ABSTRACT

Background The potential for sexual health services to influence the sexual health and behaviour of school-aged young people is only likely to be realised if these services are accessed. This review and synthesis seeks to explore children and adolescents’ views and experiences of school-based and school-linked sexual health services to identify barriers to and facilitators of service use.

Methods The study design is a systematic review of studies focusing on the views of children and adolescents (11–18 years) about relevant services. Sixteen databases were searched, titles and abstracts were screened against the inclusion criteria, data extraction and quality assessment of included studies were performed and thematic synthesis was undertaken.

Results Nineteen relevant studies were identified, but only studies from the USA and the UK satisfied the inclusion criteria. The principal themes to emerge from the analysis were awareness and need, confidentiality and disclosure, perceptions of staff, service location, physical environment, costs and types of services on offer. These findings were consistent across country and type of service.

Conclusions In the view of young people, school-linked sexual health services need to guarantee and promote the ideas of privacy, confidentiality and approachability if they are to be accessed and have an impact on behaviour.

Keywords health services, sexual behaviour, young people

Introduction

In 2007, the UK government Department for Education and Skills (DfES) launched two new strategy documents entitled ‘Extended Schools: Improving Access to Sexual Health Advice Services’¹ and ‘Improving Access to Sexual Health Advice Services for Young People in Further Education Settings’.² These included clear guidance and encouragement to schools and colleges to develop or expand their provision of sexual health services for young people aged 11–18 years.¹,² There is a growing belief in the potential value of such services in North America also.³,⁴ This review specifically addresses issues concerning sexual health services within schools or linked to schools, including contraceptive, reproductive health and sexually transmitted infection services. In a recent report, the UK Sex Education Forum defined ‘sexual health services’ as including ‘the provision of something tangible, if the young person needs it, for example, condoms and pregnancy testing’.⁵ This definition allows ‘sexual health services’ to be distinguished clearly both from more general health advice that is provided by school nurses and others where these services exist, and from the provision of information through sex and relationship education (SRE) in schools. This review follows that definition, with its emphasis on voluntary attendance. It distinguishes between ‘school-based’ sexual health services (SBSs) and ‘school-linked’ sexual health services (SLSs). The former refers to services that are located on-site, in school premises; the latter refers to services located off-site, for example in a local youth centre, but that are connected to schools through joint funding, shared
staffing arrangements or other explicit and sustained forms of collaboration.

It has been found that some sexually active young people have never visited sexual health services despite being aware of their existence. This raises questions about the reasons why this might be. Given that studies have highlighted the importance of listening to the views of young people when developing strategies for both sexual health services and SRE, it makes sense to explore the reasons this group offers as to what motivates them to use or not use school services. There is already some examination of this in the literature for community-based services. Consequently, the purpose of the present review is to use systematic review and evidence synthesis to conceptualize young people’s views on what they like and dislike about SBSs or SLSs, with the aim of contributing to the development of acceptable services for young people.

**Methods**

To be included in the review, a study had to focus on exploring the views of young people (11–18 years) concerning SBS or SLS, as defined above. This might include the use of interviews, focus groups or satisfaction surveys. Previous systematic reviews synthesizing the views of groups exposed to public health interventions have also adopted this inclusive approach to different types of data. In this series of reviews, the included studies vary in the methods they use, collecting data on people’s views in their own words, as well as questionnaires that use frequencies to quantify the proportion of people with a particular view or preference. The aim of the present work was to utilize all such available evidence for our question because of the unique contribution that such data can make to healthcare decision-making. No language restrictions were applied to the search, but only developed countries were considered as it was felt that this group offered the greatest possible parallels both in levels of economic development and in (some) features of health, education and social policy.

Sixteen databases were therefore searched for the period from 1985 up to February 2010 using a search strategy developed after a number of test searches. The search combined terms for school with terms for service or clinic, and terms for various outcomes, such as infection, pregnancy or behaviour. The databases searched for published and unpublished literature were the Cochrane Library (1991–), MEDLINE, PreMEDLINE (2010), CINAHL, EMBASE, AMED, ASSIA (1987–), IBSS, ERIC, PsycInfo, Science Citation Index, Social Science Citation Index, the Social Care Institute of Excellence Research Register, the National Research Register (1997–), the Index to Theses and the UK Health Management Information Consortium database.

