A series of community-level trials undertaken in the United States over the past 10 years established the effectiveness of an HIV prevention intervention that systematically identifies, recruits, trains, and engages the popular opinion leaders (POLs) of a population to serve as behaviour change endorsers. Recently, several investigators reported unsuccessful attempts to implement peer education programmes for men who have sex with men in the United Kingdom and raised questions about whether peer-based programmes are effective or feasible. However, POL is a theory-based and very specialized intervention, and the UK peer education programmes did not incorporate many of POL's core or essential elements. Consequently, they were not evaluations of POL. In this article, core elements of the popular opinion leader model are presented; interpretations are made of possible reasons for the discrepant findings of the UK peer education and US POL interventions; and practical issues for applied programme development are discussed.

Introduction

Community-level interventions that can reduce the prevalence of high-risk sexual behaviours in vulnerable populations are essential in our efforts to prevent HIV transmission (Kelly, 1999). One type of community-level programme shown to be effective in the research literature is known as the ‘popular opinion leader’ (POL) approach. POL uses ethnographic techniques to systematically identify popular and socially influential members of the target population, recruits and trains these popular individuals in how to communicate HIV risk reduction endorsement messages to peers during everyday conversations, and works with them to sustain their HIV prevention advocacy activities. Grounded in social diffusion theory (Rogers, 1983), this intervention model is based on the premise that behaviour change in a
population can be initiated and then will ‘diffuse’ to others if enough natural and influential opinion leaders within the population visibly adopt, endorse, and support an innovative behaviour. In essence, opinion leaders shape changes in safer sex norms to make it easier for others to initiate and maintain risk reduction behaviour changes. In the case of HIV prevention, these behaviour changes include condom use and avoidance of high-risk sexual activities.

Diffusion of innovation theory and the influence of population opinion leaders to establish new behavioural trends have been studied extensively for decades, and programmes based on this approach have also been widely and successfully used within the agricultural, marketing, and community development fields for many years (Rogers, 1983). More recently, opinion leader interventions have been adapted to HIV prevention.

A series of studies has shown that interventions based on the POL model can reduce the prevalence and frequency of high-risk sexual behaviours in populations of men attending gay bars in small US cities, generally by magnitudes of approximately 30% from baseline risk behaviour levels (Kelly et al., 1991, 1992, 1997). The same effects replicated across several different community trials, including one large randomized multi-city trial (Kelly et al., 1997). In this latter trial, there were large population-level reductions in mean frequency of unprotected anal intercourse (from 1.68 occasions in the past 2 months at baseline to 0.59 at 1-year follow-up) and increases in proportion of condom-protected anal intercourse (from 45 to 67%) in large community samples of men attending gay bars where the POL intervention had been conducted. In the trial’s control cities, where AIDS education materials alone were distributed, no behaviour change effects were found. In addition to studies specifically evaluating the POL model, interventions that included the recruitment and training of popular opinion leaders as a programme component have produced similar behaviour change outcomes in a randomized community-level trial with inner-city women (Sikkema et al., 2000), a study with male commercial sex workers (Miller et al., 1998), and in a community intervention with young gay men (Kegeles et al., 1996).

Recently, there have been several reports of peer education programmes for gay men in the United Kingdom that did not yield positive findings with respect to reductions in population-level high-risk sexual behaviour. These included a project undertaken with gay men attending five gyms in London (Elford et al., 2001, 2002b) and a study carried out in gay bars in Glasgow and Edinburgh, Scotland (Flowers et al., 2002). The US studies examined as outcomes any unprotected anal intercourse occurring with male partners in the past 2 months, while the UK studies used outcomes reflecting unprotected behaviour with casual or status-unknown partners during the past 3–12 months. In contrast to positive results found in the US studies, pre- and post-intervention surveys of gym and bar patrons in the UK projects did not show sexual risk behaviour change and the studies’ authors concluded that peer-based programmes were not effective under the circumstances in which they were tested.

