



Engagement with and Acceptability of a School-based Relationships and Sexual Health Intervention: Student Perspectives from Trial-nested Qualitative Research in English Secondary Schools

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Abstract

Introduction Evidence suggests that school-based relationships and sex education plus school-level actions may be effective in promoting sexual health. We conducted a trial of a relationships and sexual-health intervention in English secondary schools. We draw on nested qualitative research to explore student engagement and acceptability.

Methods Twenty-four intervention schools participating in a randomised trial delivered a two-year programme aiming to comprise classroom lessons for year 9 and 10 students (aged 13–15 years), alongside school-level actions (e.g. student-led campaigns and reviews of sexual health services), although implementation fidelity of the latter was poor. We conducted 40 student focus groups across 19 intervention schools and analysed these thematically.

Results Lesson acceptability was high but undermined when teachers appeared uncomfortable, uncommitted or insufficiently knowledgeable. Students valued that class discussions allowed them to express themselves and learn from others, particularly across genders. This was compromised where teachers curtailed dialogue. Boys could feel targeted where they were positioned as responsible for problem behaviours. Awareness of school-level elements was low, but students involved valued these when well-implemented.

Conclusions Although relationships and sex education is now mandatory in schools in England, gaps in provision remain with regard to schools' capacity to implement good-quality relationships and sex education.

Policy Implications Ensuring that statutory relationships and sex education is delivered by staff who are well trained, committed and prepared to foster open, inclusive and critically reflexive conversations is necessary to meet the demands of increasingly complex curricular requirements.

Clinical Trial Registration ISRCTN registry 16723909.

Keywords Relationships · Sex education · Adolescent health · Process evaluation · School-based interventions

Introduction

In the UK, young people experience higher rates of sexually transmitted infections (STIs) than older age-groups with, for example, gonorrhoea rates roughly twice as high among 15–24 year-olds as 35–44 year-olds (Migchelsen et al., 2024). Despite declines over the last twenty years, the UK continues to have the highest rate of teenage births in

western Europe (Office for National Statistics, 2023). Young people also report high rates of dating and relationship violence (DRV) (Young, Turney et al. 2018). Sexual harassment is common in UK secondary schools, with three-fifths of girls and up to one-quarter of boys reporting physical harassment, and up to four-fifths of girls and half of boys reporting verbal harassment (Girlguiding, 2014; Kar et al., 2015; Sweeting et al., 2022; YouGov, 2010). International

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research reports similar rates of sexual harassment (Attar-Schwartz, 2009; Clear et al., 2014; Hill & Kearl, 2011; Timmerman, 2002; Witkowska & Menckel, 2005).

Classroom relationships and sex education (RSE) can be effective in influencing the behaviours contributing to positive sexual health outcomes: delaying sexual initiation, promoting condom and contraception use, and preventing DRV and sexual harassment (DiCenso et al., 2002; Oringanje et al., 2009; Farmer, Shaw et al. 2023). However, effects vary and direct impacts preventing STIs and teenage pregnancies have not been evidenced (Lameiras-Fernández et al., 2021; Mason-Jones et al., 2016; Lohan and Lopez 2023).

School is reported as a key source of information on sex and relationships among a representative sample of the British population (Tanton et al., 2015). Practitioners conclude that provision by trained teachers is the most affordable and sustainable option for school-based RSE (Pound et al., 2017). To be effective, RSE must be engaging and acceptable to young people but there is evidence that RSE often fails in these respects particularly with boys, and LGBTQ+ and racially minoritised students (Coleman & Testa, 2007; Pound et al., 2016; Sex Education Forum, 2024; Stewart et al., 2021). Only around half of a 2020 convenience sample of young people aged 16–17 years living in England reported the quality of RSE in their schools to be ‘good’ or ‘very good’ (Sex Education Forum, 2024). Syntheses of qualitative research find that many students do not view their teachers as authoritative RSE educators or have concerns about confidentiality (Corcoran et al., 2020; Pound et al., 2017).

In England, the government made delivery of relationships, sex and health education (RSHE), including RSE, a statutory requirement in secondary schools from September 2021 (Department for Education, 2025). Schools are required to deliver a comprehensive, curriculum covering biological, social and legal aspects of relationships and sex tailored to reflect the needs of local pupils and communities. Curricula must include coverage of topics such as sexual abuse, harassment, female genital mutilation, coercive control and online/pornography harms, sharing and viewing indecent images of children, and communicating and seeking consent. However, little research to date has explored student views on the RSE they receive in the wake of this becoming a statutory requirement in schools.

There is emerging evidence that incorporating school-level actions alongside RSE curricula might be effective in promoting young people’s sexual health and preventing DRV (Hill et al., 2014; Patton et al., 2006; Taylor et al., 2013; Basen-Engquist, et al., 2009; Coyle et al., 1999, 2001). School-level actions address social norms, build student participation and belonging, and/or ensure access to sexual health services. For example, the US Safer Choices

intervention involved classroom RSE alongside: a staff-student coordinating body; student clubs focused on sexual health campaigns and other activities; parental communications; and enhanced links with local services. The intervention was associated with increased contraception and condom use, and fewer sexual partners among students (Basen-Engquist et al., 2009; Coyle et al., 1999, 2001). However, no studies to date have examined student engagement with and acceptability of school-level actions addressing sexual health.

This paper reports on student experiences of the Positive Choices intervention aiming to comprise RSE curriculum and school-level components (described in our methods section) drawing on qualitative data collected as part of a trial of the intervention which occurred in the wake of RSHE becoming a statutory requirement in English schools. We set out to examine what students reported about their engagement with the Positive Choices classroom and school-level components, how acceptable they found these and the factors affecting this. The main focus of the paper is on student accounts of Positive Choices RSE lessons and whether these suggested that provision of high-quality teaching materials and staff training could enable schools to deliver engaging and acceptable RSE. The paper provides some but fewer insights into student experiences with the school-level components because, as reported elsewhere (Muraleetharan et al., 2026), schools generally delivered these with lower fidelity.

Methods

Design

Full details of the overall trial are reported elsewhere (Ponsford et al., 2021). We aimed to recruit 50 secondary schools from southern/central England representative in terms of school type, academic attainment and local deprivation. Eligible schools were: any type (excluding those only for students with special educational needs and disabilities or excluded from mainstream education); and with a ‘requires improvement’ or higher government-inspectorate rating. We emailed schools then telephoned those expressing interest. Head-teachers provided consent. After baseline surveys with year-8 students (aged 12/13), schools were randomly allocated to intervention or control arms, stratified by school-level attainment and local deprivation.

