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Behavioral Theory in a Diverse Society: Like a Compass on Mars

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Abstract

The behavioral theory constructs most often used to study mammography utilization—perceived benefit, perceived susceptibility, self-efficacy, intention, and subjective norms—have neither been developed nor sufficiently tested among diverse racial/ethnic subgroups. The authors explored these constructs and their underlying assumptions relating to the social context of Filipina and Latina women. The mixed-methods study included testing construct measures in the multilingual surveys of a concurrent intervention study of 1,463 women from five ethnic groups. An intensive inductive investigation then targeted Latina and Filipina women to elucidate connections between

social context and individual screening behavior. In-depth interviews were conducted with 11 key informant scholars, 13 community gatekeepers, and 29 lay women, and a supplemental study videotaped and interviewed 9 mother–daughter dyads. Three social context domains emerged: relational culture, social capital, and transculturation and transmigration. The meaning and appropriateness of the five behavioral constructs were analyzed in relation to these domains. In contradistinction to tenets of behavioral theory, the authors found that social context can influence behavior directly, circumventing or attenuating the influence of individual beliefs; contextual influences, synthesized from multiple perspectives, can operate at an unconscious level not accessible to the individual; and contextual influences are dynamic, contingent on distal and proximal forces coming together in a given moment and are thus not consistent with an exclusive focus at the individual level. This article describes the study methods, summarizes main findings, and previews the detailed results presented in the other articles in this issue.

Keywords

behavioral theory; culture; social context; mixed methods; mammography

The compass is a device whose function is inseparable from its context of origin, the planet Earth. Based on the concept of a magnetic north, a compass would not be useful, for example, on Mars with that planet's multiple magnetic fields. According to one NASA scientist, "If you were a boy scout with a compass on Mars, you would be lost" (J. E. P. Connerney, personal communication, August 22, 2003). Much of health behavior theory, anchored in the realm of individual cognition, has been developed and tested predominantly among university students (Ajzen, 1991) and then applied far more broadly. The bases for the theories are commonalities within groups in factors that influence behavior and the consistency and predictability of relationships among those factors. But these theoretically derived patterns do not operate in the same way for all people. Instead, when used in multicultural settings and among those of diverse socioeconomic backgrounds, this body of work can be likened to "a compass on Mars," a navigational tool that is designed for a set of forces and principles likely to operate differently—or not at all—in another milieu. Yet there is an implied universality in the way health behavior theories and their constructs are used. Despite the current emphasis on dissemination of evidence-based intervention (Green & Glasgow, 2006) and an emerging interest in the adaptation of tested strategies for diverse populations (Castro, Barrera, & Martinez, 2004), there has been surprisingly little acknowledgement that the fundamentals of the theories used to inform interventions may themselves require adaptation. Throughout this issue, we explore the fit or lack of fit between extant behavioral theory and the sociocultural contexts of immigrant and U.S.-born women of Mexican and Filipino descent.

This article is an overview of a study designed to assess the appropriateness of the five commonly used behavioral theory constructs related to the practice of mammography screening in two ethnic groups. First, we discuss the importance of culture and social context for understanding health behavior, particularly among populations affected by health disparities. Next, the methodological implications of studying behavior in context are presented and the study methods are detailed in this article. Finally, we present the overall study findings and introduce the articles in this issue, each of which explores in depth a subset of these findings.

BACKGROUND

A series of trials (e.g., Hiatt et al., 1996) to increase mammography use in low-income, multiethnic communities led members of this research team to question the cross-cultural

appropriateness of concepts and measures associated with the five behavioral theory constructs commonly used to explain and influence cancer screening: (a) intention (behavioral plans that enable attainment of a behavioral goal; Ajzen, 1991), (b) self-efficacy (the belief that a person has the ability to complete an action; Bandura, 1986), (c) perceived susceptibility (an individual's belief about the likelihood of a health threat's occurrence or the likelihood of developing a health problem; Becker, 1974), (d) perceived benefit (beliefs about the positive outcomes associated with a behavior in response to a real or perceived threat; Hochbaum, 1958), and (e) subjective norms (beliefs about the extent to which other people who are important to them think they should or should not perform particular behaviors; Fishbein & Ajzen, 1975). Despite the fact that these constructs were developed decades ago, they remain very much in use today, including their application across a wide range of ethnic groups (Pasick & Burke, 2008). Our preliminary quantitative analyses of several of these constructs from a baseline survey of mammography promotion trial among Northern California women from five ethnic groups (African American, Chinese, Filipina, Latina, and White) speaking four languages (English, Cantonese, Spanish, and Tagalog) and prior experiences with these constructs caused us to question their appropriateness for multiethnic, underserved groups.

These questions led members of the research team to initiate a study titled *Behavioral Constructs and Culture in Cancer Screening* (3Cs). Our objectives were to analyze the constructs quantitatively for comparability using standard statistical methods, to explore and describe the meanings and social context associated with each construct through inductive research, and to suggest construct adaptations by identifying missing or inappropriate concepts. In other words, by moving beyond an exclusive focus on individual beliefs, we sought to understand and describe the context in which behavior occurs and the implications of these dynamics. To achieve these aims, a multiethnic (with researchers from the Philippines, Colombia, and Chile) and transdisciplinary team was assembled to explore the meanings of these constructs related to mammography screening in two ethnic groups, Filipina and Latina women. Transdisciplinary research is defined as "an integrative process in which researchers work jointly to develop and use a shared conceptual framework that synthesizes and extends discipline-specific theories, concepts, methods, or all three to create new models and language to address a common research problem" (Stokols, Hall, Taylor, & Moser, 2008, p. S79). The fields represented on our team include anthropology, behavioral science, health psychology, sociology, and biostatistics. Together we formulated an approach to our study question that drew on all our disciplines but that necessitated substantial accommodation on everyone's part.

We focused on only two ethnic groups anticipating an intensive, iterative process of methods development, data collection, and analyses. It is important to note that this study was designed neither to characterize nor to compare Filipina and Latina women. Rather, it explores sociocultural context in two immigrant populations whose experiences exemplify a range of differences from the U.S. European American middle-class mainstream. The similarities of these populations, in terms of social context (e.g., colonialism, immigration, discrimination, therapeutic engagement), is our focus in analyzing the appropriateness of behavioral constructs. The specific choice of these two ethnicities was based on low rates of breast cancer screening, particularly among limited English proficient women (Jacobs, 2005), and the fact that they are well represented in the San Francisco Bay area, which is 4.8% Filipino and 19.4% Latino (Bay Area Census, 2000). In addition, these groups were included in our quantitative study already under way and were also those for whom we had the most prior data collection and intervention experience. Finally, these ethnicities were represented by members of our team, allowing for important insider-outsider research perspectives (Kagawa-Singer, 2000).

