as well as interactive digital media, such as interactive internet sites, found that it can improve sexual health knowledge (of STIs and emergency contraceptives) and self-efficacy (condom use and STI testing), and reduce risky sexual behaviour, but there has been no demonstrated impact on biological outcomes.[38,57–60] However, note our earlier point, that demonstrated impact on biological outcomes through any CSE approach is limited. A meta-analysis examining these reviews in relation to the mediators of safer sex, concluded that they were successful in impacting knowledge, attitudes and self-efficacy relating to sexual health which can lead to shifts in biological outcomes.[61]

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B In Uruguay this programme is known as "Si yo fuera Juan" and it has been developed by Psychology of Universidad de la República and stakeholders. For more information see: https://siyofuerajuan.uy/

## Evidence supporting peer-based interventions

Peer education is an approach of imparting knowledge, values or achieving behaviour change through a social network, performed by someone of a similar age and status in that network.[28] The potential efficacy of peer involvement arises from the possibility of reinforcing positive values and beliefs, and fortifying social norms that might influence sexual behaviour.[62,63] The key mechanisms include role-modelling,[64] a shared identity between the peer workers and their peer group, and the ability of the peer workers to influence their networks.[65] There is a range of peer-led roles and approaches, including educator or assistant educator, peer supporter (PS) and, occasionally, peer leader.[28]

Evidence from systematic reviews on the evaluations of peer-based sex education interventions for young people demonstrates a weak effect on sexual attitudes, knowledge and intentions, as well as weak evidence for the impact on sexual behaviour.[64–66] The evidence of some individual large randomised trials/studies is consistent with this conclusion.[62,63] However, systematic reviews have also highlighted a dearth of adolescent peer-based sexual health interventions that have been evaluated using randomised trials.65

In addition, the dominant model of peer review that has been tested to date has been a peer educator (teacher) model rather than peers as supporters of positive norms and behaviour.[28] This may account for some of the lack of evidence for this approach because teachers are regarded as being more effective at conveying factual information and peers are regarded as being more effective at establishing/reinforcing norms around sexual behaviour.[28] Thus, using peer leaders in a classroom setting may be undermining some of the efficacy of this approach.[28,63] Below, we look at the promising evidence of peer-based social media approaches.

## Evidence supporting a social network approach: combining digital media and peer networks

Having noted the evidence for digital technologies and peer-based learning separately above, it is also worth considering what the evidence of these is in combination. The systematic review evidence on this approach is still embryonic, but both the ubiquity of young people's involvement in social media networks including social networking, mobile applications (apps), www.instagram.com; TikTok, Facebook, Inc., Menlo Park, CA, USA), Snapchat (URL: www.snapchat.com);[67,68] and the emerging review evidence[57] suggests this is a promising approach.

Few studies have examined the impact of social networking sites on the sexual health of young people. One cluster randomised controlled trial in the United States of America (US) found that a peer-led community-based Facebook intervention called 'Just/Us' increased condom use over a two-month period, although the effect diminished by six months.[69] One cluster randomised feasibility trial in the UK (Scotland) tested a peer-led social media approach called the Sexually Transmitted infections And Sexual Health (STASH) intervention in schools. This was the first trial to assesses social network interventions in school settings. The intervention involved 'influential students' (aged 14-16 years)—chosen by their year group—being trained to start conversations with other students about sexual health on social media and face to face. The study demonstrated that the prevalence of safe sex was higher among students in the intervention group than those in the control group. The difference was not significant, as the study was a feasibility trial not an effectiveness trial and was not powered to show a difference in outcomes, but the results are suggestive of a potential positive outcome for the intervention. The potential effect was observed most especially for females more than males.[28]

To move this approach of peer social networking forward, systematic reviews highlight that it would useful to apply some general best practice approaches in the field of CSE, such as co-design of interventions with adolescents and using theory-based approaches in the design and evaluation of interventions.[38,57] A process evaluation of a single study on *FaceSpace* advised on the importance of maintaining adequate resources for developing social network platforms and sustaining a high profile, reach and engagement with adolescents.[70,711]

## Evidence supporting combining school-based sex education and access to sexual health services

Combining school-based sex education and access to sexual health services with contraceptives may be more effective than school-based sex education alone. For example, one systematic review, Oringanje et al.[21] found that providing education alongside contraceptives increases condom use and may reduce unintended pregnancies. Similarly, Lopez et al.[72] found programmes that combine education with interactive lessons to promote condom use, safe sex negotiation skills and facilitating access to a range of contraceptives can lead to an increase in knowledge and effective use of contraceptives, delay sexual initiation and improve condom use. However, an earlier systematic review conducted on US-based studies only[73] found that school-linked sexual health services, while they did not encourage sex or risk-taking, had very modest positive sexual health impacts, for example they may reduce chlamydia infection among adolescent boys only.

