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Race, Gender, and Conceptualizations of Fear

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Abstract

This study used qualitative methods and quantitative statistical analyses to examine whether race and gender are associated with reasons for which adults perceive a situation or object as fearful. The sample consists of 197 African-American and White adults (ages 18–85) recruited through a convenience sample and community sources in the Midwest. A cognitive interviewing instrument was utilized to examine respondents understanding of words and phrases from a mental health instrument. Using qualitative methods, free-response answers were content coded using 5 “fear-codes” (i.e., harm/danger, external locus of control, self-perception, and past experience), developed by the researchers. Results from logistic regression analyses indicate that race significantly predicts usage of specific fear codes ($p < .05$). In addition, a race by gender interaction was found.

Keywords

cognitive interview; phobia; qualitative research; race; anxiety; fear

Race, Gender, and Conceptualizations of Fear

Researchers have advocated for more serious consideration of culture and gender in the study of mental health (Angel & Thoits, 1987; Canino & Alegria, 2008; Littlewood, Jadhav, & Ryder, 2007; Lopez & Hernandez, 1986; Lopez & Nunez, 1987; Manson, 1995; Okazaki & Sue, 1995; Rogler, 1989, 1993; Rogler, Cortes, & Malgady, 1994). Disregarding the influence of these factors may lead to systematic bias in diagnosing and measuring mental health across social groups (Williams & Harris-Reid, 1999), which in turn may initiate an

inappropriate course of treatment, perpetuate “unfair and discriminatory stereotypes of pathology” for particular social groups, and may affect health policy developments dependent on quality mental health research (Adebimpe, 1981; Malgady, 1996; Sabshin, Diesenhau, & Wilkerson, 1970). In addition, a large body of research indicates that individuals from different socio-demographic backgrounds may manifest and communicate symptoms in ways not well understood by clinicians and researchers (Flaskerud, 1986; Sue, Fujino, Hu, & Takeuchi, 1991; U.S. Public Health Service, 2001). Cultures of racial and ethnic minorities influence their perceptions of symptoms, individual coping styles, their family and community supports, and their willingness to seek treatment, possibly contributing to existing disparities in mental health service utilization among ethnic/racial subpopulations (U.S. Public Health Service, 2001). A number of studies indicate that African Americans receive fewer mental health services than the white population for treatment of anxiety disorders in particular, including specific phobia (Alegría et al., 2002; Hatzenbuehler, Keyes, Narrow, Grant, & Hasin, 2008; Kessler et al., 2005; Kessler et al., 1996; Keyes et al., 2008; Swartz et al., 1998; Wang et al., 2005). Specific phobia (formerly simple phobia) is defined as “intense and persistent fear of a specific or circumscribed object or situation that may be present or anticipated” wherein an encounter with the phobic stimulus will almost invariably induce an instantaneous anxiety response such as a panic attack or other anxiety symptoms, recognized as excessive or unreasonable, and lead to avoidance or endurance characterized by marked anxiety and discomfort (American Psychiatric Association, 1994). Notably, findings from a number of large epidemiological studies suggest differential prevalence rates of specific phobia disorder among a number of racial and gender subgroups (Breslau, Aguilar-Gaxiola, et al., 2006; Neighbors & Williams, 2000; Robins & Regier, 1984; Schwab, Bell, Warheit, & Schwab, 1979; U.S. Public Health Service, 2001; Williams, 1995; Zhang & Snowden, 1999). Specifically, this disorder has been found to be more prevalent among African Americans than any other group (Neal & Turner, 1991; Robins & Regier, 1984). Even when education, birthplace, and socioeconomic status are controlled statistically (Neal & Turner, 1991; Warheit, Holzer, & Arey, 1975), White Americans report simple phobia at a third of the prevalence rate of African Americans (Neal & Turner, 1991). Only a single study has found comparable rates of this disorder between African Americans and White respondents (Breslau, Aguilar-Gaxiola, et al., 2006). The research on adult African American populations with specific phobia is relatively sparse. A recent review by Hunter and Schmidt (2010) indicates that they were unable to locate any studies of African American adults carrying diagnoses of specific phobia; thus, the review included studies of only child and adolescent samples (Hunter & Schmidt, 2010). Differences in the conceptualization and understanding of specific phobia have yet to be studied.

