

# THE ROLE OF CULTURE IN HEALTH COMMUNICATION

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■ **Abstract** This paper examines the role of culture as a factor in enhancing the effectiveness of health communication. We describe culture and how it may be applied in audience segmentation and introduce a model of health communication planning—McGuire’s communication/persuasion model—as a framework for considering the ways in which culture may influence health communication effectiveness. For three components of the model (source, message, and channel factors), the paper reviews how each affects communication and persuasion, and how each may be affected by culture. We conclude with recommendations for future research on culture and health communication.

## INTRODUCTION

Recent consensus in public health and health communication reflects increasing recognition of the important role of culture as a factor associated with health and health behaviors, as well as a potential means of enhancing the effectiveness of health communication programs and interventions (37, 38). This focus on culture coincides with national health objectives that seek to eliminate disparities that exist between different population subgroups on a wide range of health-related outcomes and behaviors, as well as conditions that affect health (104). It is generally believed that by understanding the cultural characteristics of a given group, public health and health communication programs and services can be customized to better meet the needs of its members.

This review examines the specific role of culture as a factor in enhancing the effectiveness of health communication programs. It briefly defines and describes culture and explains how and why culture is applied in segmenting populations into subgroups for targeted health communication efforts. It then introduces a model of health communication planning as a guiding framework for considering the

different ways in which culture may influence health communication effectiveness. For three selected components of the model, we describe how each can affect communication and persuasion, and how each is affected by culture. Finally, the paper presents several recommendations for future research on culture and health communication.

## UNDERSTANDING CULTURE

Although culture is widely accepted as a factor associated with health and behavior, its role in public health practice and research to date has been more rhetorical than applied. For example, while terms like cultural sensitivity and cultural appropriateness are now standard in the parlance of public health professionals (47, 77), operational definitions, measures, and explanatory models of culture and health are lacking. In both practice and research, culture is commonly conflated with race and ethnicity, especially for nonmajority populations. Similarly, it is often used loosely as a label for lifestyles presumed to cluster among those with certain socioeconomic characteristics (i.e., the culture of poverty) and those who engage in socially marginal or undesirable behaviors (e.g., drug culture, gang culture), and even to describe a national identity (e.g., culture of violence, culture of fear). Although each of these examples includes elements of culture (e.g., ethnicity, values, behavior), they share the general limitation of conceiving culture as a categorization variable that is relatively simple and fixed, rather than a complex, dynamic, and adaptive system of meaning. The public health and health communication literature reviewed in this paper frequently reflects these limitations. Thus, although the paper seeks a greater understanding of the role of culture in health communication, there is wide variation in what is termed cultural in the studies cited.

Social scientists generally agree that culture is learned, shared, transmitted intergenerationally, and reflected in a group's values, beliefs, norms, practices, patterns of communication, familial roles, and other social regularities (6, 35, 36, 69, 80, 101). Culture is also dynamic and adaptive. It was born out of early hominids' attempts to maximize the potential for group success in the face of environmental challenges, and there remains today a tension in cultural groups between maintaining shared values and norms and adjusting to forces for change both within and outside the group (33).

The cultural characteristics of any given group may be directly or indirectly associated with health-related priorities, decisions, behaviors, and/or with acceptance and adoption of health education and health communication programs and messages (72). For example, a cultural group's traditional dietary practices could promote or prevent certain diseases (i.e., a direct effect). At the same time, although its values of kinship and collectivism are not inherently health-related, they might still influence health behaviors and outcomes, such as would be the case if certain family members consistently attended to the needs of others at the expense of

their own needs (i.e., an indirect effect). Finally, as suggested in the Institute of Medicine (IOM) report (37) and elsewhere (77), concordance between the cultural characteristics of a given group and the public health approaches used to reach its members may enhance receptivity, acceptance, and salience of health information and programs.