## Evidence supporting abstinence only until marriage (aoum) approach

The AOUM approach has not only been found to be scientifically ineffective in helping adolescents to delay intercourse, but is regarded by some as ethically flawed in terms of denying young people rights to information, promoting gender stereotypes and marginalising sexual minority youth.[74–76]

# INNOVATIVE APPROACHES

### MEASURING SEXUAL COMPETENCE AS AN OUTCOME OF CSE

Earlier, we discussed the issue of 'what are the most appropriate outcomes' one can expect or one should measure in adolescent CSE programmes. Reflecting these arguments, there has been a shift towards measuring the outcomes of CSE in terms of educational/psychosocial outcomes, such as knowledge, attitudes and behaviours. Additionally, in recent times, we are also seeing studies shifting to measuring the concept of 'sexual competence'. This concept, and measure of the concept, was developed in the UK as part of the national study of sexual health and lifestyles (NATSAL). The measure asks questions about 'the experience of last sex' based on the following four criteria: contraceptive protection, autonomy of decision-making, that both partners are 'equally willing' and that it happened at the 'right time' See Palmer et al., (2017) for full details of the measure.[77]

Clearly, the emphasis in this measure is on those who are already sexually active. Therefore, this measure acknowledges that adolescents will become sexually active at different ages and that the goal of CSE is not about promoting sexual abstinence until a particular age but rather readiness or competence for future sexual initiation. It is argued that a lack of competence at first sex is a stronger predictor of poor sexual health outcomes than age of sexual initiation alone, particularly among young women.[77] It is also argued that sexual competence captures a broader range of sexual and reproductive health outcomes, other than STIs and pregnancy, such as non-volitional sex.[77] This measure suggests that the goal of CSE should be to equip adolescents with knowledge and skills to prepare for the transition to becoming sexually active (when ready), rather than abstinence until a particular age or, in more conservative iterations, until marriage (AOUM).

The concept is being applied currently in a large trial of CSE among 13-15 year olds in England[78] where the legal age of consent for adolescent sexual relationships is 16 years. Arguably, it could more easily be applied in some Latin American countries where the legal age of consent for sexual intercourse is lower. However, it may also be controversial and it implies the outcomes of CSE are primarily measured among young people who are sexually active.

## A GENDER-TRANSFORMATIVE APPROACH

A gender-transformative approach was first developed by Geeta Rao Gupta[79] in the context of the HIV/AIDS epidemic, and has since gained traction as a means to improve health and wellbeing in sexual and reproductive health and rights (SRHR) and in health and development policies more generally.[44,80–83] The World Health Organisation (WHO) defines gender-transformative approaches as those 'that address the causes of gender-based health inequities through approaches that challenge and redress harmful and unequal gender norms, roles, and power relations that privilege men over women'.[80]

The language of gender-transformative theory that explicitly challenges gender inequalities has been part of the WHO Guideline[84] on preventing adolescent pregnancy in developing counties since 2011. More recently, the WHO[9] recommendations on adolescent SRHR states that 'building equitable gender norms through CSE can contribute to preventing gender-based violence and to promoting joint decision-making on contraception in couples'. As noted in our introduction, in the UNESCO technical guidance, two of the core principles of CSE are that it is based on gender equality:

> *'CSE contributes to gender equality by building awareness of the centrality and diversity of gender in people's lives; examining gender norms shaped by cultural, social, and biological differences and similarities; and by encouraging the creation of respectful and equitable relationships based on empathy and understanding. The integration of a gender perspective throughout CSE curricula is integral to the effectiveness of CSE programmes'.*[1]

And that it is transformative:

> *'CSE contributes to the formation of a fair and compassionate society by empowering individuals and communities, promoting critical thinking skills and strengthening young people's citizenship. It provides learners with opportunities to explore and nurture positive values and attitudes towards SRH, and to develop self-esteem and respect for human rights and gender equality'.*[1]