CONSIDERATIONS ON CHARTING NEW TERRITORY

Constructs in Context

Rather than an assessment of whole theories, and in the absence of precedents for achieving our study aims, we have made the components of theories our focus. Constructs are the theoretical definition of a phenomenon (Vogt, 1993) or a concept used in a particular theory (Glanz, Rimer, & Lewis, 2002). As Cook and Campbell (1979) noted, critical to the testing of theory is the demonstration of construct validity: that the variables involved in fact measure the construct of interest. In other words, a construct's meaning to study participants should be as intended by the theory. Our purpose is to advance understanding of breast cancer screening disparities. As such, we are most interested in the extent to which the constructs in question reflect the experiences of and function in the same way among subgroups of women known to experience low levels of screening.

Most behavioral theories have their origins in the concepts, principles, and methods of one or more of the disciplines of psychology, epidemiology, and medical science, all of which search for universal truths through the deconstruction of questions into component parts that are then analyzed to identify patterns that may be used to explain higher order observations. One of the most important of the universal truths of behavioral science was articulated quite simply by health psychologist Icek Ajzen (1991): "In the final analysis, a person's behavior is explained by considering his or her beliefs" (p. 126). Under this widely held paradigm, contextual influences on behavior are meaningful only as they affect beliefs.

Consistent with these principles, the above disciplines view culture (one aspect of social context; see below) in generally similar ways, as bounded and measurable phenomena that can be operationalized as variables for statistical models. In health behavior theories, culture is commonly reduced to such items or scales (e.g., culture as fatalism or modesty) as predictors of a variable of interest or is subsumed under a broad category of "environmental" or sociocultural influences, the mechanisms of which are not specified. Culture may be treated as a "risk factor," simply implied in analyses of racial/ethnic differences, or culture is not addressed at all (Kagawa-Singer, 2009). Regardless, in these approaches, culture is of secondary importance in the study of health behavior change, with its overwhelming focus on individual cognition (Pasick & Burke, 2008).

Anthropologist Keifer (2007) noted that human behavior is guided not by absolute laws but by the *meanings* people attach to events, and the process of attaching meanings is *contextual* ("the meaning one attaches to any thing or event depends on the configuration of things, events, and the meanings that surround it"; p. 41). Consequently, in real life all situations are contingent on the combination of forces and events that have led to a given configuration of circumstances at a particular point in time. These processes most often go on outside of conscious awareness, such that people cannot fully comprehend or explain why they do what they do (Nisbett & Wilson, 2005). From this perspective, beliefs of individuals under investigation play a minor role in understanding their behavior, despite the fact that beliefs are more readily accessible compared to complex contextual cues.

History, for example, affects us all. It makes a profound difference in every aspect of our contemporary lives, including our health-related behavior, if our parents migrated to the United States from Eastern Europe in the early 1900s versus being the children of Mexican immigrants in the new millennium. Certainly, many beliefs differ between these cohorts, with major implications for health behavior. But there are other overwhelming forces beyond the level of individual consciousness that affect one's relationship to medical care, lifestyle, and general orientation to health. This can be likened to the influence of the

Internet on 21st-century society or the contrasting influences of the gaming industry and the Mormon Church on lifestyle in the contiguous states of Nevada and Utah.

We understand culture as the patterned processes of people making sense of their world and the conscious and unconscious assumptions, expectations, knowledge, and practices they call on to do so. The term *patterned* indicates that culture is not random. Instead, there are consistencies within cultures that are at the same time flexible and situationally responsive. Thus, people both are influenced by culture and also bring culture into being as they go about creating and responding to their world—its structures, institutions, rituals, and beliefs. Culture is the outcome of a community of people and their diverse, often overlapping, sometimes contradictory, creative attempts to make sense of their world and live in it (Kagawa-Singer, 1997; for a more detailed discussion of social context and culture, see Burke, Joseph, Pasick, & Barker, 2009).

With this understanding of culture, we define social context, the conceptual framework for this study, as the sociocultural forces that shape people's day-to-day experiences and that directly and indirectly affect health and behavior (Burke, Joseph, et al., 2009; Pasick & Burke, 2008). Among the most widely recognized of these forces are vast differences in socioeconomic opportunity, individual independence or interdependence, social positioning, migration experience, spiritual and/or religious orientation, experiences of colonialism, and discrimination. It is plausible that some dimensions of social context overwhelm, attenuate, or even negate theorized influences of beliefs on health behavior.

Culture and the Fundamentals of Behavioral Theory

Our study was designed to illuminate aspects of sociocultural context that might contribute richer and more complete explanations of mammography use by U.S. Filipina and Latina women. The exploration from different vantage points (i.e., the perspectives of a range of informants) by investigators who understand the social structural influences that lay individuals may not be aware of allowed us to tap phenomena both within and beyond conscious awareness. In this way, the multiple dimensions and dynamic processes of culture and social context emerged in the form of overarching domains. Examining constructs in light of these domains was expected to reveal consistencies and inconsistencies between sociocultural contextual processes and the intended meaning of the five selected constructs (intention, self-efficacy, perceived benefit, susceptibility, and subjective norms). For example, Pasick, Barker, Otero-Sabogal, Burke, & Joseph, (2009) describe the practice of "saying yes but meaning no," a form of indirect communication (Gao & Ting-Toomey, 1998) that is both appropriate and innately understood in some cultures but that directly and obviously conflicts with the meaning and measurement of the construct of intention. Anthropological analytic methods were used to make such interpretations.

Instances where our data provide evidence of compatibility between constructs and important contextual influences lend support for the potential cross-cultural comparability and validity of the construct(s), whereas incompatibility calls such universality into question and points to the need for theoretical adaptations. Associations that are mixed or unclear require further inquiry. The articles in this issue provide detailed explications of contextual influences that are complex and largely beyond the perceptions of individuals yet that figure importantly into cancer screening opportunities and decisions.

Methodological Considerations

Referring again to our compass metaphor, in the physical realm magnetism is an all-pervasive and powerful but invisible force, the properties of which can be understood only indirectly by observing the effects of magnetic forces such as the movements of the needle

on a compass. Similarly, many aspects of culture cannot be directly observed, even though, like magnetism, its effects are everywhere. A critical difference is that cultural phenomena are multilevel, multidimensional, and dynamic such that they elude precise and parsimonious ascertainment. Thus, social science methods synthesize evidence from multiple perspectives (expert and lay) using a variety of data (observed and reported) and methods (e.g., collection of multiple forms of qualitative data). Behavior is studied not only explicitly and directly but also broadly and indirectly to form a multifaceted understanding of the interaction between behavior and context. Exploring and synthesizing multiple dimensions in this way leads to a closer approximation of daily life, illuminating influences that are subtle, distal, dynamic, complex, innate, and beyond conscious awareness or that simply are not accessible at the level of the individual (Schweizer, 1998).