Two reviewers (C.C. and M.L.J.) each screened half of all titles and abstracts for relevance (based on the inclusion criteria) after a satisfactory inter-rater reliability score (Kappa = 0.9) had been achieved and recorded on a test sample of 100 titles and abstracts. In cases where one reviewer could not make a decision about inclusion based on title and abstract or full paper, consensus was reached through discussion with the second reviewer. Data were extracted from included papers using a form developed specifically for this review, and piloted on two papers. Data extraction and quality assessment of each paper were performed by a single reviewer and thoroughly checked by a second reviewer. Disagreements were resolved by discussion and reference to the original paper.

Data extracted for analysis consisted either of verbatim quotations from study participants or findings reported by study authors that were clearly supported by data, and which related to why participants chose to use or not use services. These data were all extracted from the ‘Results’ sections of included studies. The data could be quantitative as well as more obviously qualitative, but were analysed qualitatively. The authors chose a grounded theory-type, interpretive, inductive approach to data analysis, akin to thematic analysis.

In this approach, thematic analysis is ‘not another qualitative method but a process that can be used with most, if not all, qualitative methods . . .’. The method applied in the present study is very similar to thematic synthesis as described by Thomas and Harden. The key difference is that ‘line-by-line’ coding was completed on paper rather than using software. The approach is inductive, uses a ‘constant comparison’ method and works by coding or classifying the extracted data into themes. In this approach, all of the ‘views’ data are analysed together; no initial distinction was made according to the data collection method used. The resulting themes are therefore the review authors’ own interpretation of the data. One reviewer (C.C.) carried out the primary analysis of the data. Two other reviewers (M.L.J. and J.C.) verified the analysis by examining whether the lead reviewer’s interpretations of the data were plausible and by offering competing interpretations where appropriate. A refined and mutually agreed list of related themes reflecting the data on young people’s views of SBSs or SLSs was then drawn-up.

The quality of each included study was appraised based on the paper’s description of the study objective and design, its sampling strategies, and the reporting of its methods of data collection and analysis. These criteria have been used by other reviews synthesizing people’s views of services.
and act as a means of identifying the relatively more robust studies. Quality of reporting and internal validity (i.e. how well a study is conducted) are different but linked because it is impossible to make a meaningful assessment of the validity of an inadequately reported study. Studies judged to be relatively better-reported provided details for all or most criteria, while inadequately reported studies might describe as few as one. No study was excluded on the basis of the soundness of its reported processes. The aim of the quality assessment was to explore whether the quality of a study, in terms of how well its methods are reported, was a moderator of the results.

**Results**

The sensitive search of electronic databases generated 5435 unique citations. Of these, nine papers satisfied the inclusion criteria. The majority of studies retrieved by the search simply did not evaluate views of school sexual health services, and so were excluded. Four further studies were found by screening the references of these included studies and six more were literature known to the authors and colleagues. Twelve studies were from the USA and seven from the UK. For details of the studies included, see Table 1. Thirteen studies examined SBSs, of which 10 were conducted in the USA; and 6 studies evaluated SLSs, of which 4 were conducted in the UK. The SBSs were either for sexual health only or were comprehensive health services with various limits to the amount of sexual health services provided. Ten studies clearly described their approaches to design, sampling, data collection and/or analysis, whereas nine studies were relatively inadequately reported. Analysis of the data gave rise to the themes described under the headings listed below.

**Awareness and need**

Young people’s use or non-use of a service was reportedly shaped in these studies both by their awareness of and need for it. Participants in four studies mentioned that they knew about the SLSs because friends attended. On the other hand, small numbers of students in four studies mentioned that they were unaware that the service existed or they knew that it existed but did not know when or where it was available. The use was also influenced by perceived need: some did not use the service simply because they felt no need to do so but, for others, their relationship status was a major determinant: if they were already or likely to be sexually active, then their need for the service was increased.