The United Nations Population Fund (UNFPA) was also a leader in calling early attention to the need for gender and empowerment outcomes consistent with a gender-transformative approach.[85] This is also reflected in the most recent agenda-setting document in the field the *Guttmacher–Lancet Commission on Sexual and Reproductive Health and Rights*.[10] Finally, a gender-transformative approach is also embedded in an 'enabling environment': an ecological framework to improve adolescent sexual and reproductive health:

> *'Addressing unequal and harmful gender norms is therefore a key element of creating enabling environments'.*[86]

The basis of all of this focus on a gender-transformative approach is decades of research suggesting that it is impossible to improve SRHR without addressing gender equality for women and girls.[10] There has been only one systematic review of a gender-transformative approach to sex education.[87] Haberland and Rogow conclude in their review that an *'empowerment approach to CSE'* that emphasises gender/power is more effective than programmes that do not. In a follow-on report, the UNFPA (2015) also concluded:

> *'Comprehensive sexuality education curricula that emphasize critical thinking about gender and power—the empowerment approach—are far more effective than conventional 'gender-blind' programmes at reducing rates of sexually transmitted infections (STIs) and unintended early pregnancy. These studies also indicate that young people who adopt more egalitarian attitudes about gender roles, compared to their peers, are more likely to delay sexual debut, use condoms and practise contraception. They are also less likely to be in relationships characterized by violence'.*[85]

## A MALE-ENGAGEMENT GENDER-TRANSFORMATIVE APPROACH

Clearly, the overwhelming focus of a gender-transformative approach is on increasing gender equality for women and girls and thereby also the SRHR of women and girls—because it is recognised that this is where the need is greatest.[87] Nonetheless, an interest in addressing masculinities and engaging men and boys in the context of SRHR dates back to the International Conference on Population and Development in Cairo in 1994, where male engagement was explicitly stated as an essential approach to improving sexual and reproductive health outcomes and promoting gender equality. There was thus an explicit acknowledgement that we will not make much progress towards gender equality and SRHR without change among men, and that men themselves will benefit from this progress.

Since then, the concepts of male engagement and the more-recently coined gender-transformative approach have come together. *A male engagement gender-transformative approach* is one that promotes:

> *'norms and understandings of masculinity and behaviours in intimate relationships that involve mutual respect and equitable decision making, sharing responsibilities for reproductive health (e.g., condom use), and the greater involvement of men as fathers'.*[86]

The objectives are to improve SRHR for women and girls, as well as addressing unmet sexual and reproductive health needs of men and boys and those of non-binary sexual identities.

To take stock of this progress as well as identify gaps in evidence, in 2017-2018, the Department of Reproductive Health and Research at the WHO established a framework with guiding principles and commissioned a Campbell systematic review of reviews of the field of male-engagement in SRHR. The Campbell review included the generation of an evidence and gap map of the global evidence on male engagement programming relating to all seven sexual and reproductive health outcomes in the WHO reproductive health strategy.[83] The seven WHO sexual and reproductive outcomes include: sexual health (STI and HIV), family planning and infertility, safe abortion, maternal, new-born and child health, addressing violence against women, healthy adolescence and SRH in disease outbreaks (e.g. Zika, Ebola etc).[88] The interactive evidence and gap maps on the WHO SRH website may be accessed here.

A key conclusion of the evidence and gap maps review was that only eight percent of evaluated male-engagement SRHR programming incorporated a gender-transformative approach in the programming.[83] In a nut-shell, while there was considerable growth in male-engagement in SRHR, a gender-transformative approach remained an under-used strategy. As noted earlier, this was despite the fact that decades of research with women and girls had suggested that it was impossible to improve SRHR without addressing gender equality for women and girls.[10] A further systematic review of the smaller pool of gender-transformative male engagement programme evaluations in SRHR was conducted which involved examining 63 studies.[41] A key conclusion of this systematic review was that there were no randomised trials of male-engagement gender-transformative school-based CSE.

