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Examining intuitive cancer risk perceptions in Haitian-Creole and Spanish-speaking populations

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Abstract

Background—There is a developing emphasis on intuition and affect in the illness risk perception process, yet there have been no available strategies to measure these constructs in non-English speakers. This study examined the comprehensibility and acceptability of translations of cancer risk beliefs in Haitian-Creole and Spanish.

Methods—An established, iterative, team-based translation process was employed. Cognitive interviews (n=20 in Haitian-Creole speakers; n=23 in Spanish speakers) were conducted in an inner city primary care clinic by trained interviewers who were native speakers of each language. Use of an established coding scheme for problematic terms and ambiguous concepts resulted in rewording and dropping items.

Results—Most items (90% in the Haitian-Creole version; 87% in the Spanish version) were highly comprehensible.

Discussion—This work will allow for further research examining health outcomes associated with risk perceptions across diverse, non-English language subgroups, paving the way for targeted risk communication with these populations.

Keywords

Risk perceptions; cancer; translation; Haitian-Creole; Spanish

Background

In this paper we argue for the importance of measuring intuitive risk perceptions for cancer across diverse, non-English speaking populations, and conduct translation and adaptation of

a newly developed and validated measure of intuitive cancer risk perceptions for use with Haitian-Creole and Spanish-speakers.

Cancer risk perceptions are important precursors of cancer screening and cancer preventive behavior (Slovic, Peters, Finucane, & MacGregor, 2005). Established measurement strategies for cancer risk perceptions have generally relied on perceived likelihood estimates, such as percentage likelihood or verbal categories (e.g. 'likely', 'unlikely'), that require respondents to deliberate in a logical manner about their risks and to think in terms of quantities. Implicitly equating risk perceptions with quantitative, magnitude judgments for likelihood and severity is based on the assumption that people respond to cancer risk questions in a rational, rule-based manner. Yet recent theory and empirical evidence also recognize the importance of intuitions (gut-level thoughts and emotions) in the risk perception process.

Below we provide a brief synthesis of the limited theoretical and empirical literature on intuitive risk perceptions to substantiate our study goal and methods. The Self-Regulation Model (Cameron & Leventhal, 2003) proposes that the processing of health information entails both rational and deliberative processes as well as affective processes. Similarly, the affect heuristic and fuzzy trace theory recognize the importance of emotion in the rapid, automatic formulation of cancer risk judgments (Finucane, Alhakami, Slovic, & Johnson, 2000; Peters, McCaul, Stefanek, & Nelson, 2006; Reyna & Brainerd, 2011; Slovic et al., 2005; Slovic, Peters, Finucane, & MacGregor, 2002). The Risk-as-Feelings hypothesis (Loewenstein, Weber, Hsee, & Welch, 2001) proposes that both feelings generated while risk information is being processed and feelings associated with the hazard itself are critical to risk assessment. Empirical research has shown that a feelings-of-risk measure is more effective in predicting prevention behavior than a probability magnitude measure (Dillard, Ferrer, Ubel, & Fagerlin, 2012; Weinstein et al., 2007). Despite the growing recognition of the importance of intuition in the cancer risk perception process outlined here, there have been few efforts to fully explore and assess these potentially important constructs.

To begin to address this gap, we conducted a series of studies to elucidate (Hay, Shuk, Cruz, & Ostroff, 2005) and measure (Hay et al., 2014) intuitive risk perceptions for cancer in racially, culturally, and socioeconomically diverse populations. For instance, among individuals seeking primary care in a New York City public hospital-based clinic, 19% of English-speaking, low-income, inner-city primary care patients reported that if they think too hard about the possibility of getting cancer, they could get it, and 23% reported that too much thought about cancer risk could encourage the disease. Most (68%) agreed that thinking about their chances of getting cancer made them uncomfortable (Hay et al., 2014). Psychometric examination of intuitive cancer risk perception items across a range of diverse, English-speaking populations revealed five factors (Hay et al., 2014). The first and strongest factor, Cognitive Causation, includes items that tap the belief that thoughts about cancer risk may encourage the development of disease, and that minimizing such thoughts could actually reduce cancer risk. Accordingly, some of these items have a superstitious or magical nature. The second and next strongest factor, Negative Affect in Risk, taps feelings generated during the risk perception process. The third factor, Unpredictability of Cancer, keys into beliefs about irreducible uncertainties regarding whether any one person might get

cancer. The fourth factor, Preventability, assesses beliefs around the extent to which cancer development is controllable. The fifth factor, Defensive Pessimism, taps beliefs around the potential negative outcomes associated with being too optimistic about avoiding cancer. See Hay and colleagues (Hay et al., 2014) for the full set of items.