**Confidentiality and disclosure**

Anxiety about how confidential a service might be was raised as an issue in seven studies: young people feared disclosure of their visit, and the reason for it, to parents, teachers, their community or peers. This emerged both from the UK and USA studies, regardless of the service being provided (i.e. both specific sexual health services and comprehensive health services, which may have had only a limited sexual health element). Despite such anxieties about privacy, many studies also reported that young people’s satisfaction with the perceived confidentiality of the service was an important reason for their using it. This emerged from 12 studies across all locations and all service types. In half of the studies, young people reported that they used the service for the very reason that they felt their privacy was protected and they trusted that their visit would be confidential. In three US studies, young people reported that their reason for using a condom availability scheme or a school-based comprehensive health centre was because they could do so without their parents’ knowledge. These different opinions, that is, on the one hand, anxiety about the level of privacy provided by a service and, on the other hand, satisfaction with those levels of privacy, could exist within a single school population in relation to the same service: these contrasting viewpoints were reported by participants in five studies from both the UK and USA.

**Young people’s perceptions of staff**

In 11 studies, the attitude adopted by staff was viewed as crucial by young people in determining whether or not they
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Intervention</th>
<th>Study type and sampling</th>
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<td><strong>SBSs</strong></td>
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<td>Bar-Cohen et al. 21</td>
<td>USA</td>
<td>Comprehensive health services</td>
<td>Survey; a convenience sample of all females attending the clinic for the first time</td>
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<td>Carlson and Peckham 22</td>
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<td>Emihovich and Herrington 23</td>
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<td>Unclear; convenience sample from six high schools located in rural/suburban/urban metropolitan areas</td>
<td>Unclear</td>
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<td>Guttmacher et al. 30</td>
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<td>Kay et al. 35</td>
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<td>Survey; volunteers from tutor groups randomly selected from years 8, 10 and 11 (i.e. ages 12–13, 14–15 and 15–16); interviews: all students attending the drop-in over a 6-month period</td>
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<td>Kirby et al. 24</td>
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<td>Interviews; students attending public high schools in Seattle. Other details NR</td>
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<td>Salmon and Ingram 37</td>
<td>UK</td>
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<td>Survey and interviews; volunteer samples of school-aged young people</td>
<td>Survey: 11–18 years (n = 222); interviews: 11–16 years (n = 44)</td>
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<td>Santelli et al. 32</td>
<td>USA</td>
<td>Comprehensive health services</td>
<td>Survey; a ‘representative’ sample from classes in nine schools with and four matched schools without SBHCs</td>
<td>14 years (mean) (n = 3496)</td>
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<td>Schaffer et al. 25</td>
<td>USA</td>
<td>Sexual health service</td>
<td>Focus group; volunteer sample of parenting adolescents</td>
<td>Unclear (n = 9), female only</td>
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<tr>
<td>Schuster et al. 33</td>
<td>USA</td>
<td>Condom availability services</td>
<td>Survey; students at intervention school with 1 year’s exposure to the intervention; survey administered on a single day to all Grade 9–12 students present</td>
<td>Unclear (n = 1112)</td>
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<td>Stout et al. 26</td>
<td>USA</td>
<td>Comprehensive health services, but limited sexual health services</td>
<td>Survey; convenience sample of schools and Grade 9–12 users of SBHCs from five Oregon schools</td>
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<td>Zeanah et al. 28</td>
<td>USA</td>
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<td>Focus groups; volunteer sample from three schools selected for evaluation, representing rural and urban communities</td>
<td>‘Young people’ (n = unclear)</td>
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<td><strong>SLSs</strong></td>
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<td>Barna et al. 34</td>
<td>UK</td>
<td>Sexual health services only</td>
<td>Interviews; a convenience sample: those attending the clinic on a single day during a single hour</td>
<td>9–16 years (n = 16)</td>
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<td>Nelson and Quinney 36</td>
<td>UK</td>
<td>Sexual health services only</td>
<td>Survey; response sample of all pupils at a single intervention school</td>
<td>11–17 years (n = 593)</td>
</tr>
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<td>Tanner et al. 38</td>
<td>UK</td>
<td>Sexual health services only</td>
<td>Interviews; convenience sample of service users</td>
<td>15–16 years (n = 11)</td>
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<tr>
<td>Washkansky et al. 39</td>
<td>UK</td>
<td>Sexual health services only</td>
<td>Unclear; school-aged young people (otherwise, not described)</td>
<td>Unclear (n = unclear)</td>
</tr>
<tr>
<td>Zabin et al. 27</td>
<td>USA</td>
<td>Sexual health services only</td>
<td>Survey; students at two intervention schools with 2 years’ exposure to the intervention; survey administered on a single day to all students present</td>
<td>&lt;18 years (n = 422), female only</td>
</tr>
<tr>
<td>Zimmer-Gembeck and Riddell 29</td>
<td>USA</td>
<td>Comprehensive health services, but limited sexual health services</td>
<td>Survey; volunteer sample from Grades 9–12 from 15 schools</td>
<td>14–18 years (n = 4591)</td>
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</tbody>
</table>

