HEALTH EDUCATION RESEARCH
Theory & Practice

Vol.8 no.1 1993
Pages 19–34

Safer sex maintenance and reduction of unsafe sex among homosexually active men: a new therapeutic approach

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Abstract

To date, publicly funded HIV/AIDS prevention efforts for homosexually active men have largely been limited to two traditional public health strategies: mass media information campaigns and HIV testing/contact notification programs. Health educators using either of these strategies have addressed the spread of HIV as they would many other infectious diseases and have relied heavily upon fear tactics or moral arguments to 'sell' the concept of safer sex. Grass-roots gay community efforts to prevent HIV transmission have also largely relied upon these two strategies, as well as upon more informal individual and group counseling activities. In general, however, strategies used by the gay community have tried to present more positive approaches to AIDS prevention, including eroticizing safer sex practices. This article reviews the efficacy of traditional public health approaches as well as the educational models underlying them, and argues that a major shift in focus is needed. A comprehensive health care and sexuality education model for homosexually active men based on the 'PLISSIST' sex therapy model is described and advocated. This model is presented as a more useful one for identifying populations at risk, reducing unsafe sexual behavior and promoting safer sex maintenance. The model identifies five sub-populations among homosexually active men and recommends specialized interventions appropriate to each. Adequate funding for the services included in this model is also advocated.

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Introduction

To date, HIV/AIDS prevention efforts for homosexually active men have largely been limited to two traditional public health strategies: mass media information campaigns and HIV testing/contact notification programs. Health educators using either of these strategies have addressed the spread of HIV as they would many other infectious diseases and have relied heavily upon fear tactics or moral arguments to 'sell' the concept of safer sex.

Grass-roots gay community efforts to prevent HIV transmission have also largely relied upon these two strategies, as well as upon informal individual and group counseling activities. In general, however, strategies used by the gay community have tried to present more positive approaches to AIDS prevention, including eroticizing safer sex practices. Due to funding and political constraints, public health agencies charged with HIV/AIDS prevention have chosen to or been forced to reject this method of 'marketing' safer sex.

This article begins by examining and critiquing the strategies employed in traditional AIDS prevention and education campaigns to date. The second half of the paper advances an alternative model of HIV prevention, one founded upon the principles of sex therapy and counseling, and based in empirical findings of the effects of AIDS prevention efforts to date. While acknowledging the wide application this model has for the general population and for other groups identified as being at increased risk for HIV, this article limits discussion of the implementation

of this model to providing services for homosexually active men.

In this article, the term 'gay' is used when referring to the self-descriptor denoting individuals who identify themselves with the homosexual/gay community, while 'homosexually active' is used to refer to men who engage in sexual activity with other men, regardless of how they identify themselves. Similarly, 'grass-roots' and 'gay community' efforts to prevent HIV transmission are distinguished in this article from 'traditional public health approaches'. While such a distinction is at times overly broad, it is used here as a way of differentiating among smaller scale education efforts produced within and for the gay community and larger scale, more traditionally-based prevention efforts produced by public health agencies.

Health care context of AIDS prevention among homosexually active men

The successes and failures of efforts to prevent the spread of HIV among homosexually active men are best understood within the historical context of health care for homosexuals. This context sheds light on both the apparent success of prevention programs for a majority of gay men and their failure for a significant minority of homosexually active men.

Gay men have adopted and maintained safer sex behavior patterns far more readily and completely than heterosexually active men or women (Juran, 1989). This finding is complicated, however, by reports of a significant sub-population of homosexually active men who resist adoption and maintenance of safer sex practices. The needs of this sub-population are given special emphasis in the new therapeutic approach described in this article.

Studies of behavior of homosexually active men and women since 1984 (when AIDS awareness became widespread) suggest that education efforts have been mixed in their efficacy (Juran, 1989). By contrast, studies among gay men in Western cultures have repeatedly yielded reports that 70–80% of study populations practice safer sex (Stall *et al.*, 1988; National Research Council, 1989; Communication Technologies, 1990). This pattern of adoption and maintenance of safer sex behavior appears widespread and is particularly marked among populations of gay men in large urban areas with high AIDS prevalence, such as San Francisco and New York City (Becker and Joseph, 1988). The National Research Council (1989, p. 136) concluded in 1989 that "eight years into the AIDS epidemic, oral sex without the exchange of semen, abstinence from all types of anal sex, and the use of condoms [for] anal intercourse appears to characterize male homosexual behavior in major metropolitan areas".

Whether the disproportionate rate of modifying sexual behavior is due, as some have suggested, to the personal impact and devastation AIDS has caused in the gay community or to the effectiveness of grass-roots gay-produced, gay-targeted materials cannot readily be ascertained (Cohen, 1991). However, the apparent success of safer sex education among most gay men is particularly heartening, given the historical context of health care for homosexually active men.

Historically, in Western cultures, homosexually active men have received poorer health care than heterosexual men, as a direct result of their sexual orientation (Ross, 1985). Homosexuality itself, as a diagnostic label, was 'de-pathologized' only 20 years ago (American Psychiatric Association, 1973). Aggressively anti-homosexual stigmatization by medical and psychiatric services—including chemical, neurosurgical and aversion 'therapies' for homosexual orientation—has left a harmful legacy. Prior to the AIDS epidemic, less than 50% of openly homosexual men in the US reported they would share their sexual preference with the primary health-care provider (Dardick and Grady, 1980). In Australia, over 20% of gay men presenting with sexually transmissible diseases indicated they would not reveal to their attending practitioner that the infection was homosexually acquired (Ross, 1981). Three-quarters of a sample of 1000 US doctors indicated that knowing a patient was homosexual would adversely affect their medical management (Pauly and Goldstein, 1970), while in 1980, 84% of American physicians agreed that homosexual patients hesitated to seek medical care because of physician disapproval (Sandholzer, 1980).