Comparison and Intervention

Control schools continued with existing provision informed by statutory guidance (Department for Education, 2019)

without additional support other than £500 compensation. We provided intervention schools with materials and training to implement Positive Choices over 2022/23 and 2023/24. This programme of work aimed to comprise curriculum and school-level components:

- 1) An RSE curriculum delivered by teachers. Eight ‘essential’ lessons for year-9 and five for year-10 students were to be delivered in all schools. Schools were to choose two ‘add-on’ lessons (delivered in addition to the ‘essential’ lessons) for year-9 and one for year-10 students based on student needs, selecting these from a menu of ‘add-on’ lessons for each year group. This provided in total 10 h of lessons in total for year 9 and six hours for year 10. Year-9 essential lessons were: building blocks to good relationships; consent; sustaining relationships; the female/male body and reproductive organs; fertility and contraception; STIs and safer sex; sexual response and pleasure; and pornography. Year-9 ‘add on lessons’ were: pregnancy options; readiness for intimacy; body image and the digital world; female genital mutilation; and human rights, stigma and discrimination. Year-10 essential lessons were: gender, power and consent; intimate and sexual relationships; sexual harassment; dating and relationships violence; and contraception and pregnancy choices. Year-10 ‘add on’ lessons were: online presence; and safer-sex choices.
- 2) School health promotion council (SHPC) involving six staff (including a day-to-day lead who was usually the school RSE coordinator and an intervention ‘champion’ who was a senior-leadership-team member) and six students (diverse by school engagement and gender, inclusive by sexual orientation), meeting termly to review needs, and plan and oversee delivery of components 1 and 4–6.
- 3) A student needs report focused on year-8 students (age 12/13, drawing on the baseline RCT survey created by the study team) which described needs overall (e.g. knowledge, risk behaviours) and by gender, to help the SHPC tailor components 1 and 4–6.
- 4) Student-run campaigns facilitated by teachers and led by 12–18 students per school, diverse by gender and school engagement. Annual campaigns could focus on any relationships or sexual health topic.
- 5) Parent communication comprising three communications and two homework assignments.
- 6) Review of school and other local sexual health services by the SHPC to inform improvements in provision and/or access.

Delivery was supported by the Sex Education Forum charity, which provided materials, training and support.

Positive Choices aimed to address individual, relationship, family and contextual factors that shape relationship and sexual health. The programme’s theory of change (Fig. 1) was informed by social influence (Fisher, 1988) and social cognitive theories (Bandura, 1986) to address: relationships/sexual health-related knowledge, skills and communication self-efficacy; attitudes about gender and DRV; social norms about healthy relationships; and sexual health communication with parents. It was also informed by the social development model (Hawkins & Weiss, 1985), with student participation in SHPCs and campaigns theorised to increase school engagement (Gavin et al., 2010). Student campaigns were informed by social-marketing approaches (Hastings & McDermott, 2006; Hastings & Stead, 2006).

Qualitative Research

Data were collected from all intervention schools via two focus group discussions (FGDs) per school, one per year of programme delivery. Each included 4–8 students (purposely sampled by intervention involvement, gender and ethnicity). We requested an additional FGD each year in each of four case-study schools (purposely sampled by attainment and local deprivation). We asked each school to select year-9 students in the first year of the study and year-10 students in the second year; to select students involved and uninvolved in school-level elements (where those were delivered); and to select FGD participants reflecting that school’s gender and ethnic diversity. We did not collect information on socio-demographic factors or in which components students participated from staff (as this would have added to their already challenged administrative load) or from students (as this would have eroded the time we had for discussion and would have been considered intrusive by some students).

FGDs were led by researchers using semi-structured guides (Appendices 1 and 2). All were audio-recorded and transcribed with identifiers removed. Data were subject to thematic analysis, with some techniques associated with grounded theory, such as axial coding, used to deepen the analysis (Charmaz, 2014). Data were coded by one researcher, both inductively (based on in-vivo coding) and deductively (from codes informed by the research questions and discussion guide). Axial coding identified higher-order themes including linkages between initial codes. Discussion in regular team meetings informed the development and interpretation of higher-order themes, drawing on reflections from researchers both about the data and, more broadly, their engagement with schools throughout the study to contextualise focus-group data. Memos explained the emerging structure of themes and interpretations, which

