From psycho-social theory to sustainable classroom practice: developing a research-based teacher-delivered sex education programme

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Abstract

This paper describes the development of a theoretically based sex education programme currently undergoing a randomized controlled trial in the UK. It considers some of the practical difficulties involved in translating research-based conclusions into acceptable, replicable and potentially effective classroom lessons. The discussion acknowledges that the implications of social psychological research and the requirements of rigorous evaluation may conflict with accepted principles inherent in current sex education practice. It also emphasizes that theoretical ideas must be carefully embedded in lessons which are informed by an awareness of classroom culture, and the needs and skills of teachers. For example, the use of same-sex student groups to reflect on the gendered construction of sexuality may be problematic. Materials must be tailored to recipients’ circumstances, which may require substituting for limited experience with the use of detailed scripts and scenarios. Furthermore, role-play techniques for sexual negotiation that work elsewhere may not be effective in the UK. The use of trigger video sessions and other techniques are recommended. Finally, the problems involved in promoting condom-related skills are discussed. The paper concludes that, if an intervention is to be sustainable beyond the research stage, it must be designed to overcome such problems while remaining theoretically informed.

Introduction

Concerns about the spread of HIV led to widespread investment in safer sex promotion in the UK and elsewhere [e.g. (Fisher and Fisher, 1992)]. The disastrous potential of the virus and fears that a devastating epidemic similar to that observed in sub-Saharan Africa would be replicated elsewhere (Berridge, 1996) resulted in rapid development of educational programmes, bypassing theory-driven development and careful pre-testing. The first UK mass media campaigns, for example, broadcast messages such as ‘Don’t die of ignorance’, and included images of tombstones and flowers. Yet psychological research had previously demonstrated that fear appeals are most likely to influence behaviour when they are accompanied by instructions on how to act (Leventhal, 1970) and previous evaluations had suggested that fear-arousing anti-heroin campaigns were regarded as unrealistic by their target audience (Coggans et al., 1991).

Predictably, few of these early campaigns were found to change sexual behaviour [e.g. (Sherr, 1987)]. In a comprehensive review, Fisher and Fisher (Fisher and Fisher, 1992) found few effective HIV-preventive interventions and concluded that this was primarily due to the fact that ‘published AIDS reduction efforts that have been based on formal conceptualizations of any kind are exceedingly rare’ [(Fisher and Fisher, 1992), p. 463]. They also noted that effective interventions were characterized by being ‘conceptually-based’
and ‘providing AIDS-risk information, motivation and behavioural skills’ [(Fisher and Fisher, 1992), p. 463]. Similarly, in a review of school-based sex education programmes, Kirby et al. (Kirby et al., 1994) identified the use of social cognitive theory (Bandura, 1986) in the intervention design as one of the factors which distinguished between successful and unsuccessful curricula. Such findings have prompted a shift away from atheoretical information provision to theory-based approaches [e.g. (DiClemente and Wingood, 1995; Bryan et al., 1996; Schaalma et al., 1996)]. Early evaluations of such interventions are encouraging. For example, in a meta-analysis of 12 controlled trials of HIV-preventive interventions based on social cognitive theory, Kalichman et al. (Kalichman et al., 1996) observed highly significant positive outcomes. The effect sizes were small to moderate but of equal or greater magnitude to those achieved by interventions routinely employed in other areas of health care.

Research into HIV-preventive programmes and sexual behaviour has had important implications for general sex education in schools. Effective prevention of sexually transmitted infections (STIs) depends upon a good understanding of sexual activities and their associated transmission risks. However, control over sexual behaviour depends upon anticipating and managing social interactions in which sexual activity is negotiated [e.g. (Fisher and Fisher, 1992; Holland et al., 1992; Abraham et al., 1996)]. This suggests that many traditional school-based programmes should be expanded. Moreover, low perceived susceptibility to HIV infection observed among heterosexual samples (Abraham et al., 1992; Wight, 1993) suggests that heterosexual groups are more likely to engage with HIV education if it is embedded in general sex education (Bryan et al., 1996). In addition, evidence of coercive behaviour (Holland et al., 1990), widespread anxiety (Wight, 1994) and regretted experiences (Johnson et al., 1994) has highlighted the need for interventions to better prepare young people for sexual relationships. Finally, the withdrawal of ring-fenced funding for AIDS-related work encouraged professionals to redefine their concerns in terms of ‘sexual health’. These factors have helped raise the profile of sexual health within public health policy, as illustrated in 1992 when specific sexual health targets were set in the UK government’s Health of the Nation strategy document (Department of Health, 1992).