Conceptualization and understanding of fear may vary across culturally diverse groups. The purpose of this study is to investigate the conceptualization and understanding of fear across two socio-demographic characteristics, race and gender. Specifically, we assess the possibility of systematic patterns across race and gender in the interpretation and understanding of a specific measurement item commonly used to assess specific phobia disorder. The study utilizes a methodology termed “cognitive interviewing” with White and African American men and women to build upon an emerging literature that examines

individual differences in the comprehension and interpretation of global health items and a standardized instrument, the World Health Organization's (WHO) Composite International Diagnostic Interview (CIDI; Kessler, Andrews, Morczek, Ustun, & Wittchen, 1998; World Health Organization, 1990). The CIDI is a highly structured diagnostic instrument used primarily to assess prevalence rates of specific psychiatric disorders. It has been used in large national epidemiological studies like the Epidemiological Catchment Area Study (ECA) and the National Comorbidity Study (NCS) (Breslau, Aguilar-Gaxiola, et al., 2006; Kessler & Ustun, 2004; Robins, Wing, Wittchen, & Helzer, 1988) and has been shown to reveal similar prevalence rates of mental health diagnoses in a variety of socio-demographic subpopulations with DSM-IV diagnostic criteria (Alegria et al., 2009; Haro et al., 2006). However, systematic bias may occur in respondents' interpretation and understanding because the interviewer does not follow up with additional questions to inquire further or clarify the structured questions.

The Use of Cognitive Interviewing in Health and Mental Health Research

In response to concerns about the conceptualization of measurement items across socio-demographic characteristics, health and social science researchers have begun to initiate collaborations, in order to gain a greater understanding of how survey questions are answered by diverse populations and to discover methods for improving survey questions (Schechter, 1997). The Questionnaire Design Research Laboratory (QDRL), the first formalized U.S. government collaboration developed to increase understanding of differential survey response patterns in diverse populations and to discover methods for improving survey questions (Schechter, 1997) has acknowledged cognitive interviewing as a valuable instrument in "evaluating whether health related surveys are comprehended and interpreted in the same way across all groups" (p. 308) (Williams & Harris-Reid, 1999).

Cognitive interviewing employs several techniques including probes, vignettes, and protocols that ask people to think aloud (Oksenberg, Cannell, & Kalton, 1991; Schechter, 1997). The use of cognitive interviewing techniques has occurred primarily with the interpretation of health survey questions (Groves, Fultz, & Martin, 1992; Krause & Jay, 1994) and to investigate gender and race-based differences in the interpretation and comprehension of health-related survey questions (Johnson et al., 1994; Warnecke et al., 1997). Research using cognitive interviewing to investigate the conceptualization of mental health, however, is limited. Emerging research has utilized cognitive interviewing techniques to understand conceptualizations of depression among African Americans (Ford, 2002). Using the probe, "What does the phrase sad, blue, or depressed mean to you" and "are there any other words or phrases that you would use to describe feeling sad, blue, or depressed", Ford reports no significant differences by race or gender, supporting a "common language" for the conceptual meaning of depression, but notes that differences in understanding may occur when individuals provide examples of their own experiences with depression. To date, this is the only study to utilize cognitive interview probes to understand whether conceptualization of fear and specific phobia differs by race or gender.

Research Questions

To gain a greater understanding of race and gender differences in the conceptualization of specific phobia between African American and White men and women, we used cognitive interviewing techniques to investigate the following research questions: (1) Are there differences in the way that adults describe situations and/or objects as fearful? (2) If differences exist, are adults' perceptions of objects or situations as fearful associated with race and gender?