## TARGETING COMMUNICATION PROGRAMS TO SPECIFIC POPULATION SUBGROUPS

Public health surveillance activities and epidemiological research routinely track, identify, and describe patterns of disease and risk factors in populations, and thus highlight the needs of some groups over others. But the population characteristics typically available in these data are limited (e.g., age, race, sex, geographic boundaries) and provide at best only a crude proxy for culture and other shared values, beliefs, experiences, and living conditions of a group. For example, population groups defined only by broad racial/ethnic categories have been shown to include many distinct subgroups (109, 114, 115). To supplement this information, program planners recommend conducting a more in-depth analysis of demographically defined groups that can include a thoughtful consideration of the role of culture (28). This two-step approach—first identifying population subgroups experiencing excess burden of poor health, then seeking to identify and better understand that which is shared by members of the group and may influence health—has been suggested as a practical approach to addressing culture in health communication and health promotion programs (47).

In health communication, the process of partitioning large and heterogeneous populations into smaller, more homogeneous subgroups is known as audience segmentation (91). Audience segmentation is a well-accepted best practice in health communication, based on decades of experience and research (89), and an important first step in developing health communication programs. Audience segmentation strategies can be quite detailed, defining population subgroups by a mix of demographic, behavioral, psychosocial, geographic, and risk-factor characteristics (90, 91, 106). Culture can also be an important audience-segmentation variable.

When an audience segment has been defined and a descriptive profile of that segment created, a comprehensive communication approach that is targeted to the segment can be developed. Targeted communication typically involves use of a single, if multifaceted, approach for all members of a given audience segment (48). For example, the content and presentation of targeted information would be based on an understanding of the needs and concerns of a specific audience segment (91). There are many examples of targeted health communication and health promotion programs that specifically address or build upon the cultural characteristics of a given audience segment (14, 44, 56, 70, 73).

## A FRAMEWORK FOR CONSIDERING THE ROLE OF CULTURE IN HEALTH COMMUNICATION

In planning and executing health communication campaigns, programs, or educational materials, certain operational decisions must be made. McGuire's [1989] communication/persuasion model (60) is a commonly used framework for communication planning and identifies five types of factors, or input variables, known to influence communication effectiveness and thus considered important in any planning effort. These factors—source, message, channel, receiver, and destination—are fundamental to communication development, corresponding directly to Lasswell's [1948] well-known description of communication as *who*, says *what*, through *which* channel, to *whom*, and with *what* effect (51). Thus, at the most basic level, operational decisions in planning and carrying out communication efforts include selecting credible sources, choosing message strategies, and determining optimal settings or channels for delivery of the communication.

In its 2002 report on health communication strategies for diverse populations, the IOM suggests that, ideally, diversity and culture should be taken into account at each of these decision points when developing campaigns that target culturally diverse population subgroups (37). In its review, the IOM found many examples of health communication programs that considered culture and diversity in at least some operational decisions in the planning process. However, far fewer actually evaluated the extent to which doing so enhanced communication effectiveness. Among its findings, the report concludes that surprisingly little is known about: (a) whether communication programs that consider diversity and culture are more effective in diverse populations than those that do not consider it, and (b) whether certain approaches to or operational decisions about culture and diversity are more likely to lead to effective communication programs than are others.

The remainder of this paper examines what is known about the role of culture in enhancing the effectiveness of health communication programs. It is organized around McGuire's communication/persuasion model and addresses three of the model's five input variables: source, message, and channel. These variables were chosen because they are easily modifiable by communication planners (receiver characteristics are less so) and because they have been subjected to comparatively more research (than destination factors).

For each input variable, we answer two questions: First, how does this input variable influence communication effectiveness, and, second, how does culture influence the input variable? Two important limitations of this review must be noted. First, as described previously, many of the studies reviewed do in fact conflate culture with race and/or ethnicity. When reporting on these studies, we recognize this limitation. Secondly, as the IOM report concluded, there has been very little intervention research that directly examined the effects of considering culture versus not doing so. Consequently, some of the studies reviewed are more evaluative than comparative in nature.

## SOURCE FACTORS IN HEALTH COMMUNICATION

### How Do Source Factors Influence Communication Effectiveness?

Source credibility is the most commonly considered source factor and has two primary dimensions: expertise and trustworthiness (4, 16). Reviews show that expert sources are generally more persuasive than those lacking expertise, and although findings are somewhat less consistent and associations not as strong, the relationship between trustworthiness and persuasion is also generally positive (21, 31, 54, 110). Effects of source expertise and trustworthiness are often context dependent (94). For example, they may vary based on characteristics of the message, the receiver, the channel through which persuasion occurs, as well as combinations of these factors (1, 2, 7, 15, 16, 21, 31, 112). Sources that are liked, or judged to be socially attractive, are also more persuasive than others (5, 84), particularly when the communication channel is video or audio (15) or when the message being communicated is not desirable (20). Factor-analytic studies suggest that an audience's liking of a source is associated with perceived trustworthiness of the source, but not always associated with perceptions of expertise (8, 59).