These developments have led to calls for a ‘new generation’ of sophisticated theory-driven, research-based school sex education programmes (Kirby et al., 1994; Schaalma et al., 1996) which should be subjected to rigorous evaluation assessing changes in cognitions and sexual behaviour. Randomized controlled trials are widely considered the best method for evaluating outcomes (Oakley et al., 1995), although this has been questioned [e.g. (Tones, 1997)]. Yet little guidance is available on how to translate theoretical ideas into acceptable, sustainable and replicable classroom programmes. Orlandi et al. (Orlandi et al., 1990) argue that the diffusion process should involve a collaborative partnership between the group promoting a programme and its potential users, operating through what they call the ‘linkage system’. Schaalma et al. (Schaalma et al., 1994) emphasize the importance of co-operation between researchers, school advisors and teachers, and they underline the need to pre-test materials in classroom settings. Nevertheless, the complex process by which theoretical ideas are operationalized for a specific social context is rarely elucidated. An important exception is the recent framework for intervention development set out by Bartholomew et al. (Bartholomew et al., 1998). They identify five steps by which theory and empirical findings should be used to develop health education programmes.

This paper describes key aspects of the development of a theoretically based sex education programme which is currently undergoing a randomized controlled trial in the UK. It highlights some of the practical difficulties involved in translating psycho-social theory into acceptable, replicable and potentially effective classroom lessons. It concludes that it is possible to develop a potentially effective, research-based, teacher-
led sex education programme which could be disseminated throughout UK schools. However, it emphasizes that theoretical ideas must be carefully embedded in lessons which are informed by an awareness of classroom culture, and take account of the agendas of policy makers and the needs and skills of teachers.

**Historical background and methods**

The project started with research into current sex education in schools in eastern Scotland (Wight and Scott, 1994), which combined a needs assessment with the exploration of practical strategies for an innovative programme (cf. Bartholomew et al., 1998). The authors and colleagues then developed a teacher-delivered sex education programme for 13–15 year olds. This is below the minimum school leaving age of 16 in the UK, thus including nearly all young people of a given age and, unlike most service provision or community education, enabling as many young men as women to be reached (Abraham and Wight, 1996). Younger people were not targeted because it was thought that too few would consider the programme personally relevant in the immediate future, and it would have seriously limited what content was deemed acceptable to education authorities and parents.

Entitled *SHARE: Sexual Health and Relationships—Safe, Happy and Responsible*, the programme included a teachers’ resource pack of 20 lessons, to be delivered over two school years, and a 5-day teacher training course for those using the pack.

The teacher training and resource pack were initially piloted in four Scottish schools with nine teachers and 17 classes. The training was evaluated through participant observation, participants’ self-complete questionnaires and semi-structured interviews. The SHARE pack was evaluated through a brief teacher questionnaire for each lesson, semi-structured interviewing of teachers and pupils, group discussions with pupils, and, most valuable, observation of lessons [for more details, see (Wight and Scott, 1996)]. In addition, the SHARE pack development team (primarily Wight, Dixon, Abraham and Scott) received advice and comment from five UK sex education experts as well as lead researchers involved in the development and evaluation of previous classroom-based programmes [e.g. (Kirby et al., 1994; Mellanby et al., 1995; Schaalma et al., 1996)]. This research and feedback resulted in substantial changes in pilot materials, illustrating the importance of an iterative approach to intervention development, in which practical constraints are addressed in the design and piloting stage (Bartholomew et al., 1998).

The revised SHARE programme and training were piloted in a further four schools. This second pilot involved 15 teachers and 23 classes, and the same methods as before, with one principal change. Instead of pupil group discussions, a self-complete questionnaire was administered to 115 pupils. This was comprised almost entirely of open-ended questions. Smaller changes were made as a result of the second pilot and in 1996 a randomized controlled trial of the programme began.

**Conflicting principles**

The broad aims of SHARE programme are to:

1. Reduce the incidence of unsafe sex.
2. Reduce the rate of unwanted pregnancies.
3. Improve the quality of young people’s romantic and sexual relationships.

Four basic principles underpinned the development of the programme. It should:

1. Be theoretically based and apply findings from recent social science research into young people’s sexuality.
2. Draw upon the best existing sex education materials and practice.
3. Be sufficiently standardized to allow rigorous evaluation.
4. Be readily replicable and sustainable within school environments.