A critically important next step in this program of research is to widen the availability of this assessment into languages beyond English. This is because risk perception research must engage diverse populations, including non-English speakers, in order to fully capture cultural, racial, and socioeconomic variation in how people manage uncertainty in general (Hofstede, 2001), and the health risk perception process in particular (Francois, Elysee, Shah, & Gany, 2009; Huerta & Macario, 1999; Joseph, Burke, Tuason, Barker, & Pasick, 2009; Pasick et al., 2009). Further, endorsement of “I don’t know” in response to traditional cancer risk perception questions, as well risk perception inaccuracies, are higher in diverse populations (Cyrus-David, 2010; Waters, Hay, Orom, Kiviniemi, & Drake, 2013). Valid measures of intuitive risk perceptions in English and non-English speaking populations will be needed to do justice to this health research priority, allowing for the comparison of risk perceptions across diverse populations and levels of acculturation. Research using these measures may suggest new strategies to raise risk awareness and motivate cancer screening and cancer risk reduction behaviors in diverse populations. Translation and adaptation of such measures is a critical step in broadening cancer risk communication research across diverse populations.

Statement of Study Purpose

The purpose of the current study is to conduct translation and adaptation of measures of intuitive risk perceptions for cancer into Haitian-Creole and Spanish languages. Our research question is: What is the comprehensibility and acceptability of the intuitive risk perceptions in Haitian-Creole and Spanish? To accomplish this, we employ cognitive interviewing of the newly-translated items in Haitian-Creole and Spanish. The rationale for translation to Haitian-Creole and Spanish, in particular, is that fluency in these languages, but not English, represented the most frequent reason for study ineligibility in our research with English-speaking populations in Queens, New York. Additionally, we prioritize Haitian-Creole, as Haitian immigration has dramatically increased in New York City in the four years since Haiti’s earthquake on January 12, 2010. Queens County, New York City is one of the top five United States counties with the largest Haitian population (Ruggles et al., 2010). Of the Haitian population in Queens, 82% claim they do not speak English at home, and of those not speaking English at home, 14% say they do not speak English well or at all (Ruggles et al., 2010). We also sought to translate the intuitive cancer risk perception items into Spanish. Hispanics comprise 28% of our Queens, New York population (U.S. Census Bureau, 2011), and 30% of Spanish speakers in Queens reported that they do not speak English well (U.S. Census Bureau, 2011).

Methods

Study overview

In this study we conducted translation and adaptation of intuitive cancer risk perceptions (Hay et al., 2014) into Haitian-Creole and Spanish languages. To ensure comprehensibility and acceptability of the items, we utilized cognitive interviewing of the items with native speakers of each language recruited in urban primary care. We conducted qualitative coding and analysis to identify comprehension problems and ambiguity with the items in each language, and finally we adapted the items to ensure acceptability of the newly-translated items in Haitian-Creole and Spanish.

Study sample

Our research study site, Queens Hospital Center Ambulatory Care Clinic, draws from a Queens, New York City catchment area that is highly diverse and has a high proportion of new immigrants. Those individuals eligible for study participation were aged 18 and older who were seen in the ambulatory care waiting room at Queens Hospital Center (QHC) in Jamaica, New York, and were fluent in either Haitian-Creole or Spanish.