Placing these findings within the context of the 'sexual revolution' and 'drug culture' of the 1960s and 1970s, and the gay liberation movement of the 1970s, all of which promoted sexual exploration and license, it is hardly surprising that, prior to AIDS, homosexually active men had significantly higher rates of sexually transmissible diseases (Ostrow and Altman, 1983; Ross, 1986). What psychological services were available for homosexually active men appear to have been limited to sexual orientation modification, a practice now rejected by authorities (Coleman, 1978; Gonsiorek, 1988) as "unscientific, unjustified, unethical and psychologically scarring" (Coleman and Remafedi, 1989).

This lack of access to comprehensive health services for homosexually active men not only tragically set the stage for the rapid transmission of HIV/AIDS, but also has limited the efficacy of traditional approaches to prevention and control of epidemic disease. As Shilts (1987) documents in his history of the AIDS epidemic in America, the rapid early spread of HIV among homosexual populations was exacerbated by the fear, distrust and anger homosexually active men felt toward the medical establishment, and the indifference and stigmatization that characterized the medical establishment's response. Paradoxically, that same mistrust may have built a closeness and sense of community among openly-identified gays that facilitated the eventual adoption of safer sex norms (Cohen, 1991; Rosser, 1991a).

A significant proportion of homosexually active men, particularly younger men and men who do not identify themselves as 'gay', continue to practice unsafe sex. The National Research Council, in summarizing findings from the San Francisco Men's Health Study, warned that roughly 3.5% of that large study population continue to report engaging in unprotected anal intercourse (National Research Council, 1990). Other studies of homosexually active men who have practiced safer sex in the past show 'relapse' (to unsafe sex) rates as high as 40% (Kelly *et al.*, 1991). New and innovative approaches to HIV/AIDS prevention are urgently needed to assist these sub-populations of homosexually active men to modify their behavior. As Ross and Herbert (1987, p. 280) note,

> What is now needed urgently is a second-generation educational programme which is research-based and utilizes empirical data to attempt to motivate and to promote behavior change. Further expenditure on education alone without an adequate research base cannot reach a significantly greater number of individuals.

The need for active research into preventive programs which will motivate the practice of previously understood 'safer sex' guidelines is demonstrated and is undoubtedly urgent.

Models of HIV/AIDS risk education

In Western countries, AIDS prevention initiatives have employed two very different models in approaching safer sex education: the risk group model and the risk behavior model.

The risk group model is an epidemiological model that has most often been employed to distinguish between education targeting the general community, and education targeting specific 'risk groups' (see Table 1). While this model has a number of advantages, it perpetuates the myth that the behavior of homosexually active men is qualitatively different from that of other people, and has blurred the distinction between identity and behavior.

Table 1. *The risk group model*

The Stated Risk Groups: (Out-groups)	
?	Homosexual Bisexual males Intravenous drug users Haitian
'Innocent'	Hemophiliacs Blood transfusion recipients Heterosexual partners Unclassified
Implied Non-Risk Groups: (In-groups)	
	Heterosexuals Non-intravenous drug users Non-Haitians, etc.
Advantages:	Labels clearly High face validity
Disadvantages:	Defines HIV/AIDS as 'their' problem, i.e. identifies out-group with HIV and distances in-group from HIV Person must change WHO they are *NOT* what they do to become safe/be at risk Reinforces prejudice and stereotypes, e.g. homophobia

For example, in a four-country comparison study, Ross (1985, 1986) found that anal intercourse occurred only in about one-third of homosexual encounters. Although anal intercourse is stereotyped as 'gay sex', Bolling (1977) found prior to AIDS that one in 12 women regularly engaged in anal intercourse. The labelling of unprotected anal intercourse between men as 'homosexual transmission' is an outcome of this model, as is the question, "Is HIV/AIDS essentially a gay disease or is it a real threat to the general population?"

Further, by targeting 'risk groups' for special education, this model has by default equated the 'general public' with 'heterosexually active (married) men and women', thus further marginalizing homosexually active men and others identified as 'belonging to risk groups', e.g. prostitutes and intravenous drug users.

An outcome of this approach has been the creation of different HIV/AIDS prevention strategies and emphases for the 'general public' than for the identified risk groups. Gay men have received the message from targeted education programs that it is 'safer sexual behavior, not partner number' that is important to adopt, while as members of the general public, they have simultaneously received the contradictory information that 'monogamy and partner reduction' are the most important concerns.

An alternative model, based on the behavioral sciences and increasingly adopted since 1985, is the risk behavior continuum approach (see Table 2). According to this approach, it is not a person's orientation but their behavior that is the most important factor in HIV/AIDS prevention. A risk behavior approach circumvents the artificial distinctions promoted by the risk-group approach and emphasizes the importance of consistent strategies throughout the population. As such, it requires that all members of the population receive comprehensive sexual education as well as information on the risks of various sexual behaviors.

A criticism of the risk behavior model is that it neglects the context within which risky behavior occurs. So, for example, swimming in and of itself may not be risky, but it becomes a risk behavior when practiced in water with a strong undercurrent. Similarly, unprotected anal and vaginal intercourse are safe from transmitting HIV, but only when practiced between uninfected partners. To be effective, safer sex education needs to address not only the behavioral issues relevant to HIV (and other sexually transmitted diseases) transmission, but also intra-individual, interpersonal and social contextual factors mediating safer sexual behavior.