Although each UK study extensively cited literature on social diffusion theory (Rogers, 1983) and the popular opinion leader model (Kelly et al., 1991, 1992, 1997) as the basis for its intervention development, neither of the UK studies constitute true or adequate tests of the POL intervention and its conceptual foundations. In the Flowers et al. intervention, a modest number of men and women – such as personnel from an AIDS organization – were paid to serve as part-time outreach workers who distributed written health education materials about sexual health topics including hepatitis B, HIV testing, and HIV risk in bars. The health educators who were hired in these positions had not been identified as popular opinion leaders within the target population. Thus, the study constitutes an evaluation of a limited-scale HIV education outreach programme rather than a test of a social diffusion or POL model. In the Elford et al. study, only a small number of peer educators were trained and remained with the
project, and most reported that their peer contacts consisted of giving brief information about AIDS to others (Elford et al., 2002a,b). Under such circumstances, the absence of significant impact of these programmes on population-level sexual risk behaviour is not surprising.

At the same time, the unsuccessful outcomes of the UK projects, in contrast to those found in prior studies (Kelly et al., 1991, 1992, 1997; Sikkema et al., 2000) are informative because they highlight both conceptual and practical factors that influence whether or not these types of HIV prevention programmes will be effective. This issue is not only of scientific significance but is also of applied importance given the widespread use of peer-based programmes in HIV prevention and in other health promotion campaigns. The purpose of this article is to consider both theoretical and practical issues pertinent to the conduct of peer-based HIV prevention programmes in general and the popular opinion leader-based programmes in particular. We will also consider differences between the UK studies and the POL intervention that may explain the weak effects of the UK projects and some of the difficulties that were encountered in their implementation.

‘Peer education’ is an ill-defined, generic concept. The designation of a programme as being ‘peer education’ is vague, and this label conveys very little information about a programme’s important characteristics, methods, scope, content, and purpose, apart from the fact that persons considered to be ‘like’ members of the target population deliver some type of communications to others. The notion that health messages may have greater credibility when they come from someone who is seen as similar to the ‘receiver’ of the message is logical and attractive. However, one must examine a peer-based programme’s functioning much more closely to determine whether it is likely to have an impact on members of a target population.

Intervention models based on diffusion of innovation principles such as POL are not synonymous with peer education. The POL approach represents a very specific, theoretically based type of peer-based programme. Table 1, prepared for this paper, summarizes core elements critical to the POL model. Core elements of POL relate to: (1) identification and selection of the popular opinion leaders representing different segments of a target population who are trained to deliver risk reduction messages to others; (2) achieving a ‘critical mass’ of

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<th>Table 1. Core elements of the popular opinion leader (POL) model</th>
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<td>1. Intervention is directed to an identifiable target population in well-defined community venues and where the population’s size can be estimated.</td>
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<td>2. Ethnographic techniques are systematically used to identify segments of the target population and to identify those persons who are most popular, well-liked, and trusted by others in each population segment.</td>
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<td>3. Over the life of the programme, 15% of the target population size found in intervention venues are trained as POLs.</td>
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<td>4. The programme teaches POLs skills for initiating HIV risk reduction messages to friends and acquaintances during everyday conversations.</td>
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<td>5. The training programme teaches POLs characteristics of effective behaviour change communication messages targeting risk-related attitudes, norms, intentions, and self-efficacy. In conversations, POLs personally endorse the benefits of safer behaviour and recommend practical steps needed to implement change.</td>
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<td>6. Groups of POLs meeting together weekly in sessions that use instruction, facilitator modeling, and extensive role play exercises to help POLs refine their skills and gain confidence in delivering effective HIV prevention messages to others. Groups are small enough to provide extensive practice opportunities for all POLs to shape their communication skills and create comfort in delivering conversational messages.</td>
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<td>7. POL’s set goals to engage in risk reduction conversations with friends and acquaintances in the target population between weekly sessions.</td>
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<td>8. POL’s conversational outcomes are reviewed, discussed, and reinforced at subsequent training sessions.</td>
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<td>9. LOGOs, symbols, or other devices are used as ‘conversation starters’ between POLs and others.</td>
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POLs that is large enough to establish new norms and behaviours within a community population; (3) developing prevention messages for POLs to deliver to others that are not merely AIDS education but that specifically target critical, theory-based psychosocial determinants of behaviour change that are relevant for the population; (4) using weekly small-group sessions to carefully train and then engage POLs to deliver behaviour change endorsement messages during their naturally occurring conversations with other members of the target population; (5) repeatedly over time inspiring and motivating POLs to maintain their roles as HIV prevention endorsers; and (6) establishing an ongoing programme with enough momentum to establish and sustain safer behaviour as a new social norm and – in fact – as an expanding social movement. The UK projects were not tests of the opinion leader model because they did not employ most of these POL core elements.