Methods

The data used in this analysis is from a larger study examining cultural differences in the interpretation of CIDI and other mental health questions. One hundred and ninety seven participants from two counties in Southeastern Michigan were recruited for the study; the sample was divided evenly among African Americans and White respondents and men and women. Participants ranged from 18 to 85 years old and were on average 36 years old. Approximately half of the sample had less than a high school degree. About one-third of the sample were married and about 40% were never married (See Table 1).

This was a purposeful convenience sample, recruited from various community sources including Michigan Employment Security Commission Job Service, community groups, local churches, senior citizens' organizations, shopping malls, and street corners throughout the two Michigan counties. The convenience sample was designed to fill certain cells and recruited to be equally divided between blacks and White respondents, and of high and low (high school or more versus less than high school) education within each race. Each participant was matched with a trained interviewer of the same race. Interviews were conducted at each of the respective community sites noted above or in a university office. Participants received \$20 and a list of telephone numbers of mental health services in the event that a referral was needed for their participation in the study. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Measures

Demographic Items—Several items were used to solicit participants' socio-demographic characteristics including: ethnicity (1=African American; 0=White), gender (1=female, 0=male), educational level (1=12 years or more, 0=11 years or less), age (in years), and marital status (2= divorced, separated, widowed, 1=married, 0=never married).

Qualitative Phobia Probe—A single open-ended verbal cognitive interviewing probe was used to examine how participants interpret specific words and phrases included in a question from the CIDI. Cognitive interviewing techniques, including verbal probes, are recognized by the QRDL as an acceptable research tool to identify differential response population-based response patterns (Schechter, 1997). The item investigated in the current study was: "What makes an object or situation fearful?" This probe was used to gain a greater understanding of how persons interpret a structured question from the CIDI used to assess the presence of phobia ("Did you ever have a strong unreasonable fear of a specific object or situation—for example, animals or insects, heights, storms, water, elevators,

enclosed spaces, blood, going to the dentist or hospital?”) and, as a stand-alone question, was not sufficient to assess for DSM-IV diagnoses. Consistent with methodology identified by Willis and colleagues (Willis, Royston, & Bercini, 1991) and favored by many cognitive researchers (see Willis, DeMaio, & Harris-Kojetin, 1999), all graduate-level interviewers were trained in the use of the verbal probe comprehension/interpretation technique (Willis et al., 1991) to first ask the CIDI survey question to each participant. After the participant answered the question, the interviewer then asked for specific information relevant to either the question or the specific answer provided by the participant. Interviewers were instructed to note responses verbatim, but did not audio-record them. Interview responses were entered into a computer spreadsheet file (Microsoft Excel) and codes generated from these responses were entered into SPSS for Windows, v. 10, for further statistical analysis.

Analysis Plan

Qualitative Analysis—We used classical content analysis to examine the conceptualization of fear among a diverse sample. Content analysis aims at a classification of content for making inferences by objectively and systematically identifying specified characteristics of information (Holsti, 1969). Through the application of categorization rules, information is transformed into data that can be summarized and compared (Paisley, 1969). While content analysis was used originally to analyze “natural” or “available” data—data that exist without any active participation by the investigator—this method also has been used widely with open-ended questions generated from qualitative research (Holsti, 1969).

The qualitative analyses focused on responses to the single probe item, “What makes an object or situation fearful?” In order to explore patterns and deeper interpretations of the meanings captured by the probe, the researchers used a three-step data reduction process utilizing an inductive method adapted from the grounded theory approach. This process utilizes an inductive (i.e., bottom-up) method adapted from the grounded theory approach (Strauss & Corbin, 1990). The initial coding phase follows principles of open coding that have been employed within a constructivist approach to grounded theory data analytic methods (Charmaz, 2006).