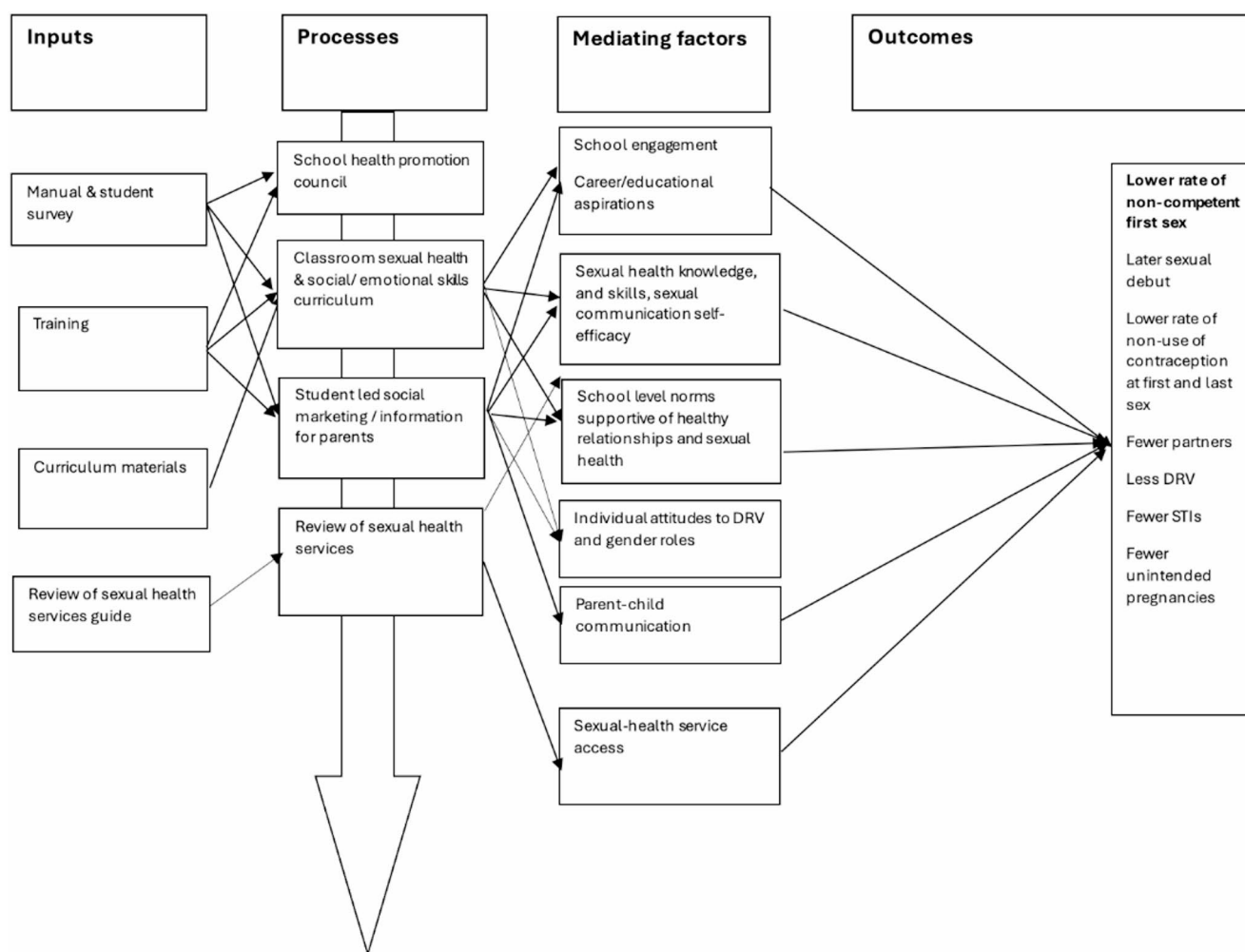


Fig. 1 Positive Choices theory of change

were reviewed and revised by all team members into a final framework.

Ethics and Consent

This study was approved by the London School of Hygiene & Tropical Medicine Ethics Committee (reference 26411). Students and their parents/carers were provided with written study information in advance. At this point, students and parents/carers could ask questions and could opt themselves/their children out of the research if desired. Just before the FGD, students received oral and written information and could ask questions. Those happy to participate gave written opt-in consent.

Results

Twenty-five schools were allocated to the intervention and all but one proceeded with the trial (Appendix 3). We conducted 40 student FGDs, predominantly mixed-gender, across 19 schools (Table 1). Schools are identified by an anonymous code consisting of a letter indicating the school, the number “1” or “2” indicating the study year in which the FGD took place and, where relevant, the letter “a” or “b” distinguishing first and second FGDs where two occurred in the same school and year.

Lessons

Student Engagement with Positive Choices Lessons

Across schools, most participants could recall the Positive Choices lessons and list the topics that these had addressed. Some students said they were happier to engage in discussions when they were seated or in a class with peers they

Table 1 Qualitative research response rates

School type	Data collection	Planned overall	Completed in year 1	Completed in year 2	Completed overall (%)
All intervention schools	One FGD with students per year per school	48	17 ^a	16	33 (69)
Case-study schools	Additional FGD with students per year per school	8	3	3	6 (75)

^a One extra conducted in one school, not included in this table but included in analysis

knew and trusted. Students in several FGDs reported that participation varied by gender, though gender dynamics varied by classroom. In some classes, girls were reportedly more talkative and boys felt uncomfortable:

The boys sometimes feel like they don't want to say the wrong thing. Because the girls are quite loud. So if they [the boys] say the wrong thing, they get called out for it and they won't say. (A1)

In others, boys were reportedly more talkative and girls were uncomfortable joining discussions:

I mean sometimes the teacher will ask a question and when people put their hand up, it is just the boys. All the girls have gone a bit shy and gone a bit quiet. Not all of them but most of them have gone a bit shy. (B1)

Religious identity could also affect engagement. In one school, a group of boys reportedly opted out of the pornography lesson due to religious concerns.

Acceptability of lessons and factors affecting this

Lesson Topics and Timing Overall, students found the Positive Choices lessons acceptable and thought that RSE was important. Most felt that years 9 and 10, the years addressed by the intervention, were appropriate for the content taught. Contrasting their views with those of some parents, one student highlighted the importance of teaching about pornography given students of their age are 'going to be exposed to that sort of thing' (C1). Some participants discussed conflict between their religious beliefs and lesson content on LGBTQ+ identities and relationships:

It's like you have to understand that most people in this school are religious. And so when it comes to, like, LGBTQ and stuff, no one really takes it. Because when you're religious, it's against our religions. You wouldn't outwardly go and harass someone for it. But, like, they want us to accept it but, at the same time, we can't. (D1)

However, this perspective was not widespread and accounts suggest that religious opposition rarely affected delivery or receipt.

Where students suggested topics they would have liked to have covered or covered in more depth, these tended to focus on relationships and intimacy. Students seemed eager to go beyond talking about risk to understand how to be a good partner and the kinds of situations encountered within relationships. Students wanted to know what to do as a partner, rather than merely how to avoid abuse and other harmful behaviours:

Instead of teaching lessons the bad things about relationships, they could teach us like, they do teach us some good things, but like not all the time. They can teach us ways that people achieve like, building confidence talking to this girl or person...Most of the time you only get taught the negative stuff and, like, what to avoid. You don't really get taught all the positives, I don't think. (E2)

Positive Choices RSE Lessons Could Initially be Uncomfortable Students recognised an inherent discomfort in RSE lessons. One student described the challenge of overcoming this when discussing sensitive issues in mixed-gender classrooms:

But as much as everyone knows everyone there's still, you know, like, the boys and then there's like the girls and it's just like awkward. (F2)

Students reported specific topics could cause particular discomfort, especially those relating to genitalia. However, participants in numerous FGDs suggested that discomfort could dissipate over time as discussion was normalised:

When we had the first lesson, it was uncomfortable because we'd never really went on that subject before. But then the next lessons, because we'd already normalised it pretty much, it was actually just quite easy to get through it. And instead of just listening to some

comment and laughing, we'd build off of that comment, you know. (B1)

Acceptability of Delivery by Teachers In discussions of who should have delivered the Positive Choices lessons, most students said that the model used by Positive Choices, of teachers from their school being trained to deliver lessons, was acceptable and, in their view, preferable to external provision. While a few felt that not knowing an external provider might have helped diffuse awkwardness, knowing and feeling comfortable with existing teachers was regarded as more important. Several students across schools thought form tutors (responsible for daily registration and pastoral care) were best placed to teach lessons because they had built relationships and trust with students:

...you will have a closer connection with [your form tutor] and you get to know them personally and they get to know you. So I think it was more just, it was more comfortable to talk with them about topics like this. (G1)

Some students thought that a specialist teacher within the school would be the best option. However, a few students had mixed views on whether they could trust teachers to maintain confidentiality, which could undermine participation:

Participant: I just can't trust teachers because I feel like they would say that it stays in the classroom, but then when I was talking about my view, I had my tutor teacher come up to me and he was like, 'Oh yeah I heard about what happened in that lesson'. And I was like 'What?' And he was like 'Yeah she said you said this, blah, blah'....

