

Articles

A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS

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Most theories and models used to develop human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) communication are based on social psychology that emphasizes individualism. Researchers including communication and health scholars are now questioning the presumed global relevance of these models and thus the need to develop innovative theories and models that take into account regional contexts. In this paper, we discuss the commonly used theories and models in HIV/AIDS communication. Furthermore, we argue that the flaws in the application of the commonly used "classical" models in health communication are because of contextual differences in locations where these models are applied. That is to say that these theories and models are being applied in contexts for which they were not designed. For example, the differences in health behaviors are often the function of culture. Therefore, culture should be viewed for its strength and not always as a barrier. The metaphorical coupling of "culture" and "barrier" needs to be exposed, deconstructed, and reconstructed so that new, positive, cultural linkages can be forged. The HIV/AIDS pandemic has served as a flashpoint to either highlight the importance or deny the relevance of theories and models while at the same time addressing the importance of culture in the development and implementation of communication programs.

Introduction

An effective communication strategy is a critical component of the global efforts in HIV/AIDS prevention and education. Such a strategy should be grounded in a sound theory such that the resulting framework is flexible enough for application in different regional and cultural contexts. Given the emphasis placed on HIV/AIDS prevention and care, mostly because of the absence of cure for or vaccination against the disease, employing effective communication strategies becomes pivotal in

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controlling the pandemic. Consequently, evaluating and redefining approaches to communicating relevant messages to different populations and the public at large has become a critical aspect of HIV/AIDS prevention and care. Since HIV/AIDS was first reported, broad-ranging strategies based on social psychological theories and models of behavior that are believed to be effective in guiding communication approaches to HIV/AIDS prevention and care have been introduced. These strategies range from a single universal approach to a multiple integrated approach in understanding health behaviors. After more than a decade of battle with this pandemic, there are now serious questions raised regarding the relevance of some of the most commonly used theories/models that guide communication strategies to prevent HIV/AIDS (Freimuth, 1992; Yoder, 1997) particularly in Africa, Asia, Latin America, and the Caribbean as well as their diaspora (Airhihenbuwa, 1995). These questions focus not so much on the value of the theories as such but on their adequacy, or lack thereof, in contexts different from those where they were initially developed and tested.

A critical point in this debate about relevant health communication theories/models is the recognition of culture as central to planning, implementation, and evaluation of health communication and health promotion programs in general (Airhihenbuwa, 1995; Edgar, Fitzpatrick, & Freimuth, 1992; Lupton, 1994) and HIV/AIDS prevention and care in particular (Airhihenbuwa, DiClemente, Wingood, & Lowe, 1992; Crawford, 1994; Michal-Johnson & Bowen, 1992; Schoepf, 1991; Seidel, 1993). In fact, designing a culturally relevant program and communicating messages in small groups are two critical factors reported to influence positively the outcome of 37 community-based HIV/AIDS prevention programs evaluated in the United States (Janz et al., 1996).

It has long been known that every project implemented is guided by certain sets of assumptions, whether or not these assumptions are obvious to the interventionist, which are often discernible as theories and models designed to facilitate the implementation of a given project in a population. Very often, however, these theories and models are not evaluated for their relevance in project implementation. Thus much of communications research in HIV/AIDS tends to focus on theories "for" intervention rather than theories "of" interventions (Guttman, 1997a). Stated differently, commonly used communication strategies often attempt to fit implementation processes into the rules of a dominant theory or model in social psychology rather than allowing the field experience to shape its own framework. Moreover, the role of cultural contexts in successful implementation of programs often is omitted, even though evidence abounds that culture is a central feature in health behaviors and decisions particularly in the context of behaviors that may predispose people to HIV/AIDS (Airhihenbuwa et al., 1992; Crawford, 1994; Michal-Johnson & Bowen, 1992; Schoepf, 1991; Seidel, 1993). Consequently, it was inevitable that the integration of knowledge about the importance of communication strategies and the importance of culture in health behavior became a critical component of HIV/AIDS prevention and care in the new millennium.