In the first phase of the analyses, a key-word list was created, which depicted the respondents’ ideas regarding “What makes an object or situation fearful?” Second, study investigators sorted and sifted through the keywords, “teasing out themes” linking relevant keywords and clustering keywords into chunks representing distinct ideas or themes related to perceptions of fear. Third, data chunks were reviewed carefully to determine whether there might be other combinations of keywords that might represent higher levels of abstraction (Miles & Huberman, 1994). These chunks of keywords comprised seven descriptive fear categories that were defined carefully and utilized in the subsequent coding process.

In the second phase of the analyses, two codes (“definition or synonyms of fear” and an “other” category) were deleted from the analyses due to their low frequency and low inter-rater reliability.

The remaining fear categories were used to code the content of respondents' original free-response answers to the interview probe. When a response included more than one idea or theme, multiple codes were assigned. The list of fear codes and their descriptions are included in Table 2. The presence of each fear code was measured as a dichotomous variable. The first and second authors coded the responses first. Coders were blind to respondents' demographic information when coding transcripts. Later, the dichotomous variables generated by the fear codes were merged with each participant's quantitative demographic data to examine the hypothesized association between race, gender, and respondents' conceptualization of fear.

Inter-rater Reliability—To examine the reliability of the qualitative fear codes, two graduate-level students were trained to follow the same procedures noted above. Student coders individually generated keywords from the respondents' free-response answers to the probes and then clustered the keywords into chunks representing distinct ideas or themes related to perceptions of fear. Fear codes developed independently by graduate students were nearly identical to the fear codes composed by the investigators, indicating that the codes showed evidence of reliability and may be replicable.

Cohen's (Cohen, 1960) Kappa statistic was used to measure the extent of agreement between the raters, in their assignment of fear codes to the free response answers to the probe. Landis and Koch (Landis & Koch, 1977) have provided benchmarks for evaluating Kappa statistics and suggest that Kappas of .41–.60, .61–.80, and .81–1.00 be evaluated as moderate, substantial, and almost perfect agreement, respectively. According to these standards, most of the Kappa estimates were found among the almost perfect agreement range, indicating that multiple coders could apply the fear codes reliably (See Table 2).

Statistical Analysis

First, descriptive statistics for all variables used in the analyses were calculated including race, gender, age, education, and marital status. Chi-square analyses of the association between each fear code and respondents' race and gender were calculated. Finally, using each of the five fear codes, separate logistic regressions were computed to examine the association between race and gender and each fear category, controlling for age, education, and marital status. Race by gender interaction terms also were computed and added to each of the logistic main effects models for investigation.

Results

Table 1 presents the descriptive statistics for the demographic variables of the study. Chi-square analyses and one-way analysis of variance (ANOVA) were used to test the bivariate relationships among the demographic variables. Race differences were found in the sample for marital status and age. Specifically, African American respondents were more likely to have never married ($\chi^2 = 10.75$, $df = 2$, $p < .01$) and were younger, on average ($F = 7.42$, $df = 1$, $p < .01$), compared to White respondents. Gender differences were not found among the variables.

Table 2 presents the definitions and frequencies of the *fear* codes generated from the cognitive interview probes. The five themes represent the final codes retained for analyses. The *external locus of control* code, defined by expressions of lack of control or references to that which is unknown, constituted the most frequently expressed theme (35.5%). In this code, situations or objects were described as fearful when they involved a loss or lack of control, unpredictability, fate, or lack of clarity for that which is unknown. The second most frequently coded theme was *harm/danger* (29.3%). References to pain and suffering around unpleasant or dangerous circumstances defined this theme. *Phobia* was the third most frequent theme (18.3%). This theme represented the classical definition of specific phobia, defined by specific objects or situations as causing intense fear and anxiety. Avoidance of objects or situations that caused fear and anxiety was also coded within the harm/danger code. Reference to *past experience* was coded in 15.7% of the responses. Personal experiences, such as bad experiences, define this theme. *Past experiences* may also refer to some incident that was experienced by someone other than the respondent. Finally, *self-perception* was coded in 8.9% of the responses for this code. Individuals responded to the question of what makes an object or situation fearful by noting that fear is what you make it, one's own self-perception. Examples of each code are presented in Table 2.

