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"APPLYING SOCIAL PSYCHOLOGICAL MODELS TO PREDICTING HIV-RELATED SEXUAL RISK BEHAVIORS AMONG AFRICAN AMERICANS"

by Susan D. Cochran and Vickie M. Mays

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2455 Teller Road
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California 91320

Phone (805) 499-0721
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Telex (510) 1000799

Applying Social Psychological Models to Predicting HIV-Related Sexual Risk Behaviors Among African Americans

Susan D. Cochran
California State University, Northridge
University of California, Los Angeles
Vickie M. Mays
University of California, Los Angeles

Existing models of attitude-behavior relationships, including the Health Belief Model, the Theory of Reasoned Action, and the Self-Efficacy Theory, are increasingly being used by psychologists to predict human immunodeficiency virus (HIV)-related risk behaviors. The authors briefly highlight some of the difficulties that might arise in applying these models to predicting the risk behaviors of African Americans. These social psychological models tend to emphasize the importance of individualistic, direct control of behavioral choices and deemphasize factors, such as racism and poverty, particularly relevant to that segment of the African American population most at risk for HIV infection. Applications of these models without taking into account the unique issues associated with behavioral choices within the African American community may fail to capture the relevant determinants of risk behaviors.

Acquired immunodeficiency syndrome (AIDS) is a disease that has disproportionately affected Black Americans (Friedman et al., 1987; Mays & Cochran, 1987, in press). Among AIDS cases reported to the Centers for

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Disease Control (CDC) through November, 1992, 26% were Black (CDC, 1992), although African Americans represent approximately 12% of the U.S. population. The devastating impact of the human immunodeficiency virus (HIV) epidemic on the Black community generates a critical, immediate need to develop effective behavioral interventions aimed at preventing viral transmission (Mays & Cochran, in press).

Within social psychology, several attitude-behavior models presently exist that have been useful in predicting health-related behavior changes. Some of these models, including the Health Belief Model (Becker & Joseph, 1988; Janz & Becker, 1984), the Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein, Middlestadt, & Hitchcock, 1991), and the social cognitive learning or Self-Efficacy Theory (Bandura, 1977, 1988, 1989) have been used specifically in the area of HIV and AIDS to model adoption of lower-risk sexual behaviors. These studies, to date, have focused primarily on White gay men (Cochran, Mays, & Fishbein, 1991; Mays & Cochran, 1990). None, however, was developed with an eye to possible cultural, ethnic, and socioeconomic class differences that might influence key constructs.

The purpose of this article is to examine briefly some of the issues that might arise when applying these three models to predicting HIV-related sexual behaviors of Black Americans, particularly those segments of the Black population most at risk. We highlight some of the cultural, ethnic, or socioeconomic factors that might influence HIV-related attitudes and behavior change specifically in African Americans.

THEORETICAL MODELS OF BEHAVIOR

HEALTH BELIEF MODEL

Initial attempts to organize the disparate research findings related to HIV and sexual behavior employed the Health Belief Model (HBM) (Becker & Joseph, 1988; Kirscht & Joseph, 1989) with only limited success. This widely used model theorizes that perceptions of severity of health threat and susceptibility to a particular disease lead to a readiness to make behavioral changes if the perceived benefits of risk reduction behaviors outweigh their costs. Other factors, such as personal and social characteristics, function as modifiers in one's willingness to take action to reduce the health threat.

In one study using a large, random telephone sample of Canadian adults, unselected for sexual orientation or gender, Allard (1989) found that perceptions of HIV illness severity and personal susceptibility were significant

correlates of having implemented at least one preventive behavior. However, some of the behaviors included as reducing the risk of HIV infection were, in fact, not relevant to risk reduction (e.g., avoiding blood donation or social contact with at-risk individuals).