In this paper, we discuss definitions and conceptions of commonly used theories/models in communicating HIV/AIDS messages and how these definitions/conceptions often are offered through certain disciplinary and professional lenses that render adaptation in other contexts questionable at best. We examine strengths and weaknesses of commonly used social psychological theories as they pertain to individual actions and behaviors in relation to HIV/AIDS prevention and education. We discuss also the role of culture in HIV/AIDS by addressing contextual

aspects of culture rather than emphasizing only individual negative beliefs as is commonly the case. We argue that culture at the contextual level, rather than solely individual beliefs, must be located at the center of all health HIV/AIDS prevention efforts.

Theories and Models of Behavior Change

Models of behavior change typically used to guide health communication programs are the same ones used to inform health promotion programs. Some of the most important theories and models include the health belief model (HBM), the theory of reasoned action, social learning/cognitive theory, diffusion of innovation, and social marketing (Glanz & Rimer, 1995).

The HBM (Becker, 1974) was developed in the 1950s to predict individual response to, and utilization of, screening and other preventive health services. Accordingly, the response and utilization of disease prevention programs will be predicated on an individual's perceived seriousness of the disease, severity of the disease, perceived benefit of services, and barriers to accessing such service:

In general, the HBM is a rational-cognitive model and assumes a "rational" decision-maker. Most adolescents, and many adults, do not seem to approach the AIDS issue from such a logical perspective, but seem quite capable of discounting risks and optimistically perceiving themselves as invulnerable to harm. (Freimuth, 1992, p. 101)

The theory of reasoned action (Fishbein & Ajzen, 1975) predicts individual behavior by examining attitudes, beliefs, behavioral intentions, and the observed expressed acts. In this linear progression from attitude to action, a given behavior will be determined by an individual's intention. This theory also assumes that individuals are rational in their decision-making process, "a presumption that may not be entirely relevant for AIDS-related behaviors that are heavily influenced by emotions" (Michal-Johnson & Bowen, 1992, p. 153). Moreover, individuals evaluate information that may result in action within external constraints, which are mediated also by power relations in a society (Yoder, 1997).

The social learning/cognitive theory (Bandura, 1986) postulates that an individual behavior is the result of the interaction among cognition, behavior, environment, and physiology. The two primary domains widely used in HIV/AIDS programs are modeling (imitation of the behavior of a role model) and self-efficacy (one's perceived ability to adopt a recommended behavior). Although this model is believed to be very useful in HIV/AIDS communication campaigns in the United States (Freimuth, 1992; Maibach & Flora, 1993), there remains the question about its relevance in cultures where individual decisions are the result of group norms whereby being individualistic is going against the grain. After all, the social learning/cognitive theory is an individual psychological model of behavior change (Yoder, Hornik, & Chirwa, 1996). Bandura (1998) advocates the need to focus on collective efficacy.

Diffusion of innovation (Rogers, 1983) focuses on the communication process by which a new idea or product becomes known and used by people in a given population. Two relevant principles of diffusion of innovation widely used in AIDS campaigns are creating awareness of HIV and using opinion leaders to influence

attitudes and behaviors (Freimuth, 1992; Rogers 1983, 1995). "Diffusion of Innovation has been criticized for being too linear, for having a pro-innovation bias, and for widening the gaps between the 'information haves' and 'have-nots' in a social system. This gap has certainly been observed in AIDS awareness and knowledge" (Freimuth, 1992, p. 103), given the positive correlation between knowledge of HIV and level of education. In spite of its limitations, however, the use of opinion leaders in helping to shape culturally appropriate strategies is a component of diffusion of innovation that offers possibilities in HIV/AIDS communications. This is particularly salient since the content (focusing on a community interpretation of disease meaning rather than an imposed germ theory), context (relationships and negotiation in families and communities), and language (codes of elasticity of usage were relevant) of communication will be a factor in the outcome of HIV/AIDS prevention and care. According to Soola (1991) an "African communicator need not bother with the strictly technical aspects of information on AIDS (at least not for some 80% of his audience) because of the non-beneficial effect of such information to a large majority of his audience" (p. 36). Indeed, Green (1999), based on his field work in Africa, has offered an African traditional healing theory of disease that is grounded in culturally defined codes and meaning.