Human subject and data protections

In our prior work in this population we noted potential participants stated a preference for answering anonymous surveys to capture the pertinent data and protect their information. Accordingly, the researchers submitted the project as a prospective exempt research application to the Memorial Sloan Kettering Cancer Center (MSKCC), City College of New York (CCNY) and Queens Hospital Center (QHC) Institutional Review Boards following the Office of Human Research Protections decision charts for determination of exempt research. The MSKCC, CCNY and QHC Institutional Review Boards deemed the research involving human subjects eligible for exemption under 45 CFR 46.101.b (2) (U.S. Department of Health and Human Services, 2013). The request to waive HIPAA authorization and informed consent was also granted as per 45 CFR 164.512(i)(2)(ii) and 45 CFR 46.116(d) (U.S. Department of Health and Human Services, 2013). As per MSKCC Institutional Review Board guidelines, any substantial change to the exempt protocol was reviewed by the Institutional Review Board to ensure that the project continued to meet the exempt status definition. Although the research was deemed exempt and the waiver of informed consent was determined, per Good Clinical Practice (Hamrell, 2012), prior to conducting the anonymous survey, we verbally outlined the risk and benefits of the research, the voluntary nature of the study and how refusal would not affect care at QHC. Verbal agreement to participate was obtained prior to survey administration. Furthermore, the study team ensured data applied the same stringent cleaning and quality assurance checks as conducted for to non-exempt protocols. Accordingly, data was collected on paper and kept in a secure location at QHC, and was also scanned and transferred by secure Internet connection to MSKCC where it was stored on mainframe computer as PDF files.

Methodology

Translation—We followed guidelines from TRAPD (Translation, Review, Adjudication, Pretesting, and Documentation) (Berrigan et al., 2010; Harkness, Villar, & Edwards, 2010). In accordance with TRAPD, we used a team approach and a multistep, iterative process to translation that addresses sociocultural as well as linguistic acceptability in the population of interest. We assembled two, two-person teams of native speakers (Haitian-Creole and Spanish). These native speakers were fluent in the source and target languages, from diverse geographical locations, familiar with the cultural, linguistic, and socioeconomic characteristics of the populations of interest, and knowledgeable about the research goals. First, the English-language source questionnaires were translated into the target languages – Haitian-Creole and Spanish –and back translated into English by an approved translation vendor, who also provided Certificates of Authenticity. Second, the target translations underwent rigorous review and adjudication by the native speaker teams. In light of recent work prioritizing review and adjudication of the target translation over the back translation (Harkness et al., 2010), the native speaker teams used the back translations as a secondary data source in the adjudication process. Third, we conducted pretesting of the comprehensibility, and acceptability of our newly translated items via cognitive interviewing. Finally, we carefully documented the pretest findings through qualitative data analysis and summarization.

Cognitive Interviewing—Cognitive interviewing has emerged as an important tool for the evaluation and improvement of new survey questions or the use of established questions in new populations of interest (Willis, 2005), and in the improvement of existing translated questionnaires (Berrigan et al., 2010). The technique serves to tap cognitive processes in answer formulation (Tourangeau, 1984), as well as cultural relevance or appropriateness of the items in the populations of interest (Miller, 2003; Schwarz, Oyserman, & Petycheva, 2010). We utilized retrospective probing, where we first administered the survey in interview format in its entirety. We then subsequently returned to probe on responses. Retrospective probing approximates the completion of a real interview by allowing the usual flow of the response process, and then returning to problematic items after completion of the initial responding. Two research study assistants (RSAs) were trained and conducted the cognitive interviews. Both were native speakers (one Haitian-Creole; one Spanish) and fluent in English.

The RSAs approached patients using a standardized script. If an eligible patient declined participation, the RSA recorded the patient's gender, language spoken, and reason for non-participation. Participants willing to participate completed a RSA interview responding to the 30 intuitive risk perception items. Participants were asked to note (by checking a box) any items that they felt were awkward or not understandable. After completion of the interview, the RSA returned to the items checked and used the following probes: 1) What specifically did you find confusing about this question? 2) Tell me what this question means to you, in your own words 3) Can you think of another word that would be better or clearer? 4) What would you recommend we do to make this question easier for patients to answer? The RSA returned to five random items that were not noted as problematic, and used the following probes: 1) Please tell me how you came up with an answer for this question. 2)

You answered (x). What makes that a better answer than (x+1)? What makes (x) a better answer than (x-1)? 3) Were there any words in the question or answer choices that were confusing or hard to understand? Interviews continued until each of the 30 items was evaluated by at least two participants, whether or not they checked the item as problematic. Each RSA kept detailed notes on responses during each interview. Our probes were developed to avoid yes/no responses, and we encouraged interviewers to use follow-up probes as needed (Pan, Landreth, Park, Hinsdale-Shouse, & Schoua-Glusberg, 2010). At interview completion, study participants received a New York City transportation card (\$15.00) in appreciation for their time and efforts. Interviews lasted for approximately 20–30 minutes.

