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Expressions of *Machismo* in Colorectal Cancer Screening Among New Mexico Hispanic Subpopulations

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Abstract

Although national colorectal cancer (CRC) incidence rates have steadily decreased, the rate for New Mexico Hispanics has been increasing and screening rates are low. We conducted an exploratory qualitative study to determine barriers to CRC screening for New Mexico Hispanics. We found that machismo served as a dynamic influence on men's health seeking behaviors; however, it was conceptualized differently by two distinct Hispanic subpopulations and therefore appeared to play a different role in shaping their screening attitudes and behaviors. Machismo emerged as more of an influence for Mexican men, who expressed concern over colonoscopies being potentially transformative and/or stigmatizing, but was not as salient for Hispanos, who viewed the colonoscopy as "strictly medical" and were more concerned with discomfort and pain. This study highlights the importance of identifying varying characteristics among subpopulations to better understand screening barriers and provide optimal CRC screening counseling in primary care settings.

Keywords

cancer; screening and prevention; ethnicity; health behavior; health care primary; health care; remote / rural; immigrants / migrants; Latino / Hispanic people; masculinity

Colorectal cancer (CRC) was the third most frequently diagnosed cancer and the second leading cause of cancer death in the United States in 2010 (Jemal, Siegel, Xu, & Ward, 2010). U.S. Hispanics are at greater risk for earlier onset and advanced-stage disease, and have lower age-adjusted survival rates for CRC than their non-Hispanic White counterparts (Stefanidis et al., 2006). In addition, CRC screening rates among Hispanics are lower than the general U.S. population (American Cancer Society, 2008; Pollack, Blackman, Wilson, Seeff, & Nadel, 2006). CRC screening refers to tests that are ordered for asymptomatic patients to detect disease at an early stage, as opposed to diagnostic tests, which are ordered for patients with signs or symptoms of disease. Recommended screening tests for CRC

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include fecal occult blood test (FOBT), fecal immunochemical test (FIT), double-contrast barium enema, flexible sigmoidoscopy, and colonoscopy.

Though the national CRC incidence rate has steadily decreased since 1975 in non-Hispanic Whites, Hispanics, and Native Americans, rates in New Mexico have followed a different pattern. In concert with national trends, CRC incidence rates in New Mexico have been decreasing for non-Hispanic Whites and African Americans; however, the incidence rate for Hispanics has actually increased at the rate of 3.6 percent annually and is now the highest of any group in the state (Chao et al., 1998; New Mexico Department of Health, 2007). Hispanic men have the highest incidence rates of any group in the state and these rates have increased by over 70 percent since 1975 (New Mexico Department of Health, 2007). Compounding the situation, the Centers for Disease Control (CDC)'s Behavioral Risk Factor Surveillance System (BRFSS) 2006 data indicate that CRC screening rates in New Mexico are among the lowest in the nation, particularly among Hispanics and those of lower socioeconomic status (CDC, 2006).

A range of system, provider, and patient barriers for Hispanics nationwide have been documented in previous studies aimed at understanding barriers to CRC screening in primary care (Walsh & McPhee, 1992). Patients' beliefs and attitudes greatly influence their CRC decision-making processes and are therefore an important locus for potential interventions to improve screening compliance (Jandorf et al., 2009). Commonly-identified patient barriers that are not unique to but are prevalent among U.S. Hispanics include low levels of CRC knowledge and awareness (Cameron, Francis, Wolf, Baker, & Makoul, 2007; Fernández et al., 2008; Goodman, Ogdie, Kanamori, Cañar, & O'Malley, 2006; Natale-Pereira, et al., 2008), low health literacy (Cameron et al., 2007), lack of understanding of screening test procedures or medical jargon (Goodman et al., 2006), and language/communication challenges (Goodman et al., 2006; Jerant, Arellanes, & Franks, 2008; Natale-Pereira et al., 2008; Salas-López, Mouzon, Marks, Kothari, & Natale-Pereira, 2007). Additional attitudinal barriers commonly identified in Hispanic patients include embarrassment (Coronado, Faria, Thompson, Godina, & Oderkirk, 2006; Fernández et al., 2008; Walsh et al., 2004; Yepes-Rios, Feimann, Talavera, Ruíz de Esparza, & Talavera, 2006), fear (Coronado et al., 2006; Fernández et al., 2008; Goldman, Díaz, & Kim, 2009; Natale-Pereira et al., 2008; Salas-López et al. 2007; Walsh et al., 2004), and fatalism (Coronado et al., 2006; Fernández et al., 2008; Goodman et al., 2006; Natale-Pereira et al., 2008; Walsh et al., 2004).

We conducted an exploratory qualitative study aimed at determining barriers to CRC screening for New Mexico Hispanics being seen in primary care clinics. Though we focused our research lens more broadly on a range of system, provider, and patient barriers in the overall study, early in our data collection efforts, we were struck by the emergence of *machismo* (attitudes, behaviors, and qualities associated with masculinity in Hispanic men), as an important and dynamic influence on New Mexico Hispanics' CRC screening attitudes and practices. Accordingly, we revised our interview guides to more substantively explore the influence of machismo as one component of our broader examination of CRC screening barriers.

This article is focused on the influence of machismo on Hispanic men's perspectives on CRC screening, but also includes insights from Hispanic women, who commented extensively on the effects of machismo on both men and women's screening attitudes and practices. In addition, we found that providers who serve Hispanic patients and *promotoras* (community health workers), who were also members of the Hispanic subpopulation served by the clinic, had valuable insights about the influence of machismo on their Hispanic patients. In this article, we address Hispanic men's perspectives on machismo, but also

triangulate their insights with those of our other stakeholders—Hispanic women, promotoras, and providers.