In accordance with the first principle the design work drew upon recent research into the effectiveness of social cognitive models in predicting
young people’s safer sexual behaviour [e.g. (Catania et al., 1990; Abraham and Sheeran, 1994; Fisher et al., 1995; Sheeran et al., 1999), analyses of young people’s sexual behaviour employing symbolic interactionism and script theory [e.g. (Gagnon and Simon, 1974)], phenomenology [as applied, for instance, by Bloor et al. (Bloor et al., 1993)] and analyses of power relations in heterosexual interactions [e.g. Holland et al., 1990, 1992), see (Wight et al., 1998) for details]. In addition, the Elaboration Likelihood Model of attitude change (Petty and Cacioppo, 1986) implies that messages which (1) maximize consideration and evaluation of arguments, and (2) highlight personal relevance are more likely to result in stable attitudinal change and subsequent behaviour change. Lessons were, therefore, designed to highlight personal relevance and to encourage active consideration of the issues.

A research-based design is more likely to identify and address the pre-requisites necessary to achieving behaviour change, but the implications of research findings can conflict both with educational orthodoxy inherent in current practice and with cost limitations essential to sustainability and replicability. A teacher-led programme which seriously challenges teachers’ professional philosophy is unlikely to be replicated nationally and costly interventions (such as the involvement of outside professionals or organized visits to local sexual health services) may well be dropped in the face of competing organizational demands.

Such conflicts necessitated prioritizing some principles over others, adapting research-based components to classroom constraints and exploring what could be realistically achieved by especially trained teachers in the 40 min lessons available in most participating schools. This paper focuses on the processes by which this was achieved and seeks to illuminate the transition from the theoretical starting point of the first principle to the practical goal of the fourth. This is illustrated through discussion of five issues: (1) the tensions between theoretical approaches supported by empirical research and that underlying much current health education, (2) how to make gendered constructions of sexuality more compatible with each other, (3) how to work with the target groups’ limited sexual experience, and (4) how to introduce practise of sexual negotiation and condom handling skills into classroom settings.

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**Health education orthodoxy and research-based interventions: conflict and compatibility**

In recent decades there has been a strong reaction to the ‘behaviour change’ approach to health education which has characterized government initiatives. Instead the inter-related goals of empowering students (French and Adams, 1986; Tones, 1992) and raising their self-esteem (Rogers, 1969) have become orthodox in health education. The latter is well illustrated by a policy document of one of the local education authorities involved in this study [(Tayside Region Education Department, 1993), p. 15]:

> People must respect themselves before they can have the confidence to take independent healthy decisions about their own actions and way of life... The development of a sense of self worth is a fundamental principle of health education. These goals have three particular methodological implications: that the content of a course should be negotiated with the students, it should not prescribe values or behaviours and it should be part of a broader approach designed to enhance self worth.

The principle that teachers should support students to set their own agendas is frequently alluded to in health education literature [e.g. (French, 1990; Sex Education Forum, 1997)]. This conflicts with the research-based recommendation for standardized behaviour-specific advice. Of course it is necessary to conduct preliminary research (Fisher and Fisher, 1992; Bartholomew et al., 1998) to discover what cognitive and behavioural interventions are likely to have most impact for a particular target group, and such research was conducted with Scottish teenagers prior to the design of the SHARE programme (Abraham et al., 1992, 1996; Wight, 1993; Wight and Scott, 1994). It is not,
however, possible to accommodate school class-
specific lessons within a standardized programme. 
Moreover, our own observations suggest that in 
practice it is extremely difficult to genuinely 
negotiate sexual learning needs with teenage 
students in classroom settings.

The goal of current health education is often 
described in phrases such as ‘to ensure that indi-
viduals are able to exercise informed choice’ [e.g. 
(Department of Health, 1992)]. This voluntarist 
approach, however, is incompatible with Kirby 
et al.’s finding that sex education programmes 
which ‘emphasized clear behavioural values and 
norms’ [(Kirby et al., 1994), p. 355] are more 
likely to be effective than those in which students 
are implicitly instructed to make their own 
decisions. Clear messages are recommended by 
research indicating that specific intentions and 
action planning are essential prerequisites of action 
[e.g. (Fishbein and Ajzen, 1975; Gollwitzer, 
1993)], and specified messages are required by 
the standardization necessary for a randomized 
controlled trial. Thus the SHARE programme 
advises teenagers to delay sexual intercourse until 
they are sure they are ready and to always use a 
condom until they plan to have children. Moreover, 
although the pack provides for some optional 
extension exercises, schools are contracted to 
deliver the programme without modification. This 
approach is similar to two European sex educa-
tion programmes demonstrated to be effective 
(Mellanby et al., 1995; Schaalma et al., 1996), but 
it conflicts with some of the underlying principles 
of current health education.

According to the current health education ortho-
dodoxy good sex education should develop pupils’ 
‘critical understanding of sexuality and the social 
and cultural climate in which they live’ [(BMA 
Foundation for AIDS, 1997), p. 5], as well as 
addressing behaviours relating to sexual health 
(SIECUS, 1994). The programmes demonstrated to 
be most effective, however, tend to focus very 
closely on specific sexual behaviours since they aim 
to transmit specific behavioural skills (such as res-
isting unwanted sexual pressure or correctly using 
condoms) (Kirby et al., 1994). Given the intense 
pressure on the curriculum it is likely that such 
behaviour-specific programmes would take up all 
the available time for sex education in any one year.