Social marketing is an organized approach to promoting acceptability of a social idea. Social marketing's four Ps—product, price, place, and promotion—have been applied extensively to HIV/AIDS prevention in condom promotion. A fifth P has recently been added to indicate positioning with regards to recognition of competing campaigns on the same subject in the same location. Among the criticisms of social marketing in HIV/AIDS are ethical concerns (Guttman, 1997b), given that it sometimes utilizes manipulation, such as fear, in promoting condom use. "Fear appeals emphasize the noxious consequences that will befall message recipients if they fail to adopt the recommendations of the source" (Dillard, Plotnick, Godbold, Freimuth, & Edgar, 1996, p. 44). Furthermore, it is believed also that social marketing employs a simple solution (such as condom distribution) to a complex problem without addressing the social conditions that cause the spread of HIV (Freimuth, 1992). Social marketing targets individual behavior only, "consequently reducing public health issues to individual-level problems and defining solutions within 'information deficit' models" (Guttman, 1997a). "How AIDS is discussed, how resources are allocated, who are defined as in the 'risk groups,' and who makes the decisions about AIDS highlight the inseparable connection between AIDS and power in society" (McAllister, 1992, p. 196). With respect to the limitations of social marketing Smith's (1998) evaluation of social marketing indicates that product social marketing has been used widely and praised, whereas relatively little effort has gone into behavior social marketing (using social marketing to change and maintain behavior change) and almost nothing has been done in the area of policy social marketing (using social marketing to influence policy to support HIV research and protection of persons living with HIV/AIDS).

The health belief model and other models and theories with similar principles were designed to address health prevention from an individual, linear, and rational perspective. Although these theories and models have proven effective in certain societies for addressing certain diseases, they seem to be inadequate for communicating HIV/AIDS prevention and care messages in Africa, Asia, Latin America, and the Caribbean. In fact the assumptions (such as individualism as opposed to collectivism) on which these theories and models are based are foreign to many non-Western cultures where these models/theories have been used to guide commu-

nication strategies for HIV/AIDS prevention and care. "We should not expect these models to be productive in explaining behavior in social contexts where commonsense knowledge of the world takes a quite different form" (Yoder, 1997, p. 136).

Theories and Models Applied to HIV/AIDS Prevention Programs

Theories, models, or frameworks are designed to guide the implementation and evaluation of programs along certain processes that are believed to yield an expected outcome. Even though practitioners in the field implement programs without self-expressed pathways of models and theories, they are still guided by sets of assumptions that form the foundations on which the ideas, funding, and successful outcome evaluation of such projects are based. In evaluating the continuous reliance of health communication on social psychology, Lievrouw (1994) comments:

While there is no doubt that the social-psychological theory "classics" are relevant to health communication and that they have been valuable exploratory tools, they nonetheless leave certain premises undisturbed. Chief among these is the presumption that communication in health is mostly a matter of interaction between institution message "sources" (e.g. medical research, professionals, government, foundations) and individual "receivers" (e.g. patients, their families, school children, employees). (P. 94)

Moreover, these theories and models of health behavior change, such as social learning/cognitive theory and the hierarchy of effects, are based on individual psychology (Yoder, Hornik, & Chirwa, 1996) as opposed to family, group, or community locus of decisions. This application of individual and psychological models, in contexts where decision originates from group norms and processes, led Yoder et al. (1996) to question claims made by researchers regarding the program impact on behavioral outcomes from exposure to a radio drama on HIV/AIDS education in African countries.