Participant: I just feel like every teacher has another teacher that they're really close with and that teacher like will tell other teachers as well. So it's like always connected, that's why we don't tell teachers things.

Interviewer: Do you think that's stopped you from contributing in the lessons?

Participant: Yeah. (H1a)

Students in a few schools, particularly where delivery was reportedly disjointed or teachers were seen as uninterested, said they would have preferred to have been taught by an external expert. The perceived benefits of external providers centred on their experience, expertise and commitment.

Factors Affecting Acceptability of Teacher Delivery Student accounts suggested that their teachers' knowledge, skill, comfort and commitment could affect the acceptability of the Positive Choices lessons. Some students expressed limited confidence in their teachers' knowledge about RSE content when they perceived that these teachers were not specialists in RSE. Students were more positive when they felt their teachers were knowledgeable. One student described delivery by a specialist RSE teacher from their school thus:

She knew, like, literally every question someone asked, she knew the answer to and if she didn't she wouldn't lie, she'd be like 'Let me search that one up'. Obviously not everyone is going to be prepped on everything, but she was really but she was really, really solid on everything she taught. And everyone felt confident that she was confident. Like, no one was second-guessing what she was saying. Or if, like, they were confused, like, she was really solid. (A1)

Students linked poorer knowledge with less-skilled delivery and teacher discomfort, which could detract from student engagement:

I think it's, like, the teacher, like, for me doesn't really know. They are just reading the information. It's kind of hard to ask them a question because they might not necessarily know it. (I1a)

In the same school, another student described how teachers' perceived comfort could affect students' level of comfort:

I mean, if they're easy-going and more open to, like, questions and speaking on the subject, then I think students will feel more at ease. But when it's a tense environment, when they clearly show their discomfort... they inflict that upon, like, everyone else. And now everyone is just, like, quiet and they are also tense. (I1b)

Students often said that they were put off when teachers did not seem committed to lessons, either seeing it 'almost as a joke' (I2b) or reading through materials without engaging with or having deeper knowledge of content.

Acceptability of Teaching Methods Participants welcomed the teaching approaches used to deliver Positive Choices, which they felt bolstered the acceptability of lessons, whereby students were: permitted to sit with friends; able to leave the room if uncomfortable; and not required to answer questions if uncomfortable. Students also valued

their teachers: being non-judgmental; handling RSE topics frankly; acknowledging, and allowing students to acknowledge that RSE could be awkward; allowing students to submit questions anonymously; and allowing students to laugh.

Some students said Positive Choices lessons were more engaging when they were interactive. Across FGDs, class discussions were the most valued and enjoyable aspects of lessons. Students appreciated the opportunity to express their opinions and hear others' views.

Students in a few schools said they would have liked the lessons to be even more interactive and discursive. Students in one FGD felt discussions were hindered by their teacher's approach:

I would say sometimes there should be more discussion. Like sometimes a class would be in the middle of a really good discussion where we're asking great questions and important questions more on the point. But sometimes the teacher says 'Oh, enough'. I know it's a one-hour slot but I feel there should be more time allocated to just letting the class go on with these discussions, because it is important. Everyone is going to be hearing these things and they're going to be thinking different things. And I think there should be more time for different people to address those things, rather than rushing it along. (B1)

These diverse accounts suggest that implementation varied between teachers in both style and opportunities for interaction.

Students in a few schools said the lessons did not allow time for critical or alternative views, a finding that was particularly strong among boys. This quote, from an FGD in an all-boys' school, illustrates this point. It refers to a lesson activity aiming to teach students to distinguish between healthy and unhealthy communication within relationships. This student would have liked more room to discuss an area of student disagreement with the lesson:

I'm pretty sure in that same lesson there was, like... they gave us a list of, like, apologies to say. And I think somebody said 'I don't think that's a bad one'. So they showed us, like, bad apologies, so I think somebody disagreed and they were like 'Oh that's not true though is it?' That's how the teacher would respond. (J1)

Boys in another school felt that, in a discussion about online influencer Andrew Tate, their views were merely condemned, which could lead to their disengagement:

Discussions aren't meant to have like a right or wrong answer. But throughout that lesson, [the teacher] wanted everyone in that class, you've got to hate this guy. Like everything he does is bad. But then some other people would be like 'Oh, but this part makes sense, not everything he says'. But then if you got a discussion where there's only one right and wrong answer, if you're trying to argue something else, you're going to feel like 'What's the point?'...So if you're telling me that what I'm saying is wrong, next time I'm not going to say anything. (K1a)

Level of Inclusiveness Students generally reported that lessons were inclusive in terms of student ability, ethnicity and religion. Some understood inclusivity as implicit when lessons presented information that was relevant regardless of students' background or identity. For example, students in one FGD reported that 'There wasn't any mention of one race, or another race, there weren't any races really mentioned at all, so it was all inclusive. (C1). Similarly, students in another school described content as applicable to relationships regardless of sex or gender:

I don't think we really, like, focus on certain gendered relationships. I feel like we do it as like a generic thing, so it's every relationship is included in what we do, instead of it just being focused on like same-sex... or different-sex ones. They are both treated as the same thing, I think. (L2)

Other students reported that lessons were more explicitly inclusive, specifically referring to diverse characters. Students in several FGDs reported that they would have liked more explicit inclusion in terms of, for example, different genders and sexualities, or how practices and perspectives relating to relationships and sex might differ by religion and ethnicity. As one student explained:

Like the dynamic and, like, your relationship will depend heavily on all those different characteristics about people. And I think we, like, rushed over it. We didn't really think about, like, how this would work between different, let's say two people from different religions, how those relationships work, inter-racial marriage and things like that. (I1b)

Some participants highlighted the value of explicit engagement with differences that was encouraged in the teaching materials helping develop more understanding between classmates in a religiously diverse school:

Just understanding how different religions view sex or view relationships in a general...It's also so, like, classmates can understand each other, because we have religious diversity in the school. Everyone is a different religion...It would just help students to understand each other much more. (C2)

FGDs also reflected tensions between promoting inclusion and acknowledging the views of some students who held religious or other beliefs less accepting of sexual and gender diversity. Some students argued there should be more room for the discussion of different religious perspectives on matters of sexuality; for example:

I think as much as the LGBTQ+ community needs to be supported, I think that it should also be talked about why religions don't agree... But I think it needs to be talked about from both sides. Sometimes it is definitely more, what the LGBTQ+ community have got to say and I think it does need to be spoken about, about why ethnic and why religions feel how they do. (F2)

In some schools, boys expressed a feeling of being sidelined or criticised, which could undermine acceptability and engagement, as expressed in an FGD at one all-boys school:

I definitely think, like, often the man was the negative and it was all very negative-focused. Like, for the whole thing, it was, like 'You shouldn't do this, you shouldn't do this, you shouldn't do this'. Not like what you should do. (J1)

Like frustrations with limited space for expressing critical views, this could detract from acceptability among some boys.