**Core elements**

*Identifying popular opinion leaders as peers*

Tests of diffusion of innovation theory (Rogers, 1983) show that new behavioural trends can become established when enough natural, popular, well-liked opinion leaders who are themselves members of the target population are seen by others to have adopted a behavioural innovation, endorse it, and when the modelled behaviour change is perceived by others to be good, fashionable, and beneficial. Opinion leaders are not just peers. Instead, they are those particular members of the target population whose views, attitudes, and behaviour can influence others because of their social standing. Further, any community population – even one seemingly as uniform as men in a particular gay bar or gym – is socially complex and is composed of many different population segments and social networks. Some of these segments can be defined by their sociodemographic characteristics. In our past work with gay bar populations, ethnographic observation revealed that there were identifiable segments inside a club such as younger men and older men, those who danced and those who did not, ethnic majority and ethnic minority men, hustlers, and other groups. Even within a single demographic segment, there are also multiple social networks or groups of people who cluster together. Opinion leaders within one segment are often not the opinion leaders of another segment. Consequently, population-wide behaviour change can be brought about only by identifying and engaging the different opinion leaders from across multiple segments and social network groups, especially those that are most risky.

Various techniques can be used to identify segments of a target population and then to identify the opinion leaders within each segment. These techniques include in-depth field ethnographic observations made by staff trained to identify segments, networks, and social leaders; observations made by gatekeepers, key informants, and others highly and directly knowledgeable of the social segments in venues where the programme will be undertaken; nomination or sociometric methods that ask population members to nominate others in the same population who they most like and trust; using already-identified POLs to help in the identification of other opinion leaders within their social groups; and similar methods. A period of intensive field ethnography is needed to identify population segments and the opinion leaders within the different segments. The critical objective, from the perspective of the social diffusion conceptual underpinnings of the POL model, is not merely to enlist peers but to identify and recruit those specific individuals who are the popular opinion leaders within the multiple social segments comprising the target population. When spoken words of advice concerning HIV prevention and personal examples come from persons who one already knows and likes, the impact of the messages will be stronger.
Achieving a ‘critical mass’ of opinion leaders whose voice can establish a new trend

Social diffusion theory posits, and research on this model has found, that approximately 15% of the members of a community population are opinion leaders or are early adopters of an innovation, and their actions influence others and can shape new behavioural norms (Rogers, 1983). There has not yet been systematic research to determine – in the context of an intervention – how many of these opinion leaders are needed to establish an innovative trend. This is likely to depend on the nature and attractiveness of the innovative behaviour, the communication characteristics of population members, how easy it is for population members to observe the innovation exhibited by POLs, and other factors. However, programmes that identify and train 15% of the target population to deliver prevention messages to others are likely to be most robust and to be consistent with diffusion theory underpinnings.

