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Brief Report: Exploration of Colorectal Cancer Risk Perceptions Among Latinos

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Abstract

To explore colorectal cancer risk perceptions among Latinos. Focus groups discussions among Spanish-speaking Latinos conducted between February and July 2007 with 37 men and women who were age-eligible for colorectal cancer screening. Predominant themes of perceived colorectal cancer risk included: general cancer risks, risks related to nutrition and the digestive tract, and risks related to sexual practices. Participants frequently referred to the role of diet in keeping the colon “clean,” suggesting that retained feces increase colorectal cancer risk. Among both men and women, rectal sex was commonly associated with increased colorectal cancer risk. Some Latinos may hold misperceptions about colorectal cancer risks, including an association between rectal sex and colon cancer, that may impact their screening behaviors. Clinicians and public health officials should consider these potential risk misperceptions and explore for other risk misperceptions when counseling and educating patients about colorectal cancer screening.

Keywords

Colorectal cancer; Hispanic Americans; Cancer risk; Focus groups

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Introduction

Despite evidence-based guidelines [1] recommending colorectal cancer screening for all men and women age 50 years and older, screening rates remain low, particularly among Latinos [2]. There are specific differences in knowledge, attitudes, and beliefs that may be barriers to cancer screening among Latinos. Previous studies suggest that some Latinos may have misperceptions and erroneous understandings of cancer that may impact preventive health behavior [3]. For example, Walsh et al. reported that fewer Latinos had heard of colorectal polyps than non-Latino Whites (50 vs. 90%); more Latinos found performing fecal occult blood testing embarrassing (21 vs. 8%); and Latinos were less likely than Whites to feel they needed to be screened if they felt healthy [3]. Similarly, Cameron et al. noted that less than 50% of a sample of community-based Latinos perceived themselves to be at risk for colorectal cancer despite the fact that the sample population included only those at least 50 years of age [4]. Poor knowledge of colorectal cancer risk factors or misperceptions of colorectal cancer risk may result in decreased screening. To further explore beliefs and attitudes about colorectal cancer risk among Latinos, we conducted a series of focus groups that specifically addressed risk perceptions for colorectal cancer.

Materials and Methods

Study Design

Between February and July 2007, we conducted six focus groups (three male groups and three female groups) among Spanish-speaking Latinos using a semi-structured bilingual moderator guide. The moderator guide was based on prior qualitative research done by our research team as well as other quantitative and qualitative background papers in the published literature related to colorectal cancer screening. The theoretical basis of the guide drew on the major components of the Health Belief Model, the Precaution Adoption Process Model, and the Preventive Health Model. During the developmental process the majority of editing was done by the research team and the focus group leaders. We conducted one pilot-test focus group that consisted of four Spanish-speaking Latinos. We made very few changes to the moderator guide after the pilot focus group. These changes only involved the introduction and initiation process of the focus groups. The remainder of the guide performed well and was not changed.

Study Participants

Participants were recruited from community and academic primary care offices in Rhode Island. A bilingual research assistant spoke with all potential participants and screened for eligibility. Women and men aged 45–80 years were considered eligible provided they spoke and read Spanish. Individuals with a history of cancer other than non-melanoma skin cancer were excluded. Groups were stratified by gender. Each group consisted of six to ten participants and was conducted at a community hospital-based research center. Each group was audio recorded and professionally transcribed. The study was approved by the hospital Institutional Review Board.

Data Analysis

Focus group data was analyzed in several stages using the immersion/crystallization method [5]. The primary author and moderators conducted provisional analysis immediately following each focus group. Audio recordings of the groups were then transcribed verbatim in Spanish and the accuracy of the transcriptions was verified by reviewing the transcripts against the original recordings. Two investigators (JAD, NA) separately read and analyzed the transcripts to identify preliminary themes. Over a series of meetings, the full research team further analyzed the transcripts and discussed interpretations of the data. During the

analytic process, a codebook was developed and the transcripts were subjected to line-by-line coding with WeftQDA qualitative software. Coded reports were then used to facilitate further analysis and find supporting quotations.