Table 2. *The risk behavior continuum model*

Low risk behavior	High risk behavior
protected anal sex	unprotected anal sex
using needles not sharing	sharing needles
protected vaginal sex	unprotected vaginal sex
protected oral sex	(?) unprotected oral sex
monomasturbation	
mutual masturbation	(?) ejaculates in mouth
(?) repeated needle stick injury	

Advantages:	Behavioral
	Accurate
	Encourages self-management
Disadvantages:	Involves whole community
	Requires explicit facing of sensitive issues
	Difficult to place some behaviors, e.g. oral sex

Strategies of HIV/AIDS prevention education

Early AIDS prevention education evolved from the efforts of grass-roots gay community groups acting out of a sense of concern for their members. Later, such groups often grew into government-funded prevention and social service agencies. As the grass-roots groups education efforts developed, they merged with efforts mounted by traditional public health agencies (Cohen, 1991).

A full review of the variety and effectiveness of grass-roots or gay community strategies for HIV/AIDS prevention is beyond the scope of this article, which concentrates on traditional public health approaches. (For a full discussion of the connection between approaches adopted by gay community health educators and reductions in unsafe sexual behaviors among gay men, see Rosser, 1991a.) In general, however, gay grass-roots efforts adopted sex-positive approaches that associate safer sex with pleasurable sex. Such approaches have been shown to increase favorable attitudes toward condom use

as well as to increase the practice of safer sex among gay and bisexual men (Tanner and Pollack, 1988; D'Eramo *et al.*, 1988; Rosser, 1991a,b)

Traditional strategies of HIV/AIDS prevention education

To date, two strategies have dominated traditional public health initiatives regarding HIV/AIDS prevention: mass media information campaigns and HIV antibody testing/contact notification programs. Practitioners of each of these strategies have utilized, to varying degrees, fear tactics and moral arguments to enhance their effectiveness. To a much lesser extent, erotic appeals have also been used to convey prevention messages, primarily in grass-roots gay community efforts. As will be discussed later, traditional public health practitioners have chosen to or been forced to eschew this very effective method of 'selling' safer sex.

Mass media campaigns

Information and media campaigns are examples of what Freire (1972) terms the 'banking' approach to education, and were among the first AIDS prevention strategies to be utilized. Information campaigns assume that individuals will assimilate or 'deposit' information about HIV/AIDS and 'withdraw' the relevant information when it is needed. Examples of this approach include the 'unsafe, possibly safe and safe sex' lists of sexual behavior (sometimes referred to as the 'traffic light' lists), used in England, Australia, New Zealand and the US, as well as the more comprehensive government leaflets on HIV/AIDS mailed to Australian and US households (Blewett, 1986; Koop, 1988).

Such strategies, combined with the high profile that HIV/AIDS has achieved in the media, appear to have been highly successful at relaying factual information about HIV/AIDS. National surveys show that both the general public (Ross and Carson, 1988; Olsen *et al.*, 1987) and when they have been targeted, ethnic minorities (Ross *et al.*, 1990) are well-informed about AIDS. Typically, rates of 85–90% accurate knowledge on surveys of information about HIV/AIDS and sexual transmission have been reported.

However, the mass media/information campaign strategy fails in three important ways. First, much of the literature has been negative, hampering rather than facilitating constructive behavioral change. Callen (1990) criticizes the presentation of AIDS as invariably fatal for promoting a sense of 'disempowering' hopelessness and self-fulfilling prophesy among those already infected with HIV. Second, 'AIDS education' has been loosely applied to include information about HIV/AIDS, mortality rates, actions of retroviruses, access to testing and counseling facilities, and other information only tangentially related to the central aim of behavior modification. Such information wastes limited resources, distracts from the central aim and may, at times, confuse. Third, and most important, research has consistently shown that information alone is insufficient to motivate behavioral change, especially among the heterosexually active population (Ross and Rosser, 1989). Clearly, more information campaigns are unlikely to be economically and behaviorally effective.

HIV antibody testing and contact tracing

The use of HIV testing as a prevention strategy has been controversial and its effects on behavior modification debated since 1985, when the enzyme-linked immunosorbent assay (ELISA) and Western blot HIV antibody detection tests became available. Based on traditional venereological approaches to disease prevention, advocates argue that the knowledge of one's HIV antibody status is an important determinant in preventing transmission (Kutchinsky, 1988).

However, research evidence for this approach is mixed. Van Griensven *et al.* (1987) found Dutch seropositive homosexual men modified their behavior more than controls who did not know their status, who in turn changed their behavior more than seronegatives. In Vancouver, Willoughby *et al.* (1987) reported a significant decrease in partner number among seropositive, but not seronegative homosexual men. In contrast, McCusker *et al.* (1988) found that US HIV antibody tested, homosexually active men reduced their partner number regardless of test result, while Rosser (1991a), in

investigating both Australian and New Zealand homosexually active men (in cities of low HIV prevalence), found no difference in safer sex between those tested and those not tested.

Rosser also reports, however, that individual counseling such as that at a testing site was significantly effective in increasing safer sex behavior (Rosser, 1990, 1991a). Ross (1988), in a comparative study of the effects of HIV testing and counseling on Australian homosexually active men, assigned volunteers to testing, counseling, testing and counseling, and control conditions. He found that while all groups (including controls) reported significant decreases in risk behaviors, testing combined with counseling led to the greatest decrease, followed by counseling alone, followed by testing. The provision of free condoms at the testing site was also significantly associated with increased condom use.

Critics of serologic testing for HIV as a prevention education strategy emphasize the tests' limitations, including the prolonged 'window period' of detection, the issue of false positives, and the stigmatization, isolation and distress experienced by seropositives (Kutchinsky, 1988). In addition, although research notes short-term changes in sexual behavior as a result of HIV testing, longer term change is necessary for an individual to avoid HIV infection for life. Confidentiality concerns necessitate that where testing is advocated as a prevention strategy and, in particular, where transmission also denotes illegal activity, anonymous testing sites be made available.

