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J Cross Cult Gerontol. Author manuscript; available in PMC 2014 December 01.

Published in final edited form as:
J Cross Cult Gerontol. 2013 December ; 28(4): 421–433. doi:10.1007/s10823-013-9211-8.

Illness Conceptualizations among Older Rural Mexican-Americans with Anxiety and Depression

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Abstract

Background—Research on barriers and utilization of mental health services in older ethnic minorities has been productive. However, little is known about the characterization and beliefs about anxiety and depression symptoms among older Mexican-Americans. Exploration of these conceptualizations will lead to better detection and provision of care to this large, yet underserved group.

Method—The present study used a mixed methods approach to explore conceptualizations of anxiety and depression in a group of rural older Mexican-Americans. Twenty-five Spanish-speaking participants (mean age 71.2) responded to flyers that solicited individuals who felt “tense or depressed.” Participants completed a structured diagnostic interview as well as self-report questionnaires about medical health, anxiety and depressive symptoms, and cognitive functioning. Qualitative interviews included questions about how participants describe, conceptualize, and cope with anxiety and depression symptoms.

Results—Sixty-eight percent of the sample met criteria for at least one anxiety or mood disorder with high comorbidity rates. Self-reported symptoms of depression, anxiety, and somatization were below clinical ranges for all participants. Medical illness, cognitive impairment, age, education, and acculturation were not associated with distress. Qualitative analyses revealed that nearly half of the terms used by the sample to describe distress phenomena deviated from Western labels traditionally used to indicate anxious and depressive symptomatology.

Discussion—Multiple methods of symptom endorsement demonstrated that older Mexican-Americans may report distress differently than detected by traditional self-report measures or common Western terminology. Understanding these additional illness conceptualizations may have implications for improving the detection of mental illness and increasing service use among this growing population.

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Keywords

acculturation; elderly; rural mental health; idioms of distress

Introduction

The number of Latinos in the U.S. exceeds 50 million and is expected to double by 2050, making this the largest minority group in the country (U.S. Census Bureau, 2010). Between 2000 and 2010, the U.S. Latino population grew by 43% and accounted for over half the growth of the total country's population (U.S. Census Bureau, 2010). U.S. Hispanics are also identified as constituting the fastest growing segment of elderly Americans (Beyene, Becker & Mayen 2002). Even though Hispanic immigrants aged 75 and older are at a significantly higher risk of depression and anxious depression (i.e., major depression co-occurring with generalized anxiety symptoms) than their U.S.-born counterparts (Gerst et al. 2010; Diefenbach et al. 2009), they are largely underserved in both mental health and primary care settings (Alegria et al. 2008; Stockdale et al. 2008; Wells et. al 2001; Borowsky et al. 2000).

Large studies and epidemiological surveys have demonstrated that aggregated U.S. Latinos show no differences in prevalence rates of psychiatric disorders when compared to their non-Latino white counterparts (Woodward et al., Jimenez et al., 2010).Some suggest that disaggregating ethnic/racial groups (i.e., studying specific subgroups such as Mexican-American, Puerto Rican, etc.) can reveal important disparities in prevalence rates and mental health care use. For instance, epidemiological surveys show that the lowest rates of service use for depression were found among Mexican-American individuals compared to other ethnic subgroups (Gonzalez et al., 2010). Older Mexican-origin men are less likely than their non-Latino counterparts to receive proper diagnosis or treatment of their depression (Hinton et al., 2012). The need for anxiety treatment has also been established for Mexican-Americans who are among a larger group of ethnic minority adults but few studies demonstrate adequate services are being delivered to this subgroup with a high geriatric membership (Alegria et al. 2008; Burnham et al. 1987; Grant et al. 2004; Karno et al. 1989; Vega, Sribney & Achara-Abrahams 1998).

Some have posited that late-life Latino consumers of mental health may experience "triple stigma:" being older, mentally ill, and belonging to an ethnic minority group (Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2005). These stigmatizing beliefs have been reported among older U.S. Latinos, revealing increased feelings of shame or embarrassment for having mental illnesses and substance abuse compared to Asian-American, African-American, or white counterparts, suggesting important differences in cultural norms and attitudes surrounding mental health (Jimenez, Bartels, Cardenas, & Alegria, 2013). However, stigma may only be one component of understanding help-seeking behaviors and conceptualization of illness among this population.