This requires that, as a critical part of programme planning, one must determine the size of the community population one seeks to reach as part of the development of the intervention and then carry out a POL programme large enough to achieve a critical mass threshold. If one estimates the population size of gay men who were present in a group of London gyms to exceed 2,000 – as it was during the survey periods in the Elford et al. (2001) project – application of the 15% ‘rule’ would argue for the identification, training, and involvement of approximately 300 POLs, not the 27 peers who were trained and retained in the Elford et al. study. In the Flowers et al. (2002) study, back calculations based on baseline survey response rates indicate that about 1,640 men were present in Glasgow gay bars during the 4-week data collection period. The number of peer educators in this project (only 42) fell far short of the number required to initiate a new trend.

In the Kelly et al. (1991, 1992, 1997) projects, the proportion of population members identified, recruited, and trained as POLs was 7–8% of the total number of all men present in the gay bar venues across baseline observation periods. By contrast, the Elford et al. (2001) project engaged only about 1.3% and the Flowers et al. (2002) project only about 2.6% of the baseline venue population size in peer educator roles. Thus, even if the peer educators in both the UK projects had been selected based on the POL characteristics discussed earlier, their numbers did not approach the levels needed to establish new population-level behaviour changes through a diffusion of innovation mechanism. This is borne out by the finding that only 3% of gay men attending the project’s London gyms – the target population in the Elford et al. study – reported at follow-up that they ever had a conversation with a peer educator. With such low levels of intervention exposure, it is impossible to produce or to detect population-level intervention effects. Thus, the UK projects were of too small a scale to expose more than a very tiny proportion of population members to peer-delivered prevention messages. As Elford and colleagues (2002a,b) themselves note, the London gym project reflected not so much an unsuccessful test of an intervention but instead the failure of the planned peer education to even happen.

The delivery by POLs of effective, focused, and theory-based messages that target relevant psychosocial determinants of risk behaviour change

The term ‘peer educator’ implies that the HIV prevention message being delivered to others is educational or informational in nature. This appears primarily to be what was done with respect to HIV sexual risk in the two UK projects. If a population’s AIDS awareness is very low or knowledge about risk reduction steps is absent, basic educational messages about risk
avoidance are appropriate. However, this is certainly not the case for the vast majority of gay acculturated men in the UK, the United States, and elsewhere in the West. If we know that AIDS awareness and knowledge about risk reduction steps are already high in a population, and if we know that other psychosocial factors are stronger determinants of behaviour change, then intervention messages need to target those other factors. Delivering factual information about HIV and risk reduction steps to people who are already knowledgeable about AIDS is primarily an attempt to educate the already-educated. This is likely to be seen as unnecessary or irrelevant by the recipients of the message (‘Yes, I already know that so why bother me?’) and uninspiring to those called upon to be the peer educators.

Over the past 15 years, a large body of literature has examined psychosocial factors related to the continuation of high-risk behaviour practices or safer sex adoption among gay or bisexual men, as well in many other AIDS-vulnerable populations. Lack of knowledge about AIDS and risk reduction steps rarely appear any longer as robust determinants of sexual safety among MSM. Instead, risk behaviour is more strongly influenced by such psychological factors as an individual’s perceptions about peer and sexual partner norms regarding safer sex, attitudes toward safer sex practices, strength of risk reduction behaviour change intentions, perceived personal vulnerability for contracting HIV, and self-efficacy or confidence in being able to enact safer sex practices, as well as situational and relationship factors (Catania et al., 1990; Fishbein & Ajzen, 1975; Fisher & Fisher, 1996; Kelly, 1995; Kelly et al., 1990).

Prevention messages must focus directly on these determinants. In addition, the HIV epidemic is now over 20 years old. AIDS may be seen as a less salient or immediate threat than in the past, the development of antiretroviral therapies may have reduced the perceived seriousness of AIDS, and some persons may be getting tired of maintaining safer sex. As the epidemic evolves, different prevention messages are needed.