Focusing specifically on gay men's behavior change, McCusker, Zapka, Stoddard, and Mayer (1989) evaluated components of the HBM in a sample of 201 primarily White gay and bisexual men and found mixed support for the model. Perceptions of susceptibility to HIV, illness severity, participation in AIDS prevention activities, and social norms supporting the practice of lower-risk sexual behavior significantly predicted the extent of self-reported effort to change behavior. However, only perceptions of susceptibility to AIDS and benefits of behavior change predicted the measure of actual sexual behavior (number of anal sex partners) evaluated in the study. Similar to Allard (1989), the HBM (in the McCusker et al., [1989] study) as a comprehensive model, appeared best to predict self-reported expenditure of effort to reduce risk but not necessarily actual risk reduction behaviors.

A second study of primarily White gay men (Montgomery et al., 1989) examined the efficacy of the HBM longitudinally. Measures of susceptibility, benefits, and barriers showed only weak or nonexistent relationships with risk reduction behaviors. Although Montgomery et al. (1989) found that perceptions of illness severity did predict behavior change, most of the model's components did not. The authors concluded that the HBM must be significantly modified if it is to be used in conceptualizing gay men's response to the AIDS epidemic.

However, it is unclear whether modification of the HBM will be sufficient or will result in activating longstanding criticisms of the HBM as "a catalogue of variables more than a model" (Wallston & Wallston, 1984, p. 29). Using the HBM to predict other health behaviors, apart from the domain of HIV risk reduction, has had mixed results, particularly when the health behaviors in question did not involve simple health-screening activities such as immunization, the health problem that was the original focus of the model (Kirscht & Joseph, 1989). Other complications have been previously noted (Ajzen & Timko, 1986; Wallston & Wallston, 1984), including a lack of consistent operationalization of key constructs and only vague specification of both critical factors and their structural interrelationships that would allow for testing of the model.

A further complication is that the HBM, as with many of the attitude-behavior models currently being used to predict AIDS-related behavior, makes assumptions rooted in Euro-American worldviews or cultural and/or social class values inconsistent with those of many of the Black Americans

most at risk. These models commonly assume that people are *motivated* to pursue "rational" (as defined by mainstream traditions) courses of action. They further assume that people have the *resources* necessary to proceed *directly* to achieve these decisions. Barriers to a rational course of action are trivialized as "moderators" rather than viewed as the defining structure within which people may function. In addition, the influential effects of ubiquitous contradictory values experienced by individuals who are not from a mainstream culture are ignored. For example, most individuals, no matter how poor, have access to and are influenced by the messages emanating from print and television and thus are exposed to cultural values consistent with a mainstream culture. However, ethnic minority cultural values are also present, arising from local cultural activities, family gatherings, barber/beauty shops visits, and visual symbols in the community. The result may be that the individual is presented with, perhaps, a more complex array of values from which to draw. The synergistic effects of this process are unknown.

Taken as a whole, these previously noted problems in predicting health behavior in general, the presently available findings specific to AIDS-related behavior changes, and the minimization of external factors particularly relevant to African Americans suggest that it would be prudent to consider alternative attitude-behavior models that can be explicitly tested.

THEORY OF REASONED ACTION

Fishbein (Fishbein & Middlestadt, 1989; Fishbein et al., 1991) has proposed that the Theory of Reasoned Action (TRA) may, instead, prove to be useful in predicting HIV-related sexual behavior change. This model hypothesizes that the proximal determinant of a specific behavior lies in people's behavioral intentions. Intentions are shaped both by attitudes toward the behavior and by beliefs about normative standards. For example, one might hypothesize that an individual who holds a positive attitude toward using condoms will be more likely to intend to use condoms with his or her next sexual partner. These attitudes, in turn, are a function of both behavioral beliefs about the personal consequences of engaging in the behavior and the importance of these outcomes to the individual.

The model also incorporates the effects of social influence by postulating that the subjective norm, or expectations of important others, also shapes intentions. The subjective norm is generated by normative beliefs, beliefs about what important referents want the individual to do, as modified by motivation to comply with these desires. Like the HBM, the TRA assumes

that people are rational beings who systematically use information to inform their volitional actions (Tesser & Shaffer, 1990).