Behavioral science primarily explores the single dimension of individual cognition. Concepts typically originate from expert opinion (almost exclusively on the part of White male researchers) derived from observation and experimentation, followed by testing using structured surveys and statistical analyses. According to the federal government's Cancer Health Disparities Progress Review Group, "Current theories, measures, and data collection modes were developed and standardized primarily within the Northern European-derived U.S. population. Although they are assumed to be generally applicable to diverse populations, there is significant and ample evidence to the contrary" (U.S. Department of Health and Human Services, Trans-HHS Progress Review Group, 2004). Adaptation for diverse groups, when considered, is usually based on focus group research that taps lay participant knowledge, beliefs, and practices, directly inquiring about existing concepts and constructs of interest (Pasick & Burke, 2008). These efforts are further limited by lack of cultural and inductive research expertise.

Complex phenomena of sociocultural context are best studied using multiple data sources (inductive and deductive, combined sequentially or in parallel) and multiple analytic methods in a single study design or a combination of studies structured such that the methods have "complementary strengths and non-overlapping weaknesses" (Johnson & Onwuegbuzie, 2004, p. 16). The intent in mixed-methods research is to better approximate accuracy by utilizing the strengths of both research approaches in ways that compensate for the weakness of each (Trostle, 2005). This approach includes not only different methods to collect data from different viewpoints but also the exploration and synthesis of information reflecting varied levels of abstraction. Mixed-methods research allows for a "more comprehensive analytical technique than does either quantitative or qualitative," providing a better understanding of phenomena. In this way, more meaning that enhances the quality of interpretation is generated. In addition, "convergence and corroboration of results" can result from varied methods applied to the same question; results from one method can elaborate, enhance, illustrate, and clarify results from another; results from one method can guide the other method; "paradoxes and contradictions" can be discovered that reframe the research question; and the "breadth and range" of inquiry can be expanded (Greene, Caracelli, & Graham, 1989; Onwuegbuzie & Teddlie, 2003).

Briefly, quantitative (mainly deductive) methods are ideal for measuring pervasiveness of "known" phenomena and central patterns of association, including inferences of causality. Inductive (mainly qualitative) methods allow for identification of previously unknown processes, explanations of why and how phenomena occur, and the range of their effects. Contextual influences emerge from the thoughtful process of combining several sources of data and looking for patterns. Tapping both lay and expert knowledge rather than lay knowledge alone can illuminate multiple dimensions of a phenomenon as well as explain why they occur. Anthropologic methods systematically record complex patterns of behavior interacting within differing social and cultural contexts. Tools for coding and analyzing

these data permit distillation and identification of complex and previously unrecognized relationships (Keifer, 2007).

Because this approach mixes not only methods but also assumptions, concepts, and values, it can more appropriately be regarded as mixed paradigms rather than merely mixed methods (Kagawa-Singer, 2009).

METHOD

Overview

The 3Cs study design is summarized in Figure 1. To assess the quality of quantitative measures that operationalize the constructs, questions were added to a survey in a longitudinal, randomized, controlled mammography promotion intervention trial (Pathfinders) targeting five ethnic groups that was already underway. Stewart, Rakowski, and Pasick (2009) report the details of the sample, study design, method, and results of the quantitative analyses.

Our inductive component consisted of a series of in-depth interviews that were analyzed in phases, first identifying dominant domains and themes and then using these as the backdrop for interpreting the appropriateness of the behavioral constructs. Figure 1 shows each component of the study in relation to the others and also links these to the articles in this issue.

Inductive and Qualitative Methods

Rather than employing the common formative research practice of explicitly and directly inquiring about cancer screening practices exclusively from the perspective of lay respondents, our methodology utilized an anthropologically designed approach to describe the broad web of direct and indirect influences in the lives of immigrant and U.S.-born Filipinas and Latinas living in the San Francisco Bay area (Pasick & Burke, 2008). This allowed access to the different perspectives of each group of informants (R. Bernard, 1998).

In-person open-ended interviews were used with Latino and Filipino scholars, clinicians, and community leaders as key informant (KIs; $n = 11$), Latino and Filipino social and health service providers and activists as community gatekeepers (GKs; $n = 13$), and U.S.-born and immigrant Latina and Filipina women (Community Women, CW; $n = 29$). Each set of interviews addressed similar domains and informed each subsequent round of interviews. For example, KIs discussed cultural and social patterns they had observed in their own research and personal experiences. Community GKs described daily experiences serving Latinas and Filipinas, illustrating ways in which the cultural concepts and social concerns discussed by KIs were negotiated in the realities of clients' daily lives, and women shared narratives of their experiences making health care decisions, facing discrimination inside and outside the health care system, negotiating migration and child rearing in a new country, and using local and transnational ties to address obstacles in the San Francisco Bay area.

Interviews were open ended in that we did not make the constructs the explicit focus of discussion. Rather, our questions primarily addressed the issues respondents considered important when thinking about women's lives here in the United States, their health care in general, and, in the final stages of interviews, screening mammography in particular. Also, although questions and probes were developed in advance, respondents were free to take the discussion in many directions that were pursued to the extent that they met the criteria of having implications for health decisions and practices. Gradually, a multidimensional picture emerged of the daily relationships and activities of women in the context of family, community, and a broad array of sociopolitical, economic, and historical influences and

ultimately the impact these contexts have on health decisions and practices. Although the conversations were wide ranging, they were always brought back to questions of decision making and specifically to mammography. For each set of respondents, interviews were continued until we reached theoretical saturation—that is, until no new themes emerged.

Candidates for KIs were identified by members of the research team based on a combination of discipline and personal background. The final list consisted of five Latinos and six Filipinos, five of whom were male, with six females. Most of the KIs had PhD degrees, one had an MD, and two were members of the clergy (one Protestant, one Catholic). The disciplines represented included sociology, theology, psychology, communications, and anthropology. In our invitation to participate, prospective KIs were told that it was not necessary that they have expertise in or familiarity with the cancer screening or health behavior fields. Rather, we expressed interest in their views and experiences as scholars in Filipino or Latino society and in hearing their opinions about the central ideas, beliefs, or behaviors within these communities that could influence cancer screening. Each KI was interviewed in one session by two to four members of the research team in our research office. Topics of discussion began broadly and gradually focused more specifically on cancer screening: values and cultural beliefs that influence daily lives of women, the behavioral patterns that exemplify these influences, the greatest challenges in adjusting to life in United States, family structure and roles, gender issues, health issues, breast cancer and cancer screening, values that are most influential, and behavioral patterns that exemplify these influences. KI interview topics and questions are shown in Table 1.