Past research demonstrates that it is possible to teach popular opinion leaders to communicate conversational messages that directly target and are meant to influence the norms, attitudes, perceived personal risk, behaviour change intentions, and self-efficacy of others. In the Kelly et al. (1991, 1992, 1997) projects, POLs were not taught primarily to convey AIDS educational information. Instead, they delivered conversational messages to friends and acquaintances that emphasized safer sex is becoming a socially accepted local norm among gay or bisexual men, identified the benefits and advantages of maintaining safer sex so as to create more positive attitudes, and recommended to others practical ways to enact behaviour changes (such as by carrying and keeping condoms available, avoiding sex after drinking too much, and talking with new or regular partners about one’s safer sex expectations). The Kelly et al. projects also taught POLs, during their conversations with others, to make statements personally endorsing the benefits of risk avoidance behaviour change. Some POLs were themselves safe in their behaviour and they talked with others about the steps they took to remain safe. Other POLs were not as safe in their personal behaviours. They were encouraged to talk with others about changes they were beginning to take, trying to take, or considering taking. Regardless, the POL approach does not train peers to become AIDS educators or outreach workers. Rather, the model enlists already-popular people to personally endorse the value of risk reduction behaviour change to friends or acquaintances in everyday conversation and to talk with others in ways that strengthen risk avoidance norms, attitudes, intentions, and confidence for making change. One factor that may have contributed to the success of the US programmes is that opinion leaders often delivered messages to persons they already knew and by whom they were already well-liked rather than primarily speaking to strangers.
Training and engaging POLs to deliver HIV prevention messages in everyday conversations

Both of the UK reports indicated that it was difficult to engage peers to communicate with others about high-risk practices and safer sex. This may be why the outreach volunteer workers in the Flowers et al. project primarily distributed written materials and discussed nonsensitive topics such as the availability of HIV testing and hepatitis vaccination services, and why Elford et al. noted that peers in their programme primarily gave brief educational messages to others. It is critical not to underestimate the difficulty of training and engaging ordinary people to talk with others in ways that explicitly endorse and recommend safer sex. These are not topics that arise normally in everyday conversation. They are topics that must be introduced and actively initiated by POLs during conversations with others. The conversations involve sexuality and AIDS, sensitive topics for discussion even among friends. Further, a key factor in the success of the POL model is not simply that opinion leaders deliver AIDS factual messages to others, but that their conversations embody characteristics of effective communication and target the psychosocial factors described earlier. This cannot be accomplished without intensive, skills-based training of POLs and without providing ongoing opportunities for opinion leaders to practice, discuss, have further practice, receive support, and resolve difficulties they encounter for acting in these roles.

A key difference between the training approaches used by Kelly et al. (1991, 1992, 1997) and those used in the UK studies involves the way in which peers were taught and assisted to deliver messages to others. Elford et al. used a 1-day peer leader training workshop with only limited follow-up by e-mail or telephone calls to the peer educators after the training. Flowers et al. employed a 2-day training workshop for their outreach volunteers. By contrast, Kelly et al. (1997) trained opinion leaders in small groups of fewer than 20 participants that met together weekly for five 2-h sessions. During the sessions, POLs were taught about characteristics of effective health communication messages and all POLs repeatedly role played examples of the conversations they would have with their friends and acquaintances in everyday life. Like Flowers et al. and Elford et al., we found that many POLs were initially uncomfortable discussing AIDS and explicit aspects of safer sex topics, and many initially preferred messages that provided only basic education. However, our use of group techniques, such as providing examples of conversational messages that target norms, attitudes, intentions, self-efficacy, and the specific endorsement by the POL of safer sex as desirable; modelling of conversations by facilitators of sample or ‘exemplar’ conversations; creating multiple opportunities for each POL to role play in the group session conversations she or he would have; and providing ample feedback and support from group facilitators following each POL’s role play practice shaped participants’ effective communication styles and allowed them to develop not only skills for initiating these conversations in real life but also for overcoming their initial discomfort in doing so. Participants were always encouraged to communicate in styles and with language comfortable and natural to them. However, they were taught to incorporate components of effective and theory-based messages in their conversations regardless of other aspects of their natural style.