Together with testing, partner notification and contact tracing have been used as HIV prevention strategies. While they noted the possible efficacy of voluntary partner notification, Gostin and Curran (1987) cited three objections to aggressive compulsory contact tracing among homosexually active men: decline in attendance at STD and drug dependency centers, futility in areas of high prevalence, and lack of feasibility. They conclude, "The case for contact tracing is strongest in cities and states with a low incidence of HIV infection or where the suspected mode of transmission is heterosexual" (Gostin and Curran, 1987, p. 216).

Tactics used in traditional strategies of HIV prevention

Fear tactics

Fear tactics have often been used to promote healthy behaviors. Health educators employing fear tactics attempt to stem the spread of disease by playing upon an individual's dread of infection and on his or her fear of being perceived as diseased. In his historical review of sexually transmitted disease prevention initiatives, Brandt (1988) notes that such campaigns "emphasized the 'loathesome' and disfiguring aspects of sexually transmitted disease; the most drastic pathological consequences (insanity, paralysis, blindness, and death); as well as the disastrous impact on personal relations."

As an example of this approach, Brandt quotes Margaret Cleaves, a leading social hygienist at the turn of the century: "There should be taught such disgust and dread of these conditions that naught would induce the seeking of a polluted source for the sake of gratifying a controllable desire" (Cleaves, 1910, in Brandt, 1988). Brandt (1988) asserts that education focusing on fear is likely to increase three factors: fears of infection, stigma associated with the disease and discrimination against its victims. He concludes that such programs, rather than being termed sex education, are more aptly titled anti-sex education.

Fear approaches to prevention emphasizing the negative consequences of unsafe sex have also been part of HIV prevention education. Examples include a British media campaign graphically depicting a hospital scene in which a dying patient with AIDS is implicitly blamed for his failure to use a condom and an Australian series depicting AIDS as the Grim Reaper, mowing down a group of terrified victims. (For a fuller discussion of these and other campaigns, see Rosser, 1991a,b.)

Only a few studies have empirically researched the results of such campaigns, but their effects appear distinct, depending on how much at risk viewers perceive themselves. Heightened anxiety can lead individuals to seek out information and to change their unsafe sex behavior—or it can lead to a sense of fatalism and denial (Cohen, 1991). Bauman and

Siegel (1987) noted that men who viewed themselves at highest risk of HIV infection were less likely to practice safer sex than others who felt less fear and anxiety.

This reproduces the effect noted by Leventhal (1970), who investigated the use of fear tactics in cancer prevention and found that subjects who perceived themselves at low risk for cancer reduced their risk behaviors, while those who perceived themselves at high risk actually increased such behaviors.

Among heterosexuals perceiving themselves to be at little or no risk, the effect appears to be some behavioral modification towards seeking testing, partner reduction and temporary risk behavior avoidance (Rosser, 1988). However, among those perceiving themselves to be at high risk, for example homosexually active men, Rosser (1991a,b) found that using fear in HIV/AIDS education had a substantially negative effect, decreasing the amount of safer sex from over 80% to less than 50%. He concludes that such campaigns are counter-productive and may, indeed, increase rather than decrease the spread of HIV.

Moral arguments

Moral arguments are another tactic used to strengthen traditional public health campaigns. Many advocates of moral prophylaxis operate from an initial presumption that homosexual behavior itself is immoral and often believe that HIV infection is a logical (or divinely ordained) consequence of such immorality. A principal assumption of moral prophylaxis, i.e. that information on homosexuality will lead to an increase in homosexual behavior and hence to an increase in the spread of HIV, is evident in legislation restricting safer sex education. Thus, in both America and England, attempts to prevent the spread of HIV through education have been thwarted by amendments forbidding funding of programs that 'promote' homosexual behavior or even programs that address sexual behavior outside of marriage in a non-judgmental fashion. For example, the US Senate in 1987 overwhelmingly supported legislation that requires AIDS educational materials to emphasize abstinence from sexual activity outside of marriage.

Such efforts are counterproductive. "Guidelines such as these. . . do not reflect the pluralistic nature of beliefs in this country", concluded the National Research Council's Committee on AIDS Research and the Behavioral, Social and Statistical Sciences (National Research Council, 1990). Similarly, mandates that safer sex can be promoted to homosexually active men only within a negative context "impede the ability of public officials to disseminate effective AIDS prevention materials" (Gostin, 1989, p. 1624).

Erotic appeals

Cognitive-behavioral approaches to safer sex education, such as presenting positive educational messages and skill building exercises, are largely based upon Becker's health belief model (Janz and Becker, 1984). According to this model, the variables that influence health behavior are attitudinal. For 'safer sex' behavior to be adopted, this model suggests that HIV/AIDS must be perceived to be a personal threat, that the effects of HIV/AIDS must be seen to be sufficiently severe as to warrant behavioral change, that safer sex is perceived to be an efficacious alternative and that the change to safer sex is possible. To date, these strategies have been promoted most within grass-roots education campaigns targeting the gay community to 'eroticize' safer sex.

Sexual packaging is used to sell many commodities in Western cultures, but is seldom used in traditional HIV education campaigns, despite research supporting the efficacy of a sex-positive approach. Rosser (1991a) found that programs emphasizing the seriousness of HIV/AIDS tended to increase monogamy or celibacy among respondents, while programs eroticizing safer sex alternatives increased condom use and avoidance of anal intercourse. Unlike the evidence of negative effects of fear campaigns, no evidence of an increase in unsafe sex was found when eroticizing safer sex campaigns were employed (Rosser, 1991a). In fact, D'Eramo (1988) found that erotic, sexually explicit safer sex education

was more effective than strategies based on information or counseling.