Conceptualizing Machismo

Machismo has been described as a set of attitudes and identities associated with masculinity (Sobralles, 2006). The term has been conceptualized in different ways by anthropologists, sociologists, psychologists, historians, journalists, and commentators in the popular media (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008; Neff, 2001). There is little consensus on the meaning of machismo and the associated adjectives *macho* and *machista*, which describe men who exhibit machismo; in fact, the terms have been described as having multiple and shifting meanings (Guttman, 1996). Though it often carries a connotation of being a working-class and rural phenomenon, the concept of machismo has been employed to describe men from a variety of class backgrounds and geographic locales (Guttman, 1996). The concept is widespread throughout Latin America and among U.S. Hispanic populations. In the U.S. context, the term has historically carried both racist and nationalist overtones (Guttman, 1996) when used to derogatorily describe both foreign- and U.S.-born Hispanic men. However, the concept of machismo is now also used more benevolently in common U.S. vernacular to represent a “tough guy.”

Competing Scholarly Conceptualizations of Machismo

Early scholars writing about machismo overwhelmingly emphasized the negative dimensions of the concept and reinforced stereotypical renditions of it among Hispanics in general and in Mexicans specifically. Social scientists described macho men as possessing characteristics such as strength, assertiveness, toughness, power, risk-taking, competitiveness, concern with status, and emotional restraint (Torres, Solberg, & Carlstrom, 2002). Beyond that, they argued that machismo is the source of culturally-specific hypermasculine behaviors such as authoritarianism, physical aggression or abuse, imposing restrictions on women's conduct, abandonment of children, promiscuity, and excessive use of alcohol. Psychologists theorized that these behaviors were responses to dependency, powerlessness, feelings of inferiority, and/or low self-esteem as a result of childhood familial dynamics (Neff, 2001).

Though early social scientists characterized machismo as pathological or maladaptive, more recently, others have pinpointed its positive dimensions, such as being a hard worker, being a reliable provider, and protecting the honor and welfare of the family (Galanti, 2003; Sobralles, 2006; Torres et al., 2002). These depictions of the multifaceted nature of machismo highlight that the historically negative scholarly constructions of machismo might be at variance with the way some people experience it in their daily lives. Machismo emerges in varied expressive forms in everyday life. Some expressions highlight negative components of machismo, such as male physical aggression and dominance; however, others underline positive values, such as family loyalty and being a good provider. In fact, machismo cannot be understood outside of the context of other cultural values such as *respeto* (respect), which dictates deferential behaviors toward others based on age, socioeconomic position, and authority; *dignidad* (dignity), which refers to a belief in an individual's worthiness regardless of social standing (Torres, 1998); and *familismo* (familism), or loyalty, reciprocity, and solidarity within the immediate and extended family (Galanti, 2003; Ishikawa, Cardemil, & Falmagne, 2010).

Machismo and the Social Construction of Masculinity

In an attempt to clarify dimensions of the concept, some social scientists created scales to measure machismo (Arciniega et al., 2008; Neff, 2001; Villemez & Toughey, 1977).

However, we argue by contrast that machismo is not a core personality trait or temperament that remains constant and can be easily measured. Rather, machismo is a component of socially constructed masculinity that emerges through social interactions—including those with women—where men construct what it means to be a man (Courtenay, 2000; Rivera-Ramos & Buki, 2011). Factors such as ethnicity, economic status, educational level, sexual orientation, and social context can influence the masculinities men construct. Such a view of masculinity emphasizes that men construct and reproduce not only the dominant norms of masculinity in society (Courtenay, 2000), but also alternative masculinities that can be distinct and shifting (OliFFE, Robertson, Kelly, Roy, & Ogrodniczuk, 2010). For instance, the process of migration itself has prompted Mexican men to renegotiate notions of masculinity from Mexico as they engage with the dominant U.S. society in which they now live (Boehm, 2008; Smith, 2005).

A social constructionist framework for understanding masculinity highlights that instead of being static, machismo occurs contextually in particular social situations (Courtenay, 2000; Quintero & Estrada, 1998), emerging more prominently in some than in others. Because machismo is deployed by an individual situationally, it is inherently performative (Boehm, 2008; Guttman, 1996; Smith, 2005). Quintero & Estrada (1998), for instance, differentiate between public and private performances of machismo in their analysis of Mexican injection drug users, underscoring the fluid nature of this cultural construct. They found that whereas the street machismo of the drug users centered on discourses and performances of violence and aggression, the private machismo of the home focused on other behaviors such as caring for the family and taking responsibility as a provider.

Machismo and Men's Health

Historically, little attention has been paid to how men's cultural beliefs—like machismo—impact their health care decisions (SobralSke, 2006). Recently, scholars have begun examining the health-seeking behaviors of Hispanic men (Hunter, Fernández, Lacy-Martínez, Dunne-Sosa, and Coe, 2007; MacNaughton, 2008; SobralSke, 2006), and specifically how machismo influences Hispanic men's health in general (Peak, Gast, & Ahlstrom, 2010) and with regard to health care procedures such as vasectomies (Erviti, Sosa Sánchez, & Castro, 2010) and prostate cancer screening and treatment (Maliski, Rivera, Connor, López, & Litwin, 2008; Rivera-Ramos & Buki, 2011). Several recent studies have also identified machismo as a barrier to CRC screening for Hispanic men (Fernández et al., 2008; Goldman et al., 2009; Goodman et al., 2006; Salas-López et al., 2007). Using a qualitative approach, these studies highlight how machismo might contribute to men's reluctance to get screened and therefore serve as a barrier. Collectively, these scholars provide a more multi-faceted understanding of how the previously-identified barriers of fear, embarrassment, and stigma intersect with the cultural construct of machismo among diverse Hispanics including Mexicans, Puerto Ricans, Dominicans, Central, and South Americans. To the extent that machismo has been described as a concept, though, it has not been compared among distinct Hispanic subpopulations and the implications for CRC counseling in primary care settings have not been explored.