Community GKs were identified by members of our research team based on their position and role within the community to include a range of public health and social service expertise. These 14 respondents included a public health nurse, public hospital outreach workers, a nurse practitioner who directed a community clinic, a registered nurse, three social service agency directors, and other community advocates. All but one were women, and there were 7 from each ethnic group. GKs were interviewed by two members of the research team in the location of their choice, usually their own office. Questions addressed major community concerns, general health issues, use of services, community activities and support, and cancer. Table 2 shows the topics and questions addressed with GKs.

In all, 29 U.S.-born and immigrant Filipinas and Latinas from the community were recruited by research team members through professional and community networks and via snowball methods (e.g., at the close of an interview, we would ask a woman if she knew of others who might be interested in participating). Women were interviewed by two members of the research team in a community location that was convenient for the respondent. Questions were guided broadly by the themes raised by KIs and GKs both to confirm the influences described by those respondents and to determine how major influences played out in women's lives. These themes included the challenges of poverty and being an immigrant in this country; the presence or absence of support from family, friends, and community; and the meaning of the interconnectedness among these entities related to interaction with the medical care system and adoption of cancer screening. Thus, questions focused on relational issues, familiarity, medical system interface, and negotiating skills. Table 3 lists the topics and questions for community women (CWs).

Data Management and Analyses

Informed consent was obtained from all respondents, and study protocols were reviewed and approved by the Committee on Human Research at the University of California, San Francisco. All English-language interviews were audiotaped and transcribed. Interviews in Spanish or Tagalog were taped, translated, and transcribed in English (H. R. Bernard, 2005). Transcripts were coded by three study investigators following an inductive, anthropological

approach. Where different codes were assigned, discrepancies were discussed until consensus was reached. The final list consisted of 231 codes. Coded transcripts were then entered into ATLAS.ti ethnographic software, which enables quote retrieval by code. In all, more than 2,200 pages of coded transcripts were produced and analyzed.

We developed a phased approach to analysis. One team of investigators independently identified 5 to 10 codes they associated with each construct (e.g., for self-efficacy, codes included reciprocity and negotiating skills; for subjective norms, codes included family dynamics and trust). These code lists were discussed until one central code list was agreed on for each construct. All text associated with these codes was then retrieved and subjected to more detailed analysis with particular attention to the construct of interest. This team generated summaries of each code thought to be associated with one or more of the five behavioral constructs, including illustrative quotes.

In addition, several investigators reviewed all the codes and identified recurrent themes (i.e., threads throughout many different interviews) and brainstormed ways in which these codes related to one another. In one formulation, it was clear that there were codes reflecting the broadest domains of social context (e.g., social capital), codes related to individual-level phenomena (e.g., doctor–patient relationships), and codes that fell in between (e.g., church). The first team approach proved limited, identifying only narrow aspects of context related to the constructs. However, once we started to array codes from broad to individual level, we could see relationships among the constructs and the broadest aspects of social context. For example, we traced connections in coded text from individual health decisions to provider–patient relationships, to medical care system factors, to social structural factors, to postimmigration characteristics, to preimmigration characteristics, to the broadest contextual factors. These naturally fell into three overarching social context domains.

At that point, a third team of investigators returned to the original, uncoded transcripts and reread them with an eye specifically to each construct (as opposed to the open content coding of the first review) as related to the domains. This rereading enabled us to both recover any data not captured in the original coding and review the data in the context of the entire transcript, instead of in abstracted text segments. This rereading also contributed to our emerging understanding of the broad, multidimensional, and complex influences of the overarching domains of social context identified in the second team's analysis. Monthly meetings and biannual retreats over a 3-year period permitted regular updates on findings, the refinement of analytic strategies, and ultimately our main conclusions and the configuration for reporting.

In addition, because initial analyses revealed frequent mention of adult daughters' relationships with their mothers in health decisions, a supplemental study was developed to explore the mother–adult daughter relationship for the construct of subjective norms, a relationship that has not been explored in the health literature. A form of direct observation, modeled after the work of McGraw and Walker (2004), was used in which mothers and daughters were videotaped in conversation about health and mammography, and then each was interviewed separately (Washington, Burke, Joseph, Guerra, & Pasick, 2009).

Together, these qualitative data formed a multifaceted portrayal of the lives of immigrant and U.S.-born Filipina and Latina women, creating a lens through which we could examine the assumptions and intended meaning of the constructs. The summary findings that follow reflect our interpretations accompanied by illustrative quotes. When quoting from interviews, we use an abbreviation for type of interview (KI = key informant, GK = gatekeeper, CW = community woman) and a number (e.g., K15, GK2, CW7) to indicate the interview participant.

MAJOR FINDINGS

Three Overarching Domains

In Phase I of our analyses, we discovered three social context domains that permeated all types of interviews and were manifest in many forms. These are described in detail in articles titled “Social and Cultural Meanings of Perceived Self-Efficacy” (Burke, Bird, et al., 2009), “Perceived Susceptibility and Perceived Benefits in the Context of Transculturation and Transmigration” (Joseph, Burke, Tuason, Barker, & Pasick, 2009), and “Intention, Subjective Norms, and Cancer Screening in the Context of Relational Culture” (Pasick et al., 2009).

Domain 1: Relational Culture—Informing our first domain, the centrality of relationships emerged as a powerful multifaceted cultural influence. Quotes on this topic were coded as *accompaniment, collectivism, familism, family dynamics, friendship, harmony, interdependence, respect, social networks, trust, and kapwa* (Tagalog for “shared humanity”), among others. We synthesized a constellation of such codes under an overarching social context domain that we labeled *relational culture*, defined as the processes of interdependence and interconnectedness among individuals and groups and the prioritization of these connections above virtually all else. The average person would not necessarily think about such influences, nor would he or she be conscious of their facets, origins, or implications. But we were able to interpret the responses of our KIs and GKs, with their wider angle understandings of their communities, as multifaceted explanations of behavior.

The following quote from a community GK (public health nurse) illustrates the influence of relational culture. This was a story about a Filipino patient with diabetes who refused a specialist’s recommendation to have a foot amputated: “He [the doctor] just told me that I needed to get that off, and I don’t even know him.” The GK explained that a stranger cannot convey such personal information, that it must come from someone the patient knows and trusts and must be delivered in a more caring and subtle way. This GK was able to convince the patient to be admitted to the hospital that night.