Table 3 summarizes the number and percentage of respondents coded for each of the five fear codes by gender and race. White females were coded for *external locus of control* about 1.5 times more often than African American females. White males were coded 3.5 times more for *past experiences* as compared to African American males.

Five logistic regression models were computed to test the association between the socio-demographic variables under investigation and the five fear codes. Three of the five models (*external locus of control*, *past experiences*, *self-perception*) revealed significant relationships for race and gender. A significant main effect of race was found for *past experiences*, where White respondents were significantly more likely to cite *past experiences* as a source of fear compared to African Americans ($b = -1.02$, O.R. = 0.36, $p < .05$; see Table 4). A significant main effect of gender was found for *self-perception*, where men are significantly more likely to endorse *self-perception* as a source of fear compared to women ($b = -1.43$, O.R. = 0.24, $p < .05$; table not shown).

Gender was only marginally associated with *external locus of control* code; however, a significant race $\times$ gender interaction was found ($b = -1.38$, O.R. = 0.25, $p < .05$; see Table 5). *External locus of control* was endorsed most frequently by White women and least frequently by White men. African American men and women reported similarly with regard to this code.

Although not included in the primary analyses, age and education were associated significantly with the *external locus of control* and *phobia* codes, respectively. Older respondents were more likely to endorse *external locus of control* than younger respondents ($b = .032$, O.R. = 1.032, $p = .032$), while respondents who did not complete high school were more likely to endorse *phobia* than high-school graduates ($b = -.875$, O.R. = .417, $p = .033$).

Discussion

Using cognitive interviewing probes, the results of this study show that respondents do not define what is fearful uniformly. These findings suggest differential conceptualizations of the construct of fear and possible differences in interpretations of CIDI questions evaluating specific phobia. Specifically, respondents noted five themes when describing what makes an object or situation fearful: *self-perception*, *phobias*, *harm/danger*, *external locus of control*, and *past experiences*. Analyses to determine the association between respondents' race and gender and fear codes revealed that White women were significantly more likely to endorse *external locus of control* and White respondents (men and women) were more likely to endorse *past experiences* when describing their understanding of fear than their African American counterparts. In addition, men endorsed *self-perception* more frequently than women, regardless of ethnicity. This study also suggests that women in this sample may conceptualize fears as *phobias* more frequently than their male counterparts, although these findings only reached marginal significance. While our research questions were focused on increasing our understanding of race and gender differences in the conceptualization of fear, findings also suggest some striking commonalities in conceptualization across demographic groups.

Race and gender socialization and social position due to race and gender may have significant implications for patterns in conceptualizations of fear displayed by the different social groups. Exposure to stressors and strains may vary as a function of social structures, status, power, and access to personal and social resources (Pearlin, 1989; Turner, Wheaton, & Lloyd, 1995). African-American men and women are more prone to acute and chronic stressors associated with institutionalized racism and discrimination (Brown, Eaton, & Sussman, 1990; Carter, Sbrocco, & Carter, 1996; Neal & Turner, 1991; Sennett & Cobb, 1973; Sigelman & Welch, 1993). In general, women also have a lower financial status compared to men, in many cases due to sexual discrimination (Wenzel, 1993). It is important to consider these contextual factors when attempting to understand racial and gender differences in conceptualization of fear.

Race and gender socialization also affect how social groups are viewed by society at large, which in turn affects how particular social groups perceive themselves. For example, a number of studies with diverse samples have shown that White women are more likely to be perceived favorably than their African-American counterparts (Farr, 2000; Landrine, 1985; Madriz, 1997; Young, 1986). Specifically, African-American females have been described as "hyper-sexed" (Farr, 2000, p.55; Madriz, 1997), and have been depicted as more dangerous and aggressive than White women (Brennan, 2006; Farr, 1997; Madriz, 1997; Young, 1986). Such negative stereotypes may drive popular media outlets to more frequently portray White women as the victims of violent crime (Madriz, 1997), when in fact Black women are more likely to be victims of crimes than their White counterparts (Bureau of Justice Statistics, 1995). Despite lower levels of victimization, White women report higher levels of fear of crime than African-American women (Madriz, 1997). Such media portrayals may increase White women's perceptions that they are controlled by external forces, and may explain why White women were more likely to report external locus of control in their conceptualization of fear than their African American counterparts.