The *If I were Jack* programme was specifically designed to address this deficit in CSE. The *If I Were Jack* intervention invites adolescents to engage in adolescent boys' perspectives while equally inviting adolescents to challenge gender inequalities associated with male sexual desire and female reproductive responsibility. The intervention promotes positive masculinities that generate gender equality in sexual and intimate relationships, and especially encourages boys to take an equal responsibility to girls in preventing adolescent pregnancy. The intervention is also based on previous evidence-based approaches described, such as culturally-sensitive digital drama, active classroom pedagogy, investment in teacher training and parental and policy maker involvement.[51]

The effects of the *If I were Jack* programme were studied in the *Jack Trial*, a randomized controlled trial study, with an embedded qualitative process evaluation and health economics evaluation[51] involving 66 schools and over 8,000 students across the UK. This was the first randomized trial of a CSE programme to show a significant increase in contraceptive use for both adolescent boys and girls. A US-based study demonstrated the effectiveness of an after-schools based intervention (CAS-Carrera), described earlier

under the whole schools approach,[41] in reducing unprotected sex at last sex among those that were sexually active. However, this study found significant effects for females only, while the *Jack Trial* found that the intervention was equally effective for males and females who were sexually active, suggesting the importance of male engagement.

The trial also demonstrated that the programme increased adolescent boys' and girls' sexual health and healthcare knowledge, improved gender-equitable attitudes, and increased intentions to prevent unintended pregnancy among students—whether they were sexually active or not. There was no increase (or decrease) in sexual initiation among young people in the intervention group compared to the control group. Nonetheless, as young people became sexually active, they were more informed and more prepared. All outcomes were measured 12 months after the intervention suggesting considerable durability of messages from CSE.

*If I Were Jack* is, however, a brief intervention of low dose not designed to address all CSE needs.[1,89–91] Arguably, the added value to advancing CSE practice in this trial, is in demonstrating why male engagement and gender-transformative programming within CSE is important and the benefits that can be achieved even through a relatively low-dose programme.

## A SOCIAL MARKETING APPROACH

A social marketing approach aims to enact psychosocial health and educational outcomes benefits using methods adapted from commercial marketing. This may incorporate methods such as the use of social media technologies (as well as mass media technologies), for which we described the evidence earlier. There is growing policy and scientific interest in social marketing approaches to promote adolescent sexual and reproductive health.[92–94] One systematic review using narrative synthesis found consistent evidence of effectiveness across outcomes and studies.[94]

Currently, there is one major trial called *Positive Choices* underway in England using this approach combined with 'a whole schools approach'.[78] The latter, whole schools approach, is discussed under Links with Families and Communities. The social marketing components of the *Positive Choices* intervention includes social marketing campaigns run by students aged 13–15 years, to promote sexual health and parent information addressing parent-child communication. It also includes a school health promotion council (composed of a mix of teachers and students) to coordinate delivery of the intervention. The council makes use of a student needs survey to inform decisions by the school health promotion council. These social marketing components are combined with an extensive (up to two years) teacher-delivered classroom curriculum for adolescents that reflects a CSE approach and includes social and emotional life-skills alongside sexual health content.[78] The social marketing approach of the *Positive Choices* intervention is most closely informed by an evidence-based US programme called *Safer Choices*. *Safer Choices* involves a school health promotion council coordinating intervention activity; a classroom-based sexual health curriculum; social-marketing campaigns formulated and implemented by students; and information for parents. A US-based trial of this intervention demonstrated that among students who were sexually active, those in the intervention group were significantly more likely to have protected sex (specifically more likely to use condoms) than those in the control group.[42,95]

# IMPLEMENTATION MODALITIES

Most sexual health interventions for young people are school based, as this setting facilitates access to the widest range of young people in terms of socioeconomic background and vulnerability to poor sexual health.[3,25] Consistent with the idea that access to CSE is a human right under United Nations Rights of the Child[3] multi-lateral organisations emphasise the importance of delivering CSE in the same way as other subjects, over the whole school year and across all year groups, in an age appropriate manner.[1,89–91] As noted so far in this report, there is good evidence that CSE delivered in school classrooms can contribute to promoting sexual health, and preventing unintended pregnancies and STIs by addressing knowledge, attitudes and behaviours[25] that underpin positive relationships and positive sexual health. Young people who cite school as their main source of information about sex are less likely to report unsafe sex and previous STI diagnosis. In addition, school-based sex education is considered to be more cost-effective than 'extra-curricular' interventions that are delivered outside of school.[96]

Despite the evidence in favour of school based CSE, there are two important caveats. The first is that there is an absence of systematic review cost-benefit analyses comparing implementation modalities. However, one systematic review concluded that that low-dose, self-directed, easily-disseminated modes of delivery have been found to have similar effects to high-dose, intensive (and much more expensive) programmes.[97] The second caveat is it is widely acknowledged that one size CSE does not reach all and there is a particular need to develop out of school programmes for early school leavers,[98] those in state care,[99,100] and incarcerated populations.[101]

In conclusion, on this topic, we acknowledge the greater need for systematic review evidence on implementation modalities, especially outside of school settings.