Another KI observed, “You cannot convince the traditional Filipino that ‘research has shown.’ No, no, no.... There is an interpersonal relationship that has happened already between the person, the two of them.... She, she is not believed because of her authority, but she is believed because there was a caring relationship.” In other words, the quality of the relationship informs the credibility of the information. A Latina KI described the concept this way:

If you call it *relation-ships*, it essentializes. What I would say is it’s *relation-al*, because it’s a process, not [an] essence ... it’s about how one maneuvers life as a process.... It’s relational in that you’re not an individual that lives in your head, but you’re an individual that lives in process with other human beings. (KI07)

As many informants agreed, in the relational culture context, two is the minimum functional unit rather than the sole individual, meaning that people think of themselves less as individuals and more in terms of their place in relation to others. The intricate and nuanced portrayal of relational culture that emerged across all our respondents provides a rich explanation for what is often reduced in the health promotion literature as, for example, the simple understanding of the importance of the family among Hispanics. Although very similar to the concept of collectivism (feeling duty to in-group) which is defined in opposition to individualism (valuing personal independence over group membership; Oyserman, Coon, & Kimmelmeier, 2002), we use relational culture as a more dynamic and unbounded concept (Pasick et al., 2009). It is important that one of the prominent authors on

this topic, Geert Hofstede, declared that “the individualism versus collectivism distinction has become the main challenge to the universal applicability of Western psychological theories” (Triandis, 1995, back cover) because of the vast implications of this dimension of culture for lifestyle and behavior.

Domain 2: Social Capital—Another social context domain that emerged as fundamental to women’s ways of living, including their own understandings of their lives, priorities, and health practices, is *social capital*, defined here as the benefits and challenges that accrue from participation in social networks and groups (Burke, Bird, et al., 2009). Social capital is a thread woven throughout our interviews in a range of positive and negative forms. Among the codes that relate to this domain are *coping strategies*, *women’s identity*, *negotiating skills*, *helplessness in the United States*, *discrimination*, and *community and social support*. Relational at the community level, Wallach (2000) calls social capital “a glue made from various ingredients that holds communities together and allows them to work better together to achieve common goals” (p. 339). One KI described this as strength in numbers:

When you go to Miami and you go into a Cuban neighborhood ... you think you are in Puerto Rico or Cuba. So there is a welcoming climate that’s very important.... You have some social capital so you can help yourself.... [But] the more segregated you are, the less interaction you have with the white dominant culture ... the less negotiating skills you get, the less social capital, the more fear you have. (KI03).

The core value of *pakikisama* (the desire for community) can be considered a facet of social capital, as described by a Filipino GK this way: “That’s who we are as Filipinos ... that community is really important to us ... and a sense of belonging ... you want to find a group of people that you can celebrate with, that you can mourn with ... you know, you have a sameness, so it’s not so foreign being here.” (GK04) The Latino community experience was similarly described by a community member:

As Latinos we are ... very festive in spite of the situations that life presents. It is very difficult as an immigrant to come here and go through so many situations: the language barrier, the psychological and socioeconomic barriers, it is all very difficult. So I think that in these types of gatherings, for us as Latinos we try to get out the sadness of the trauma or the barriers that we feel in our lives, especially as immigrants. So we use anything as an excuse to have a party ... if someone is a year older or they are not a year older. (CW5)

Domain 3: Transculturation and Transmigration—The third domain is *transculturation and transmigration*, respectively cultural change processes and migration in which relationships are sustained across national boundaries (Joseph et al., 2009). Far from distinct, the concepts of social capital and transculturation are intricately interconnected in structure and function. Joseph et al. (2009; “Perceived Susceptibility and Perceived Benefits in the Context of Transculturation and Transmigration”) elucidate the dimensions of this third domain that include a range of past and present social contextual influences on immigrant life such as colonialism in home country and discrimination in the United States. One Filipino KI explained,

Part of the psychology of being colonized is knowing deep within your soul that you’re not really inferior ... but you’ve been told, and you’ve been oppressed, and your life and economic and social conditions have been structured so that it really almost convinces you that maybe you are indeed inferior.... The big thing is just being intimidated because you don’t have the knowledge, because you don’t have

the connection, you don't have the confidence and perhaps the feeling of, you know, feeling inferior. (KI04)

This was also referenced by a GK: "Because I think people just have such a fear that they're going to walk into a hospital and that all of their power is going to be taken away and that they're not going to understand what's happening to them." These issues were articulated by women in the community, as exemplified by one Latina: "If I speak Spanish and I dress differently, I eat tamales, in other words, I am less than this other person here." Codes associated with transculturation and transmigration include *biculturalism*, *decolonization*, *immigrant expectations*, *return to homeland*, and so on.

In contrast to acculturation, the framework of transculturation accounts for the multidimensional cultural transformations that occur when people from different cultural contexts meet through colonialism, imperialism, and migration. Transculturation takes into account historical context as well as economic and other power relationships. Transmigration is a parallel concept and has been used in recent years in migration theory to describe migrants' maintenance of connections between country of origin and destination country and the mutual influences of the social structures and commitments in both places (DeGenova, 1998; Espiritu, 2003).

We found that the cultural change processes of transculturation and transmigration were direct influences on participants' behavior and orientation to illness, health, and preventive care. For example, fears about immigration status led some of our participants to obtain their health care in their country of origin on visits home rather than confront the U.S. health care system. Others simply continued the health care routines they learned in their home country, which often precluded preventive care:

But I personally have not gone to the doctor. So, I have not had that experience here. I went in Mexico but just when I had my children: prenatal care before I had them, to make sure that everything was fine during the pregnancy, and later on for my children's checkups, to make sure their development was good. And lately they are really the reason I go to the doctor. (CW10)

Long-standing religious and spiritual orientations, reflective of ties to the homeland and connections reaching back to ancient ancestors, can also directly inform health behavior. For example, among some Filipina participants, the cause of illness was located in relationships that were out of balance or disharmonious or in retribution for bad deeds or immoral behavior:

Well, it's not only spirits, it's also displeasing friends or neighbors or other people because God ... it's God's way that if you hurt another being, right, maybe through being bad, God has punished you.... So, you better be at peace with everybody ... yes ... you better be at peace with everybody.... So, that's why the shaman becomes an important agent because he's supposed to appease everybody through the ritual. (KI11)

Such worldviews are combined with experiences of discrimination in the health care system, as vividly described by Joseph et al. (2009). This potent mixture of new and old can render the health care system not just unwelcoming but threatening. Importantly, health promotion interventions and messages that link in any way to this system may be deemed suspect or irrelevant.