More broadly, there is little evidence that differ-
ences in self-esteem are predictive of specific 
behaviours [e.g. (Dawes, 1994; West and Sweeting, 
1997)] and the psychological assumption that 
particular health-related behaviours will naturally 
follow from changes in a general psychological 
disposition is contrary to research findings on the 
cognitive prerequisites of behaviour change. Such 
research has consistently shown that behaviour-
specific cognitions are most closely associated with 
subsequent behaviour [e.g. (Fishbein and Ajzen, 
1975, 1980), see (Wight et al., 1998) for further 
discussion]. Consequently, health-related behavi-
oural interventions have frequently drawn upon 
social cognitive theory (Bandura, 1986; Kalichman 
et al., 1996) and attempted to promote behaviour-
specific self-efficacy (i.e. confidence that one can 
successfully perform specified behaviours in 
particular contexts) which, unlike self-esteem, has 
been shown to be an important determinant of 
behaviour change (Bandura, 1997).

In developing the programme it was soon evident 
that our first principle (concerning the application 
of research findings) and third practical principle 
(regarding standardization) conflicted with certain 
features of what is widely regarded as best sex 
education practice (i.e. our second principle). Since 
one objective of the project was to develop an 
intervention that could be replicated in Scottish 
schools (principle four), we had to ensure that 
it did not conflict with teachers’ fundamental 
educational philosophy if it was to be sustained 
beyond the research programme. As Wynn (Wynn, 
1996) has pointed out in respect to environ-
mental hazards, non-scientists (in this case 
teachers) often feel that their expertise, arrived at 
through years of experience, is worth more than 
the theoretical knowledge of scientists (in this case 
the SHARE research team). It was therefore crucial 
that the pack and training were sufficiently compat-
ible with conventional health education so as not 

to alienate teachers or the pack’s first author 
and teacher trainer, Dixon, who subscribed to an
‘empowerment’ approach to sex education (Dixon, 1993).

In fact Dixon played a key role as a ‘linkage agent’ (Orlandi et al., 1990) in facilitating the implementation of the programme. Her involvement as a highly respected sex education consultant was critical to the credibility of the project with both teachers and education officials. Delicate negotiations were required to achieve a successful compromise of social cognitive theory and orthodox health education principles. While SHARE was modified to be more student-centred and to have a rather broader content, it was nevertheless possible to translate research-based findings such as those concerning the importance of self-efficacy, intention formation and specific behavioural planning into educational and teacher-training materials in a manner which made these ideas accessible to teachers delivering the SHARE programme. However, some health educators still withdrew their support from the programme, because they were unhappy with prioritizing the implications of current research findings in the design phase. As Kok and Green argue (Kok and Green, 1990), it is not always possible for researchers to co-operate with health educators whose educational philosophy is not itself research-based.

Since teachers sometimes feel that new methods threaten their current expertise it is essential to enhance their own self-efficacy in relation to lesson delivery before evaluating programme effectiveness. Evaluations of the 5-day SHARE teacher training course suggest that it achieved this aim. The mean of teachers’ self-reported confidence in delivering different aspects of sex education significantly improved between pre- and post-training, the greatest changes being amongst those with lowest confidence at the start. Many teachers declared the course to be one of the best training experiences of their careers and 86% said they were ‘very glad’ to have attended.

**Gendered construction of sexuality and classroom dynamics**

Most social scientists agree that sexuality is largely learnt and that it is shaped by gender-specific socialization (Archer and Lloyd, 1985; Wight et al., 1998). The differences between girls’ and boys’ approaches to sexual relationships [e.g. (Oliver and Hyde, 1993)] are largely due to having grown up in separate social worlds. Boys’ and girls’ self-worth is more closely related to their perceptions of the opinions of their own sex than those of the opposite sex (Gagnon and Simon, 1974; Wight, 1994). In this social world of same-sex friendship contact with the opposite sex is often most valued as a way of developing one’s own gender identity (Wight, 1994).

A key objective of the SHARE programme was to improve young people’s understanding of the attitudes and experiences of the opposite sex. Our initial idea was to achieve this both through the content of sessions and through a process of moving from single-sex groups to mixed-sex groups during lessons. This objective was strongly supported by young women and men questioned in preliminary research (Wight and Scott, 1994) but it was not achieved during the first SHARE pilot.