According to Fishbein (Fishbein & Middlestadt, 1989), factors key to the HBM, such as perceived susceptibility and illness severity, can be subsumed as external, more distal variables that may or may not affect specific behavioral actions only through their covariance with TRA core concepts of attitudinal and normative influences on behavioral intentions. This might explain the inconsistent findings (McCusker et al., 1989; Montgomery et al., 1989) using HBM constructs to explicate AIDS-related risk reduction behaviors.

One study (Cochran, Mays, Ciarletta, Caruso, & Mallon, 1992) successfully used the TRA to model HIV-related attitude-behavior relationships among a sample of 297 primarily White gay men. As predicted by the theory, positive behavioral beliefs concerning risk reduction predicted positive attitudes toward lower-risk sexual activities which, in turn, were associated with intentions to practice lower-risk behaviors. In addition, normative beliefs that important referents encouraged lower-risk activities predicted a subjective norm consistent with social influence pressure to reduce risk. This latter norm also predicted positive intentions to practice lower-risk sexual behaviors. Finally, risk reducing intentions were positively associated with lower-risk behaviors in the previous 30 days, including insistence on condom use and less sexual exposure to situations where HIV could be transmitted.

The TRA offers two distinct advantages to the HBM in modeling AIDS-related sexual-risk-reduction behaviors. First, unlike the HBM, the TRA clearly specifies both relevant variables and their interrelationships in a parsimonious manner allowing for testing the theory's ability to account for variance in behavior (Ajzen & Timko, 1986; Wallston & Wallston, 1984). In doing so, the TRA considers both attitudinal and normative influences on behavior. A second advantage is that the TRA focuses on predicting specific behaviors, in this instance risk reduction strategies, apart from their ultimate health-maintaining goal (Fredricks & Dossett, 1983). With AIDS, this latter point is critical in that prevention strategies seek to target precise behavioral changes.

However, the TRA still presumes that individuals have the freedom to choose a rational course of action, possess the necessary skills and resources, and can translate their desires directly without interference into a determinable likelihood of behavioral occurrence. The model also approaches the problem of conflicting attitudes and normative pressures from the perspective that whichever has the stronger valence exerts the greatest influence on intentions. The simple elegance of this model may not capture the experiences of many Black Americans without careful thought concerning each of

its constructs (Cochran et al., 1991). For example, Black Americans who are particularly at risk for HIV infection confront an environment where much of their surrounding milieu is beyond their personal control and outcomes are sometimes quite difficult to predict due to the arbitrary and unpredictable intrusion of racism. Models of human behavior that emphasize individualistic, direct, and mainstream-defined rational behavioral decisions overlook the fact that many African Americans at high risk for HIV do not have personal control over traditional categories of resources (e.g., money, steady employment, housing, education, mobility) that can provide a basis for behavioral choices. In this context, for example, intention may not always lead to the desired behavior, as suggested by the TRA. That is, the link between intention and behavior may be associated with lower actual probabilities of successful outcome. So what one may observe is a situation in which intention may lead one down an indirect path that pieces together an approximate desired behavioral outcome from whatever resources are available (Mays & Cochran, 1990).

SELF-EFFICACY THEORY

Self-efficacy refers to the perception that one has the ability to engage in activities across varied circumstances that will produce a particular desired outcome (Bandura, Adams, & Beyer, 1977). Past studies have demonstrated that the belief in the capacity to perform behaviors predicts intentions to change unhealthy behaviors and perform healthy behaviors (Bandura, 1983; Bandura et al., 1977; Strecher, DeVellis, Becker, & Rosenstock, 1986). The construct of response efficacy is a component of both the HBM and Bandura's Self-Efficacy Theory (SET) (Bandura, 1977, 1983, 1988; Maiman & Becker, 1974). Studies have indicated that response efficacy influences peoples' *initial* efforts to reduce unhealthy behaviors and promotes prevention efforts when high self-efficacy is present (Strecher et al., 1986; Wurtele & Maddux, 1987). Although many of the studies exploring the relationships between self-efficacy and health-promoting and health-impairing behaviors have found a positive relationship (Bandura, 1983, 1987), seldom have these studies examined the role of resources in facilitating or inhibiting the intention to change, the effort to change, or the effort to maintain behavior change.