While the eroticization of safer sex has been presented in education targeting gay men, it has not been used widely in education targeting the general public. While the evidence is indirect, this difference could in part explain the gap in high safer sex adoption rates between homosexually active men and the minimal safer sex adoption rates of their heterosexual counterparts (see Juran, 1989).

HIV/AIDS then and now: the need for new strategies

To date, most efforts to modify unsafe sexual behavior have employed traditional public health strategies, i.e. information/education campaigns and HIV testing/contact notification programs. Each of these strategies, while useful, suffers from serious limitations, especially as our understanding of the epidemic broadens.

Early AIDS education targeting 'at risk' groups presumed that the information and educational needs of each member of the targeted groups was the same. HIV testing was advocated primarily to establish accurate data on the extent and effects of the epidemic. (Since treatments for HIV-related conditions had not yet been developed, testing had little utility for screening and early treatment.)

As Table III outlines, these strategies also reflect the dominant perception of AIDS in the early to mid 1980s. This includes both the perceptions of AIDS as a new crisis of unknown duration and as an invariably fatal disease. The early aim of prevention appears to have been behavior modification until such time as a vaccine and cure were found. The prime task of early AIDS education was behavioral modification from unsafe sex to safer sexual behavior for the period of the crisis.

Ten years into this epidemic, many of the realities of HIV/AIDS have changed (See Table III). HIV/AIDS is now recognized as a health problem that will persist well into the 21st century and conceivably beyond (National Research Council, 1989, 1990). The median survival time of people living with AIDS continues to increase as new treatments for opportunistic infections are released. Increasingly, the medical management of HIV and AIDS infection approximates treatment of chronic long-term illness and involves preventive care rather than palliative care. Unfortunately, many of these advances have also led to a sense of complacency or 'passive acceptance': HIV/AIDS is no longer big news. With safer sex the normative behavior among homosexually active men, the goal of education must shift from behavioral modification to behavioral maintenance.

Public health initiatives, such as mass information

Table III. *Assumptions underlying approaches to HIV/AIDS prevention*

	1980s	1990s
Medical		
outcome of AIDS management	invariably lethal, short-term survival	longer survival
management model	palliative care	prevention of opportunistic disease
	lethal infection	chronic long-term management
perception of crisis	short-term/uncertain duration	long-term
perceived solution	medical cure 'miracle'	behavioral change, medical management
Social		
unsafe sex	norm	'pathological'
safer sex	goal of education	norm of gay community
personal behavior change	risk reduction	risk elimination
intervention level	community	individual, group and community
Models employed		
goal of interventions	behavioral modification	behavioral maintenance
emphasis of interventions	risk group (later: risk behavior)	behavior and its context
model of education	epidemiological	therapeutic

campaigns and promotion of testing sites, are most effective in raising awareness and modifying behavior related to acute, infectious diseases and/or life-threatening crises (e.g. influenza, Legionnaire's disease, cholera) but are less effective in addressing behavioral modification in long-term and/or chronic illness related to life-style (e.g. emphysema, heart attacks, stress, diabetes). In the case of acute, infectious disease, the goal of intervention is to provide all persons at risk with similar information, so as to promote behaviors that reduce contact with the illness. Thus, uni-dimensional approaches, i.e. strategies which give people essentially a single message, are both appropriate and efficient. Where the illness is more long-term and chronic, the goal is to promote long-term behavioral maintenance. Because maintenance requires greater countenance of the contexts within which sexual contact takes place, more individualized interventions are needed to sustain change than to effect it in the first place.

In addition, education strategies must reflect and incorporate advances in the biomedical and psychosocial understanding of HIV/AIDS (Osborn, 1986). Currently, a hiatus appears to have been created, with HIV/AIDS prevention mainly repeating what already has been presented. Unfortunately, further employment of such strategies is unlikely to significantly further the aims of prevention or to be cost-effective. What is needed now is a more pro-active and comprehensive approach, one which incorporates traditional strategies and adds a therapeutic component to them.

A new therapeutic approach to HIV prevention

We argue that to promote long-term safer sex maintenance, a comprehensive and individualized meta-model of intervention is needed. Such a model is available, based on the principles of sex therapy. The essential difference between the traditional approaches to sexually transmitted disease prevention and a therapeutic approach to safer sex education is that the latter acknowledges the variety and multiplicity of causes of unsafe sexual behavior.

The common goal of sex therapy is to promote and assist in the achievement of healthy and responsible sexual behavior. Thus, it is positive in its orientation. Unlike the traditional public health approaches to sexually transmitted disease prevention, sex therapy has long recognized that sexual difficulties develop from a variety of causes, from very simple to very serious intrapsychic and interpersonal disorders. Various therapeutic methods exist, many of which have been shown to be effective in alleviating individuals' and couples' sexual difficulties (Stuart and Hammond, 1980; Francoer, 1991; Halvorsen and Metz, 1991).

In a review of sexual dysfunctions, their diagnosis, management and prognosis, Halvorsen and Metz (1992) group sexual problems into four categories: sexual desire disorders, sexual arousal disorders, orgasmic disorders and sexual pain disorders. Therapeutic options for each of these types include medical, pharmacological, behavioral and psychological interventions, either singly or in combination.

Psychobehavioral interventions consist of a wide variety of exercises and training techniques, all designed to enhance sexual comfort and health. Results of sexual therapies vary, depending on the type of disorder, its causes and the therapeutic regimen used. In their literature review, Halvorsen and Metz (1992) report efficacy rates for sex therapy ranging from 40 to 95%, noting that success rates are highest for treatment of erectile disorders and female orgasmic dysfunctions, moderately successful for treatment of inhibited male orgasm and premature ejaculation, and least successful in treatment of sexual desire disorders.