Conclusions by Construct

The three major domains, which reverberated throughout all of our interviews, provide the context for Phase II of our analyses in which we examined the appropriateness and meaning

of the five theoretical constructs. Although these domains are inextricably interconnected in complex ways and have implications for all five constructs in question, for reporting purposes we identified the most salient context–construct linkages and conducted analyses to explore perceived susceptibility and benefits in the context of transculturation (Joseph et al., 2009), the meanings of perceived self-efficacy in the context of social capital (Burke, Bird, et al., 2009), and intention and subjective norms vis-à-vis relational culture (Pasick et al., 2009). These analyses yielded unique conclusions for each construct: We identified divergent meaning (ways in which the constructs appear to be incompatible with powerful sociocultural influences); amplification of underlying concepts, their determinants, or assumptions; possible new dimensions of influence on behavior (contextual factors that appear highly salient but are not accounted for by the constructs); support for some aspects of constructs; and, in the case of subjective norms, insights to construct measurement (i.e., inclusion of the mother–adult daughter relationship).

Again, these findings emerged from our far-ranging inquiry that explored aspects of women's lives that are removed from specific health beliefs and the practice of mammography. In contrast, across the all respondents (KIs, GKs, and women), responses to direct and explicit inquiries about mammography were generally consonant with the theoretical concepts and constructs in question, that is, women talked about positive and negative aspects of mammography and common barriers to getting screened.

Our analyses by construct yielded the following results that are summarized in Table 4. Perceived susceptibility and perceived benefit are entirely cognitive and exemplify the overemphasis on provision of information as an appropriate intervention strategy that is implied by many behavioral theories. However, Joseph et al. (2009) show how meanings of health, risk, and illness may be intertwined with immigrant experiences of discrimination, fear, unfamiliarity, and distrust, concepts that are far more complex than attitudes about screening; that fundamental understandings of life and health based on generations of deeply held religious and spiritual beliefs can conflict with physiological explanations used by Western medicine; and that interconnectedness with others, the source of much that is important and credible, renders information from “experts” questionable. Thus, scientific data on susceptibility and benefit may be far less consequential for immigrant groups than is implied in most behavioral theories.

Rather than calling into question the tenets of self-efficacy, findings reported by Burke, Bird, et al. (2009) elaborate on the construct by examining this individual-level construct in the context of community-wide social capital. In doing so, they show that the predominantly cognitive definition of perceived self-efficacy operationalized in health behavior theories fails to address the multiple dimensions of the construct in women's daily lives. For example, women described perceptions of, and experiences with, self-efficacy in terms of caring, support, relationships, and family. In addition, they defined self-efficacy in terms of the connections with others that enable them to take care of those most important to them. The concept of social capital is elaborated in this article as a means to expand our understandings of self-efficacy and to improve our understandings of women's health care behavior and decision making.

Although the theoretical concept of subjective norms is generally appropriate, reflecting as it does the importance of influential relationships, we suggest that the construct is severely limited by its exclusive basis in beliefs about what others think of a given behavior. Pasick et al. (2009) show that relational culture implies a much more fundamental and powerful orientation to and construal of one's self and others, thus implying that much of the relational process is subconscious, ingrained, and pervasive. In this article, the authors also identify stated meanings of intention that differ from that of the construct and reveal that in

relational cultures the concept of intention may be bypassed in ways not anticipated in behavioral theories. For example, relationships alone can prompt behavior in the absence of intention, or lack of relationship (with physician or clinic personnel) can undermine intention. In addition, intention may be arrived at collectively rather than individually, and there are many contextual influences that may intervene between intention and behavior.

Washington and colleagues' (2009) use of an anthropologic approach suggested a new dimension for the subjective norms construct, the mother–adult daughter relationship as highly influential in health and cancer screening decision. The results of this study present a nuanced picture of adult daughters as important sources of health information to and key players in the health decisions of their mothers, indicating that they could be included in the measurement of subjective norms. Finally, the daughter's potential to favorably affect her mother's health choices may vary with the nature of the relationship boundaries in the decision process.

In sum, the constructs as currently formulated may be at best too simplistic and unidimensional to fulfill their functions of explaining and predicting behavior and contributing to effective intervention messages for Filipina and Latina women. At worst, the constructs could be wrongly conceived, particularly with their focus on cognition, the magnetic north in our compass metaphor, serving to misdirect efforts to reduce disparities. As Crosby, Kegler, and DiClemente (2002) observed, theory can serve to guide the selection of constructs that will help us understand behavior, or “theory can limit the breadth of observations ... and the scope of interventions” (p. 4).

Finally, Burke, Joseph, et al. (2009) use our approach, methods, and findings to show how anthropologic theory and methods can enhance understandings of behavior in context. They do so by contrasting a unified social contextual theory with social learning theory and socioecological models, both of which represent advances in studying behavior in reciprocal and multidimensional ways but which still heavily focus on cognition.

DISCUSSION

Culture may be likened to physical magnetism in the power that all of these forces exert on everything we do and their seamless and mainly unconscious integration into our lives. To understand the role of culture and social context in health behavior, we must apply methods that reveal the dimensions of these phenomena. Neither surveys nor simple focus groups can achieve this. The report by Stewart et al. (2009) that the all-important construct of intention predicted mammography only for White women in a study of five ethnic groups is sobering. Yet when juxtaposed with Pasick et al.'s (2009) elucidation of the many ways that relational culture can influence intention, the quantitative data are supported and explained. For this study, we went beyond direct (focusing explicitly on the constructs) quantitative and/or focus group research by inductively exploring the sociocultural context in which the behaviors of interest take place. Our multimethod approach allowed us first to determine how standard quantitative indicators of the five constructs performed across cultures and languages and then to broadly and inductively explore the “how” and “why” dimensions of cancer screening, that is, the more subtle, distal forces that come into play. The combination of approaches functioned as intended in at least four important ways. First, as mentioned, our qualitative findings added rich explanatory dimensions to our quantitative data. Washington et al.'s (2009) case for new dimensions of subjective norms illustrates the potential of direct observation in contributing to meaningful theoretical concepts, particularly where complex interactions are involved.

Second, varied sources of knowledge (KI scholars, community GKs, and lay women) yielded complementary and expository findings. For example, the sequence of quotes presented earlier illustrating the social capital domain exemplifies the synergy of data from varying perspectives. A KI outlined the broad phenomenon of social capital, a GK described community-level manifestations, and a lay woman provided an illustration of the concept from everyday life. Similarly, we learned about relational culture from our KIs, who described this interconnectedness in many ways. Women themselves, however, had a difficult time explaining this phenomenon, saying that they preferred the company of others “so we don’t look stupid” or “to know what’s going on ... to know everything.” None of these perspectives alone could have the power of this combination.