The POL training programme format of weekly group sessions was used in the Kelly et al. projects because, as POLs became increasingly skilled and proficient during role played practice conversations, they could then be asked to have real-life conversations with friends between meetings and to report back the results during subsequent group sessions. Such detailed group discussion and attention to the outcomes of each POL’s ongoing peer conversations would not be possible if the training programme was conducted as a ‘one-shot’ session workshop. By adopting an intervention format in which POLs intensively practice conversations during a group meeting, make plans and set goals for talking with others in the
next week, have the conversations in real life, and then are reinforced for their successes and have the opportunity to discuss any problems encountered, POLs are supported in their roles each week.

The sizes of the training workshops in the UK projects was not specified. The Kelly et al. intervention limited each group to no more than 20 participants to ensure that each POL had ample opportunities to role play conversations during each session and to discuss the outcomes of real-life conversations at the next session. Weekly meetings lasting less than 2 h did not require that participants ‘give up’ the one or two full days required for extended workshops, and multiple meetings allowed a sense of both group camaraderie and group support among POLs to develop. The critical ‘active ingredient’ responsible for the impact of the POL intervention is not just the training of opinion leaders. Instead, it is the ongoing quality and number of conversations each opinion leader has with others. The model requires that POLs not be trained once and left alone, but rather that their efforts by reviewed, supported, and maintained over time.

Even under these circumstances, it is still difficult even for socially skilled and popular people to initiate conversations with AIDS prevention endorsement messages, especially in the course of natural interactions. All of the Kelly et al. projects also used environmental cues intended to function as ‘conversation starters’ and to create conversational opportunities for POLs. For example, posters depicting the intentionally ambiguous logo of a traffic light, but with no text or explanation, were placed throughout gay bars in the intervention cities in order to create curiosity in the population about the logo’s meaning. As POLs were ready to begin having conversations, each wore to clubs a small button depicting the same logo. Many POLs were asked by others in the bar venues what was meant by the stoplight logo that had appeared earlier on posters and was now on their buttons. Each time this question was asked, the POL used it as an opportunity to initiate another conversation with the person making the inquiry. This reduced the burden on POLs to spontaneously begin all conversations. Such strategies made it easier for POLs to communicate their HIV prevention messages, and the appearance of a large group of POLs wearing the same logo button subtly but visibly identified the most popular people in the clubs as proponents of safer sex, further strengthening norms that safer behaviour was socially accepted.

Unlike the Flowers et al. (2002) study, POLs in the Kelly et al. projects did not distribute AIDS brochures or other written material. Doing so might take opinion leaders out of their natural leadership roles within their social groups and cause them to function (and be perceived) as professional AIDS outreach workers. Just as importantly, giving someone a brochure is an impersonal act, and it is likely to undermine, limit, or replace opportunities for POLs to engage in the kinds of personal conversations needed for the diffusion process to occur successfully.

Inspiring and motivating POLs to maintain their roles as HIV prevention endorsers

It is difficult to isolate a single factor responsible for inspiring and motivating POLs to take on and then to maintain their HIV prevention endorsement activities. At the time of first contact and recruitment of opinion leaders, it was essential to both gain their trust and also convey that the community truly needed their efforts. We directly told potential POLs at the time of initial contact that they had been identified as the most well-liked and popular people in the club, that this popularity made their words important to others, and that they were therefore in a position to literally save the lives of others in the community. When approached in this way, all persons felt flattered and few potential POLs were not interested in learning more about the programme. We then made it very clear that this was not ‘just another’ AIDS
education programme, that it would not dwell on information they already knew or lead to uncomfortable discussions about their own behaviour, that the programme would teach effective communication skills, and that the person’s natural leadership role could place him or her on the vanguard of efforts to help others in their own community. Although opinion leaders received a modest stipend ($15 or $20) for their time in attending each group training session, they were not paid for having conversations. Doing so would have recast the role of POLs from being opinion leaders into being paid outreach workers and would have altered their altruistic motivations and views of themselves in the projects.