Acceptability of Mixed-sex Lessons The Positive Choices lessons were mostly delivered in mixed-sex classes. Students generally reported liking this model, primarily for building understanding across gender:

I feel like when it comes to learning about a certain gender, both genders have to be there, because, like, say for example they grow up and they don't know nothing about the females and they are expected to just navigate and know how they work. (D1)

A few students mentioned sexual consent as a topic on which views differed among girls and boys, and the opportunity for cross-gender learning was particularly important.

However, some students said they would feel more comfortable in single-sex classes for some topics, such as menstrual health.

School Health Promotion Council

Awareness and Engagement

The council's sexual-health focus was reportedly a barrier to joining the SHPC for some students because of embarrassment about being associated with this topic. Once involved, however, students generally reported feeling engaged in SHPC activities. As one student described, momentum built and '...we started off kind of getting close with each other and like getting our trust and our bond' (L2).

Beyond members, many FGD participants were unaware of the SHPC's work. On the other hand, some FGD participants reported interest from those outside the group in getting involved and suggested that the SHPC's presence could contribute to a sense that the school valued student voice:

Some of the other people here I'm also friends with, they find it quite cool. They will ask us what we're doing, how, if possibly they could get involved and help too. I think it's good, because we're like creating conversation with other people who aren't in the group. (M1)

Student-staff Interaction

SHPC members tended to report enjoying participation. An important factor was which staff were involved. Students in one FGD reported it was helpful to have the head of year and pastoral managers involved. A stable staff membership reportedly encouraged students to be open and some students described how the SHPC became more comfortable over time:

Overall, I think definitely compared to the start of it, like I think none of us wanted to give out our opinions, because we were scared that, like, we would be a bit judged and stuff like that. But now as we've, like, developed and stuff like that, then I realise that we can freely speak about it. (L2)

FGD participants suggest that lack of staff follow-through could undermine momentum and student engagement. Strengthening student connections with staff was undermined when there was limited staff participation.

Parent Information and Homework Assignments

Awareness and Engagement

Awareness of parent/carer information among FGD participants was very mixed. Some said parents had complained and that a few students had been opted out of lessons by parents/carers. Most schools did not implement the RSE homework component because they had policies of not setting homework for RSE.

Acceptability of Homework Assignments

There was near-universal agreement that RSE should not involve homework or require students to have conversations with their parents about RSE topics. As one student said:

I think also you have to have like your own choices when you say things to your parents, you shouldn't be forced to talk about it with your parents as homework. (A2)

Participants suggested such assignments might cause problems particularly for students in conservative, religious families:

I think it would be beneficial, but...I think it should be an optional task, because kids aren't, as [student] said, he couldn't go home to his parents and if the teachers are begging him for some piece of paper where his parents had written on it and he can't bring that up, it's just going to add more stress to someone's life. (A2)

Discussion

Summary of Key Findings

This paper reports on students' experience of an RSE intervention that aimed to include curriculum and school-level components. Given the limited implementation of school-level components (Muraleetharan et al., 2026), our focus is mainly on students' experience of the RSE, concluding that, despite its now statutory status, gaps remain with regard to schools' capacities to implement good-quality RSE acceptable to students.

In contrast to previous research (Corcoran et al., 2020; Pound et al., 2017), we found that students generally wanted the RSE lessons to be taught by teachers from their school rather than external providers. Students valued delivery by teachers whom they knew and with whom they felt

comfortable. A few students did, however, express concern about confidentiality. Students also expressed dissatisfaction where particular teachers did not seem comfortable with, knowledgeable about or committed to teaching RSE, echoing previous research (Pound et al., 2016). This suggests that, even after RSHE has been made a statutory requirement, some schools are struggling to deploy appropriate teachers for RSE.

While Positive Choices lessons aimed to take a sex-positive approach, in-line with best practice (Pound et al., 2017; van Ditzhuijzen & Overeem, 2025), students felt lessons were overly focused on risks and would welcome practical content on topics such as building confidence in initiating relationships and how to be a good partner. Classroom discussions were the most valued and enjoyable aspect of lessons, allowing students to share views and learn from others. Where teachers discouraged or curtailed discussion, this undermined acceptability and engagement.

While participants viewed lessons as inclusive in terms of sexual identity, ethnicity and religion, accounts of what this meant varied. Some emphasised implicit inclusion where content applied regardless of identity, while others valued explicit inclusivity, requiring engagement with diverse identities, in line with recommended practice (World Health Organization Regional Office for Europe, 2021). While some students would have preferred single-sex lessons for some topics, reflecting what is regarded as best practice (Pound et al., 2017), most students generally valued mixed-sex lessons because they valued the chance to learn across genders. A separate analysis from this study of mechanisms of impact found evidence that, through lessons, students could reflect on others' perspectives and experiences, and build empathy across genders (Ponsford et al., 2025).

Boys could feel marginalised because of lesson content or its delivery, feeling targeted or blamed when they felt lessons portrayed males, as a group, in a primarily negative light and as responsible for problem behaviours. Some boys worried about invoking backlash by saying the wrong thing. The JACK trial suggested that materials aiming to engage boys and challenge gender inequalities for girls are welcomed by students and teachers, though in a few instances, girls said this could be off-putting to them (Lohan et al., 2023). Qualitative research suggests that, for interventions addressing gender equity, acceptability among boys is greater when interventions: enable boys to feel connected to other boys (Manlove et al., 2022); enable boys to speak without judgement (Jaime et al., 2016; Manlove et al., 2022); and draw on boys' own experiences. Alongside our study findings, this suggests that boys' engagement could be promoted by including some single-sex sessions and promoting open, non-judgmental discussions which can foster

both empathy for others, and critical reflection about one's own views and experiences.