# LINKS WITH FAMILIES AND COMMUNITIES

## INVOLVING PARENTS/GUARDIANS IN COMPREHENSIVE SEXUALITY EDUCATION

Although evidence suggests that schools are an important context for sex education,[33,102,103] a number of systematic reviews have also shown that programmes that reach beyond the classroom can enhance effectiveness[21,31,104] and may be especially effective for adolescent boys.[105] In particular, factors such as parental monitoring and supervision, and familial communication have been associated with positive relationships and a reduction of adverse adolescent sexual and reproductive health outcomes.[106,107] Parents are often a primary source of information about sex for adolescents,[108] and adolescents who can recall a parent communicating with them about sex are more likely to report delaying sexual initiation and increased condom and contraceptive use.[109–111] Overall, parents and guardians play a significant role in adolescents' lives and research demonstrates that they can influence their children's sexual behaviours including condom use and the timing of, and circumstances surrounding, sexual initiation.[106,107,117,118,109–116] Meta-analyses have demonstrated that sexual education interventions involving parents improve communication about relationships and sexuality between parents and adolescents[115] and increase safer sex behaviours.[112,116]

Nonetheless, overwhelmingly the evidence suggests that while there may be desire/intention from both adolescents and parents to engage in these discussions,[108,119–121] the overwhelming evidence in studies of both parents and adolescents is that adolescents and their parents rarely or never discuss sex.[116,118,119,122–125]

The reported impediments from parental perspectives to these discussions include religious and cultural beliefs opposed to sex before marriage or adolescent sex, embarrassment, perceptions of poor knowledge or skills, and parental misconceptions of their child's sexual behaviour and fears that discussing relationships and sexuality may encourage sexual activity.[106,108,119,126–128]

Adolescents also report mixed views about engaging in discussions about sexual and reproductive health with their parents[129,130] with some young people reporting hesitation because it might lead their parents to assume they are having sex.[16,131] Gender differences are commonly reported. Internationally, studies report that mothers are more likely than fathers to communicate with their children about sex, and to especially communicate with their daughters.[107,112,132–134] Nonetheless, a recent study exploring father-son communication among African Americans, demonstrated that father–son communication is an important factor in decreasing adolescent males' sexual risk behaviours and HIV risk.[135]

One way to overcome these barriers on both sides is to include parents within schools based- sex education. This is an underused strategy. In a recent meta-analysis of trials seeking to reduce STI risk among adolescents, only 12.7% involved parents as programme participants.[136] Neglecting to involve parents in CSE may be, in part, explained by reported difficulties engaging them[51] and the expense of facilitated face-to-face workshops, which most programmes with parents to date have utilised.[115] For example, the JACK feasibility trial engaged only 7% of eligible parents in its school-delivered face-to-face workshops[16,137] and other research reports similar difficulties engaging parents.[138–141]

Again, digital and mobile technologies have been highlighted as an innovative way forward to address the barriers to the inclusion of parents in sex education.[130,142] In 2019, a systematic review of 31 programmes involving parents, included only two that made use of digital methods, either mass media or online media.112 Some studies using digital and online interventions to engage parents with their adolescent children that have emerged since then are available[51,143–146] Two examples are now explored.

The *Jack Trial*[51] had a built in parental component designed to increase self-efficacy in communicating about adolescent unintended pregnancy among parents/guardians and adolescents. The schools-based education programme *If I were Jack* includes short, animated films for parents and guardians which were co-designed with parents. Learning from the feasibility trial,[16,50] where parental attendance at face-to-face information sessions was very low, led to the decision to produce the parental materials as animated films. The short film resources are texted out by the schools. The films provide information about the programme their children are taking in school, including information about a homework activity the adolescents are asked to do with their parents/guardians as part of the programme. The films also provide information for parents about communicating about adolescent pregnancy. Results showed that parents who accessed the materials were positive about them; 87% rated them rated them as 'good or excellent' and 67% said they helped them have conversations with their child about relationships and sexuality. While the reach was far higher than the earlier Jack feasibility trial where a face-to-face approach was used, parental engagement was still challenging. Web analytics revealed that 27% of contacted parents accessed the digital materials, with 9% viewing the animated films. Only 38% of teachers implemented the homework exercise, mainly because they assumed that students would not complete it, or it might result in backlash from parents. Hence, while digital parental materials show promise for engaging parents in CSE, this study suggests that to optimise engagement, high-quality parental components should be coupled with efforts to increase school and teacher confidence to communicate with parents on sensitive topics in school curricula, such as CSE.