In this study, machismo arose as a factor that might influence CRC screening attitudes and behaviors. We acknowledge that the term machismo is contentious and has historically been used in published academic literature to pathologize and stigmatize Hispanic and other men. We debated using a different term, but ultimately deferred to our study participants, who used it themselves in describing men's CRC screening attitudes and behaviors. We also emphasize that machismo does not appear to be a barrier to colorectal cancer screening among all Hispanic men. In fact, we believe that machismo should be conceived of as a cultural element to be carefully addressed rather than a barrier because the term barrier

implies a problem to be solved and thus has a stigmatizing connotation of its own. We found that machismo was conceptualized differently by two distinct New Mexico Hispanic subpopulations and therefore played a different—role in conjunction with other factors—in shaping the screening attitudes and behaviors of the two populations. Whereas machismo appeared as an influence on screening attitudes and behaviors for one subpopulation of New Mexico Hispanics, it was not as salient an influence in another.

New Mexico Hispanic Subpopulations

To understand the results of the study, it is first important to distinguish between Hispanic subpopulations in New Mexico, a state that has the highest overall percentage of Hispanics of any U.S. state at 45 percent (Pew Hispanic Center, 2008). The label “Hispanic,” which was widely adopted as an ethnic descriptor in the 1970s for the purpose of the census, is controversial, primarily because it is too homogenizing (Oboler, 1999). New Mexico’s varied Hispanic population exemplifies the inadequacy of the label; it is composed of at least four distinctive subgroups: Hispanos, first-generation Mexicans, later-generation Mexican-Americans, and pockets of other sub-groups, like Cuban refugees. This article focuses on the first two groups: Hispanos and first-generation Mexicans.

Hispanos trace their ancestry back generations to Spanish colonists who arrived in New Mexico starting late in the sixteenth century (Nostrand, 1992). By adopting the labels *Hispano* or Spanish-American, they emphasize their class-based descent from the original “pure-blooded” Spanish conquistadors (Oboler, 1999). Hispano communities were traditionally organized around land grants given to the communities as a whole (Oboler, 1999) and are scattered throughout the state, but are more highly concentrated in the north (Nostrand, 1992). Because of the isolation of their communities, Hispanos have retained and adapted old Iberian cultural forms—such as Spanish dialect, surnames, and folklore—that are distinct from other Hispanics (Nostrand, 1992). The label *Hispano* is hotly debated in both academic and popular circles. In our study, the responses to an open-ended question about ethnicity included Hispanic, Spanish, Spanish American, Spanish/Hispanic, White Hispanic, Spanish/Indian, Hispanic/Native American, and Mejicano. We use the unifying label Hispano, following Nostrand (1992).

Southern New Mexico has its own distinct history and resulting Hispanic population that is most likely to self-identify as *Mexicano*, or Mexican, which was by far the most frequent label of self-identification chosen by our study participants. Sections of southwestern New Mexico were ceded by Mexico to the United States through the Treaty of Guadalupe-Hidalgo of 1848 and the Gadsden Purchase of 1854. Despite the establishment of the international border, generations of Mexicans have fluidly crossed the border to work in agriculture along the Río Grande River and have established *colonias*, or unincorporated population settlements, on the U.S. side (Nuñez-Mchiri, 2009). Because of the continuous century-long chain of Mexican migration, first- and later-generation Mexicans coexist in the region. The multigenerational Mexican-origin population is therefore quite heterogeneous in regard to place of birth, socioeconomic status, level of education, immigration status, level of acculturation, and other demographic characteristics. Though Mexicans historically clustered toward the southern part of the state, they have also migrated and settled throughout the state.

Hispanics have all-too-frequently been characterized as a monolithic ethnic group with regard to CRC screening (Afable-Munsuz, Liang, Ponce, & Walsh, 2007; Cameron et al., 2007; Goran & Heck, 2005; Jerant et al., 2008). Some important intra-group differences to consider include age, gender, educational levels, marital status (Sheinfeld & Heck, 2004), class backgrounds (Guarnaccia et al., 2007), generational status, country of ancestry/origin,

and length of time in the United States (Weinick, Jacobs, Cacari Stone, Ortega, & Burstin, 2004). The treatment of distinct subgroups as one singular group could itself, therefore, constitute a barrier to providing appropriate care. Distinguishing between Hispanics subpopulations might be critical to providing culturally-specific CRC counseling in primary care settings. With these differences in mind, this study aimed to better understand the unique CRC screening barriers faced by Hispanic populations throughout New Mexico.

Methods

Study Design

We utilized an interview-based exploratory qualitative research design. Our research team consisted of four qualitative researchers (Christina Getrich, Andrew Sussman, Deborah Helitzer, and Victoria Sánchez), two medical doctors (M.D.s) (Richard Hoffman and Robert Rhyne), one quantitative researcher (Teddy Warner), and a clinical outreach specialist (Angélica Solares), who contributed to study conceptualization, instrument design, and data analysis; knowledge about screening, health service delivery, and clinical context; instrument design and analysis of descriptive data; and outreach to clinic and community partners, respectively. The study sites were primary care clinics whose providers were members of Research Involving Outpatient Settings Network (RIOS Net), a practice-based research network (PBRN) in New Mexico. RIOS Net is a voluntary network of more than 275 doctors, nurse practitioners, and physician assistants serving New Mexico's diverse and medically underserved populations. Its provider members helped facilitate the implementation of the project in their practice sites and also served as research participants. The study was approved by the University of New Mexico Human Research Review Committee.