When a person perceives a source to be similar to him- or herself, ratings of the source are often more favorable. These similarities may be demographic or attitudinal in nature and may be real or perceived. Demographic forms of similarity—also referred to as “structural similarity” (96), “background similarity” (76), “group membership” (53, 87), and “status consistency” (78)—include likeness between source and receiver that is based on age, race, sex, ethnicity, socioeconomic status, employment status, education level, marital status, family structure, place of residence, or other demographic-type variables. Such similarities are thought to enhance receivers' liking of a source (26) or trust in a source (57) and/or lead to inferences of attitudinal similarity between themselves and the source (87). Demographic similarities that are unrelated to the persuasion topic may have little direct impact on perceived source credibility (26, 87, 96) but still positively affect persuasion by increasing perceptions of source attractiveness (31).

Attitudinal similarity includes perceptions of shared interests, feelings, opinions, values, or beliefs. In a review of studies on similarity, credibility, and persuasion, Simons et al. (87) concluded that as perceived attitudinal similarity between source and receiver increased, so too did receivers' ratings of attractiveness, respect, and trust in a source. Sources whose attitudes are perceived by receivers as similar to their own are also better liked than those perceived as having different attitudes (12, 13, 92).

### How Does Culture Influence Source Factors?

Kalichman & Coley (43) randomly assigned 100 Black women in an urban health clinic in Milwaukee to view one of three videos on HIV testing. The first had an African-American man as the narrator; the second was identical but used an

African-American woman as narrator; and the third used the African-American woman to deliver the same content but also stressed culturally relevant losses as consequences of not being tested [e.g., “. . .not getting tested puts your family at risk of losing you to the disease” (43, p. 249)]. Compared to characters in the first two videos, participants rated characters in the third video as significantly more concerned about “Black families and the Black community” and “women like me,” and as being more “like people I know.” Although the study does not disentangle the relative contribution to these results of demographic and attitudinal similarity between source and receiver, the findings are generally consistent with what is known about source factors. The third video was also more effective than others in promoting HIV testing among women who reported intentions to be tested after viewing any video. Sixty-three percent of women who viewed the third video and expressed an intention to be tested were tested within a 2-week follow-up, compared to 23% who viewed the ethnicity- and gender-matched video and none who viewed the ethnicity-only-matched video.

The Witness Project<sup>®</sup> was developed to promote breast and cervical cancer screening among low-income African-American women in rural Arkansas. In the project, local cancer survivors called witness role models talk about (i.e., witness) their cancer experiences to small groups in church and community settings (25). In a pilot study (25) and quasi-experimental trial (24), self-reported breast self examination and mammography rates increased significantly from baseline to six-month follow-up among women who attended a Witness session. A qualitative evaluation of the Witness Project<sup>®</sup> concluded that because role models shared faith-based cancer stories in church settings, they were viewed by participants as having similar cultural values and thus were trusted and deemed truthful (3). The Witness Project<sup>®</sup> has been replicated at 30 institutions in 21 states, reaching over 10,000 women among whom as many as 25% report obtaining a mammogram after attending a program (23).

Using a similar approach, the North Carolina Native American Cervical Cancer Prevention Project trained local Cherokee and Lumbee women to serve as guides who delivered a cervical cancer educational intervention to other tribal women one on one in their homes (61). An evaluation of the project found that the guides were well received, and in a post-test-only analysis women who received the educational program from the guides had greater knowledge than controls (87% versus 76% correct on knowledge test for Cherokee women; 85% versus 81% for Lumbee) and were more likely to report receiving a Pap test (76% versus 63% for Cherokee women).