The intervention delivery minimized barriers to participation. Weekly group meeting times were established after polling POLs to determine what days and hours would pose fewest schedule conflicts. If a POL had to miss a session, she or he could attend a ‘make up’ session held before the regular meetings scheduled for the following week. Project field staff attempted to make personal contact with each POL prior to every group meeting and especially when a session had been missed. POL intervention structure, format, and delivery were designed in the Kelly et al. projects to maximize participant interest in the programme, reduce barriers to participation, and allow POLs to gain skills and receive ongoing reinforcement for their activities. These differences may also account for the high participation rates in the Kelly et al. programmes compared to those undertaken in the UK.

Although it is difficult to operationalize, characteristics of persons who facilitate group sessions also play a critical role in the success or failure of the programme. Facilitator knowledge of the programme’s content is insufficient to inspire POL attendance and motivation. Group facilitation skills, the ability to model and then lead participant practice role plays, skill in providing reinforcement and feedback after participant role plays to shape POLs’ development of effective communication skills and messages, and – most of all – the ability to motivate and inspire POL conversational activities with others following sessions are essential considerations when staffing such programmes.

Finally, the Kelly et al. (1991, 1992, 1997) projects and other successful programmes that used POL components (Kegeles et al., 1996; Miller et al., 1998; Sikkema et al., 2000) chose study venues that were primarily social in nature. Gay bars in small US cities, for example, are not so much drinking establishments as they are small social communities that people visit primarily to meet and socialize. Common areas and social events in low-income apartment buildings served a similar function in the Sikkema et al. (2000) project with women. In such settings, conversations – including talk about personal topics – naturally take place, and the venues were logical and appropriate settings for POLs to talk with their friends and acquaintances. POL conversations that could naturally and normally emerge in community social settings may be out-of-place, awkward, and unnatural when attempted by peer educators in exercise gyms – where many people go primarily to work out – or in large-city bars, oriented to drinking and partner-seeking.

Establish programme momentum and impact

One of the lessons learned in all areas of health promotion, as well as the specific field of HIV prevention, is that brief intervention programmes usually produce few effects or have only brief effects. An intervention intended to produce population-level behaviour change must be substantial enough to repeatedly expose most population members to it and must be sustained enough to create enduring changes in norms and behaviour. In our view of POL programmes, the objective is not merely to expose population members to a prevention message from a peer. Rather, it is for target population members to hear repeated HIV prevention endorsement messages, many times and in different words, from multiple popular opinion
leaders in their own circles of friends. This process is needed to create durable changes in behaviour. Follow-up evaluations in cities where the POL intervention was undertaken in gay bar settings have shown maintenance of population-wide reductions in high-risk behaviour for between 1 and 3 years post-intervention (Kelly et al., 1997; St. Lawrence et al., 1994). We have also found, at follow-up, correlations between higher number of HIV prevention endorsement messages ‘received’ with lower levels of respondent risk behaviour, indicating the presence of a dose – response relationship between message exposure and safer behaviour (Kelly et al., 1991).

Our research projects that have used the POL intervention model have not engaged and trained only a single ‘wave’ of opinion leaders. Instead, one wave of POLs proceeds through training and is then followed by a successive wave of newly identified opinion leaders who also complete training and function to reinforce or sustain the messages of the first wave (Kelly et al., 1991, 1992, 1997). Further, one can conceive of an ideal process not just as two successive waves of POLs being recruited and trained, but as multiple waves of new POL groups continually being identified, recruited, trained, and enlisted in the project until the 15% threshold of population members trained as POLs has been reached. In addition, regular ongoing ‘reunion’ or booster sessions – attended together by all ‘graduates’ of earlier POL training waves – can maintain momentum, continue their motivation, and sustain the efforts of POLs in creating social environments in which safer behaviour is an accepted norm. In this way, the objective of intervention is not to produce a brief period of peer outreach contacts but instead to create a social movement, initiated by the opinion leaders within an at-risk community population, that supports safer sex behaviour norms.