Data Collection

Data collection took place between August 2008 and July 2009. The study was conducted at six Hispanic-serving community health clinics throughout the state: two Mexican-serving clinics in the rural south, two clinics in north-central cities that serve both Mexicans and Hispanics, and two Hispano-serving clinics in the rural north. Data collection proceeded one site at a time, with the research team working closely with clinic staff at each site to determine data collection dates that would have the least impact on the day-to-day functioning of the clinic.

To begin the study, we recruited RIOS Net providers who expressed interest in participating in the study. Project team members paid personal visits to the providers to describe the study and gauge their interest as well as the clinic staffs' ability to participate. Once the provider approved the study and determined the feasibility of implementing it at their practice site, the site was enrolled. We deliberately selected a range of different practice sites throughout the state to reflect the diversity of Hispanic subpopulations in New Mexico. The providers also helped identify the promotora or staff member who had the most knowledge about CRC screening to serve as the local site coordinator. Local site coordinators were paid \$150 for their coordination efforts.

Data collection was aimed at understanding barriers to CRC screening from the perspectives of three distinct groups of stakeholders: providers, promotoras, and patients. We developed semistructured interview guides for each of the three stakeholder groups. Interview guides focused on patient ideas about cancer causation and prevention, patient experiences with or impressions of cancer, patient experiences with or impressions of CRC screening tests, barriers to CRC screening, patient-provider communication, patient decision-making, and recommendations to improve CRC screening. We focused on reflections about behaviors

and attitudes toward screening tests and concentrated on two tests in particular—FOBT and colonoscopy—because our initial inquiries revealed that these were most readily available and most often utilized in the study practices. At each clinic, the two principal interviewers (the first author, a Spanish-speaking non-Hispanic white female, and the second author, a non-Hispanic white male) conducted interviews with one to two providers, one promotora/clinic staff member, and between eight and 12 patients. Provider and promotora/staff interviews took place at the clinic, in the interviewee's office or another space the local site coordinator set up ahead of time. Interviews took place during the lunch hour or administrative time; they lasted between 45–60 minutes and both providers and promotoras/staff were compensated for their time (\$100 and \$50, respectively).

The local site coordinator recruited patients so that none of the university-based research team would have access to patient's personal health information. The coordinator recruited from a computer-generated and randomized list of eligible patients (Hispanics, 50 or older, with no history of CRC or polyps). Working from the top of the list, she called patients to assess their eligibility and recruit them. The CDC's BRFSS questions were used to ascertain the patient's screening status. If the coordinator could not reach a patient or the patient refused, she continued on to the next name on the list. Initially, the coordinator recruited equal numbers of men and women, unscreened and screened patients; however, as the study progressed, because of no-shows among the men and patients who reported being unscreened but had actually been screened, it became necessary to oversample men and unscreened patients to ensure a balanced sample.

Patient interviews were conducted at the clinic for each site, in a vacant exam room or auxiliary office set up ahead of time by the coordinator. The coordinator scheduled an appointment with the patient and then gave them reminder calls one to two days before their appointments. She greeted the patients at the clinic and then introduced them to the researchers. The researchers (the first and second authors) then consented patients, completed a brief demographic form, and proceeded with the interview. Participants were presented with the option of completing the interview in English or Spanish; 31 were ultimately conducted in English while 23 were in Spanish, all by the first author. The encounter with the patient typically lasted about 60 minutes and patients were also compensated \$30 for their time.

As part of the interview process, we reviewed a handout (adapted from the National Cancer Institute, 2008) that demonstrated general colorectal anatomy and described the two screening modalities in detail. We also showed patients an FOBT kit so that they could better visualize the test as we were describing it. Given generally low health literacy levels and lack of familiarity with CRC, we felt that it was important to provide the patients with enough information for them to be able to meaningfully respond to questions about CRC screening tests—especially for the unscreened patients who were often entirely unfamiliar with the tests. At the end of the interview, patients were offered an information sheet about CRC from the CDC. All interviews were digitally recorded, with the participants' permission, which was granted by all participants. The digital recordings were then transcribed verbatim and translated as necessary, by the first author and the seventh author, a bilingual Mexican national female. All identifying information was removed from the transcripts before distribution to the research team for review and analysis.

Data Analysis

The research team utilized an iterative analytic process to identify barriers and facilitators to CRC screening. Data collection and analysis proceeded concurrently; we examined the transcripts from the early sites as we continued to carry out data collection in the later sites. We started data analysis after completing research at the first two sites (a Mexican-serving

site and a site that serves both Mexicans and Hispanos) by dividing the set of transcripts into two categories: patients and providers/promotoras. Five research team members first independently reviewed sets of transcripts in each category to identify key themes. The group then met to compare emergent themes and develop initial coding structures. Separate coding structures were set up for the providers/promotoras and patients. There were some overlapping codes in the two coding structures, including behavioral/attitudinal barriers to screening, community privacy, and gendered dimensions of health behavior. In addition, we created specific provider/promotora codes (such as patient receptivity to screening and patient-provider communication) and patient codes (such as gendered communication and ethnic dimensions of health behavior).

After the larger team agreed on the basic coding structures, two of the qualitative researchers (the first and second authors) coded a set of subsequent interviews from each participant category independently and then reviewed them together to finalize the coding structure and reach agreement about the application of codes. Transcripts were then imported into NVivo 8, a qualitative data software package (QSR International, 2008), and coded by the first and second authors. Separate databases were created for the providers/staff and patients. Patient transcripts were also identified by gender, age, ethnic subpopulation, and screening status within NVivo so that we could compare similarities and differences between demographic characteristics—most notably for this article, the differences between ethnic subpopulations.