Lopes and colleagues (52) evaluated reactions to and effects of exposure to a video depicting a young African-American woman's efforts to quit smoking. Among 153 smokers who viewed the video, African-American women in the sample rated the video as significantly more interesting than other smokers did (3.72 versus 3.45 on a 4-point scale), more exciting (3.13 versus 2.74), identified more closely with the main character (3.59 versus 3.15) and other characters in the supporting cast (3.41 versus 2.87), and were more likely to report that the

characters were convincing (3.60 versus 3.20). Similarly, some advertising studies have found that racial similarity between minority actors and viewers (i.e., demographic similarity) leads to greater message recall and favorable product attitudes (86, 100). More recent advertising research suggests that such effects occur primarily among viewers who identify strongly with their racial/ethnic group (18, 88), perhaps indicating a greater role for attitudinal or even cultural similarity as opposed to demographic likeness.

## MESSAGE FACTORS IN HEALTH COMMUNICATION

### How Do Message Factors Influence Communication Effectiveness?

The study of how message content and structure influence communication effectiveness is one of the most widely researched topics in persuasive communication. In typical studies, participants are exposed to one of several versions of a communication that is experimentally varied, based on some message characteristic of interest. Effects of exposure to the different variations are then assessed, including reactions to the communication, as well as changes in specific attitudes, beliefs, and behaviors that were addressed in the communication.

Because so many different message variations have been examined, it is beyond the scope of this paper to provide a comprehensive review of such an extensive literature. Instead, we refer readers to research examining selected message factors that have been applied specifically to health problems or behaviors. These studies have examined different message approaches [e.g., fear messages (30, 40, 97), use of metaphors (71)], message formats [e.g., statistics versus narrative (46)], message balance [e.g., strategies for addressing opposing arguments or viewpoints (65)], message framing [e.g., gain versus loss framing (42, 82, 103), relative versus absolute framing of risk (55, 81)], message order [e.g., sequential request strategies (67, 68)], and specificity of a message's call to action [e.g., explicit versus implicit (95)].

### How Does Culture Influence Message Factors?

In previous work, we have identified five types of approaches commonly used to achieve cultural appropriateness in health promotion and health communication programs (47). Four of these approaches—termed peripheral, evidential, linguistic, and sociocultural—apply directly to the format and content of health messages and thus are presented here.

Peripheral approaches seek to enhance the effectiveness of a health communication by packaging its contents in ways likely to appeal to a specific audience segment. This packaging may include using certain colors, images, fonts, or pictures that overtly convey relevance to the group. A communication that visually reflects the social and cultural world of the audience is more likely to be perceived

as familiar and comfortable (85). According to Resnicow and colleagues (77), matching health promotion materials to the surface characteristics of a target population (as is done using peripheral approaches) can also enhance the group's receptivity to and acceptance of messages. Evaluations of health communication materials using the Cultural Sensitivity Assessment Tool (CSAT) (29) have found that peripheral approaches like formatting and visual presentation are consistently underdeveloped in materials intended for certain minority groups (29, 63).

Evidential approaches to health communication seek to enhance the perceived relevance of a health issue to a specific audience segment by presenting evidence of its impact on that group's members. In most health communication, evidence takes the form of epidemiological or other data specific to that audience segment. Broadly stated, health communication using evidential approaches take the general form of "some specific health problem is especially important for some specific group." For example, evidential-based messages on colorectal cancer for African Americans might include statements like the following: "In the United States, rates of colorectal cancer are higher among Blacks than among Whites and other groups," or "This year, 14,100 African Americans will be diagnosed with colorectal cancer, and 6800 will die from it." Such statements seek to raise awareness, concern, and/or perceived personal vulnerability to colorectal cancer by showing that it affects other people similar to the audience. Research based on Weinstein's precaution adoption model (107) shows that the perception that a problem affects others "like you" can stimulate thinking about the problem, deciding to take preventive action, and planning to do so (108).

Linguistic strategies seek to make health communication campaigns, programs, and materials more accessible by providing them in the dominant or native language of a given audience segment. Because language is fundamental to effective communication, linguistic accessibility has been termed "the lowest common denominator of cultural sensitivity" (79). Linguistic strategies may involve creating program information in different languages or translating existing information from one language to another. Retaining consistent meaning and context in the latter task can be difficult (83). Moreover, without considering how a program's basic approach or delivery fits within a group's cultural norms and values, using linguistic strategies alone could result in the incongruous situation that access is indeed enhanced, but to a program or service that is culturally inappropriate (79).