Our interviews with staff, reported elsewhere (Ponsford et al., 2026), suggested challenges for teachers in facilitating sensitive discussions. The need for increased training and support for teachers is reflected in a 2017 survey of secondary school teachers in England and Wales, which found that 27% reported not feeling confident addressing sexist incidents in school (National Education Union & UK Feminista, 2017). Experienced, skilled facilitation of discussions that involve critical reflection can be effective in shifting towards gender-equitable social norms (Marcus et al., 2015). Closing off discussion impedes 'collective reflection', for example about the harms that dominant gendered expectations generate for both girls and boys (Bragg et al., 2021; Meiksin et al., 2025). Our data suggest problems with staff capacity remain even after RSHE has been made a statutory requirement, and even when an intervention such as Positive Choices provides high-quality lesson materials and staff training.

Data from students on Positive Choices' school-level elements were limited due to lower levels of implementation of these components. We report separately our fidelity analysis, which found few schools implementing SHPCs (53%), student-led campaigns (25%) or reviews of sexual health services (17%) (Muraleetharan et al., 2026). While most schools delivered some information about Positive Choices to parents/carers, only one implemented the parent/carer engagement component fully (Muraleetharan et al., 2026). Interviews with staff, also reported elsewhere, found that school-level elements of Positive Choices tended to be viewed as outside schools' core RSE responsibilities (Ponsford et al., 2026). Where these elements were not prioritised, staff reported having insufficient time and resources for implementation (Ponsford et al., 2026). Where SHPCs were implemented, participating students generally liked this role. Stable staff membership promoted student engagement, while lack of staff follow-through could undermine momentum and impact, echoing research on the use of such groups for addressing other health topics (Warren et al., 2019; Ponsford et al., 2023).

Participants reported that Positive Choices homework should not require students to engage with parents/carers about RSE topics. Though this component was theorised to improve sexual health communication with parents, students highlighted that, if implemented, this could cause stress and create an inequitable burden among students from more conservative or religious families.

Limitations

We conducted the study in the immediate aftermath of the Covid-19 pandemic when schools were struggling with increased student needs and depleted institutional capacity. Hence, the research was extremely challenging. To minimize administrative burden on schools and to make the most of the time available for FGD sessions, we did not collect information on participants' involvement in school-level actions or socio-demographics.

Despite these challenges, focus groups were conducted in most intervention schools. FGD participants were identified by school staff, who might have selected students more engaged with RSE or more likely to portray the school in a positive light. Our purposive sample was unlikely to reflect the full diversity of students in participating schools. It is possible that minoritised students who did not participate in FGDs might have viewed lessons differently. While emergent themes include differences by some student characteristics, separating FGDs, for example by gender, might have generated additional nuances in our exploration of the experiences of different groups of students. However, we did not conduct FGDs separately by participants' sociodemographic characteristics because we judged that the higher number of FGDs this would have required would not have been feasible for schools. Findings on student acceptability and engagement with regards to Positive Choices' school-level elements are limited due to limited implementation of these components.

Implications for Practice, Research and Policy

Our findings suggest that, alongside curriculum content, pedagogical and institutional factors play an important role in shaping young peoples' engagement and satisfaction with RSE. Informed by our findings and, as recommended by existing policy reports, schools should identify teams of trained RSE teachers committed to teaching RSE each year. Students want RSE teachers who are: knowledgeable about RSE topics; effective classroom managers; able and willing to foster an environment that students recognise as confidential, open, non-judgemental and safe; and skilled in facilitating discussions that accommodate different views on sensitive topics. Quality-assured initial teacher training and continuing professional development focused on RSE should enable staff to develop such skills, and future research should explore models for delivering this. Students would value increased content on positive aspects of relationships and sex along with practical content on fostering healthy relationships. Students generally find mixed-sex lessons acceptable but would welcome single-sex lessons on specific topics, such as menstrual health. Students would

benefit from lessons exploring how views and experiences might differ for young people of different identities and backgrounds. In terms of Positive Choices' school-level elements, while SHPCs might not always be feasible in the context of the multiple priorities schools address (Ponsford et al., 2026), when implemented they should include a stable and committed staff membership. RSE interventions should generally avoid homework requiring students to discuss RSE topics with parents/carers (Coyle et al., 2001).

Conclusion

Our study suggests that students found Positive Choices lessons and other activities to be acceptable but indicates several limitations with the RSE lessons even in a context in which RSHE had become a statutory requirement and high-quality lesson materials and staff training were provided. Teaching may fail to engage students effectively where staff appear uncomfortable, uncommitted or insufficiently knowledgeable, and where content focuses only on risk. As the requirements of RSE curricula become increasingly complex, ensuring that staff are well trained and confident in facilitating inclusive and critically reflexive discussions of sensitive topics remains a priority. This includes moving beyond a sole focus on risk and harm to also address the positive dimensions of early relational intimacies and what young people can expect from them. These findings can usefully inform improvements to statutory RSE in England and elsewhere.

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Data Availability Data are available upon reasonable request from the PI.

Declarations

Ethics Approval This study was approved by the London School of Hygiene & Tropical Medicine Ethics Committee (reference 26411).

Consent to Participate Students and their parents/carers were provided with written study information in advance. At this point, students and parents/carers could ask questions and could opt themselves/their children out of the research if desired. Just before the FGD, students received oral and written information and could ask questions. Those happy to participate gave written opt-in consent.

Competing interests The authors declare no competing interests.