As another step in the iterative analytic process, coding reports for specific codes were periodically generated for the entire team to review to clarify core themes and generate collective interpretations from the data. One of the areas of interest that emerged prominently from our early collective review of the reports from both databases was how machismo affected men's CRC screening decision making. The group discussed the concept extensively, delving into the quotes in the relevant reports to clarify what stakeholders were saying, and constructed new follow-up questions in the semistructured interview guides to ask at subsequent sites. As we conducted interviews at the third and fourth sites, both Hispano-serving, it became clear that machismo was conceptualized differently in distinct geographic communities. After further refining the interview guides, we returned to a site serving both Hispanos and Mexicans in the urban north central part of the state and a site serving Mexicans in the south to elucidate the differences between the two different conceptualizations of machismo in more depth. This third step in the iterative process was instrumental in refining our thinking on machismo; it allowed us to ask the most appropriate questions at the different sites to clarify our interpretations and to achieve data saturation as we heard similar responses to our questions.

In reviewing interview transcripts, we focused attention on discerning how respondents described and defined machismo in their own terms and how such understandings varied. In addition to the research group's internal examination of the concept, and consistent with the bylaws for publication of manuscripts resulting from RIOS Net projects, the RIOS Net Board of Directors and Community Advisory Board reviewed, gave feedback on, and approved a final draft of this manuscript. Some of the members of both Boards represent or work with Hispano and Mexican communities throughout the state, which enabled them to assess the appropriateness of the manuscript with regard to community standards. During this review process, some Board members expressed concerns regarding their discomfort with aspects of the manuscript that they believed did not sufficiently minimize historical stereotypes of machismo. We revised the manuscript accordingly without corrupting the integrity of the data and redistributed the manuscript to all Board members for final approval.

Participant Demographics

The interviews from eight providers, six promotoras/clinic staff, and 52 patients were ultimately included in the data analysis. Two patient interviews were excluded because they were neither Hispano nor Mexican. The providers were predominantly non-Hispanic White (6; 75 percent), evenly split by gender, and mostly M.D.s (5; 62.5 percent). The promotoras/staff were all women and 83 percent Hispanic (Hispano and Mexican in their respective communities). Of the 52 patients, 58 percent (30) were Hispanos and 42 percent (22) were Mexicans (Table 1). Overall, Mexicans were younger, had lower levels of education, and were more monolingual than Hispanos.

Results

Overview

Our study confirmed many of the well-documented system and provider CRC screening barriers among Hispanics, including lack of health insurance (Cameron et al., 2007; Coronado et al. 2006; Fernández et al., 2008; Goldman et al., 2009; Natale-Pereira et al., 2008), lack of funding and referral sources for colonoscopy (Goodman et al., 2006), difficulty making appointments (Fernández et al., 2008), undocumented legal status (Fernandez et al., 2008; Goodman et al., 2006; Natale-Pereira et al., 2008), time limitations (Cameron et al., 2007), competing demands of providers (Goodman et al., 2006; Natale-Pereira et al., 2008), and lack of provider recommendation (Cameron et al., 2007; Fernández et al., 2008). Indeed many of these barriers impeded patients' desire or actual ability to undergo CRC screening. Even though these system and provider barriers are not the focus of this article, we wish to emphasize that they pose significant challenges to patients in the communities where we conducted research and are some of the most significant CRC screening barriers.

Our data also supported other studies demonstrating the following patient barriers for Hispanics: low levels of CRC knowledge and awareness, low health literacy, a lack of understanding of screening test procedures/medical jargon, embarrassment, and fear. However, we found that there were pronounced differences between the Mexicans and Hispanos interviewed for this study in the way that machismo affected CRC screening attitudes and behaviors. In the following section, we examine these differences in depth by contrasting how machismo is expressed in daily life and activated in the context of CRC screening. Then we conclude by exploring the implications of these differences on CRC screening.

Mexican vs. Hispano Concepts of Machismo

We found machismo to be a "normal and natural part of life" (Sobral, 2006) for the Mexican men and women who participated in this study. As one Mexican man noted, "Machismo does exist among us Mexicans—it exists a lot." Another Mexican woman concurred, asserting, "There are lots of macho men here [in this community]. It's something that's part of our culture." Machismo arose as an explanation for men's reluctance to get screened almost immediately during data collection at the first Mexican-serving site. Some women rolled their eyes or expressed frustration when discussing men's health-seeking behaviors in general; one woman declared, "Yes, machismo's a problem. I think that [men] are all the same. They feel that they are not sick—they say, 'Nothing hurts me!'"

By contrast, participants at the Hispano-serving sites did not view the concept as much a part of everyday life. In fact, we had to clarify what we even meant by the term for a few individuals. Instead of describing it as an ever-present phenomenon, a Hispano man underlined the absence of machismo in the community by stating, "Machos—no, there's no

machos around here.” Instead, Hispanos described machismo as more of an historical phenomenon. When asked about machismo as a potential CRC screening barrier, a Hispano man in his 70s asserted, “Macho is gone, those days are gone. It’s a lot different than it was before... people get together and talk. [Everything’s] more out in the open.” Another Hispano man in his 50s expressed a similar sentiment, stating “I don’t see that as a problem. I think that’s more of an old school mentality myself.”

The Activation of Machismo among Mexicans vs. Hispanos

Despite being commonplace, machismo does not appear to be a static, core personality trait for Mexicans; rather, it is something that is dynamic and situational, meaning that it might be activated in particular situations, such as getting a colonoscopy. The colonoscopy might activate machismo because the anus and the rectum are, as one Mexican man reflected, “like a taboo. [People] don’t want the doctor to insert the finger. That’s what a lot of people have on their minds.” Mexican men reported that getting examined “down there” is embarrassing; this might be because they lack familiarity with basic terminology or bodily functions. A Mexican man who was concerned about pain he was experiencing related, “I couldn’t find a way to tell [the doctor] about the colon. Now I know what [the colon] is but before I didn’t. I didn’t even know the name of body parts.”