To turn to a study specifically in relation to adolescent males, US-based researchers conducted an RCT study on the intervention Parents and Adolescents Talking about Healthy Sexuality (PATHS).[146] This is an online intervention for parents designed to improve communication about HIV and increase behaviours supportive of the sexual health of young men who have sex with men. The RCT of PATHS[41] was conducted with 61 parent-son dyads recruited online. The sons were ages 14–22. Assessments were completed at baseline, immediate post-intervention, and over the next three months. At three-month follow-up, parents assigned to PATHS engaged in more HIV discussion, condom instruction, and facilitation of HIV testing. Parents also reported significant pre- to immediate post-intervention changes in attitudes, skills, and behavioural intentions relevant to engaging with their sons about sexual health.

## A WHOLE SCHOOLS APPROACH

A 'whole school' approach aims to build student engagement with school, supportive social norms and better access to supportive services in or near schools. In essence it seeks to create links across the whole school and reach beyond the classroom to links with families and communities and services. Applied to CSE, it involves young people, school staff, parents, and the wider community in the development of the curricula and is considered to be a promising approach to CSE. Earlier we pointed to a Cochrane systematic review that suggested reaching beyond the classroom to include sexual and reproductive health services was important.[21] Systematic review evidence suggests that whole-school interventions can be effective in contributing to delaying sexual initiation, increasing contraception use and preventing STIs and teenage pregnancy.[32,147–150] Some of the strongest evidence of a 'whole schools approach' in the field of CSE comes from a trial of *The Children's Aid Society Carrera* programme. This is an after-school programme aimed at improving education, life-skills training and links to sexual and reproductive health services. An RCT of this intervention in the US found the intervention group to have fewer pregnancies, delayed sexual initiation and increased use of effective contraception at last sex among girls compared to the control group.[41] Evidence of the approach is also available in the wider field of education from an Australian trial of the Gatehouse project. This is a whole-school programme aimed at promoting social inclusion. The intervention includes a student needs survey, a student/staff decision-making group coordinating whole-school actions and classroom-based curriculum addressing social and emotional learning. A randomised trial in high schools in Victoria reported participants' increased age of sexual initiation in the intervention group compared to the control group.[151]

# CONCLUSION

In this report, we focus on synthesising the available high-quality, systematic review evidence in the English language for CSE as well as the mechanisms within CSE that increase its effectiveness and acceptability. The approach adopted has been to bring high quality evidence to the fingertips of busy policymakers who can make a difference at national and international levels of policy.

Overall, CSE is considered to be a right of the child, as well as an expressed need both from children/adolescents' perspectives and from the perspective of multi-lateral organisations, such as the WHO, UNESCO, UNFPA and others aimed at the improvement of education, health and wellbeing. These multi-lateral organisations have been judicious in citing benefits in terms of contributions to health and knowledge outcomes, while not overstating the case in terms of the effectiveness of CSE alone in shifting biological health outcomes, such as reductions in adolescent pregnancy and HIV. Nonetheless, as this report has shown there is growing evidence that CSE contributes to the reduction of adverse health outcomes such as intimate partner violence, HIV and unintended pregnancy by shifting knowledge, attitudes and sexual behaviours. There is also considerable evidence that CSE is more effective than other approaches, such as the AOUM approach.

The report also seeks to bring to the fingertips of policy makers succinct high-quality evidence on the mechanisms or approaches which enhance the effectiveness of CSE. A number of approaches have been evidenced. Finally, the report points to innovative, under-used strategies and precisely where there is emerging high quality experimental evidence for these innovations.

A limitation of the report is that it has less evidence to offer in relation to modalities. The authors did not find systematic review evidence on the topic of different systems of implementing CSE and this may require further investigation.

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