Third, we would have missed the relationships of social capital, transculturation, and relational culture with breast cancer screening had we followed common public health methods, directly querying community women either quantitatively or qualitatively about the constructs and/or influences proximal to mammography use rather than exploring life more broadly. In fact, when our questions were more cognitively focused, women’s responses were consonant with the theories and constructs. Does this negate the contextual influences and our interpretation of their role in behavior just as we suggest that our broader data negate some aspects of the constructs? The complexity of human behavior and its origins suggests otherwise and points more to the rejoinder that simple questions yield simple responses and afford a natural fit with long-standing health behavior paradigms. But we have shown that the context of the same respondents, when scrutinized from varying perspectives, yields highly plausible alternative understandings that would not be obtained from an exclusive focus on the women themselves.

Fourth, the transdisciplinary approach was key because this study would not have been possible exclusively in psychology or behavioral science (the bases for behavioral theory) nor in anthropology or sociology (which provided the methods for exploring sociocultural context) alone. Literature on transdisciplinary research (Stokols, Hall, Taylor, & Moser, 2008) has not as yet considered the need, potential, and challenges of transdisciplinarity across and within the social and behavioral sciences. Instead, recent writings on this topic address broader integration of basic, clinical, behavioral, environmental, and policy research. In public health, this is based on the “socioecological model” (Smedley & Syme, 2001), a widely regarded and important framework that has successfully advanced the field beyond decontextualized determinants of health and health behavior by explicating organizational, socioeconomic, and political influences (“social determinants”; Hiatt & Breen, 2008), leading to interventions that target institutions, communities, and policies in addition to individuals (Emmons, 2000a). Still undeveloped, however, are the cultural aspects of context and their integration with socioeconomic and political forces. Reasons for this likely include lack of consensus on what culture is (Kagawa-Singer, 2009) and the fact that much socioecological research remains anchored in the quantitative realm. Although qualitative research is regarded as an appropriate component of transdisciplinary research, anthropologic methods such as ethnography are as yet rarely used in behavioral research.

To more effectively understand and address cancer and other health disparities, transdisciplinary research within the behavioral and social sciences should be pursued with a specific focus on integration of social context and health behavior. In this process, the ideal mixed-methods approaches will be iterative where qualitative methods inform quantitative measurement, the results of which are explicated with additional qualitative research. Intervention trials, informed by both forms of data, can also be best evaluated with variations of the same combination of methods.

Implications for Research

The 3Cs study has taken only a small but first step toward empirically testing the meaning of current behavioral theory constructs across cultures. It does, however, raise important questions regarding the validity, universal applicability, and the appropriateness of current methods for devising, testing, and using extant cognitive theories. Proverbially, further research is needed. Several lessons from this study can guide subsequent research.

Clear findings are that much can be learned by venturing beyond the usual individually focused and deductive methods and that exploration of sociocultural contextual influences requires the best of both qualitative and quantitative paradigms (Kagawa-Singer & Chung, 2002). Indeed, the persistent and intractable nature of health disparities, which overwhelmingly affect populations that have not been the focus of basic theory development and testing, is a call to reevaluate the study of health behavior from a purely psychological, quantitative, deductive, decontextualized perspective. Navigating our way toward that end will require researchers who are cross-trained in inductive and deductive paradigms and/or trained to work effectively as part of a transdisciplinary team. Critically, the gatekeepers of scientific discovery, scientific peer reviewers, must come to understand, value, and promote inductive and mixed-methods research.

Can new constructs be developed that capture sociocultural influences on health behavior? Kagawa-Singer and Valdez-Dadia (2009) persuasively argue that better measures of culture can and will improve predictors of the risk and protective factors, improving variance across the cancer continuum from the development of cancer to treatment outcomes.

Further *basic* research is needed to refine efficient methods for developing more contextualized constructs. Our study took many years, but in large part this was because of a lack of a road map. Hopefully, efforts to build on this work or to replicate it with other ethnic groups can go more quickly. Attention to context in the development of constructs would be expected to improve validity. Whether complex and dynamic processes can be adequately captured by static measures remains a question. Possibly even more challenging will be measurement of factors that are not consciously accessible. Thus, it is likely that qualitative methods will always be needed to bring an essential dimension to quantitative studies.

Implications for Practice

It is always desirable for practitioners and program planners to rely on research-tested approaches if they are available as opposed to spontaneous instinct-driven invention or reinvention. The admonition is increasingly heard that the best evidence is “theory based.” This advice remains true but with some qualification. Practitioners should take note of the theoretical origins of a tested intervention and the populations that participated in the research. Questions of comparability or appropriateness should be addressed through community input to an adaptation process. This will ideally include scholars and community leaders along with lay individuals. Careful process evaluation is also important to continually assess impact. More than ever, we believe the results of our multiperspective inquiry support the value of community-based participation in program development and adaptation from the outset of an initiative. It is important, though, that this alone does not constitute “cultural competence.” Rather, a purposeful effort to recognize and respond to the key contextual factors of people’s lives should garner credibility, resonate with community members, and effect desired change.

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Figure 1.

Behavioral Constructs and Culture in Cancer Screening (3Cs) study design and associated reports.

* Access and Early Detection for the Underserved, Pathfinders (1998 to 2003), a mammography and Pap screening intervention trial under way when 3Cs began.

Table 1**Key Informant Interviews**

Topics explored	<ul style="list-style-type: none"> • How Mexican and Filipino women think about health • Primary sources of influence on women's health maintenance behavior, particularly as related to breast health and/or breast cancer • Values and cultural beliefs that influence daily lives of women • Behavioral patterns that exemplify these influences • Greatest challenges in adjusting to life in the United States • Family structure and roles • Gender issues • Health issues • Breast cancer and cancer screening • Values that are most influential
Questions asked	<ol style="list-style-type: none"> 1 If you were doing this study, what would be the three crucial things you would inquire about? 2 From your studies and observations of Filipino/Mexican culture, what are the values that appear to influence how women carry out their daily lives? 3 What are some behavioral patterns that exemplify these influences? 4 Are there aspects of family structure or organization that are unique to Filipino/Mexico culture in relation to roles assigned to each family member? 5 How are decisions made and problems solved in the family (i.e., who is involved in the process, and what does the process entail)? 6 How would this differ if it were a health problem versus a different type of issue? 7 What are the methods of intergenerational transmission of values, beliefs, or practices? 8 What decisions or changes regarding her lifestyle practices can a Filipina/Mexican woman make of her own volition? 9 What factors (norms, beliefs) tend to promote her willingness (and ability) to make such decisions or changes? What tends to be inhibiting? 10 What are the cultural beliefs about illness prevention and/or treatment? 11 To what extent are issues of personal health explicit topics of conversation? 12 Do women who are close family or friends share in common perspectives on personal health, or is there some variation in health practices within the same community? 13 When there is action to be taken around health, is it a personal or individual matter, or is it something to be addressed jointly by more than one person? 14 Would a woman feel empowered if given information regarding, or access to a service that can protect her health? 15 If information, access, or resources are not sources of empowerment, what are?