Theories based on the individual, which may be effective and meaningful in a Western context, have lesser relevance in self-effacing cultures of Asia, Africa, Latin America, and the Caribbean. In these regions, family and community are more central to the construction of health and well-being than the individual, even though the individual is always recognized as an important part of the cultural context. In these cultures, individuals are less likely also to express themselves and less likely to articulate their level of well-being from the standpoint of "ego" (the "I"). It is the state of well-being of family and community that regulates how individuals measure their state of health. Moreover, theories and models based on measuring how the individual feels about himself or herself (e.g., "I feel good about myself") could never capture the health locus of control in many societies because such control rests somewhere outside the self. Within this self-effacing construct, individuals are not always accustomed to expressing their attitudes and beliefs by using extreme descriptors often found on social science survey instruments such as "strongly agree" or "strongly disagree." In fact, to do so within such a cultural context is considered disrespectful. Yet instruments designed to measure health behavior, for example, self-efficacy, often are presented on such a continuum of two extremes (strongly agree to strongly disagree) in cultures where such measures are not only irrelevant but could also be considered offensive. To capture the complexity of the

context within which an individual is a part, one needs a framework that underscores the component of context that features culture as a central and organizing theme (Airhihenbuwa, 1995; Sue, 1994).

The professional and cultural partiality of the Westernized approach to the understanding of self renders problematic findings from much social and behavioral science research in Africa, Asia, Latin American, and the Caribbean. For example, one can appreciate differences between individual-centered versus family- and community-centered cultures by examining cultural differences in daily salutations. Greetings such as, "How are you doing today?" may elicit a range of self-assured responses that captures how a Westerner actually feels on a given day—from "I'm well" to "Great" and "Wonderful." The same greeting among the Yorubas or Edos of Nigeria almost never elicits a state of being "Great" or "Wonderful" even if this is how the individual feels. Instead, a common, nondefinite response is "O.K.," "Fine," or "We give thanks to the Almighty." Furthermore, such a response is consistent with cultural values and meanings that promote and reward a tempered expression about one's well-being.

The corpus of social psychology is based on the behaviors of people in Western cultures (Triandis, 1994). According to Triandis (1994), culture is the man-made part of the environment; therefore, culture is a group's attempt to control its environment. Thus the relationship between the individual and her or his environment is unidirectional with the individual always shaping the environment and never the reverse. As a result, measures of skill acquisition and self-determination are based on the individual's perception of his or her ability to control his or her environment. Thus controlling one's environment is a central theme in Western conceptions of culture—a conception that eschews other cultural realities such as harmonizing with nature or adapting to one's environment or both. If controlling the environment is the *raison d'être* of cultures, then the inability to control one's environment suggests retrogression, a barrier to be overcome. Hence, "cultural barriers" (never cultural strength) become a common expression in this discourse.

Applied to health communication, limitations easily become self-evident. For example, the cultural complexities of adhering to media messages about sexually transmitted diseases (STDs) are seldom interrogated. The call for sexual negotiation at the point of initial contact between two people who are about to begin sexual relations contradicts most culturally sanctioned behavior. Two people who are about to begin sexual relations typically avoid discussing their sexual past until they are more comfortable with each other at which point sexual intercourse commonly has occurred (Pliskin, 1997). In this case sexual behavior precedes sexual knowledge, at least in the context of relationship, which is often the basis for most interventions on preventing HIV/AIDS. This reality of "behavior first" renders the linear model of knowledge leading to attitude and behavior counterintuitive in the context of relationships and culture.