Feedback discussions revealed two main reasons for this failure. First, the very norms which some of these exercises were attempting to reveal dominated classroom discussion and prevented reflexive insight into their operation. In all-male group discussions few boys felt secure enough to go beyond conventional expressions of masculinity and seriously explore their masculine identities, despite agreeing ground rules at the start of the course. For example, in a feedback discussion two boys noted:

**B1:** I mean if you do talk about what you feel like, say if you’re talking about caring and loving and stuff like that, and then you go away with your pals, a few of them, not all of them, will just go ‘What was that crap you were talking about?’. It’s the macho image.

**B2:** Nothing any guy says to another guy is true. They’re all making it up.

The single-sex group work was lively, however, compared with the whole class plenaries and mixed-sex groups that followed which were often
painfully quiet. The operation of masculine norms was also evident here with boys censoring their views before sharing them with girls or the teacher, knowing that they would be perceived as sexist and offensive. For instance, when a boys’ group was asked to feed back their answers from a work sheet they read ‘Boys like girls with nice personalities’ instead of what they had written: ‘Boys like girls with big tits’. This example also illustrates young people’s difficulties in finding socially acceptable vocabulary to discuss sexual desire in classroom settings.

The classroom itself is a highly salient social context for students, and their relationships with classmates and teachers regulate their participation in any educational programme. Feedback data revealed how aware students were of the operation of these normative influences on their behaviour, including self and group censorship, and the boys could reflect on how they presented themselves differently according to whether they were with other boys, with girls in class or alone with their girlfriends. They noted, for example, that:

B3: You’re mair (more) Jack the Lad kind of thing [in the class], ken (you know). You’d speak, like, just yourself with your bird.

and

B4: You’d show respect to your girlfriend, ken, or you’d get a slap in the chops... Not that you wouldnae respect the lassies in the class but... You’d open out more to girlfriends than to the class.

In the revised SHARE pack the first four sessions employed single-sex groups but after lesson four classes were divided into mixed groups to which students were allocated by the teacher (to avoid speculation about self-chosen membership indicating sexual attraction). Our feedback data supported the use of mixed-sex groups suggesting that:

(1) Boys worked better in small mixed groups (typically two girls, two boys) because they were partially liberated from defensive masculine norms which dominated discourse in the all-male groups, allowing them to question the predominant norms of gendered sexuality.

(2) Boys worked better in mixed groups because in general the girls were more willing to apply themselves to the programme exercises.

(3) Participants sometimes became involved and interested in opposite gender perspectives through discussing issues with the opposite sex.

Questionnaire data revealed that three quarters of both girls and boys liked working in these mixed groups. Girls observed that:

It was good. Sometimes it was really funny. The boys opened up a little and you found that some of them had a sensitive side to their personality.

and

I think that this was a great idea! You learn more about the type of people boys are and how they feel. It’s better than getting just one sex’s view.

Moreover, half the respondents reported that they now felt more confident to talk about sex with the opposite sex than they had done before the course.

The course has made me more confident about talking about sex. I honestly think I could talk to the opposite sex about sex now. I don’t think I would have been able to before the course, though.

This is important because communication between partners about STI risk and condom use is a powerful predictor of contraceptive and STI protection (Sheeran et al., 1991; Catania et al., 1994; Sheeran et al., 1999). Therefore, to the extent that the programme can engender mixed-sex discourses and enhance self-efficacy in relation to discussion of sexual matters, it is laying the foundations for the social skills necessary to ensure safer sex in the future.

The problem of sexual inexperience

The SHARE programme has been criticized for not targeting younger school students. However, pilot work emphasized difficulties in utilizing research-
based ideas with 13–15 year olds because of their lack of experience of romantic and sexual relationships.

Research has highlighted the imbalance of power that can exist in heterosexual relationships. In extreme circumstances imbalances in physical strength may be important but the disempowerment of women more usually occurs through acceptance of different norms for feminine and masculine behaviour [e.g. (Cowie and Lees, 1981; Holland et al., 1992; Abraham et al., 1996)]. The SHARE programme addressed this by attempting to modify these norms, as well as enhancing young women’s perceived control over sexual encounters which may be critical to young women’s safer sexual behaviour (Goldman and Harlow, 1993; Kelly et al., 1994). Initially four lessons were devoted to discussions about: the gendered construction of sexuality (e.g. ‘Is it true that once aroused boys/ men have to have sex?’); gender differences in sexual expectations and pressures; dominant images of women and men (e.g. ‘nice’ girls and ‘slags’, ‘tough’ guys and ‘wimps’) and their effect on young people, and, finally, the way power operates within sexual encounters. The last topic involved analyses of their own experiences and of a range of vignettes, and an introduction to the concept of a consent continuum.