NR: Not reported.
felt happy using a service. Young people said that they used a service because they felt relaxed and comfortable with staff, and that they were friendly, supportive, helpful and welcoming, good listeners who paid attention to them, non-judgmental and caring towards teenagers. Staff attitudes could also be a barrier to use. In one UK study, a participant reported that, ‘When you go to talk to someone it’s like they’re interested in something else’. A US study also found that young women were reluctant to use a sexual health service because ‘of the perceived judgment of the staff who made the condoms available and of male students’. It was not simply staff attitudes which young people felt could affect their level of comfort: in one study, young people also reported wanting choice in terms of male or female clinic staff. Young people’s readiness to access services was also found to be influenced by their familiarity with clinic staff: some users felt that their relationship with staff, usually established over time, could act as an encouragement to use the service.

Aspects of physical location and environment

The location of the service emerged as a theme from 14 studies. Participants in seven studies mentioned the convenience and accessibility of a service’s location as a reason for using it. This applied both to SBSs and SLSs. The latter were viewed positively if they were close to home or school or were located in places where young people spent time outside of school. The visibility of service users, as a result of the location of the service, was another issue. In one study, young men liked to be seen using the service, as they considered that it endowed them with a certain status, but a recurring theme, across 10 studies, was that certain services were considered to be too visible or open, and young people were embarrassed or afraid to be seen using them. This was especially the case for young women and if the service was sexual health only. The environment in which services were delivered also emerged as a relevant theme. Participants in six studies reported that the room had to be private, ‘comfortable’, inviting and relaxed. If the physical environment was too drab, uninviting or open, then this acted as a barrier to service use.

Flexibility of service access

Three aspects regarding the flexibility of services emerged from the data. In two UK studies, the participants reported wanting more frequent opening times, both lunchtime and after school. Four studies also reported participants’ request for more sessions generally. Some young people also admitted that they might not have had the confidence to attend a clinic by themselves, and so had liked the fact that some UK services allowed them to come along with friends to support them.

Alternative services and cost

Young people reported that, in the absence of the school service, they would simply access relevant services elsewhere, although some reported feeling more exposed and visible when attending a community sexual health service. The provision of free services was a relatively common theme as a facilitator of service use across both UK and USA studies: young people seemed more inclined to use a service if it was free. In the UK studies, the availability of free condoms was either the principal reason why young people attended, or was cited as one of the best things about the service. In the US studies, the cost of alternative services or sources of contraception was seen as a barrier to using non-SLSs: SLSs, in contrast, were free.

Components of the service

Across many studies, young people mentioned two types of service component in particular as being important: making contraception available and the provision of information and advice. In 11 studies, young people mentioned the availability of contraception as a desired service. It was often cited as the principal reason young people gave for accessing services. In three studies, they also explicitly cited other sexual health services, such as pregnancy testing or sexually transmitted infection (STI) testing, as a reason for their use of the service or as a positive aspect of the service. Otherwise, the reason appearing in many studies why young people said they accessed sexual health services in both the USA and UK was for information and advice, or the opportunity to talk about problems. Finally, some young people in two studies reported that they would prefer the provision of comprehensive health services rather than sexual health services alone, either because of concerns about accessing the latter or because they simply wanted easy access to comprehensive health care.