Cultural Contexts and HIV/AIDS

Culture, often appropriated as an exotic collective, is believed by many to exist only in Africa, Asia, and Latin America and in their descendants in the diaspora. According to Yoder (1997), beliefs are used often as a proxy for culture, such that beliefs and knowledge of illness become the focus of "culturally appropriate" messages and interventions. In fact, the term *belief* is often contrasted with knowledge such that "belief is used to connote ideas that are erroneous from the perspective of bio-

medicine and that constitute obstacles to appropriate behavior" (Pelto & Pelto, 1997, p. 148). Therefore, when "culture" and "belief" are coupled as in cultural belief, the resulting negative biomedical appropriation of the term becomes evident. As a consequence, culture is objectified and believed to be possessed by non-Western people, only identifiable through research. An example of this is found "in health education campaigns that seek information about local idioms of expression to better communicate health messages" (Yoder, 1997, p. 138). As a result, it is reasoned that individual practices or behaviors found in these groups could be labeled cultural and often appropriated as a barrier. Thus "barrier" often becomes the coupling metaphor with culture.

There are three major themes that characterize perceptions about these notions of culture. First, culture is a *fossilized historical artifact*, which leads to such definitions as "culture is to a society what memory is to individual" (Kluckhohn, 1954). Second, culture is the observable aspect of individual behavior that is understood better by locating behaviors (particularly those that are unfamiliar) within individual beliefs. Such beliefs are distinguished from knowledge since the Knowledge Attitude Practice Behavior (KAPB) model places these domains in separate locations on a parallel continuum. In fact, belief and knowledge are thus constructed as a binarism and belief invariably becomes a code for culture (Good, 1994), a barrier that must be overcome. For example, if you learned from your grandmother that chicken soup is good for your common cold, it is a "cultural belief." However, if you were to learn the same health information from a physician, it is "knowledge." A third theme is that culture is people's ability to *control/dominate* their environment. Thus the onus of responsibility for adopting requisite behavior rests in the individual. The assumption is that everyone desires to, and is capable of, changing their environment to suit their needs. Each of these domains is an aspect of culture.

In the view of some scholars, culture is what society evolves from in the process of development—a proxy for modernization. Modernization and culture are located often at two opposite ends of the spectrum. Given this impoverished notion of culture, "it seems urgent that we concentrate on studies of the distribution of meaning in social space, and on searching social sources of diversity and heterogeneity rather than focusing exclusively on cultural sharing, uniformity, and homogeneity" (Bibeau, 1997, p. 248).

Western cultures, to varying degrees, tend to view the self as a production of the individual, whereas many other cultures view the self as a production of the family, community, and other environmental influences for which we do not have, nor desire, total control. Crawford believes "the heart of the cultural politics of AIDS is a contestation over the meaning of the self" (p. 1347). A large part of this contestation involves the definition and construction of people with AIDS and those who have tested positive for HIV as "other." In its most basic sense, health is associated with those who are not infected with HIV and illness with those who are infected with HIV. "The identity signified by HIV/AIDS comes to be seen as the other who is perceived not only as a physical danger, but as an equally threatening and dangerous identity" (p. 1348).

The cultural politics of AIDS has caused the mobilization of many of these facets of culture with varying degrees of success. The mobilization of ethnographers to study these same risk groups has served a reductive function in terms of how culture is understood and conceptualized. "Despite their intention to break with the dominant public health models, most anthropologists are not really willing to distance themselves from the methodology and theorizing of what is perceived as 'real'

science in public health" (Bibeau, 1997, p. 247). This problem is evident in the tendency to create epidemiological categories, thus reducing culture to identifications of negative individual health practices in a subgroup of the population later generalized to be the definition of the larger group's culture.

In the literature dealing with cultural sensitivity, it is rare to see "strength" coupled with the concept of culture, although "cultural barrier" is commonly cited as a reason for failure in public health and health promotion and communications programs. For instance, some health communication and health promotion programs implemented in Africa have tended to undervalue the importance of oral communication as a genre. This practice is consistent with the academics' exaltation of written and visual modes of communication (slides and transparencies) as the only acceptable standard. For example, traditional communication channels, which Ugboaja (1987) terms 'Oramedia,' continue to maintain their potency in rural Africa (Soola, 1991).