Phenomenological analysis has revealed conscious and unconscious patterns of interaction inherent in romantic and sexual negotiation, highlighting, for example, the way partners strive to maintain ambiguity about their sexual intentions in the early stages of a relationship or encounter (Kent and Davies, 1993) [see (Wight et al., 1999) for further discussion]. The SHARE programme sought to make students more aware of the kind of interaction that occurs in sexual encounters and to enhance their ability to identify situations in which they might take sexual risks. In the first version of the pack five sessions included exercises designed to enhance pupils’ skills to deal with such situations, for instance by anticipating those factors that make a situation more risky (e.g. drunkenness, not having previously discussed sex), reflecting on the assumptions underlying sexual interactions (through studying various vignettes) and rehearsing different ways to respond (largely through structured role-plays).

In pilot work these lessons addressing power and interactions in sexual encounters proved to be some of the least successful. Instead of lively debates, researchers observed long silences, with the teachers coaxing contributions from one or two more articulate pupils. Some boys disputed masculine stereotypes and a few girls drew on experiences with older boyfriends to confirm them, but many students did not participate and small group work tended to degenerate into non-work discussion.

There were several reasons why the exercises did not work well, including pupils’ unfamiliarity with this kind of analysis and their wish to avoid disclosing details of their own relationships. The main problem, however, was the pupils’ lack of experience of sexual relationships. In line with national statistics (Johnson et al., 1994), a minority of girls had had relevant romantic/sexual encounters and very few of the boys had any relevant experience. Consequently, students failed to identify with the vignettes and/or found them alien because they contradicted their expectations of future romantic and sexual relationships.

The solution adopted in the revised pack was to provide surrogate experience of sexual negotiation, to focus on concrete scenarios and to accept that some of the analysis of gendered power relationships could not be achieved within SHARE’s classroom constraints. The pack now contains detailed, authentic transcripts of interactions and analyses of their own experiences and of a range of vignettes, and an introduction to the concept of a consent continuum. The video allows sequences of interaction to be presented in detail with pauses for questions to prompt students to analyse the situation. It features Scottish teenagers, and was piloted and
re-made with new scenarios, backgrounds and scripts on the basis of young people’s feedback. Similar video materials have been used successfully in other classroom-based sex education programmes [e.g. (Schaalma et al., 1996)].

Evaluation of the second pilot revealed a marked improvement in participation using these methods, and demonstrated that with detailed concrete illustrations and structured discussion slots 13–15 year old teenagers were able to analyse romantic/sexual interaction in classroom settings. These analyses may fall short of current social science theory but they nevertheless involve consideration of the problems created by unspoken expectations and the conflicts of interests which can arise between young men and women in romantic/sexual relationships. Moreover, evidence suggests that observation and analysis of personally relevant scenarios involving key decisions concerning the management of sexual desire and safer sex is likely to prompt cognitive preparation for the effective management of romantic/sexual encounters. Analysis and argument is likely to challenge and change attitudes (Petty and Cacioppo, 1986). Observations of others’ actions may change normative beliefs and enhance self-efficacy through social modelling and persuasion (Bandura, 1998), and, in doing so, is likely to prompt protective intention formation (Ajzen and Madden, 1986).

**Practice in negotiating sexual encounters**

The revisions discussed above concern enhancing students’ confidence in talking to one another about romantic/sexual behaviour and promoting reflection on the social norms and expectations shaping heterosexual relationships. SHARE also aimed to familiarize students with the detailed social scripts inherent in sexual encounters (Miller et al., 1993), and to provide them with specific verbal and cognitive skills which would increase their control over such scripts [see (Schinke and Gordon, 1992; Kelly et al., 1994)].

The initial programme employed progressively demanding role-play exercises to sensitize students to the dynamics of unfolding scripts and to practice responses which would allow them to make personal decisions. In the first year of the programme, two sessions explored negotiation difficulties and used role-plays to develop confidence in dismissing pressure from others and asserting one’s own intentions. In the second year one session focused on anticipating sexual risk-taking from situational cues while another addressed the issue of power in heterosexual relationships, and sought both to develop resistance skills and establish the unacceptability of exerting sexual pressure.

The first pilot revealed that both teachers and pupils had great difficulties with role-play exercises. Even one of the simplest, saying ‘No’ in word and body language to verbal pressure to do something sexual, was engaged in with hilarity and little indication that participants felt it might relate to their own lives. Role-plays providing practice in safer sex negotiation rarely worked well with students lacking the imagination to think of useful lines, or, more often, not taking the exercise seriously and disrupting it or refusing to take part. Teachers found it extremely difficult to rectify these problems, even though they had practised these exercises in the teacher training course. It is possible that this training was too brief, but an important underlying problem was the embarrassment pupils felt at having to improvise sexual roles in class and under peer surveillance. The anticipated interpersonal consequences of having one’s words and actions attributed to oneself rather than one’s character inhibited acting-the-part and reflecting on the scripts in the abstract. Thus the classroom context rendered the roles too risky.