The PLISSIT model (Annon, 1974) is a metamodel that describes levels of individual sex therapy and incorporates a variety of therapeutic approaches to changing sexual behavior. By using this comprehensive approach and applying it to multiple levels of intervention (individuals, couples and groups), more appropriate targeted interventions can be made. Thus, the model should not be seen as in competition with other uni-dimensional health models, but rather as a metamodel with which we can identify gaps in approaches to safer sex maintenance.

Within this model, repeated unsafe sexual behavior with multiple partners is equated with other problematic sexual behavior (e.g. exhibitionism, fetishism), which may stem from multiple causes and

require multiple interventions. To date, the emphasis in education has been behavior modification to promote behavioral change. By recognizing unsafe sex as (at least sometimes) indicative of underlying psychological difficulties, this model allows greater recognition of the problems experienced in maintaining safer sex. A greater range of interventions become appropriate and possible.

The premise here is not that all persons who practice unsafe sex are suffering from a sexual or psychological disorder. The reasons for unsafe sexual behavior are myriad. They may be practical or logistical as well as psychological. Individuals practicing unsafe sex cite a variety of reasons for their behavior, including being in love, knowing the partner is seronegative, receiving a request for unprotected sex, using alcohol or drugs and not having condoms available (Stall *et al.*, 1988). The PLISSIT model denotes different levels of intervention appropriate to the underlying causes of unsafe behavior.

The PLISSIT model

The PLISSIT model includes four levels of increasingly intense intervention: permission, limited information, specific suggestion and intensive therapy.

Permission

"Sometimes, all that people want to know is that they are normal, that they are okay, that they are not 'perverted', 'deviated' or 'abnormal', and that there is nothing wrong with them. . . . Reassurance that they are normal and permission . . . is sufficient in some cases to resolve what might eventually become a very major problem" (Annon, 1974, p. 67).

Two dimensions of permission are essential to safer sex maintenance among men: permission regarding orientation/identity and permission to practice safer sex. At an individual level, affirmation of the individual's same sex orientation is essential if the person is to adopt healthy and responsible behavior. At a community level, this principle stresses the importance of decriminalizing homosexual activity in areas where it is still illegal, legal recognition of same-sex relationships to promote monogamy and stability, the importance of gay-identified role-models, and the promotion of responsible (in terms of safer sex) homosexual lifestyles as valuable and enhancing to the wider community (Coleman and Remafedi, 1989).

Viewed within this model, legal interventions to ensure that individuals experience themselves as being afforded equal recognition and human rights are essential to promote responsible behavior and lifestyle. Conversely, legislation prohibiting safer sex education that is 'pro-homosexuality' limits the efficacy of HIV/AIDS interventions.

Regarding sexual behavior, Annon (1974) includes under permission, permission not to engage in certain sexual behaviors. Applied to HIV/AIDS prevention, the model suggests that for most homosexually active men, simply providing permission to practice safer sex (which includes the option to refuse unsafe activities) is sufficient to promote safer sex. Permission to engage in safer sex includes provision of condoms in settings where sexual activity occurs or is negotiated (e.g. nightclubs, parks and prisons).

Community level interventions focusing on permission giving to promote safer sex and community building will be sufficient to sustain safer sex behavior for most homosexually active men. Indeed, permission may well provide the underlying explanation for the effectiveness of positively presented information and grass roots campaigns. Promoting the research finding that safer sex is the norm among homosexually active men not only sets up the expectation of safer sex but provides permission for individuals to insist on safer sex behavior. Conversely, strategies using fear tactics and moral prophylaxis work against giving individuals permission both to express their sexuality and seek information, which helps explain why such strategies are counter-productive.

Limited information

"Limited information is seen as providing the client with specific factual information directly relevant to his particular concern . . . [and] . . . may also be seen as a preventative measure as well as a treatment technique". Robinson (1974a,b) has provided evidence indicating that even presenting 3 hours of a broad range of sexual information has little direct

discomfort have also been reported as significant correlates of unsafe sex (Coleman *et al.*, 1991; Ross, 1990).

Clearly, whether brief sex therapy utilizing specific behavioral suggestions or more intensive therapy addressing underlying characterological pathology is appropriate must be professionally determined. At this level, community campaigns and public health interventions are unlikely to be successful and referral to a trained sex therapist or physician is warranted.

Male homosexual couples

Male homosexual couples are an important group to target with specific suggestions in HIV prevention. Rosser (1991a) found in a two-country comparative study that those in relationships are significantly more likely to engage in anal intercourse and significantly less likely to use condoms. Other research, both on Australian male gay couples (Ross and Rosser, 1988) and American male gay couples (McWhirter and Mattison, 1984), indicates that emotional fidelity is more characteristic of male gay couples than sexual monogamy. Thus, in terms of HIV prevention, male gay couples may be seen as having less experience of practicing safer sex (at least in their primary relationship) and may indeed perceive themselves to be at less risk. The major risk of HIV transmission would appear to be among those who, while professing monogamy, experience occasional 'lapses' (as distinct from those couples who decide to have an 'open' relationship, and thus can openly address issues of safer sex). Obviously, the partners of such men are also at risk if they assume their partner is monogamous and so, do not practice safer sex.

Where partners are HIV antibody negative, a sexually monogamous relationship would appear to obviate the need to incorporate safer sex behaviors. However, the wide range of interpretations of monogamy, the reality of deception in relationships and the 'window period' for testing all call this presumption into question.

At a population level, promoting monogamy among homosexually active men, regardless of HIV status, would appear at least superficially to be an excellent complementary strategy to safer sex behavior modification. However, monogamy as a safer sex strategy is only effective where it is sustained. Consequently, groups to assist couples overcome difficulties and relationship enrichment groups are appropriate. Support groups for couples to redress the lack of support gay relationships receive both within the gay community and from the wider community are helpful. Provision of services to assist those entering relationships and education on how to sustain relationships is also important, as being 'in love' correlates with reversion to unprotected intercourse and serial monogamy is an inadequate strategy against HIV transmission.