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References

- Attar-Schwartz, S. (2009). Peer sexual harassment victimization at school: the roles of student characteristics, cultural affiliation, and school factors. *American Journal of Orthopsychiatry*, 79(3), 407–420.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice Hall.
- Basen-Engquist, K., Coyle, K., Parcel, G. S., Kirby, D., Banspach, S. W., Carvajal, S. C., & Baumler, E. (2009). School wide effects of a multicomponent HIV,STD and pregnancy prevention program for high school students. *Health Education and Behavior* 28(2).
- Bragg, S., Ponsford, R., Meiksin, R., Emmerson, L., & Bonell, C. (2021). Dilemmas of school-based relationships and sexuality education for and about consent. *Sex Education*, 21(3), 269–283.
- Marcus, R., Harper, C., Brodbeck, S., & Page, E. (2015). *How do gender norms change?* [Research and Practice Note](Knowledge to Action Resource Series 2015, Issue.
- Charmaz, K. (2014). *Constructing Grounded Theory*. Sage.
- Clear, E., Coker, A., Cook-Craig, P., Bush, H., Garcia, L., Williams, C., Lewis, A. M., & Fisher, B. S. (2014). Sexual harassment victimization and perpetration among high school students. *Violence Against Women*, 20, 1203–1219.
- Coleman, L., & Testa, A. (2007). Preferences towards sex education and information from an ethnically diverse sample of young people. *Sex Education*, 7(3), 293–307.
- Corcoran, J. L., Davies, S. L., Knight, C. C., Lanzi, R. G., Li, P., & Ladores, S. L. (2020). Adolescents' perceptions of sexual health education programs: an integrative review. *Journal of Adolescence*, 84, 96–112.
- Coyle, K., Basen-Engquist, K., Kirby, D., Parcel, G., Banspach, S., Harrist, R., Baumler, E., & Weil, M. (1999). Short-term impact of safer choices: a multicomponent, school-based HIV, otherSTD, and pregnancy prevention program. *Journal Of School Health*, 69(5), 181–188.
- Coyle, K., Basen-Engquist, K., Kirby, D., Parcel, G., Banspach, S., Collins, J., Baumler, E., Carvajal, S., & Harrist, R. (2001). Safer

- choices: reducing teen pregnancy, HIV, and STDs. *Public Health Reports*, 116(Suppl 1), 82–93.
- Department for Education (2019). *Relationships Education, Relationships and Sex Education (RSE) and Health Education*. Online: Department for Education Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1090195/Relationships_Education_RSE_and_Health_Education.pdf
- Department for Education (2025). 15 July 2025). *Statutory guidance: Implementation of relationships education, relationships and sex education and health education 2020 to 2021*. Department for Education. Retrieved December 14 from <https://www.gov.uk/government/publications/relationships-education-relationships-and-sex-education-rse-and-health-education/implementation-of-relationships-education-relationships-and-sex-education-and-health-education-2020-to-2021>
- DiCenso, A., Guyatt, G., Willan, A., & Griffith, L. (2002). Interventions to reduce unintended pregnancies among adolescents: systematic review of randomised controlled trials. *British Medical Journal*, 324, 1426–1434.
- Farmer, C., Shaw, N., Rizzo, A. J., Orr, N., Chollet, A., Hagell, A., Rigby, E., Young, H., Berry, V., Bonell, C., & Melendez-Torres, G. J. (2023). School-based interventions to prevent dating and relationship violence and gender-based violence: systematic review and network meta-analysis. *American Journal of Public Health*, 113(3), 320–330.
- Fisher, J. D. (1988). Possible effects of reference group-based social influence on AIDS-risk behaviors and AIDS. *American Psychologist*, 43, 914–920.
- Gavin, L. E., Catalano, R. F., David-Ferdon, C., Gloppen, K. M., & Markham, C. M. (2010). A review of positive youth development programs that promote adolescent sexual and reproductive health. *Journal of Adolescent Health*, 46(3 Suppl), S75–91.
- Girlguiding. (2014). *Girls' Attitudes Survey 2013. What girls say about equality for girls*. Girlguiding.
- Hastings, G., & McDermott, L. (2006). Putting social marketing into practice. *British Medical Journal*, 332(7551), 1210–1212.
- Hastings, G., & Stead, M. (2006). Social Marketing. In M. Macdowall, C. Bonell, & M. Davies (Eds.), *Health Promotion Practice* (pp. 139–151). Open University.
- Hawkins, J. D., & Weiss, J. G. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention*, 6, 73–97.
- Hill, C., & Kearl, H. (2011). *Crossing The Line: Sexual Harassment at School*. American Association of University Women.
- Hill, K. G., Bailey, J. A., Hawkins, J. D., Catalano, R. F., Kosterman, R., Oesterle, S., & Abbott, R. D. (2014). The onset of STI diagnosis through age 30: results from the Seattle Social Development Project Intervention. *Prevention Science*, 15(S1), S19–32.
- Jaime, M. C., Stocking, M., Freire, K., Perkinson, L., Ciaravino, S., & Miller, E. R. (2016). Using a domestic and sexual violence prevention advocate to implement a dating violence prevention program with athletes. *Health Education Research*, 31(6), 679–696.
- Migchelsen, S. J., Edney, J., O'Brien, N., Hakim, E., Narayanan, C., Karina Harb, P., Drisdale-Gordon, A., Duffell, L., Checchi, S., Slater, M., Charles, L., Baldry, H., Vijayan, G., Meriggi, H. H., Ram, G., Soldan, T., Folkard, K., Sinka, K., & Mohammed, H. (2024). *Sexually transmitted infections and screening for chlamydia in England, 2023*. UK Health Security Agency.
- Kar, S. K., Choudhury, A., & Singh, A. P. (2015). Understanding normal development of adolescent sexuality: a bumpy ride. *Journal of Human Reproductive Science*, 8(2), 70–74.
- Lameiras-Fernández, M., Martínez-Román, R., Carrera-Fernández, M. V., & Rodríguez-Castro, Y. (2021). Sex education in the spotlight: what is working? Systematic review. *International Journal of Environmental Research and Public Health*, 18(5), 2555.
- Lohan, M., & Lopez, A. (2023). *Comprehensive Sexuality Education: An Overview of the International Systematic Review Evidence*. Montivideo, UNESCO.
- Lohan, M., Gillespie, K., Aventin, A., Gough, A., Warren, E., Lewis, R., Buckley, K., McShane, T., Brennan-Wilson, A., Lagdon, S., Adara, L., McDaid, L., French, R., Young, H., McDowell, C., Logan, D., Toase, S., Hunter, R. M., Gabrio, A., Clarke, M., O'Hare, L., Bonell, C., Bailey, J. V., & White, J. (2023). School-based relationship and sexuality education intervention engaging adolescent boys for the reductions of teenage pregnancy: the JACK cluster RCT. *Public Health Res (Southampton)*, 11(8), 1–139.
- Manlove, J., Parekh, J., Whitfield, B., Griffith, I., Garg, A., & Fasula, A. M. (2022). A mixed-methods pilot evaluation of Manhood 2.0, a program to reduce unintended pregnancy among young men. *American Journal of Men's Health*, 16(3), 15579883221104895.
- Mason-Jones, A. J., Sinclair, D., Mathews, C., Kagee, A., Hillman, A., & Lombard, C. (2016). School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. *Cochrane Database of Systematic Reviews*, 11(11), CD006417.
- Meiksin, R., Ponsford, R., Kyegombe, N., & Bonell, C. (2025). *Social norms relating to gender and dating and relationship violence in English secondary schools: Exploring student, staff and parent/carer accounts*. Social Science & Medicine. 366, Article 117621.
- Muraleetharan, V., Ponsford, R., Meiksin, R., Sturgess, J., Tilouche, N., Opondo, C., McAllister, J., Morris, S., Melendez-Torres, G. J., Hadley, A., Lohan, M., Mercer, C. H., Young, H., Campbell, R., Coyle, K., Allen, E., & Bonell, C. (2026). Understanding the limited effectiveness of a whole-school relationships and sexual health intervention: Fidelity of implementation, reach and acceptability of Positive Choices. *Sex Education*. Advance online publication. <https://doi.org/10.1080/14681811.2026.2649905>
- National Education Union, & UK Feminista. (2017). *It's Just Everywhere: A Study on Sexism in Schools And How We Tackle It*. National Education Union and UK Feminista.
- Office for National Statistics. (2023). *Conceptions in England and Wales: 2021*. ONS.
- Oringanje, C., Meremikwu, M. M., & Eko, H. (2009). Interventions for preventing unintended pregnancies among adolescents. *Cochrane Database of Systematic Reviews*, 4, CD005215.
- Patton, G., Bond, L., Carlin, J. B., Thomas, L., Butler, H., Glover, S., Catalano, R. F., & Bowes, G. (2006). Promoting social inclusion in schools: group-randomized trial of effects on student health risk behaviour and well-being. *American Journal of Public Health*, 96(9), 1582–1587.
- Ponsford, R., Meiksin, R., Allen, E., Melendez-Torres, G. J., Morris, G. J., Mercer, C., Campbell, R., Young, H., Lohan, M., Coyle, K., & Bonell, C. (2021). The Positive Choices trial: study protocol for a Phase-III RCT trial of a whole-school social-marketing intervention to promote sexual health and reduce health inequalities. *Trials* 22(1): 818.
- Ponsford, R., Melendez-Torres, G. J., Miners, A., Falconer, J., & Bonell, C. (2023). Whole-school interventions promoting student commitment to school to prevent substance use and violence, and improve educational attainment: A systematic review. *Public Health Research*, 12(2), 1–290.
- Ponsford, R., Meiksin, R., Muraleetharan, V., Tilouche, N., Melendez-Torres, G. J., Lohan, M., Hadley, A., Young, H., Campbell, R., Mercer, C., Coyle, K., Sturgess, J., Opondo, C., Morris, S., Allen, E., & Bonell, C. (2025). The mechanisms by which a whole-school intervention might improve sexual health: qualitative realist research nested in a trial in English secondary schools. *Social Science & Medicine* Jan, 388, 118461. Epub 2025 Jul 26. <https://doi.org/10.1016/j.socscimed.2025.118461>
- Ponsford, R., Meiksin, R., Muraleetharan, V., McAllister, J., Tilouche, N., Melendez-Torres, G. J., Sturgess, J., et al. (2026). Factors