Discussion

Main finding of this study

This synthesis identified a range of themes elucidating both barriers to and facilitators of school sexual health service
use based on the views of young people. On the whole, these findings do not appear to be moderated by possible confounding factors. For example, each of the themes emerged from both the adequately and inadequately reported (i.e. possibly weaker) studies. The same applied to location and date: the most recent studies (those published from 2000 onwards) were all from the UK, whereas the larger group of 14 studies published earlier (1990–99) were all conducted in the USA, but studies from each location contributed to every theme identified. Each theme also emerged from a combination of both SBS and SLS studies, from studies of both comprehensive health and sexual health-only services, and from studies employing different study designs, i.e. both satisfaction surveys and interviews or focus groups. Despite one study reporting that young people wanted comprehensive health services because of the obvious implications in accessing sexual health-only services, the concern surrounding visibility appear to apply to all types of service, including comprehensive health services with limited sexual health elements. However, if a service consisted only of making condoms available (including via machines or baskets at appropriate locations), then understandably the themes of staff perceptions and the physical environment or flexibility of the service did not emerge from studies of this type of service.

**What is already known on this topic**

Many of the factors identified echo study findings of young people’s views concerning their use of non-school-linked, community sexual health services, i.e. concerns about confidentiality and familiarity with staff; proximity of services; the need for friendly, non-judgmental staff and the role of peer communication in awareness. Generally, the gender of service users or staff did not emerge as an issue in this research, although previous work on community health services has found gender differences regarding accessing contraception. Some of the individual studies may even give a flavour of the synthesis presented here, but syntheses such as this, ‘are integrations that are more than the sum of parts, in that they offer novel interpretations of findings. These interpretations will not be found in any one research report but, rather, are inferences derived from taking all of the reports in a sample as a whole’.

**What this study adds**

This study is a synthesis of findings relating to SBSs and SLSs. Such an analysis is absent from the review literature, which otherwise has considered only general community services. Despite setting or location appearing not to be a great moderator of findings, there are some apparent contextual differences between SLSs and non-SLSs. The visibility of the service, including being seen to be using a service, and the related issues surrounding privacy and confidentiality, appears to be a greater and more complex issue for young people in the studies reviewed here than for those accessing community services. This is perhaps because of the density of peers and familiar adults (teachers) in school rather than community locations. Nevertheless, there appear to be strong parallels between the findings for the different settings, which in turn validate the results of this synthesis concerning school-aged young people’s views on such services.

**Limitations of this study**

Methodologically, any synthesis of qualitative data may be open to the criticism that it may ‘de-contextualize findings and wrongly assume that these are commensurable’. The approach taken here may also offer a relatively less ‘problematized view of reality and a greater assumption that their synthetic products are reproducible and correspond to a shared reality’ than some other methods of qualitative synthesis, especially given the heterogenous nature of the primary studies included. However, we were principally interested in the answers only this type of data could provide, and the different methods of data collection do not appear to have produced very different results. All studies identified by this review were conducted only in the USA and in the UK. This analysis provides a thematic exploration of why young people say they use or do not use the services, but does not assess whether services that seek to address these barriers actually improve access and uptake, or report improved sexual health outcomes for young people. Only one such synthesis has been attempted, but more robust data for policy and practice are required. Methodologically, time did not permit the independent extraction of data by two reviewers, but the data extracted by the first reviewer was thoroughly checked by the second.

**Conclusion**

This review and synthesis has identified a range of factors that influence both access to and use of SLSs or SBSs by young people in the education system. These services need to guarantee and promote the ideas of privacy, confidentiality, trust and approachability, if they are to be accessed and have an impact on behaviour. They should offer direct, on-site access to a variety of service components, especially sexual health advice and contraception, and offer the
opportunity to discuss problems. Many of these factors appear to apply equally to the provision and use of community services. The findings do not appear to be affected by factors such as study quality, design, country or whether the service is school-based or school-linked.

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