In an attempt to reduce the sense of personal involvement much more structured exercises were introduced. Some of these were based on Barth’s *Reducing the Risk* (Barth, 1989) which had been evaluated as effective in the US (Kirby et al., 1991). In Scottish schools, however, the repetition of lines involved was treated with derision, even by co-operative classes and they had to be abandoned. This may reflect cultural differences in students’ expectations of teaching methods.

The solution was again to rely on observation
of interaction sequences on video and to stop these sequences to discuss how well the characters handled the situations, and what they should have said and done differently. This may be less involving than practising the interactive sequences but the cognitive rehearsal of negotiation and situation management should prompt planning in relation to negotiation, develop ready-made responses for asserting control, and develop an awareness of potentially upsetting and dangerous scripts. In other contexts social modelling and action planning have been shown to increase self-efficacy, to make it more likely that people will act on their intentions and to enable people to attempt previously feared actions (Bandura, 1992, 1997; Gollwitzer, 1993).

The video scenarios include ‘good practice’ endings so that students can observe characters acting competently and effectively. They also highlight social settings in which decisions need to be made and specific actions taken. These scenarios include young women refusing sex and insisting on condom use as well as joint planning of safer sex. When these scenario-based exercises were piloted in schools they worked well, sometimes prompting absorbing discussion which had to be time-limited by teachers.

**Practice in getting and using condoms**

Since behaviour-specific cognitions and practice are most likely to be effective (Wight et al., 1998), SHARE sought to introduce students to getting and handling condoms. It was anticipated that appropriate exercises would encourage positive attitudes towards condom carrying and use, enhance condom-related self-efficacy, and reduce anticipated embarrassment in relation to acquiring condoms. All these cognitions have been shown to be reliably correlated with condom use across studies (Boyd and Wandersman, 1991; Mahoney et al., 1995; Bryan et al., 1996; Sheeran et al., 1999).

Initial contacts with educationalists about condom-related exercises were discouraging, however; suggesting that condom-related exercises would be unacceptable in the culture of Scottish schools (Wight and Scott, 1994). For example, in spite of regional guidelines suggesting that school health education should develop skills enabling students to protect themselves against STIs if they engage in penetrative sex, one important education official wrote:

> Your proposals...about using a carrot/banana to learn correct use of condoms would not be acceptable to head teachers, parents, school boards, etc., and I don’t think that in any case many teachers would be prepared to do this.

Despite this opposition, the research team considered that enhancing condom handling self-efficacy was essential to an effective intervention, and so we pursued this objective at the risk of compromising the acceptability and replicability of the programme. For instance, Roman Catholic schools implied that condom handling lessons were unacceptable, which confirmed our view that the programme could not be tailored to meet their requirements.

One session near the end of the SHARE pack was devoted to learning how to obtain condom and practising correct use. This emerged as one of the most successful in the pack, receiving much teacher praise and requiring virtually no modification. This was confirmed in the second pilot. During recruitment for the randomized controlled trial 48 schools were approached and neither the 25 which eventually participated nor those that declined mentioned the condom handling exercise SHARE sought to introduce students to getting and handling condoms. It was anticipated that appropriate exercises would encourage positive attitudes towards condom carrying and use, enhance condom-related self-efficacy, and reduce anticipated embarrassment in relation to acquiring condoms. All these cognitions have been shown to be reliably correlated with condom use across studies (Boyd and Wandersman, 1991; Mahoney et al., 1995; Bryan et al., 1996; Sheeran et al., 1999).

Initial contacts with educationalists about condom-related exercises were discouraging, however; suggesting that condom-related exercises would be
third factor was the \textit{SHARE} teacher training which
gave teachers confidence to deliver the exercise
without fear of embarrassment or pupil disruption.
All three factors can be considered elements of
the ‘linkage system’ that has to bridge the gap
between innovation development and programme
diffusion (Orlandi \textit{et al.}, 1990). However, the
adoption of the condom exercise despite earlier
opposition suggests that clear explanation, ease of
use, testability and good social relations in the
classroom are more important factors for its dif-
fusion than compatibility with prior beliefs, being
risk-free or not requiring commitment [see
(Oldenburg \textit{et al.}, 1997)].