Intensive therapy

Existing prevention strategies have consistently failed to change behavior in a minority of the homosexually active population, who may be described as the 'chronically' unsafe sex behavior group (Coates *et al.*, 1988; Communication Technologies, 1990). We hypothesize that these are the people who do not meet Becker's health belief criteria and, thus, find themselves unable to successfully initiate or sustain the desired behavior modification. Unless the problem is lack of access to information (which may be the case for very isolated individuals or in communities where a minority language is spoken), more public health campaigns are unlikely to be effective in promoting safer sex maintenance within this population.

In terms of HIV prevention, this group is important because: (1) those in this group who are currently HIV antibody negative are at the highest risk for HIV infection and (2) this group includes those HIV antibody positive persons unable or unwilling to change their behavior. While it is important to acknowledge that most people living with HIV are responsible, Shilts' (1987) recording of 'Patient Zero's' sexual exploits is a vivid example of someone who, despite being informed of the risks he is undertaking to himself and others, still finds himself unable to change his behavior (Patient Zero was identified as transmitting the virus to literally hundreds of other partners).

Simply describing people who engage in multiple-partner unsafe sex in the age of HIV/AIDS as being 'in denial' or 'suicidally acting out' is inadequate and inaccurate. Research on unsafe sex correlates

influence on changing a client's attitudes or behavior associated with a specific sexual problem; however, presenting limited information directly related to the client's problem can effect significant change in relevant attitudes and behavior. Providing limited information is also an excellent method for dispelling myths'' (Annon, 1974, pp. 80–83).

Providing 'limited information' is not the same as providing any information on HIV/AIDS. Limited information implies providing the key information needed to allay the myths and fears surrounding HIV/AIDS and to promote safer sex. Examples include sex education explicitly demonstrating how to use condoms, individualized pre- and post-HIV-test counseling and education on specific aspects of sexual identity (such as behavior, sexuality, gender roles, orientation, drive and meaning).

As well as needing permission to acknowledge their orientation, those becoming homosexually active or experimenting regarding their sexuality are most in need of limited information interventions. This group includes adolescents becoming sexually active and others of all ages in the early stages of 'coming out'. Referral to 'coming out' groups or even individual brief therapy can promote healthy and responsible behavior (Coleman and Remafedi, 1989). Those more isolated or alienated among this population need information about homosexuality to understand their behavior. Coleman (1981, 1982), in describing the developmental stages of 'coming out', sees experimentation as an important and powerful stage of sexual orientation integration. In terms of HIV prevention, the primary issue becomes imparting information about how to experiment safely.

Rosser (1990, 1991a) found that of four HIV prevention interventions investigated, individual counseling (where the client was given the opportunity to ask questions of direct relevance to his situation) was the most effective in reducing unsafe sex among homosexually active men. Limited intervention focused on the individual's needs and concerns are thus valuable, and may sustain safer sex behavior for a sizable degree of the population.

At a wider level, the role of permission and limited information in safer sex maintenance implies that comprehensive sexual education to all members of the public is necessary. This is also a necessary implication of using a risk behavior continuum model, as distinct from a risk group model. Education presenting dimensions of sexual orientation as continua, rather than the perpetuation of homosexuality as a deviance or aberration, would enhance perceptions of gay men as an integral part of the general population, rather than as a separate, alien group.

Specific suggestions

''Specific suggestions are direct attempts to help the client change his behavior in order to reach his stated goals. This is done from within a brief therapy framework which means that the approach is time and problem limited'' (Annon, 1974, p. 105).

Therapy incorporating specific suggestions has been applied to HIV prevention through eroticizing safer sex presentations and brief individual counseling sessions. The National Research Council (1990, p. 87) calls such clinical interventions ''promising'' and has called for more research into their role in HIV/AIDS prevention.

Two sub-groups needing therapy incorporating specific suggestions include 'relapsers' from safer sex to unsafe sex and those entering or sustaining relationships.

Relapsers from safer sex to unsafe sex

Studies of relapse rates in safer sex indicate that between 14 and 40% of men engaging in safer sex relapse intermittently (Rosser, 1991a; Communication Technologies, 1990; Kelly *et al.*, 1991). In such cases, individual counseling, both to explore reasons for relapse and to provide specific suggestions, is clearly warranted. Factors associated with unsafe sex behavior will vary from one individual to another; commonly reported factors include the inhibition-lessening influence of alcohol and other drugs, lack of assertiveness skills in negotiating safer sex, isolation, and being 'in love' (Horn and Chetwynd, 1989).

Clement (1992) has identified an avoidant coping style and self-blaming attributions as significant factors in German antibody positive homosexual men who engage in unsafe sex. Failure to use condoms as an avoidance of fears of erectile dysfunction and

we enter the second decade of the AIDS epidemic, the time has come to place HIV prevention within the wider context of adequate sexual education and sexual health care.

The lack of adequate treatment facilities and funding at this time needs to be recognized as a major factor sustaining the sexual transmission of HIV. Until clinical services targeting those needing more intensive interventions are provided, we cannot hope to significantly reduce the spread of HIV in this population.

To date, sexual health and education initiatives have been under-funded in most countries. We need to establish centers of clinical and research excellence in sexology. University resources should be re-allocated to train more clinicians and researchers in sexuality. This recommendation is made with a sympathetic understanding of the financial, political and logistical constraints upon the current public health delivery system. Given these constraints, intermediate steps, such as the creation of additional support and counseling groups for clinical interventions, would be an excellent beginning. Additionally, many of the measures suggested by application of the PLISSIT model can easily be incorporated into current HIV prevention education efforts. Table IV summarizes the practical applications of the model suggested earlier.