By contrast, Hispanos did not view the colonoscopy as a procedure that would activate machismo. Indeed, they did not necessarily even connect machismo to CRC screening in the same automatic way their Mexican counterparts did. When asked about the possible connection, a Hispano man responded, “I don’t know about that. [Machismo] could have something to do with it—but then again it might not.” Instead, the current concept of machismo expressed by Hispanos was much more the “tough guy,” and many of the barriers they cited had more to do with the discomfort and accompanying pain of the procedure. To this end, a Hispano man related,

It’s just an invasive procedure there and that’s an issue with some people. I get negative feelings about it. When you find a technique that is as good as that or comparable to that, you’re going to have a whole lot more people taking it as a screening tool.

He also identified fear as a major barrier, elaborating, “It’s that fear that it’s going to be positive, and you wait and wait and maybe at some point, your fears are realized.”

Implications for Screening: Colonoscopy as Transformative

These divergent concepts of machismo and contexts of activation appear to have different implications on how some men think they will be affected by undergoing a colonoscopy. Mexican men reacted much more strongly—and negatively—to the idea of having a colonoscopy when we described the procedure. Men and women alike expressed concern that men would view the colonoscopy as being transformative, that it would change them in some fundamental way. One Mexican woman laughed and said “Men are scared that they’re going to take away their masculinity because they go and do a [colonoscopy]—that they’re going to walk differently afterwards!” The concern over “walking differently” is that violation of the rectum could potentially cause homosexuality. Thus undergoing a colonoscopy can cause fear for some Mexican men. One provider in a Mexican-serving clinic, a Hispanic man originally from Central America, described it this way, “In Latin America, there’s the [idea] of people liking the feeling of getting a finger inserted in the rectum, and that’s a beginning, and then they fear that.” Some even joked about the transformative potential of the test, likening it to losing one’s virginity. A Mexican man who had undergone a colonoscopy said,

Men don't like for anyone to touch them there. The same goes for me, that's why I hadn't gone over there [in Mexico]. I spent lots of effort [there] protecting [my sexuality] just to give it up in the United States [laughs].

Providers in the Mexican-serving clinics talked about the challenges with counseling men about screening. One provider, a Hispanic man, noted,

There's always this fear [that] if you're being touched by another man, you're not a man anymore. They'll take that home and keep a secret with themselves [that] the doctor touched me in my private area where nobody is supposed to touch me.

Because of this taboo anatomical area and the related concern over sexuality, men generally expressed a preference for completing the FOBT as a screening option instead of the colonoscopy. Although patients reported they found the FOBT test to be unpleasant, it did not have the same transformative potential as a colonoscopy. As one Mexican man noted, "It would embarrass me to do the colonoscopy. I'd like to go with [the FOBT] if they tell me there's a choice. It's strange, yes, but I could do it." A Mexican promotora agreed, stating, "It's easier to convince [them] to do the FOBT because they do it in the privacy of their own home. The [colonoscopy], having the doctor and assistants do it, it's very embarrassing for them."

By contrast, Hispano patients expressed that doing a colonoscopy would not be an affront to one's masculinity and therefore would not be threatening in that respect. Reflecting on the experience of getting a rectal exam, a Hispano man commented,

If a doctor had to do it for some reason...which he did [for me]—I had a hernia right down here and he had his finger in my butt and I didn't like it. But if you have to do it, you have to do it.

Another Hispano man underscored the lack of connection even more explicitly, stating "No one would think I was gay if I had a [colonoscopy]. Or any other male, you know. That's strictly medical." Echoing these patients' sentiments, a non-Hispanic White male provider in their community said, "I don't find a stigma attached to it as a bad thing. Or a butt thing, you know, a macho thing." Instead, he characterized the more salient barriers for men as fear and concern over getting an infection from the procedure. He also contrasted the local Hispano population with Mexicans in the nearby urban center, stating,

I find machismo less here with this population than with the population down in [the city]. And partly that's because [the city] has many more Mexicans and less Hispanics. Because, you know, up here these folks are not Mexican, I'll tell you from the get-go. They've been here longer than our Constitution!

Implications for Screening: Colonoscopy as Stigmatizing

Beyond the colonoscopy being transformative on a personal level, Mexicans felt concerned that undergoing a colonoscopy would affect their reputation within the community on a broader social level. Participants from all three stakeholder groups reported that protecting patients' privacy was a real concern in Mexican communities. A Mexican promotora commented about men's hesitancy about screening, revealing,

I've asked many men [about screening] and they even laugh and say, "I'm not gay." [They] think that if they get this screening, their friends are going to criticize them, and that's the main problem. That's part of their machismo. So [I tell them] it's confidential and nobody is going to know about it, if they don't say anything.

A man in the same community corroborated these concerns, stating,

People don't do the tests because of machismo and shame. Some people criticize others because of it; people say, "Oh no, If I do this, someone's going to tell someone else." That's the thing that makes a lot of people say, "No, I'm not going to do this."

Machismo and the accompanying concern over privacy must also be understood at another level, in relation to broader community dynamics. While we report here primarily about patient-level dynamics, attitudes about machismo interrelate with the larger sociopolitical context of U.S. immigration enforcement policies and practices in border communities. A climate of fear and secrecy has emerged because of the recent concentration of border enforcement activities in the region. Community members are subject to immigration raids and the ongoing policing of local neighborhoods, which cultivates a fear of immigration authorities (regardless of one's immigration status) and of potential incarceration or deportation. This climate of fear causes everyone to be concerned about others knowing personal information about them, and thus people are more protective of their privacy. Therefore, machismo is not the sole factor affecting privacy, but must be considered in conjunction with these immigration-related factors as part of a broader web of effects (Heyman, Nunez, & Talavera, 2009).