In relation to AIDS, primarily White gay men high in self-efficacy have been shown to be more likely to engage in low-risk sexual behaviors than men low in self-efficacy (McKusick, Horstman, & Coates, 1985). Unfortunately, when self-efficacy and sexual behavior were examined in a longitu-

dinal study of primarily White gay men this relationship did not hold (Joseph et al., 1987).

Translating self-efficacy into protection against HIV infection requires social skills, resources, and a sense of power to exercise control over sexual situations (Bandura, 1988, 1989). Negotiating sexuality involves managing interpersonal relationships (Gagnon & Simon, 1973). Decades of research on sex roles forewarn us that the management of interpersonal relationships will be influenced by many of the traditional psychological, legal, religious, social, and cultural norms that often do not result in the most powerful positions for some African American men and women (Mays & Cochran, in press). For example, although the AIDS epidemic resulted in encouragement from some for gay men to establish monogamous relationships, legislation supporting this behavior change through enactment of laws that would legalize such unions or financial incentives, such as spousal health insurance, has been rare. Similarly, for Black women on Aid to Families With Dependent Children (AFDC) who are encouraged to settle into monogamous relationships, little attention is paid to the difficulties attendant in that, including the loss of health care benefits, subsidized rent, and access to needed social services for their children. Additionally, there is the often overlooked issue of the sex ratio imbalance that complicates finding eligible Black males who possess enough economic and educational resources that they can participate fully in providing a base from which to maintain a family unit without the need for economic subsidies (Mays & Cochran, 1988, in press).

APPLICATION TO AFRICAN AMERICANS

We have already mentioned two key limitations in applying existing attitude-behavior models to predicting HIV sexual risk behaviors of African Americans. The first is a reliance on models whose assumptions are based on individualist, rational choices determining behavior. African Americans may be less likely than Whites to value the individualistic focus of Euro-American culture (Gasch, Poulson, Fullilove, & Fullilove, 1991; Mays, 1992). For some Black Americans, individualistically oriented behavior is more frequently tempered by complicated social, familial, and community-linked responsibilities (Akbar, 1979; Baldwin, 1981, 1984).

To date, little research has been devoted to elucidating social influence processes that may contribute to AIDS-related risk or AIDS prevention. In the TRA, for example, it is posited that people conform to the attitudinal and behavioral norms of their reference groups, which then constitute a powerful

source of social influence (Fisher & Misovich, 1990). In the African American community, perceptions of behavior as indicating a sense of belonging or nonbelonging to *both* ethnic and/or gender groupings may function to endorse different patterns of behavior (Mays & Cochran, 1993). Certain behaviors are associated with notions of Black maleness (Hunter & Davis, 1992) or Black femaleness (Mays & Comas-Diaz, 1988) that if not engaged in may leave the individual, particularly young adults and adolescents without a solid sense of belonging to or identification with particular parts of the African American community important to that individual's survival and emotional well-being. Meeting the behavioral expectations of important referents drawn from the African American community may be more complicated within today's environment than for individuals of the majority culture for whom ethnic proscriptions for behavior are often absent or not within awareness.

Behaviors that are engaged in because of their implications of support from other Black Americans or that in some way demonstrate one's sense of belonging to their ethnic group may carry great import if not performed. For example, in the early 1970s, some Black Americans believed that the practice of birth control was a method of genocide. Those individuals who practiced any form of birth control were viewed as not being loyal to the ideal of the Black community and at times were questioned about the Blackness of their identity. For some women, the risk of contraceptive use included not only physical health complications but also, potentially, the loss of a relationship with a male or loss of access to certain social/political aspects of the civil rights movement through him.