The question arises whether health care for homosexually active men is most effectively delivered using an exclusively gay context (e.g. by gay health care centers) or by assimilation in wider human sexuality programs. While the former are likely to make better use of limited resources to target HIV prevention within the gay community, the latter appear better able to reach those individuals who are either not predominantly homosexual or do not identify as such. Ultimately, the threat of HIV/AIDS suggests that all people, regardless of orientation, need access to comprehensive sexual health care and education. Thus, while unsafe sexual behavior between men has been the focus of this discussion, the same principles need to be applied both to other sub-populations identified as being at higher risk (e.g. people of color and those of lower socio-economic status) and, eventually, to the general public.

Epidemics are not sustained by chance. Rather,

Table IV. *PLISSIT model applications to HIV/AIDS prevention*

PLISSIT stages	Target groups	Steps/applications
Permission	• general public • homosexually active men	• legislation mandating facilitating safer sex education • legislation banning homosexual discrimination/ decriminalization • provision of condoms • permission to refuse unsafe sex
Limited information	• those becoming homosexually active • general public	• comprehensive sexual education which presents sexual orientation as continuum • demonstrations of proper condom use • counseling regarding sexual identity • 'coming out' groups • brief individual therapy
Specific suggestions	• 'relapsers' to unsafe sex • those entering or sustaining relationships	• brief individual and group therapy • intensive therapy to address underlying pathology, if diagnosed • support groups for couples
Intensive therapy	• those unable to initiate or sustain safer sex behavior, with a lifelong pattern of unsafe sex with multiple partners	• intensive psychotherapy • pharmacological treatment for compulsive disorder

provides support for underlying characterological factors sustaining unsafe sexual behavior. Rosser (1991a) found in his sample of Australian homosexually active men, that personality variables, including self-identification as 'macho', increased the likelihood that the person would engage in unsafe sex. Clement (1992) identified traits of self-enhancement and lack of avoidance in his German HIV antibody positive sample. Neisen (1992), in examining family history, high risk behavior and HIV infection, identified familial antecedents of high risk sexual and intravenous drug use behavior.

Most unsafe sexual behavior is unlikely to be the result of underlying psychopathology and, thus, is responsive to the first three levels of the PLISSIT model. However, because of the life-threatening consequences of HIV infection, a long-term behavioral pattern of unsafe sex with multiple partners needs to be clearly acknowledged as pathological, meaning that the disorder in behavior is symptomatic of a deeper intrapsychic conflict. Like other pathological behavior, the etiology of chronic unsafe sexual behavior may be multifactorial. For example, some people engaging in chronic unsafe sexual behavior may be depressed, some chemically dependent or alcoholic, some developmentally delayed or re-enacting previous trauma, and others experiencing a combination of these and other factors. The uniting factor experienced by this diverse group is the lack of control over their behavior. Seen in this context, a long-standing pattern of unsafe sex across multiple partners is best conceptualized as a sub-type of compulsive sexual behavior.

Like compulsive hand-washing, eating or spending, compulsive sexual behavior may be characterized as a variant of an obsessive-compulsive disorder (Coleman, 1990, 1991). While compulsivity has long been recognized in other areas of human behavior only in recent years has sexual behavior gained widespread recognition as a clinical pathology. Case studies and clinical experience across a variety of sexual behaviors indicate that compulsive sexual behavior can be successfully treated, using combinations of psychotropic medication and intensive group psychotherapy (Cesnik and Coleman, 1989; Coleman, 1987, 1990, 1991).

People with compulsive sexual behavior frequently report their behavior as out of their control, highly distressing and extremely shaming. Common etiological factors include a highly restrictive, moralistic upbringing; a history of sexual, psychological, emotional or physical abuse (or a combination of these), the trauma of which is then re-acted out; chronic low self-esteem and self-hatred; feelings of isolation; and, often, a history of alcohol and drug abuse.

In a person who compulsively engages in unsafe sex, both the unsafe sexual behavior and the homosexual context of the behavior are frequently at odds with the person's identity and lifestyle. Some unsafe sexually compulsive men experience their behavior as being against their entire value system, personal commitments and lifestyle. Examples include the professed celibate and the committed married man, who nevertheless find themselves seeking out anonymuos unsafe encounters with other men.

For others, a sex history reveals a long succession of unsafe encounters, despite apparently congruent values and behavior. For example, prostitutes may present with a long history of allowing 'extras' to occur. Clients with a history of sexual and/or other developmental abuse frequently have long subsequent histories of sexual 'acting out'.

As with other compulsive behaviors, treatment for compulsive sexual behavior requires long-term (12–24 months) intensive psychotherapy and, in some cases, pharmacologic intervention. Even when treatment is available, excessive shame, guilt and fear of legal sanctions can make it more difficult for the sexually compulsive individual to access services.

Implications of the therapeutic approach to HIV prevention

Utilizing a therapeutic approach to HIV prevention implies a radical shift in prevention strategy. To date, HIV prevention, with notable exceptions, has relied on sexually transmitted disease clinics, public health departments and community 'grass-roots' organizations to provide education. The therapeutic approach necessitates the establishment of comprehensive treatment centers for sexual health issues to supplement the on-going community initiatives. As

regardless of their etiology, they are sustained by vulnerability. The plague of the 16th century Europe was sustained by inadequate knowledge regarding viral transmission by rats, and, thus, by inadequate sanitation. Cholera is sustained by inadequate hygiene and water treatment. We need to recognize that HIV/AIDS is being sustained by inadequate sexual health care and lack of access to treatment for sexual helath issues for those who are most vulnerable. The time is ripe for an empirically based prevention strategy which addresses that vulnerability, using knowledge garnered from sex therapy and research.

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Received on August 28, 1991; accepted on June 15, 1992