Despite being able to demonstrate correct con-
dom use in the classroom, however, homework
ces exercises to acquire condoms were not deemed
acceptable, primarily because they would be seen
to assume that students were sexually active. In
the authors’ view this is a missed opportunity.
Embarrassment in acquiring condoms is associated
with non-use (Boyd and Wandersman, 1991;
Shearan \textit{et al.}, 1999) and promoting safer sex
involves facilitating condom acquisition. Providing
young people with an excuse to buy, borrow
or pick up condoms which minimizes personal
embarrassment (i.e. ‘I had to do it for my home-
work’) is an ideal way to encourage them to
practice these skills. Having succeeded, barriers to
acquisition and carrying are likely to be reduced
in the future. Instead of condom acquisition home-
work, \textit{SHARE} relies on informing students where
they can acquire condoms, and on observational
learning through video sequences showing young
people acquiring condoms at a clinic, carrying
condoms and borrowing condoms from their
friends. The pack also encourages schools to take
classes to local clinics or drop-in centres, but
timetabling and cost considerations meant that this
was only included as an optional extension
exercise.

\section*{Conclusions}

Although research-based interventions are widely
called for, the process of developing practical and
sustainable programmes involves acknowledging
the socio-cultural context in which they are to take
place. Pilot programmes based on social science
theories and previous research have to be adapted
to the specific constraints of the target group,
the setting and the concerns of the professionals
involved. This is likely to mean compromising
some of the principles underlying the development
of the intervention.

Clear messages focusing on behaviour-specific
cognitive preparation rather than whole-person
development and the standardization required by
rigorous evaluation may not be approved of by all
health promoters. The credibility of the pro-
gramme’s authors and sponsors may be critical if
teachers and schools are to accept these potentially
controversial proposals, illustrating the crucial role
of ‘link agents’ (Orlandi \textit{et al.}, 1990).

Same sex discourses on sexual relations tend to
dominate teenagers’ consideration of relationships
and they may have little experience of discussing
sexual matters with members of the opposite sex.
\textit{SHARE} pilot work suggests that small mixed-sex
groups are the best context for developing sexual
discussion skills partly because they can liberate
young men and women from the normative rules
of same sex discourses.

Safer sexual behaviour may be self-perpetuating
(Richard and Van der Pligt, 1991; Ku \textit{et al.}, 1992;
Abraham \textit{et al.}, 1996) because having managed
the tasks involved planning competence and self-
efficacy increase. This recommends early interven-
tion which challenges educators to develop mat-
erials which help students with very little relevant
experience to manage relationships and sexual
encounters. Detailed illustrative scenarios and
accounts of other young people’s experiences may
help inexperienced students consider concrete
aspects of sexual negotiation. Trigger videos which
stop the action to allow discussion of how well
characters have handled the situation and what they
should and should not do next can be especially
effective in prompting specific planning and the
rehearsal of verbal strategies. This approach was
found to be more effective than involving inexperi-
enced students in face-to-face role-plays in the classroom.

It is worth noting that progress towards the acceptance of young people’s sexuality has allowed condom handling skills and correct use to be practised in Scottish classrooms. Nevertheless, reservations still rule out the acquisition of condoms for homework, despite the importance of acquisition embarrassment in discouraging consistent use. Public education may overcome such resistance by stressing the need for young people to develop STI-preventive skills while they are still at school. More generally, the careful development of research-based interventions and their subsequent evaluation should provide evidence to convince sceptics of the value of such programmes.

Overall, this process of developing an intervention largely, but not entirely, met the four principles underpinning the project from the start. First, it resulted in a theoretically informed programme, but this was tempered by the practical requirements of the classroom and concerns of teachers. Second, many excellent existing sex education materials were incorporated into the programme, although the research requirement to standardize delivery to allow rigorous evaluation runs counter to recommended sex education practice. This third principle, concerning standardization, can be met if the programme is delivered as written, and, fourth, if resources for training are forthcoming, SHARE should be sufficiently practical, and suitably attuned to teachers’ educational philosophy, to be replicable and sustained within schools.

Acknowledgements

The authors would like to thank the Health Education Board for Scotland (HEBS) who funded the development of SHARE and the Medical Research Council who are funding the randomized controlled trial.

Notes

1. Knowing the Score was produced and directed by Charles Abraham and Sandy Reid. It employs a scenario-based, stop-and-discuss format involving teenage actors which was successfully used in the Dutch Long Live Love video package (Schaalma et al., 1996)

References


BMA Foundation for AIDS, Health Education Authority and Sex Education Forum (1997) Using Effectiveness Research...
from psycho-social theory to sustainable classroom practice


D. Wight and C. Abraham

Columbus, OH.
Tayside Region Education Department (1993) Putting People First: A Policy Statement and Guidelines for Health Education and Health Promotion in the Context of Personal and Social Education. Tayside Regional Council, Dundee.

Received on September 11, 1998; accepted on March 15, 1999