Research on coping mechanisms for discriminated and stigmatized social groups suggests that African American men and women may depend on various mechanisms for coping such as an external locus of control and social learning (Crocker, Major, & Steele, 1998; Lieberman, 1999). "Individuals with an external orientation are more likely to construe events as resulting from luck, chance, fate, or powers beyond their personal control in contrast to those with an internal orientation who perceive contingencies between their own behavior and subsequent events" (p. 1) (Strickland, 1989). A number of studies indicate that African Americans demonstrate a "stronger external orientation", seeing themselves as more externally controlled (Gurin, Gurin, Lao, & Beattie, 1969; Lefcourt & Ladwig, 1965; Wenzel, 1993) (p. 496) and possessing a stronger belief in control by powerful others (Garcia, 1975; Wenzel, 1993) than their White counterparts. Conversely, encompassing a more internal locus of control and high levels of "John Henryism" (i.e., a commitment to the values of hard work, self-reliance and resistance to forces seeking to restrict personal freedom) has been linked to negative health and mental health of African Americans at least under some conditions (Neighbors, Jackson, Broman, & Thompson, 1996). The current study found evidence of an association between an external locus of control orientation and fear for White women. Not surprisingly, this association was not found for African Americans. A worldview that encompasses an external locus of control may be perceived as an adaptive coping strategy for African Americans, and may explain why fear was not conceptualized in this way.

Our findings also suggest that White respondents in this sample mention *past experiences* in their conceptualizations of fear more frequently than their African-American counterparts. African Americans' experiences may be influenced more by unpredictable events including acts of racism and discrimination. Due to African Americans' low social positioning in society and historical experiences with stressors associated with institutionalized racism and discrimination (Sennett & Cobb, 1973; Sigelman & Welch, 1993; Vines & Baird, 2009), African Americans may focus on the present and future in order to cope with adverse life experiences; therefore these themes may not be associated with fear.

Finally, results from this study indicate that respondents describe or identify *phobias* in their conceptualizations of fear but suggest gender and race differences in the inclusion of this theme in their responses. The results from this study indicate that female respondents mentioned *phobia*, the fear theme reflecting the DSM definition of specific phobia disorder, twice as often as their male counterparts. Although this difference did not reach statistical significance, this finding is particularly meaningful because this trend is consistent with findings from several other studies demonstrating higher prevalence rates of specific phobia among women as compared to men (Bourden et al., 1988; Fredrikson, Annas, Fischer, & Wik, 1996; Neal & Turner, 1991; Plaud & Vavrovsky, 1998; Robins et al., 1984; Schwab et al., 1979). Furthermore, our research findings replicate trends found in the ECA, indicating that Black women tend to exhibit higher rates of specific phobias compared to White and Black men. Women's conceptualizations of fear (particularly African American women's) seem to overlap most often with the concept of fear included in the specific phobia diagnostic category. Specifically, these results indicate differences in interpretation of a standardized question from the CIDI across specific groups, invariably affecting rates of

endorsement. Though our study findings lack generalizability due to purposeful convenience sampling, they contribute to the understanding of race and gender differences in the prevalence of specific phobia reflected in the literature.