Results

Patient Characteristics

Participants primarily represented three countries/territories of origin: the Dominican Republic, Colombia, and Puerto Rico. All participants were born outside the continental US and lived in the US between 6 and 32 years. Most participants had health insurance coverage (76%), had household incomes less than $25,000/year (65%), had less than a high school education (57%) and reported speaking English not at all or with difficulty (Table 1).

Predominant Themes

Three predominant themes of perceived colorectal cancer risk emerged: general cancer risks, nutrition and the digestive tract, and sexual practices. Supporting participant quotations for each theme are listed in the text box (Table 2).

Participants listed a number of factors they believed increase the risk of cancer in general. When specifically asked about colorectal cancer risk, participants noted that these factors were still relevant, listing factors such as increased age, genetics, stress, and the use of tobacco and alcohol. Nearly all participants stated that food could be a risk factor for the development of cancer in general and in addressing colorectal cancer specifically, factors pertaining to nutrition and the digestive tract were most common. Participants provided explanations of how food and the digestive tract play a role in the development of colorectal cancer. Some explanations included erroneous understandings of colorectal cancer development, such as excess dietary fat producing polyps and constipation increasing colorectal cancer risk. Sexual activity, specifically rectal sex, was also commonly identified as a risk factor for colorectal cancer. While this theme was more prominent in the focus group discussions among men, the theme also emerged from female groups. Participants generally referred to increased risk of colorectal cancer among men who have sex with men and some participants made pejorative statements while connecting rectal sex with colorectal cancer risk. However, when questioned further, many participants noted that there is a similar risk among men and women. A number of participants provided explanations for their beliefs, including presumed pathophysiologic rationale.

Discussion

Understanding disparities in colorectal cancer screening is especially important given low rates of screening, generally, and that Latinos and other ethnic minority groups are more likely than non-Latino Whites to be diagnosed with colorectal cancer in more advanced stages and have higher mortality rates [6]. This study uncovered a potentially significant factor in Latinos' perspectives on colorectal cancer that has rarely been reported elsewhere: participants' beliefs that sexual behavior, specifically rectal sex, is a risk factor for colorectal cancer. Consistent with other studies among Latinos, our focus group participants also highlighted the roles of nutrition and digestion in the development of colorectal cancer [7,8].

There are few reports that suggest rectal sex as a perceived risk factor and none that directly addressed this potential risk perception. In a cross-sectional study of colorectal cancer screening among Mexican-Americans, Yepes-Rios noted that respondents listed "male homosexual behaviors" as a presumed cause of colorectal cancer in response to an open-ended survey question exploring perceived causes of colorectal cancer [9]. Similarly, in a focus group study of Latinos living along the US-Mexico border, Fernandez et al. noted that

one participant commented that “having sex in the wrong way” could lead to colorectal cancer [8]. While rectal sex was an uncommon response in these two studies among participants of Mexican heritage, this study corroborates the findings of a previous study examining cancer risk perceptions among Dominicans and Puerto Ricans conducted by our research team [10]. Significantly, if Latinos perceive themselves to be at lower risk because of this belief, or if they fear stigmatization if others know that they are getting screened for colorectal cancer, they may be less willing to discuss colorectal cancer with their physicians and follow through with recommended testing. This may have important implications for public educational campaigns and individual counseling about colorectal cancer screening. At this point it is unclear how to interpret the etiology of these beliefs. Some of our participants provided rationale for their beliefs noting such reasons as difference in the anatomical properties of the vagina and rectum/anus that makes these more susceptible to trauma and carcinogenesis. Given that anal sex has been linked to anal cancer via human papilloma virus (HPV) [11], it is possible, but unlikely, that participants erroneously made a connection between rectal sex and colorectal cancer instead of anal cancer. The belief that rectal sex is a risk factor for colorectal cancer is concerning, even if participants did confuse colorectal cancer with anal cancer, given the much lower rates of anal cancer relative to colorectal cancer. By extending the association from anal cancer to colorectal cancer, some may falsely underestimate their risk for colorectal cancer based on their sexual behavior.