Analytic Approach

Following the recommendations of Conrad and Blair (Conrad & Blair, 2004), our analytic approach comprised four steps. First, immediately after each interview, the RSAs reviewed their detailed notes and completed a record in a summary form (in English), recording their key findings by item, separately for that interview (Step 1: narrative summation). Second, three independent coders (JH, EL, AB) examined the summary forms to independently identify items with problems or issues in at least one participant (Step 2: Problem identification/ classification). This step produced a list of items with problems for further examination. Third, the coders catalogued general types of format problems for each item, and across items on all interviews (Step 3: Coding). We adapted a coding scheme after Willis and colleagues (Willis et al., 2008) and compiled the problems and types of problems by target survey language (Step 4: Compilation).

Results

Study participants

We approached 74 patients to recruit a final sample size of 43 (58% response rate). Primary reasons for refusal were time constraints (55%) and not being interested (32%). Participants and nonparticipants did not differ with regard to age or gender, but Haitian-Creole speakers were slightly more likely to participate than Spanish speakers ($\chi^2=3.28$, $p=.07$).

Of our 43 participants, Haitian-Creole and Spanish speakers did not differ across gender, age, United States nativity, income, or personal or family cancer history (Table I). Across the entire sample, the average age was 52 (range: 28 to 80 years) and 56% were female. Most participants (91%) had not been born in the U.S., but had been living in the United States on average for 20 years. Most participants (65%) reported having a high school education or less. Nearly half (49%) declined to report their household income, but of those who did, 88% (16/18) had a household income of less than \$30,000. Half (51%) of the participants indicated that they had a family history of cancer and 7% had a personal history of cancer.

Most Haitian-Creole speakers (89%) identified as Caribbean Black and all identified as Non-Hispanic. Spanish speakers mainly identified as Caribbean Black (32%) or 'other' race (47%), but all (100%) identified as Hispanic. The Spanish speaking group was more likely to be employed than the Haitian speakers.

Cognitive interview findings (Table II)

The purpose of the study is to conduct translation and adaptation of the Cancer Risk Belief Scale into Haitian-Creole and Spanish languages. Our research question was: What is the comprehensibility and acceptability of the Cancer Risk Belief Scale in Haitian-Creole and Spanish? We discuss our findings for the Haitian-Creole cognitive interviews first, and then discuss the cognitive interview findings for the Spanish cognitive interviews.

Haitian-Creole version—Of the 30 items evaluated, 25 received multiple participant confirmation that the item was interpreted as intended, and so did not generate problem identification, and these items were retained for the final survey as “equivalent questions.”

Below we discuss the finding for the five items that elicited problems in Haitian-Creole. Of the five items that elicited problems, two were coded as problematic terms and three were coded as ambiguous concepts. The problematic terms were, first, “thinking too positively” for the item (DP1) “I avoid thinking too positively about my cancer risk,” and second, “over-confident” for the item (DP3) “I don’t want to be over-confident that I can avoid getting cancer.” For the former item, participants did not know whether “pasnse twò pozitiv,” or “thinking too positively,” meant that they should think that they were going to (or not going to) develop cancer. Similarly, for the latter item, “over-confident” had both positive and negative connotations, thereby presenting a mixed picture. Items DP1 and DP3 were dropped from the assessment battery.

The three ambiguous concepts included (DP2) “believing that I won’t get cancer could be risky,” (CC6) “being hopeful about my cancer risk might protect me from getting it,” and (DP4) “I feel safest rating my cancer risk around the middle, neither high nor low.” For Item DP2, the phrase “li ka bay risk,” meaning “can give risk,” proved to be problematic and the phrasing ultimately was changed to “li ka bey tet mwen plis pwoblem” or “could give myself more problems.” In this case, although the original Haitian-Creole wording best represented the wording of the item in English, the context of “risky” was difficult to understand. In addition, some participants denied ever thinking about cancer and, therefore, did not believe that they wouldn’t (or would) get cancer. For Item CC6, participants reported problems with the word “hopeful” in the context of cancer risk. As a result, the phrase “being hopeful about my cancer risk” ultimately was changed to “being hopeful about not getting cancer.” For DP4, “I feel safest rating my cancer risk around the middle, neither high nor low,” participants were not used to the concept of rating their cancer risk. Participants provided responses that included “I am more safe when I know I don’t have cancer in my family, not high or low,” “to be in best security don’t think about your cancer risk being neither high or low,” or “if I don’t think I will get cancer, I will have more security of it being not high or low.” This item was dropped from the assessment battery.