The second problem with each of the models, to a greater or lesser extent, is the minimization of the importance of external economic and racial/ethnic discriminatory factors that set the stage for people's behavior. To effect self-directed change, individuals must be provided not only with the reasons for changing behavior but also the means and resources (Bandura, 1988). They must also believe that the behavior is in their best interest both as an individual and as a member of a social unit, including family, community, and/or ethnic group.

Theories that ignore the relationships among racism, poverty and the range of behavioral options that exist for Black Americans who are most at risk for HIV overlook significant components that will impede behavior change. For example, sexually active individuals are encouraged to use condoms. Generally, sexual-risk-reduction advice begins with the assumption that the sexual encounter is mutual, marked either by an equality between the two partners, both of whom can terminate the encounter at will, or a

current or potential relationship that generates mutual self-interest. This may not be true when sex functions for unstated economic reasons, such as for shelter or food for the night (Mays & Cochran, in press). Rarely is thought given to the economic or psychological costs of this advice. For under- or unemployed men the purchase of condoms may have to be a low priority. The cost may be shifted to women who may also treat condoms as a low priority given other pressing financial burdens. Yet these are the external realities that press on the personal decisions of some African Americans, particularly those most at risk for HIV infection.

Today, beliefs about genocide still exist in the Black community and most recently have taken the form of a frequently talked about AIDS conspiracy where the virus was developed by scientists years ago who then experimentally infected African Americans. Although this genocide rumor has no basis in fact, educational interventions that seek to alter behavioral beliefs about condom efficacy without also addressing underlying concerns about possible racist determinants of the AIDS epidemic may not be effective (Gasch et al., 1991; Mays & Cochran, in press).

The issue faced by researchers seeking to predict HIV-related risk behaviors of African Americans is one of whether to throw out these models citing their inadequacies or to modify them to take into account the life experiences of Black Americans. This same problem was faced early on in the AIDS epidemic when other researchers sought to model the understudied sexual behaviors of White gay men. For example, Catania, Kegeles, and Coates (1990) modified existing social psychological constructs to propose the AIDS Risk Reduction Model specifically to predict sexual risk reduction.

Some scientists would propose that the current models in use are so incongruent with the worldviews and Afrocentric development of many African Americans that they must be discarded. The traditional ancient African principles of unity, cooperation, mutual responsibility, and interdependence of the Afrocentric worldview stand in contrast to the Euro-American principles of independence, competition, and individualism. Proponents of this approach (Asante, 1987; Azibo 1988, 1991; Nobles, 1986) focus on the uniqueness of African American personality development and culture. Others take a more moderate position, trying to determine the universality of behavioral constructs across ethnic, gender, and cultural boundaries, modifying the models or measurement of constructs, to capture a valid understanding of what is appropriate to the realities of particular subgroups of people of color. Finally, some approach the problem as simply one of generalizing what is known about a dominant ethnic group to ethnic minorities. The focus of this latter strategy is to take methods and models developed specifically

with White Americans and seek replication of findings with ethnic minority samples. For example, one might devise an AIDS prevention intervention for White Americans, establish its efficacy, and then, seeking replication and extension, recruit a sample of African Americans on which to try the already developed intervention. Their outcomes would be assessed using the same questionnaires as in the first study. Often, those recruited in such studies can tell that the intervention and its assessment are Euro-American in orientation and subjects may answer in a "White" way to please the researcher or get whatever resources are offered by the study (Mays & Jackson, 1991). This approach guarantees that African Americans will evidence fewer gains from the intervention, but the researcher will probably not attribute this finding to the research design.

We have tried to highlight some of the difficulties that arise when one seeks to use existing social psychological models developed, tested, and modified prior to application to the problems facing the African American community. These models emphasize the primary role of the individual and his or her behavioral choices, presuming that individuals have the resources to act in their own best interests. Although the best of intentions may be expressed by most African Americans in regard to avoiding HIV infection, successful prediction of actual behavior calls for understanding the ways in which racism, poverty, and generations of neglect influence a process that was originally described without the operation of these very significant factors. The challenge to researchers is how to capture the life experiences of African Americans and to design interventions that help all to reach the endpoint where exposure to HIV transmission risk has been eliminated.

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