While the results of this focus group study suggests that some Latinos may hold misperceptions about rectal sex and colorectal cancer risk, the limitations of this study should be considered. First, since the desired results of focus groups are qualitative and subjective rather than quantitative, it should be pointed out that the optimal number of subjects to study in focus groups is not known. However, we selected our numbers based on recommendations [12] and believe we reached saturation with regard to themes of colon cancer risk perception among the study population. Furthermore, although the population of Hispanics/Latinos in the US is comprised of many different sub-groups, this study’s sample included participants primarily from the Dominican Republic, Puerto Rico, and Colombia. However, given the suggestion of similar beliefs in the Yepes-Rios and Fernandez studies noted above, the finding of rectal sex as a perceived risk factor may exist among other Latinos groups. In addition, the focus groups consisted of Latinos born outside the continental US who were predominantly Spanish-speaking with limited English-proficiency. Thus it is possible that these beliefs are more common among immigrant Latinos. Nevertheless, the misperception of rectal sex as a risk factor for colorectal cancer was a recurrent theme among study participants suggesting that these attitudes are at least present in the larger population and therefore warrant further study.

The results of this study suggest that some Latinos may hold misperceptions about colorectal cancer risk that may significantly impact their willingness to seek screening. While previous studies among Latinos and non-Latinos have identified nutrition and bowel habits as perceived risks, the results of this study suggest that Latinos may also perceive rectal sex as a colorectal cancer risk factor, a perception that has not been well described in prior research. The potential for some Latinos to hold these misperceptions about colorectal cancer risk should be considered when educating or counseling patients about colorectal cancer screening.

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References

1. Levin B, Lieberman D, McFarland B, Smith R, Brooks D, Andrews K, et al. Screening and surveillance for the early detection of colorectal cancer and adenomatous polyps, 2008: a joint guideline from the American Cancer Society, the US multi-society task force on colorectal cancer, and the American college of radiology. CA Cancer J Clin 2008;58:130–60. [PubMed: 18322143]
2. Pollack LA, Blackman DK, Wilson KM, Seeff LC, Nadel MR. Colorectal cancer test use among Hispanic and non-Hispanic US populations. Prev Chronic Dis 2006;3(2):A50. [PubMed: 16539791]
3. Walsh JM, Kaplan CP, Nguyen B, Gildengorin G, McPhee SJ, Perez-Stable EJ. Barriers to colorectal cancer screening in Latino and Vietnamese Americans. Compared with non-Latino white Americans. J Gen Intern Med 2004;19(2):156–66. [PubMed: 15009795]
4. Cameron KA, Francis L, Wolf MS, Baker DW, Makoul G. Investigating Hispanic/Latino perceptions about colorectal cancer screening: a community-based approach to effective message design. Patient Educ Couns 2007;68(2):145–52. [PubMed: 17517486]
5. Borkan, J. Immersion/crystallization. In: Crabtree, B.; Miller, W., editors. Doing qualitative research. USA: Sage Publications; 1999. p. 179-94.
6. Chien C, Morimoto LM, Tom J, Li CI. Differences in colorectal carcinoma stage and survival by race and ethnicity. Cancer 2005;104(3):629–39. [PubMed: 15983985]
7. Coronado GD, Farias A, Thompson B, Godina R, Oderkirk W. Attitudes and beliefs about colorectal cancer among Mexican Americans in communities along the US-Mexico border. Ethn Dis 2006;16(2):421–7. [PubMed: 17682244]
8. Fernandez ME, Wippold R, Torres-Vigil I, Byrd T, Freeberg D, Bains Y, et al. Colorectal cancer screening among Latinos from US cities along the Texas-Mexico border. Cancer Causes Control 2008;19(2):195–206. [PubMed: 18038186]
9. Yepes-Rios M, Reimann JO, Talavera AC, Ruiz de Esparza A, Talavera GA. Colorectal cancer screening among Mexican Americans at a community clinic. Am J Prev Med 2006;30(3):204–10. [PubMed: 16476635]
10. Goldman RE, Diaz J, Kim I. Perspectives of colorectal cancer risk and screening among Dominicans and Puerto Ricans: stigma and misperceptions. Qual Health Res 2009;19(11):1559–68. [PubMed: 19776255]
11. Joseph DA, Miller JW, Wu X, Chen VW, Morris CR, Goodman MT, et al. Understanding the burden of human papillomavirus-associated anal cancers in the US. Cancer 2008;113(Suppl 10): 2892–900. [PubMed: 18980293]
12. Kuzel, A. Sampling in qualitative inquiry. Thousands Oaks, CA: SAGE Publications; 1999.