We do believe and do advocate, as have others, that cultural sensitivity be central to health communication and health promotion theory and practice. This position is evident in cultural models such as PEN-3 (Airhihenbuwa, 1995), a model used in health promotion and disease prevention (Erwin & Spatz, 1996; Green & Kreuter, 1999; Kline, 1999; Paskett et al., 1999). In this model, cultural appropriateness in health promotion refers not only to the individual but also to the context that nurtures the individual and his or her family and community. This context is evaluated for attributes that are positive, existential, and negative. It is important to promote the positive, recognize and affirm the existential, and contextualize the negative, such that opportunity costs and benefits for change are understood and appreciated. With regard to communication strategies for HIV prevention within the African context, for example, message segmentation is critical to reaching a population with a diverse mode of producing and acquiring information and knowledge:

In traditional societies, which most African societies are, the need for audience, message, and channel segmentation is important, considering the reach and influence of the different channels of communication and the absorptive capacity of the different segments of the population. (Soola, 1991, p. 35)

Conclusion

This examination of theories and models commonly used in health communication and promotion clearly shows that HIV/AIDS communication often is based on the behavior and decision-making process of so-called rational individuals who follow an established linear path from awareness to attitude to action. However, decisions about preventing HIV/AIDS are based on cultural norms that often mediate individual decisions in ways that individuals may not always realize. Moreover, decisions about HIV/AIDS often are based on emotion and thus may not follow any preestablished pattern of decision making advanced in most of the theories and models.

In an extensive review of the literature on theories and AIDS campaigns, Freimuth (1992) concluded that knowledge is not a sufficient condition for behavior

change. "Our analysis of survey data rarely [emphasis ours] found a close correspondence between changes in knowledge and changes in behavior" (Yoder, 1997, p. 132). Most theories offer approaches to initiating behavior change but do not address maintainance of the new changed behavior. Campaign planners need a greater understanding of their "target audience," which often belongs to a culture and a social class different from theirs. Since the target population often is at a greater disadvantage relative to the privileged location of professional researchers' income and level of education, the interventionist must be cautious about the imposition of foreign values on a group of people (Jaccard, Turrisi, & Wan, 1990).

Cognizance must be paid also to the complementary forces of endogenous (within) and exogenous (outside) influences in setting the media agenda (Dearing and Rogers, 1992). Most theories used to inform campaign strategies do not include culture as a central concept. When they do, culture is treated as a "set of beliefs, values, and individual goals that pattern behavior" (Yoder, 1997, p. 135). Culture should become a pivotal domain in the new era of HIV/AIDS prevention and care. "Culture should be a central organizing concept in developing programs of HIV education and assessing their outcomes" (Michal-Johnson and Bowen, 1992, p. 148). By culture we mean drawing from the potentiating possibilities of a hybrid of traditional and modern culture. In the context of community development, Escobar (1995) argues that no longer should we focus on futile attempts at becoming modern by substituting the traditional but rather on a "hybrid modernity characterized by continuous attempts at renovation, by a multiplicity of groups taking the multi-temporal heterogeneity peculiar to each sector and country" (p. 218). In Escobar's view, "traditional cultures" do not have to succumb to notions of "development" and "modernity" but engage them in a constant relationship whereby the resulting hybrid communities can emerge with possibilities for improving conditions of life, whether it is HIV/AIDS prevention or community development.

With new challenges, such as a false sense of security generated by the prospect of a cure and hope for vaccine in the global efforts to control HIV/AIDS, it becomes even more critical that we pay serious attention to contextual rather than individual theories and models that inform HIV prevention messages. Moreover, it is pivotal to understand the centrality of cultural contexts, rather than simply individual beliefs, in planning communication strategies. In the final analysis, media are a part of our culture (Bird, 1996) and even more so in the definition and construction of what is considered to be media, which includes folklore, storytelling, and the many nonstructural but established oral channels for transmission and confirmation of messages within communities. As we begin this new millennium, a new global communication strategy is timely. Such strategy should locate culture within a theoretical framework that will allow the flexibility for regional and national differences in communicating HIV/AIDS prevention and care messages.

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