Spanish version—Of the 30 items evaluated, 22 received confirmation that the item was interpreted as intended, and so did not generate problem identification. Of the eight items that elicited problems, four involved problematic terms and four involved ambiguous concepts.

Below we discuss the findings for the eight items that elicited problems in Spanish. Problematic terms included “too positively” for the item (DP1) “I avoid thinking too positively about my cancer risk,” and “over-confident” for the item (DP3) “I don’t want to be over-confident that I can avoid getting cancer.” In each case, participants felt the terms were too difficult to understand in the context of cancer risk. Both items were dropped in the Spanish version. For the item (CC5), “Too much thought about cancer risk could encourage the disease,” participants did not understand the term “animar” that was used to mean encourage; “alentar” was used instead. Finally, for item (UC4), “Cancer is a random thing,” there was some difficulty in interpreting the term “casualidad;” yet it was retained without modification due to lack of perceived alternatives to this phrasing.

Additionally there were four items that elicited problems due to ambiguous concepts. In item (CC2), “If I don’t believe I will get cancer, I won’t,” the double negative and lack of verb in the final phrase made this item hard to understand, leading to diverse interpretations of the content. The item was reworded to read, “Si no creo que yo voy a obtener cancer, no voy a obtener cancer” (“If I don’t believe I will get cancer, I will not get cancer.”) Another item (CC6), “Being hopeful about my cancer risk might protect me from getting it” generated confusion given the juxtaposition of hope and cancer risk, for example one participant stated, “Being hopeful of getting cancer? Doesn’t make sense to me.” The rewrite was the following, “Teniendo esperanzas de no contraer cancer puede protegerme contra el mismo” (“Being hopeful of not getting cancer can protect me from getting it.”)

Two additional questions also elicited problems due to ambiguous concepts. They included DP4, “I feel safest rating my cancer risk around the middle, neither high nor low.” One participant stated, “How can I classify it as medium or high? I think cancer goes by categories, but I don’t know how to categorize it, I’m not sure if it’s high or low, this question is not specific enough.” As well, with item CC10, “For who already have cancer, limiting their thoughts about cancer risk help them get better,” participants reported that it was conceptually difficult to evaluate cancer risk in the context of already having cancer. Both DP4 and CC10 were dropped from the assessment battery.

Additionally, six participants (three Haitian-Creole speakers, three Spanish-speakers) suggested changing the response categories, from a four point to a two-point (agree/disagree) rating scale. In particular, these participants noted difficulty discerning between strongly (dis)agree and generally (dis)agree.

The final item batteries in Haitian-Creole and Spanish are available from the primary author.

Discussion

The purpose of the study is to conduct translation and adaptation of the Cancer Risk Belief Scale into Haitian-Creole and Spanish languages. Research in cancer risk perception requires the development of novel measures that go beyond typical probability and severity judgments, and engage both English and non-English speaking populations, which will facilitate comparison across diverse populations.

Our research question was: What is the comprehensibility and acceptability of the Cancer Risk Belief Scale in Haitian-Creole and Spanish? We discuss our findings for the Haitian-Creole cognitive interviews first, and then discuss the cognitive interview findings for the Spanish cognitive interviews second.

Research examining risk perceptions will be enhanced by the capacity to study these issues in non English-speaking populations, and will guide public health messaging to enhance the adoption of cancer prevention and control behaviors for growing subpopulations of new immigrants, where language diversity is highly confounded with diversity in racial/ethnic group, culture, educational attainment, health literacy, and socioeconomic level. The importance of rigorous translation of all patient reported outcomes assessments is consistent with the International Society for Pharmacoeconomics and Outcomes Research (Wild et al., 2005).

Our use of an interactive, team-based approach to translation resulted in most items (90% in the Haitian-Creole version; 87% in the Spanish version) being retained in the final assessment batteries. We used an established coding scheme for problems identified in the cognitive interviews, and they comprised problematic terms and ambiguous concepts, and resulted in rewording and dropping items. Certain items (DP1, DP3, DP4) were dropped from both Haitian-Creole and Spanish versions, attesting to common problems across both languages. Specifically, phrases combining positive and negative valences tended to be particularly challenging for participants to meaningfully process. We are now in the field examining large samples of primary care participants in all three languages (English, Haitian-Creole, Spanish), and psychometric analysis will provide further information concerning the item functioning and use of the items in predicting important attitudinal and behavioral assessments of healthcare utilization.