Sociocultural approaches present health messages in the context of social and/or cultural characteristics of the intended audience. Resnicow et al. (77) refer to these characteristics as the "deep structure" of cultural sensitivity, which conveys salience to the target population when incorporated in health promotion programs. Using this approach, a group's cultural values, beliefs, and behaviors are recognized, reinforced, and built upon to provide context and meaning to information and messages about health.

Herek et al. (34) randomly assigned 174 Black adults from a community center to view one of three videos on AIDS. The first showed a White announcer and a multicultural message, the second a Black announcer but the same multicultural



message, and the third a Black announcer with a culturally specific message for African Americans (“...Blacks in the United States have always had to stick together just to survive as a people”; i.e., collectivism). This latter video was consistently rated more favorably than the others, including being rated as more credible, more attractive, and of higher quality.

In a recently completed study of cultural tailoring in African-American women, we developed and tested messages promoting fruit and vegetable consumption and mammography based on cultural values of spirituality, collectivism, racial pride, and time orientation (49). In a randomized trial, 1227 women from 10 urban public health centers received several issues of a women’s health magazine on cancer prevention tailored to each individual woman based on either behavioral construct tailoring (BCT), which customizes messages based on an individual’s status of psychosocial constructs derived from theories of individual behavior change (48), culturally relevant tailoring (CRT), which customizes messages based on an individual’s status on the aforementioned cultural constructs, or BCT + CRT. Follow-up interviews conducted at one and six months postbaseline assessed women’s responses to the magazines (attention, liking, yielding, memory storage, relevance, and showing the magazines to others). These responses were equally positive across study groups, except that women who received magazines tailored on cultural constructs only (i.e., CRT) had significantly less memory storage at one-month follow-up than women in the BCT and BCT + CRT groups. One explanation for this difference is that the health content of the magazines was obscured by the cultural context in which it was presented. As Rosselli et al. (80a) observed, an affective stimulus can decrease attention to the content of a persuasive communication and decrease content-based elaboration, even if its intention was to call attention to the message itself. This would seem especially plausible for women encountering health information presented in this way for the first time, as would be the case at one-month follow-up. Consistent with this explanation, these study group differences on memory storage were no longer present at six-month follow-up. Sample messages based on these cultural constructs are published elsewhere (50).

## CHANNEL FACTORS IN HEALTH COMMUNICATION

### How Do Channel Factors Influence Communication Effectiveness?

Although the channel through which a message is delivered can influence its effectiveness, these effects are complex and often mediated by source, message, and receiver factors (1, 7, 15, 112). This challenge makes studies comparing variations in communication channels difficult to design and interpret, which is likely why comparatively fewer studies have been done in this area relative to studies of other communication factors (66). Specifically, the challenge is that every medium has its own unique attributes such as sensory appeal (e.g., visual versus not), level of

interactivity, and reach to certain audiences. In many cases, these attributes are associated with not only the study outcome but also other communication factors. Such associations between multiple communication factors can easily confound results that intend to isolate channel effects.

Still, by recognizing the unique attributes of different communication modalities, more informed decisions can be made about selecting channels to be used in a health communication program. For example, studies have generally found that compared to other media, video tends to shift attention to source characteristics. It elicits more thoughts about (93) and positive perceptions of the source (74), is better able to carry nonverbal messages (27), and seems to be most effective with sources who are likable (15) or trustworthy (1, 112). In a 1993 meta-analysis, video ranked behind only face-to-face communication for the largest source effects attributable to message media (110).

At the most basic level, a target audience must have access to the channel through which health communication is being delivered. For example, a considerable gap—the so-called Digital Divide—exists between those with and without access to certain information and computer technologies that can deliver health information. Specifically, those with lower incomes and less education, as well as African Americans and Hispanics are less likely to have Internet access (22, 64, 102). In some minority populations, rates of access to communication technologies are less than 10%, and stability of this access over time is low (32). Based on these data, it would be hard to justify using an Internet-based communication approach to reach a significant portion of individuals belonging to certain population subgroups.