Elford et al. (2002b) note that their London gym peer education programme required considerable staff effort and time. Yet, it is unrealistic to believe that successful, large-scale, community-level HIV prevention programmes can be carried out without reasonable staffing or that low-exposure education programmes will have great impact. Interventions that are not robust enough to produce behaviour change effects can never be cost-effective. At the same time, and with populations whose risk behaviour and HIV-vulnerability are high, the POL model has been shown highly cost-effective in averting HIV infections (Pinkerton et al., 1998).

A final and critical issue for applied programme planning is that the POL interventions carried out in the US were successfully implemented while the UK programmes never succeeded in recruiting and maintaining the involvement of an adequate cohort of peers. Therefore – and apart from the many critical differences in concept, methods, peer selection, and training procedures that make the US and UK projects tests of very different interventions – the UK programmes themselves never achieved the scale or momentum needed to impact on population risk behaviour. It has been suggested by the UK investigators that interventions effective in the United States may – for unknown reasons – not be effective in the United Kingdom (Elford et al., 2002a,b; Flowers et al., 2002). It is difficult to draw this conclusion when the core elements and procedures of the US POL and the UK peer education programmes were so different. However, the implementation difficulties encountered in the UK projects underscore the importance of designing programmes, procedures, and methods with substantial community input that meets the goals, needs, and preferences of the community with which one hopes to work.

In previous articles, we have discussed a process in which HIV prevention interventions – including POL – shown effective in the research literature can be successfully adopted by service providers that wish to carry out the same evidence-based programmes in their own communities (Kelly et al., 2000a,b). We have suggested that interventions be conceptualized in terms of their core elements or the characteristics deemed essential based on theory or
practice to be essential to the success of the approach. POL’s core elements are summarized in Table 1. It is important that efforts to replicate an intervention maintain fidelity to its core elements and also essential details of its procedures. While maintaining fidelity to these procedural details and core elements, interventions must also be tailored and adapted, especially when undertaken with populations, in settings, or in countries or cultures different from those where the intervention was first found to be successful. The UK projects did not incorporate many core elements of POL. At the same time, these projects may also have failed to tailor their interventions in other ways to meet the needs or circumstances of the target population. For example, one could argue that POL – because of its reliance on natural conversational interactions – is not the most appropriate intervention model for MSM working out in London gyms but might be better suited to social and conversational venues such as coffee houses frequented by young MSM.

Finally, the POL intervention tested in the United States was carried out in gay community venues of small cities (Kelly et al., 1991, 1992, 1997) and, later, for women who lived in low-income housing apartment buildings (Sikkema et al., 2000). These programmes were directed toward relatively small target populations in well-defined venues both because it was possible to ensure high intervention exposure and also because it was possible to reliably measure population-level behaviour change. If directed toward a much larger target population such as the entire gay community of a large city, the scale and scope of intervention must be much greater to achieve comparable exposure. However, it may be difficult – on a practical basis – to orchestrate intervention activities needed to reach the many different venues, population segments, and social networks that compose a large community population. These groups may vary in the riskiness of their behaviour and their normative perceptions about safer sex or even talking about condoms. Under such circumstances, it may prove more feasible, appropriate, and cost-effective to focus intervention activities on smaller population segments, or social networks at highest risk that can be feasibly reached in a more limited number of community venues.

Conclusion

Identifying an HIV prevention programme as ‘peer education’ says very little about the programme’s content, methods, scope, theoretical basis, implementation challenges, and expected impact on population risk behaviour. ‘Popular opinion leader’ and ‘peer education’ programme descriptions are not synonymous or interchangeable. POL is a very specific form of HIV prevention with core elements that are derived from social diffusion theory and with intervention procedures based on that theory as well as the research literature on effective communication messages and behaviour change processes. An appealing characteristic of the POL model is the intuitive and common sense nature of the approach and its potential cross-cultural applicability. However, this intuitive appeal does not minimize the importance of very carefully planning POL interventions that maintain fidelity to the model’s conceptual core components and of conducting interventions in ways that are successful on a practical level.

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