Differential conceptualizations of fear have implications for mental health professionals and researchers involved in the assessment and diagnosis of anxiety and for future research. Studies that utilize cognitive interviewing techniques have the potential to improve the diagnostic accuracy and sensitivity of existing measures, specifically for women and racial minorities who have been traditionally underrepresented in research, as well as in the development of interventions to reduce fear and anxiety. When differential conceptualizations of fear that are not examined, incidence and prevalence rates of anxiety disorders may be either under- or over-reported, depending on one's social group.. Approaches to measurement, diagnosis, and intervention development should carefully consider the importance of culture when assessing and treating individuals suffering from anxiety disorders, especially in light of findings pertaining to fear codes of *past experiences* and *locus of control*. For example, specific guidelines for cross-cultural health-related quality of life measurement identified by Guillemin and colleagues (Guillemin, Bombardier, & Beaton, 1993) that underscore the need for incorporating variations in idiomatic, experiential, and conceptual interpretations of health-related factors could be used in assessment of anxiety disorders. Interventions also should be developed that are preventive in nature, examining societal forces that influence gender socialization and racial disparities that may be linked to anxiety, to promote well-being.

The use of cognitive interviewing has implications for research on anxiety as well as a wide range of other mental health disorders. The current study focused on the question, "What makes an object or situation fearful?" (probing the CIDI construct for phobias). Future research using cognitive interview techniques may further examine the extent and intensity to which these objects or situations are viewed as fearful as well as when these fears interfere with an individual's quality of life. Few symptom measures have been developed with racial minority patient populations from clinical and research settings (Rogler, 1993); as such, it is unclear how symptom presentations vary across cultures or language domains or how cultural expectations affect the technical performance or interpretation of scale scores (Manson, 1995; Vega & Rumbaut, 1991). Continued research that utilizes a multi-dimensional approach to data collection is much needed. Specifically, future research may apply cognitive interview probes to examine whether individuals' understand the language of mental health professionals and the DSM and whether they use this language to describe their symptoms of mental disorders.

Cognitive interviewing techniques are not without limitations and have much room for refinement and improvement. Analytic techniques in cognitive interviewing are complex and time consuming, requiring line-by-line keyword and code development and multiple coders to ensure reliability and validity through investigator triangulation (Patton, 2002). Just as care should be provided to the development of questionnaire items in survey research, cognitive interviewing also requires careful consideration of probes used to understand how construct are conceptualized. For example, in the current study, it was apparent that some respondents interpreted the question "What makes an object or situation

fearful?” to mean what is an object or situation that causes fear. While this interpretation of the probe did not affect the overall development of codes or the results of the study, it is a potential limitation that should be considered in future research. As with other qualitative methods, it is difficult to obtain large, representative samples due to the intensive interviewing techniques utilized. The current study utilizes a relatively small, yet purposeful, convenience sample (by the standards of quantitative research), but is considered a large sample for a qualitative study. Finally, we chose not to audiotape respondents during the interviews for the purpose of developing rapport and honesty in responses. While interviewers were trained to record verbatim responses, there remains some concern over the extent to which this was achieved, and the lack of audio recording is a limitation of this study.

In conclusion, the current study contributes to a clearer understanding of gender and cultural differences in the interpretation of a question widely used to assess and diagnose anxiety. While cognitive interviewing techniques have been utilized with health survey questions, the utility of these methods with mental health survey questions, specifically the CIDI, has not been explored fully. Given findings from a recent study of adolescents indicating that significantly higher CIDI estimates for specific phobia on the CIDI compared to the K-SADS (Kessler et al., 2009), this is a direction for future research. The current study is one of the first studies to investigate the cultural sensitivity of these measures using this innovative technique.

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Table 1

Descriptive Statistics (N = 197) of Demographic Characteristics of the Sample and Significance of Differences by Race

Variables	African American		White	
	Percent (%)	Mean/SD	Percent (%)	Mean/SD
Age		34.07(10.80)		38.61(12.54) **
Gender				
Female	55.6%		46.9%	
Male	44.4%		53.1%	
Education				
Less than High School	43.4%		51.0%	
High School Graduate or More	56.6%		49.0%	
Marital Status				
Never Married	51.5%		28.5% **	
Married or Living with Partner	23.2%		38.8%	
Divorced/Separated/Widowed	25.3%		32.7%	

Note:

+ p < .10,

* p < .05,

** p < .01,

*** p < .001

Table 2

Definitions and frequencies for “What makes a situation or object fearful” codes (N=197)

Fear Code	Definition	Examples	Kappa	N	Percent (%)
External Locus of Control	Expressing lack of control, that which is unknown or unexpected, or predictions of impending occurrences.	<p>“When you don’t know or understand an outcome or what the outcome will be or you are unable to control a situation.”</p> <p>“When you know yourself that you have no control over it. It can go any way it wants to.”</p> <p>“Sometimes not knowing what the outcome would be...he doesn’t know so that scares him.”</p>	.92	70	35.5
Harm/Danger	Direct or indirect references to danger, the capacity to hurt or cause pain and suffering.	<p>“That you could get hurt if something goes wrong.”</p> <p>“When I was a taxi cab driver, I had a gun pulled on me and put to my head. That was really scary. I thought ‘Jesus, my life is done now.’”</p>	.80	56	29.3
Phobias	A specific object, person, or action as causing intense fear or anxiety.	<p>“She’s scared of heights, doesn’t like roller coasters.”</p> <p>“The sound of thunder we had last week. I had all the lights turned off and everything.”</p>	.70	35	18.3
Past Experiences	Direct or indirect personal experience as causing fear or anxiety.	<p>“If you had been on it and had had an accident on it. Just by experience you had with it.”</p> <p>“Depends on what people have tried before. Things people hear about can cause them fear.”</p>	.83	30	15.7
Self-perception	One’s own perceptions leads them to find a situation or object fearful; internal locus of control	<p>“I believe fear is in the mind. So nothing makes the object fearful, it’s your mind that does it.”</p> <p>“Believing you can’t deal with it.”</p>	.74	17	8.9

Table 3

Respondents acknowledging fear codes by gender and race

Fear Codes	Male		Female	
	African American N (%)	White N (%)	African American N (%)	White N (%)
Harm/Danger	14 (33.3)	17 (34.0)	13 (24.1)	12 (26.7)
External Locus of Control	15 (34.1)	13 (25.0)	18 (32.7)	24 (52.2) *
Phobias	6 (14.3)	8 (16.0)	13 (24.1)	8 (17.8)
Past Experiences	3 (7.1)	13 (26.0) *	6 (11.1)	8 (17.8)
Self-perception	7 (16.7)	6 (12.0)	3 (5.6)	1 (2.2)

Note:

+
p < .10,*
p < .05,**
p < .01,***
p < .001

Table 4

Betas, SEs, Odds Ratios, and Significance for Past Experiences and External Locus of Control Codes

	Past Experiences		External Locus of Control	
	B	Odds Ratio	B	Odds Ratio
Race (African American =1)	-1.02 (.45)	.36*	-.15 (.32)	0.86
Gender (Female =1)	-.17 (.41)	.84	0.55 (.31)	1.73 ⁺
Age	-.01 (.02)	.99	.03 (.02)	1.03*
Education (High School Grad =1)	.48 (.43)	1.62	.56 (.32)	1.75 ⁺
Marital Status (Never Married =0) Married	.31 (.54)	1.36	.06 (.40)	1.10
Divorced/Separated/Widowed	.73 (.57)	2.10	-.27 (.42)	.77
Constant	-1.28 (.82)	.27	-2.22 (.65)	.11***

Note:

⁺
p < .10,

*
p < .05,

**
p < .01,

p < .001

Table 5

Logistic Regression with Race by Gender Interaction for External Locus of Control Codes

	B	Odds Ratio
Race (African American =1)	.63	1.87
Gender (Female =1)	1.24	3.46**
Age	.03	1.03*
Education (High School Grad =1)	.58	1.79+
Marital Status (Never Married =0) Married	.09	1.10
Divorced/Separated/Widowed	-.27	.77
Race × Gender	-1.38	.25*
Constant	-2.70	.067

Note:

+ p < .10,

* p < .05,

** p < .01,

*** p < .001