Table 1

Characteristics of focus group participants (N = 37)

	Female (n = 19)	**Male (n = 18)**	***p*-value***
Age—mean (SD)	58.7 years (7.1)	56.3 years (6.0)	0.2626
Country/territory of origin			0.0296
Dominican Republic (%)	11	56	
Colombia (%)	53	28	
Puerto Rico (%)	32	17	
Other (%)	5	0	
# Years in US—mean (SD)	20.9 years (21.3)	14.1 years (12.0)	0.7132
Self-rated English language skills			0.7012
English spoken well (%)	26	22	
English spoken with difficulty (%)	53	44	
English not spoken (%)	21	28	
Level of education			0.0757
< High school (%)	74	40	
High school or GED (%)	21	22	
> High school (%)	5	33	
Yearly household income			0.1434
< $25,000 (%)	74	55	
$25,000–49,999 (%)	11	39	
> $50,000 (%)	5	6	

GED general education degree

* *p*-values derived from Chi-squared analysis for categorical variables and *t*-tests for continuous variables

Table 2

Colorectal cancer risk perceptions

Themes	Selected quotes
General cancer risks	*Female*: "The poison of cigarettes radiates to the whole body. And if it radiates to the whole body, the colon is part of the body."
	Female: "Genes are very important, because there are people, like she said, it gets passed along. If one person in a family doesn't have a lot of hair, well then the descendants of that person even at 25 years old will be bald and the same goes for diseases."
	Male: "It's in the chromosomes."
Risks related to nutrition and digestive tract	*Male*: "Colon cancer I believe has a lot to do with peoples' diets."
	Female: "One thing is prevention from food…above all too much fat. Too much fat can have an affect by producing polyps and the polyps can be either benign or malignant."
	Male: "So, when someone has excess cholesterol, polyps form and these are small tumors."
	Male: "They say that if the intestine isn't emptied totally, and some stool stays, that's what produces the cancer infection."
	Male: "From what I know, colon cancer always comes because the people who are affected by it lack fiber, it wears away the intestine."
Risks related to sexual practices	*Female 1*: "I also think that, I've seen where…at least when people have sex um…"
	Female 2: "Bisexual"
	Female 1: "Anal. That also can translate…the colon is something that's there for one purpose, not for another."
	Male: "Because…it's not the same, the colon and the woman's vagina are not the same. The colon has to be more forced, it's not prepared for this and this provokes diseases; for women, there are none of these types of problems at the level of the vagina."
	Male: "I believe that the cancer is most dangerous for homosexuals… because there is direct penetration."
	Moderator 1: "…who is at risk for developing colon cancer?"
	Male 1: "Gays."
	Moderator 2: "Gays get more colon cancer?
	Male 2: "Clearly"
	Moderator 2: "And why?
	Male 2: "By the way the colon is used."
	Moderator 2: "Women don't have the same type of cancer…"
	Male 2: "If they have anal sex, yes, it's the same."