Despite concerns about privacy, several Mexican men revealed that they had become more receptive toward colonoscopies—and medical tests in general—as they aged. This suggests that machismo can shift over the life course (Guttman, 1996) and that getting men to undergo colonoscopies is not an insurmountable obstacle. To this end, a Mexican man revealed,

Before, I was scared. And I was like, "I feel fine." I wouldn't go. "I don't have time," I'd say to my wife. But [then] I put myself in the hands of the doctor here. Now I say, "Yes, it's important to me for my health."

Another man exclaimed,

It's important to do it. If they don't do the test, it won't be detected on time. It's important to leave machismo behind [laughs]. If you don't do it, and later on it comes out bad, then you'd think, "Why didn't I do it? If I had done it, this wouldn't have happened!"

Even though the Hispano communities in the north of the state were comparable in size to Mexican communities in the south, we found that the concern for privacy and fear of stigma associated with screening did not carry the same social weight. This might be related to the fact that Hispano communities are not under siege by immigration enforcement and that social networks in the communities span back generations, giving them deep roots and a connectedness that more recent immigrant communities might not have. Given the "strictly medical" nature of the test for Hispanos, completing the test did not carry the same social stigma. As one Hispano man stated, "We never talk about colonoscopies or anything like that. But if a person asks me a question, I'd answer it, [I'd] tell them what I've done. I'm not ashamed or anything like that." A non-Hispanic White woman provider in a Hispano community suggested that the small size of the community and lack of privacy might actually serve as facilitators in CRC screening, stating,

Patients do come in because of knowing what's happened to other folks in the community. These are small villages and the word gets out when somebody's sick and why they're sick. They'll even come in and tell me, "I came because my next door neighbor has this," or, "I came because my neighbor told me I had to come." They'll get on each other's cases to come in and get screened. I think that's a powerful motivator that we see here that you might not see in a less connected area.

Many participants had witnessed family, friends, and neighbors' experiences with CRC or other types of cancer, which had made lasting impressions on them. In fact, more of the Hispanics mentioned that they had known individuals who had suffered through CRC, with many cases resulting in death. A Hispano man talked about the impact of his friend's death from CRC, saying,

This guy, I knew him all my life pretty much since we were both young. He was only like 44 when he died. He looked pretty healthy until he got cancer...I saw what it did to him and it deteriorated him. Yeah, it impacted my life—it was like a little wake-up call for me. You know, maybe I should go get checked.

Discussion

Consistent with other studies, we found culturally-specific patient barriers CRC screening among Hispanics. Although these studies have examined different Hispanic subpopulations, insights have been extrapolated broadly to U.S. Hispanics, even though it is well understood that there are important differences between Hispanic subpopulations. We identified the need to distinguish among Hispanic subpopulations to better understand these cultural constructs and to provide optimal CRC screening counseling in primary care settings. Our study also expands the knowledge about how machismo interrelates with CRC screening. We found clear differences between two Hispanic subpopulations in the way that they conceive of machismo and how it affects their ideas about CRC screening. Whereas a colonoscopy can be both transformative and stigmatizing for Mexicans, particularly those who live in small communities, the same procedure is viewed as being “strictly medical” and therefore less shameful or stigmatizing in comparably-sized Hispano communities. Therefore, machismo emerged as a much more powerful shaper of CRC screening attitudes among Mexicans in our study. This is not to say that machismo does not exist among Hispano men or would not be activated in other social situations. We focused particularly on the CRC screening attitudes and behavior, and therefore did not explore this phenomenon in other contexts.

Implications

Our research is oriented toward improving CRC screening rates among multiple subpopulations of Hispanics in New Mexico. As researchers in a PBRN, we are particularly attuned to the importance of primary care as a site for addressing CRC screening among underserved populations. Studies on Hispanic barriers to CRC screening have highlighted the critical importance of the physician recommendation in successfully promoting CRC screening (Cameron et al., 2007; Hannon, Martin, Harris, & Bowen, 2008; Steinwachs et al., 2010; Yepes-Rios et al., 2006). We offer specific insights from our study as a means of giving providers practical advice about how to address the issue of machismo in a culturally sensitive manner.

Because of the key differences between population groups, we believe provider approaches to patient education and patient-provider communication would work best if tailored for each subpopulation. Indeed, cultural tailoring has been identified as essential in developing effective programs (Fernandez et al., 2008; Goodman et al., 2006; Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2002). In the case of cultural tailoring for machismo and other potentially sensitive constructs, researchers should first conduct appropriate inquiry to understand how different groups use such concepts to avoid further reinforcing negative stereotypes. The following recommendations about improving patient education and patient-provider communication emerged directly from our interviews with all three stakeholder groups.

In the realm of patient education, it is important to address Mexican patients' concerns about the transformative qualities of the colonoscopy through a variety of strategies. For one, it is important for providers to leverage the patient's trust in them and to discuss this topic in a manner that is sensitive to the patients' concerns about the tests. Numerous patients stressed that they would be willing to complete screening tests if their doctors suggested them. Indeed, this emphasis on cultivating *personalismo*, or emphasizing warm interpersonal relationships between patients and providers, has been cited as crucial in working with Hispanic populations (Galanti, 2003; Goodman et al., 2006; Natale-Pereira et al., 2008).