It is also the case that different population subgroups can vary in their perceptions of the same communication channel. In a Gallup poll to determine how minorities felt the media viewed their racial or ethnic group, 48% of African Americans were not satisfied with the way their local newspaper covers the African-American community (58). In a national phone survey of health information consumption, Brodie et al. (9) found that for every health topic, a majority of African Americans said they and their families were not getting the information they needed from the media. The survey also found that 74% of African Americans felt the media were not covering enough stories on illnesses most likely to affect Blacks as a group, and 71% felt most media directed their health coverage to a primarily White audience. In contrast, when asked whether Black and general media provided enough coverage of how Blacks are affected by health and health care problems, 38% said “yes” for Black media, but only 27% said “yes” for general media ( $p < .001$ ) (9).

Similarly, in a 2000 survey of a convenience sample of 3499 Internet users (41% Hispanic, 22% African American), the Cultural Access Group found that perceptions of the Internet varied considerably by group (102). Compared to other Internet users, African Americans and Hispanics were much more likely to disagree with the statement that “the Internet is colorblind,” and less likely to agree that “the Internet has helped break down racial barriers.” African Americans, but not Hispanics, were more likely to agree that “people of color have unique

needs on the Internet,” and that “there is inadequate Internet content for African Americans.”

## How Does Culture Influence Channel Factors?

Some communication channels first emerged for the primary purpose of sustaining and promoting culture. Black newspapers were originally established to enhance the quality of life of American Blacks by providing a mechanism for public dialogue within Black communities, a counterpoint to negative representations of Blacks, and an outlet for stories of unique interest or concern to Black communities (17, 75, 111). Black newspapers still serve certain functions in African-American communities that general media do not, including addressing issues that are especially important and relevant to African Americans and local Black communities (19, 41, 99).

In a 1993 national survey of 2522 African-American households, 90% of respondents agreed that Black newspapers provided information not available in the general press (98), and a majority reported that reading a Black newspaper made them feel like part of the local community. These findings are consistent with the uses and gratification theory of mass media consumption (45), which proposes that different people (e.g., African Americans) use different mass media to gratify different needs [e.g., provide a sense of community, cohesiveness, relevant information (11, 75, 105, 111, 113)].

In agenda-setting research, media news coverage is typically tracked over time to determine what issues are covered, individuals exposed to those media are asked what issues they think are important, and a correlation between the two is measured and tested (10). However, none of these studies have derived their news agenda from minority media, and only one study was designed to compare effects of agenda setting across different racial/ethnic groups. In that study, racial and ethnic minorities had a higher level of concern than Whites for issues like crime, the economy, and health care, which had received little coverage in the general media. Because minority newspapers were also available in the study community, the authors speculated that “exposure to the minority newspapers may have given respondents an agenda of issues. . .that differed from the mainstream news media agenda” (62). Indirect support for this explanation comes from Iyengar (39), who found interactions between issue salience of network news and relevance to audience members—specifically, civil rights stories affected Black viewers to a greater degree than White viewers.

## RECOMMENDATIONS FOR FUTURE RESEARCH

As summarized in the IOM report on communication strategies for diverse populations, there is an “urgent need” for studies assessing the relative effectiveness of different strategies of addressing diversity in communication campaigns and

programs (37). The report identifies three specific types of research that can help meet this need: (a) secondary analyses of existing data that examine subgroup effects of communication interventions that employed some kind of diversity strategy; (b) evaluations of new and ongoing communication programs in ways that assure appropriate data are collected to allow for subgroup analyses that can be linked to diversity strategies employed in the program; and (c) field tests in which communication programs using alternative diversity strategies are compared among equivalent groups. As an example, studies in this latter category might examine the differential effects of peripheral, evidential, linguistic, and sociocultural approaches to enhancing the cultural appropriateness of health communication, as described previously. Research is also needed to better understand the potential role of culture in audience segmentation. For example, is it feasible and cost-effective to identify audience segments that are homogeneous in terms of culture? Moreover, do such groups in fact respond more favorably to targeted health communication than audience segments formed on the basis of other variables?

The increasing recognition of culture as an important factor in public health and health communication has the potential to contribute to the development of new and more effective strategies to help eliminate health disparities. However, the evidence base supporting such a focus is currently underdeveloped. Thus, although the need for research on the role of culture in health communication is great, so is the opportunity.

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