A few patients reported that they would prefer a two rather than a four-level response format. Historically, a Likert-type format has been problematic when used with certain Hispanic subgroups, requiring researchers to “teach” respondents how to use the scale (Bernal, Wooley, & Schensul, 1997). Difficulty with complex response scales is believed to be a function of educational level as well as level of acculturation (Gibbons, Zellner, & Rudek, 1999; Marin & Marin, 1991; McQuiston, Larson, Parrado, & Flaskerud, 2002). Future work could compare outcomes associated with different response categories, and to examine an alternative, visual scale such as a “level of agreement thermometer.”

Our study has several limitations. Participants were drawn from a sample of low-income, inner-city Haitian-Creole and Spanish speakers seen in the context of a primary care visit, and, therefore, the generalizability to those who may not seek or have access to primary care is limited. Additionally, Spanish-speaking participants were likely more heterogeneous than Haitian-Creole speakers, making the comprehensibility and acceptability of the items more tentative among Spanish speakers.

In conclusion, examination of intuitive risk perceptions for cancer in non-English speakers will allow for the expansion of our understanding of different aspects of cancer risk perceptions. We are currently examining the relationship of the items to healthcare

utilization variables with an expanded ability for examination across cultural subgroups that stand to benefit from the research. Given the burgeoning proportion of new Americans we can anticipate over the coming decade, we encourage further research to engage in examination of cancer risk perceptions, as well as systematic translation of psychosocial health measures in cancer, more broadly.

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Table 1**Sociodemographic Characteristics of Sample**

Characteristic	Haitian-Creole Speakers (n=20)			Spanish Speakers (n=23)		
	n	%	p-value	n	%	p-value
Age						
Mean (SD)	53.8	(10.4)		50.4	(13.5)	0.380
Gender						
Male	8	40.0		11	47.8	0.760
Female	12	60.0		12	52.2	
Race						
Caribbean Black	17	89.4		6	31.6	0.017
Black/African-American	0	0.0		2	10.5	
White, Non Hispanic	0	0.0		2	10.5	
Other	1	5.3		9	47.4	
Do Not Know	1	5.3		0	0.0	
Ethnicity						
Hispanic	0	0.0		20	100.0	0.000
Non-Hispanic	19	100.0		0	0.0	
Marital Status						
Married/Living with Partner	10	52.6		12	60.0	0.445
Single	4	21.1		6	30.0	
Divorced	5	26.3		2	10.0	
Widowed	0	0.0		0	0.0	
Education						
Less than High School	7	37.0		10	50.0	0.493
High School Graduate/GED	5	26.0		6	30.0	
Partial College/ College Graduate	7	37.0		4	15.0	
Employment Status						
Employed	6	31.6		11	55.0	0.001
Homemaker	0	0.0		7	35.0	
Retired	1	5.2		1	5.0	

Characteristic	Haitian-Creole Speakers (n=20)		Spanish Speakers (n=23)		p-value
	n	%	n	%	
Unemployed	12	63.2	1	5.0	
Income					
Less than \$10,000	2	33.3	6	50.0	
\$10,000–\$29,999	3	50.0	5	41.6	
\$30,000–\$49,999	1	1.6	1	0.8	
Born in U.S.					
No	19	100.0	20	95.2	0.335
Yes	0	0.0	1	4.8	
Family History of Cancer					
Yes	8	42.1	14	66.7	0.119
No	11	57.9	7	33.3	
Personal History of Cancer					
Yes	3	15.8	0	0.0	0.063
No	16	84.2	20	100.0	
Length of Years in U.S.					
Mean (SD)	20.1	(14.8)	20.2	(13.3)	0.981

Not all categories add to n=43 because of instances where participants discontinued the survey or declined to answer certain questions.

Table II

Number of identified problems in cancer risk belief items by problem type and translation target

<u>Survey problem types</u>	<u>Haitian-Creole version</u>	<u>Spanish version</u>
Translation problem	0	0
Interviewer difficulty	0	0
Problematic term	2	4
Ambiguous concept	3	4
Overly complex question	0	0
Double barreled question	0	0
Questionnaire effects over	0	0
Multiple items		
Response selection	0	4
Total # problems	5	12