- Affecting the Implementation of a Whole-School Relationships and Sexual Health Intervention: Staff Perspectives from Trial-Nested Qualitative Research in English Secondary Schools. *Sex Education*, 1–18. <https://doi.org/10.1080/14681811.2026.2620092>
- Pound, P., Langford, R., & Campbell, R. (2016). What do young people think about their school-based sex and relationship education? A qualitative synthesis of young people's views and experiences. *British Medical Journal Open*, 6(9), e011329. doi: 10.1136/bmjopen-2016-011329.
- Pound, P., Denford, S., Shucksmith, J., Tanton, C., Johnson, A. M., Owen, J., Hutten, R., Mohan, L., Bonell, C., Abraham, C., & Campbell, R. (2017). What is best practice in sex and relationship education? A synthesis of evidence, including stakeholders' views. *British Medical Journal Open*, 7, e014791.
- Stewart, H., Adewoye, D., Bayliss, D., & Khandker, R. (2021). *Experiences of Relationships and Sex Education, and sexual risk taking Young people's views from LSYPE2*. Department for Education.
- Sweeting, H., Blake, C., Riddell, J., Barrett, S., & Mitchell, K. R. (2022). Sexual harassment in secondary school: Prevalence and ambiguities: a mixed methods study in Scottish schools. *PLoS One*, 17(2), e0262248.
- Sex Education Forum. (2024). *Young people's RSE poll 2024*. Sex Education Forum.
- Tanton, C., Jones, K. G., Macdowall, W., Clifton, S., Mitchell, K. R., Datta, J., Lewis, R., Field, N., Sonnenberg, P., Stevens, A., Wellings, K., Johnson, A. M., & Mercer, C. H. (2015). Patterns and trends in sources of information about sex among young people in Britain: evidence from three National Surveys of Sexual Attitudes and Lifestyles. *British Medical Journal Open*, 5(3), e007834.
- Taylor, B. G., Stein, N. D., Mumford, E., & Woods, D. (2013). Shifting Boundaries: An experimental evaluation of a dating violence prevention program in middle schools. *Prevention Science*, 14, 64–76.
- Timmerman, G. (2002). A comparison between unwanted sexual behavior by teachers and by peers in secondary schools. *Journal of Youth and Adolescence*, 31(5), 397–404.
- van Ditzhuijzen, J., & Overeem, A. (2025). Pleasure-Inclusive Sex Education, Sexual Agency, and Sexual Well-Being in Adolescents and Young Adults: A Scoping Review. *Archives Of Sexual Behavior*, 54(4), 1627–1648. <https://doi.org/10.1007/s10508-025-03103-8>
- Warren, E. B. L., Opondo, C., Allen, E., Mathiot, A., West, G., Jamal, F., Viner, R., & Bonell, C. (2019). Action groups as a participative strategy for leading whole-school health promotion: Results on implementation from the INCLUSIVE trial in English secondary schools. *British Educational Research Journal*, 45(5), 748–762.
- Witkowska, E., & Menckel, E. (2005). Perceptions of sexual harassment in Swedish high schools: experiences and school-environment problems. *European Journal of Public Health*, 15(1), 78–85.
- World Health Organization Regional Office for Europe (2021). *Standards for sexuality education in Europe: A framework for policy makers, educational and health authorities and specialists*.
- YouGov. (2010). *End Violence Against Women Poll Results*. End Violence Against Women.
- Young, H., Turney, C., White, J., Bonell, C., Lewis, R., & Fletcher, A. (2018). Dating and relationship violence among 16–19 year olds in England and Wales: A cross-sectional study of victimization. *Journal of Public Health*, 40(4), 738–746.

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