Another strategy for providers serving Mexican patients is to depersonalize screening by stressing the universality of CRC screening recommendations that—CRC screening tests are recommended for all people 50 and older, regardless of ethnicity, country of origin, current residence, or gender. An additional suggestion we heard was to emphasize that the colonoscopy is simply a medical procedure and to talk about it in those terms. Because people might lack familiarity with basic terminology, anatomy, or bodily functions, it is important to describe the screening tests in simple terms, perhaps even utilizing anatomical diagrams and pictures. Depersonalizing screening might offer a respectful way of approaching this sensitive topic while allowing Mexican men to maintain their dignidad. Ultimately, it is also important for providers to consider that the FOBT might be a preferable starting point for Mexican men, particularly because of the widespread concern for privacy. Nonetheless, as interviews with multiple men revealed, even self-described macho men can be convinced to do a colonoscopy. Because machismo does not seem to represent as large an influence on the screening attitudes and behaviors of Hispanos, there is less of a need to address it as directly. What is important, however, is to assuage patients' fears and concerns about the pain involved in the procedure.

One area of commonality that emerged for both groups was the importance of family. We were told that tapping into familismo would be an effective way of convincing both men and women to complete colonoscopies, so that they can be healthy for the sake of their families. Even more, participants from all stakeholder groups felt that it was critically important to convince women within families of the importance of screening so that they could then work on getting their husbands, sons, or other men in their family to go in for screening. Emphasizing family would also tap into the positive dimensions of machismo, such as being healthy enough to continue working, maintaining one's role as a provider within the family, and ultimately protecting the welfare of the family as a unit. Thus invoking family in tailoring messages about CRC would be an effective tactic, as others have already identified (Cameron et al., 2007; Hunter et al., 2007; Sobralske, 2006) because entire families might be involved in health care decisions (Galanti, 2003; Howard, Balneaves, Bottorff, & Rodney, 2011; Sobralske, 2006) and family itself can serve as a motivating factor in seeking preventive care (Hunter et al., 2007).

All stakeholder groups in both Mexican and Hispano communities cited the need for more information for patients. Strategies for disseminating this information, though, would need to be different given the potential for social stigmatization. In the Mexican communities, group gatherings would not be effective because privacy is a principal concern, particularly among men. Rather, more individualized educational sessions would be a better approach. One of the Mexican-serving clinics has successfully integrated all-purpose promotoras who hold individualized educational sessions, and can counsel about CRC. By contrast, patients and providers in Hispano communities suggested that the community's senior center, parish halls, or other community centers might be ideal locales for group educational workshops to take place. In these Hispano communities, addressing men in groups in public forums would work as a strategy because concern over privacy and social stigma are not as powerful

forces. In fact, stakeholders shared that social networks could actually serve as a valuable resource for disseminating information.

Limitations

Results reported here stem from the insights of Mexican and Hispano men and women living in New Mexico, as well as the promotoras and providers who serve them in primary care settings. Generalizability, therefore, to other Hispanic populations located elsewhere in the United States and to other clinical settings might be limited. However, given that the analytic purpose of this manuscript is to illustrate how expressions of machismo vary across Hispanic subpopulations in New Mexico, generalizing these findings to the extremely diverse U.S. Hispanic population might be counterproductive. However, these findings might apply to other Hispanic populations in border states or in communities where Mexican immigrants reside. At a national level, other subpopulations—of Hispanics or even other ethnic groups—might also exhibit different beliefs and attitudes that impact their CRC screening behaviors. An important implication of our findings is that it is essential to identify these sociocultural differences and probe their relevance to CRC screening and other health practices.

Moreover, we also note that the subpopulations described here vary significantly by educational attainment and other demographic characteristics such as degree of acculturation and immigration status. However, these differences accurately reflect the demographic composition of the communities represented in this study. Discussing these differences with patients themselves, promotoras who know the community well, and providers who have a history working with particular subpopulations further contributed to our understanding of specific cultural constructs, like machismo, and helped us to identify mechanisms by which to address them to improve screening rates. Indeed a key strength of our study was the examination of barriers to CRC screening from the perspectives of three sets of different stakeholders, which allowed us to triangulate emergent themes.

This study highlights the importance of identifying varying characteristics among Hispanic subpopulations in the United States. Understanding these differences is essential to delivering appropriate medical care in primary care settings. Primary care providers need to be attentive to how cultural categories play out in different groups—whatever those groups might be—if they are to effectively engage with patients surrounding CRC screening. Tailoring approaches to specific subpopulations will be essential to improve CRC screening rates.

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Table 1**Patient Demographics**

Characteristic	Hispano (n=30)	Mexican (n=22)
CRC Screening Status		
Screened	20 (67%)	14 (64%)
Unscreened	10 (33%)	8 (36%)
Gender		
Men	15 (50%)	11 (50%)
Women	15 (50%)	11 (50%)
Age		
50–59	10 (33%)	11 (50%)
60–69	14 (47%)	6 (27%)
70–79	6 (20%)	2 (9%)
80+	-	3 (14%)
Level of Education		
High school or less	8 (27%)	21 (95%)
High school graduate/GED	10 (33%)	1 (5%)
Some college/university	11 (37%)	-
Coll./univ. grad. (Bachelor's)	1 (3%)	-
Language Preference		
English	5 (17%)	-
Spanish	-	20 (91%)
Both	25 (83%)	2 (9%)
Years in the United States		
Since birth	30 (100%)	2 (9%) [*]
0–10 years	-	3 (14%)
11–20 years	-	9 (41%)
21+ years	-	7 (32%)
Unknown	-	1 (5%)

^{*} These two individuals were born in the United States, but live their lives transnationally. They spent their childhoods in Mexico and adulthoods divided between Mexico and the United States. They self-identify as Mexican.