Table 2**Community Gatekeeper Interviews**

Topics explored		<ul style="list-style-type: none">• Major community concerns• General health issues• Use of services• Community activities• Support• Cancer
Questions asked	General orientation to community served Various aspects of daily living and health	<ol style="list-style-type: none">1 First, could you tell us a little about your work in the community?2 How would you describe the majority of people (or different groups of people) with whom you have contact in the course of your work? What kinds of contacts do you have with these people? Why do they come to you/you go to them?3 What kinds of activities, or errands outside the home, might women be likely to perform on their own, and what sorts of things are they most likely to do in the company of a friend or a family member?4 What do you think are the reasons for this?5 From what you know of Filipinos/Latinos in your community, which family member or members take the major responsibility for the family's health care, and making decisions about their health care? How does this come about? What does it mean in terms of how and when that responsibility is enacted?6 In this community, how important are health and health care issues compared to other issues? What ideas or views regarding health or health care do you hear about in this community?7 Despite the many barriers that people face to health care access, what are the motives that push people to get the services that they need?8 How do women get what they need? Do you ever hear your clients mention ideas about or a concern with preventing disease? What have you heard?9 Do you ever hear cancer mentioned or discussed in your community? What have you heard?10 Have you ever heard any of your clients mention or discuss things that might cause cancer or ways to prevent cancer?11 In general, what do people "do" about cancer?12 What do women know about mammography?

Table 3**Interviews With Community Women**

Topics explored	<ul style="list-style-type: none"> Challenges of poverty and being an immigrant in this country Presence or absence of support from family, friends, and community Meaning of the interconnectedness among these entities related to interaction with the medical care system and cancer screening
Questions asked	
Relational issues, familiarity	<p>1. When you go shopping, do you usually go with someone else or by yourself? Take me through a recent shopping trip.... How did it start? What did you talk about? How do you feel about going by yourself? How would it be different?</p> <p>2. Do any members of your family or friends shop by themselves?</p> <p>3. Why do you think they do that?</p> <p>4. Are there things you do here with others that you'd have done on your own in Mexico/Philippines? What and why is that?</p> <p>5. When you go to the doctor, do you go alone or with someone else?</p>
Prevention	<p>6. How can you tell you need to go?</p> <p>7. Do you ever go when you're not sick?</p>
Medical system interface	8. Can you talk about a time you went to the doctor or the hospital here?
Negotiating skills	9. How did you figure out where to go? Who went with you? How did it feel? Did you feel welcome?
Medical system interface	10. What is the hardest thing for you about going to the doctor or clinic here?
Negotiating skills	11. What can you do now compared with the first time you went to a doctor here in the United States?
Medical system interface	<p>12. Can you describe your idea of a perfect visit with a doctor here?</p> <p>13. Can you talk about the last time your doctor asked you to do something like take some medicine or stop doing something that might be unhealthy?</p> <p>14. What did you do? (Did you understand what s/he was asking of you? If not, did you ask her/him about it?)</p>
Relational issues	<p>15. Did you talk to anyone else about it? Whose opinion really matters to you? Why is that?</p> <p>16. What did you decide to do?</p>
Mammography	<p>17. Now let's say _____ [person mentioned above in shopping discussion] suggested that you get a mammogram. How would you feel? What would you say? What would you do?</p> <p>18. What if you went to a new doctor and s/he recommended a mammogram? What would you think about that? What would you do?</p> <p>19. What's the difference between the two (the doctor's recommendation and _____ 's recommendation)?</p> <p>20. What about your mother, what do you think she'd do?</p>

Table 4

Qualitative and Inductive Findings

Exploring the Social Context of US Filipina and Latina Women		Constructs in Context: Highlights of Analyses by Theme ^a	
Major Domains/Definition	Themes/Subthemes	Construct and Meaning Intended by Theory	Construct in Context (Implications of Theme for Construct)
Social Capital The benefits and challenges that accrue from participation in social networks and groups	<ul style="list-style-type: none"> meanings of self-efficacy spheres of efficacy constraints on self-efficacy sources of social capital (local, transnational, familial and extrafamilial relationships) differential access to, and quality of, social capital Subtheme: social connections	Self-Efficacy Belief that a person has the ability to complete an action	<ul style="list-style-type: none"> Meaning of perceived self-efficacy is broader than implied in theory Common measures are overly simplistic Spheres of efficacy are complex, strongly influenced by social capital There are numerous constraints on self-efficacy Common self-efficacy interventions are incompatible with a social capital model
Transculturation/Transmigration Cultural change processes/migration in which relationships are sustained across national boundaries	<ul style="list-style-type: none"> colonialism immigration dislocation and disorientation immigration status discrimination therapeutic engagement 	Perceived Benefit and Perceived Susceptibility <ul style="list-style-type: none"> An individual's belief about the likelihood of a health threat's occurrence or the likelihood of developing a health problem An individual's belief about the likelihood of a health threat's occurrence or the likelihood of developing a health problem 	<ul style="list-style-type: none"> Meanings of health, risk, illness intertwined with colonial and immigrant experiences of discrimination, unfamiliarity, fear and distrust Understandings of life and health based on religious and spiritual orientations and practices that sometimes conflict with biomedical explanations Interconnectedness with others renders information from "experts" less important than information from trusted others Scientific data on susceptibility and benefit are far less consequential for immigrant groups than implied in theories
Relational Culture The processes of interdependence and interconnectedness among individuals/groups, and prioritization of these connections above virtually all else.	<ul style="list-style-type: none"> interdependence Subthemes: self/connectedness, prioritization of others, accompaniment familiarity, caring, and trust; harmony 	Intention Behavioral plans that enable attainment of a behavioral goal	<ul style="list-style-type: none"> Varied meanings of stated intention Relational culture can directly affect behavior circumventing intention Intention can operate in the absence of favorable beliefs
		Subjective Norms The belief that a person has the ability to complete an action	<ul style="list-style-type: none"> Importance of relationships for behavior confirmed Rather than pressure to comply, relationships are prerequisite to behavior via consultation, obligation, maintenance of harmony

^aFindings are based on analyses of constructs in the context of a major theme (i.e., self-efficacy in the context of social capital, perceived benefit and susceptibility in the context of transculturation and transmigration, intention and subjective norms in the context of relational culture).