Improving our understanding of the gap in treatment use among older ethnic minority adults may come from implementing exploratory qualitative strategies. Specifically, understanding patients' conceptualizations of mental illness and their perceptions of standard treatments for anxiety and depression can help us identify causes of underutilization among populations at risk. "Illness representations" are patients' beliefs, perceptions, and expectations about their symptoms. Illness representations have direct influence on *how*, *why*, *and where* individuals seek treatment (Leventhal, Diefenbach & Leventhal, 1992). Some illness belief models have been proposed for older populations (Lenze & Wetherell 2009) as well as among Hispanic

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populations (Karasz & Watkins 2006; Cabassa et al. 2008; Dura-Vila & Hodes, 2012), and findings do show that consumers of mental health and their providers can hold multiple models of distress that may conflict with one another and therefore influence help-seeking behavior among sufferers of distress.

This cross-sectional pilot study used quantitative and qualitative methods in order to identify possible cultural uniqueness in the interpretation and reporting of internalizing symptoms among older Mexican-American patients. Exploratory aims of this preliminary investigation were to 1.) examine of how older Mexican-Americans describe, experience, and interpret mental health symptoms and 2.) identify demographic variables that are associated with anxiety and depression. This pilot data will be utilized as a springboard for future research on assessment and treatment delivery for underserved geriatric mental health patients.

Methods

Participants

Twenty-five adults at least 60 years old were recruited in El Centro, California, an agricultural community with a 75% Mexican-American population. Recruitment took place at a mental health clinic (n = 9), senior center (n=9), and primary care clinic (n=7). Individuals seeking services from these locations were recruited via Spanish-language flyers placed in waiting rooms and common areas. Individuals who answered “yes” to the two questions on the study flyer: 1.) “Are you aged 60 or older?” and 2.) “Do you feel tense or down?” Those who met screening criteria were interviewed in a private room of a local primary care clinic by a trained bilingual/bicultural research assistant. Participants were excluded if they had any cognitive impairments or active suicidality. In order to avoid influencing participants’ responses, the qualitative interview was administered before the quantitative assessment. Because most of the participants were not literate in English or Spanish, all forms were read aloud by the assessor. All assessment interviews were administered in Spanish and audio-taped for the purposes of supervision and data coding by an independent rater.

Both qualitative and quantitative data were used as they complement each other and provide a comprehensive exploration of distress symptomology. Utilizing multiple sources of data allowed us to capture information that we would not garnish from one source (Cresswell & Plano Clark 2010). Qualitative data were compared and contrasted according to psychiatric diagnoses. Further, quantitative data served as important descriptive information and assisted in making meaning out of qualitative findings and vice versa.

Measures

Quantitative assessment

Descriptive measures: Medical health status was assessed using an 11-item checklist developed for the Improving Mood (IMPACT) study (Unützer et al. 2002). Cognitive impairment was evaluated with a 6-item brief screen (Callahan et al. 2002). The Brief Acculturation Rating Scale for Mexican Americans-II Spanish Version (ARSMA-II; Cuèllar, Arnold & Maldonado 1995) measures ethnic identity toward the Mexican culture and the Anglo culture on two orthogonal indices (Mexican Orientation Score [MOS] and Anglo Orientation Score [AOS], respectively).

Symptom severity measures: The Brief Symptom Inventory-18 Spanish Version (BSI-18; Derogatis 2001) was used to obtain information on depression, anxiety, and somatization symptoms. The BSI-18 is a concise, widely-used tool for distress assessment in clinical samples, and has been validated for use in native Spanish-speaking outpatient populations

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with psychiatric disorders (Andreu et al. 2008). The BSI-18 is considered to have adequate sensitivity and specificity in Spanish speaking populations. The 18-item measure yields three subscales (Anxiety, Depression, and Somatization) and a Global Severity Index (GSI) which indicates current overall psychological distress. BSI-18 cut off scores for psychopathology is 6 or higher on Somatization, 7 or higher on Depression, 7 or higher on Anxiety, and 18 or higher on GSI scales for males. For females, participants needed to score 6 or higher on Somatization, 9 or higher on Depression, 9 or higher on Anxiety and 21 or higher on GSI scales.

Each participant was administered the Spanish version of the Mini International Neuropsychiatric Interview (M.I.N.I.; Sheehan et al. 1998), a structured diagnostic interview used to assess current DSM-IV Axis I Disorders. The Spanish-language version of the M.I.N.I. has been validated for native Spanish-speakers and is considered to have good sensitivity/specificity for mood and anxiety disorders (Bobes 1998).

Qualitative assessment

Qualitative data were developed to address two major inquiries: 1.) to better understand how older Mexican-American individuals *describe* their distress, and 2.) to better understand how these individuals *experience* and *interpret* their distress. Each participant completed an interview comprised of a semi-structured set of questions addressing themes derived from Levanthal's illness representation model. The duration of each interview varied between 10 to 45 minutes, depending on the length of participants' responses and history of illness. The thematic categories were determined a priori and include (1) the name or label of the mental health problem; (2) the timeline or duration of the problem; (3) causes of the illness; (4) consequences of the illness; (5) cures/treatments; and (6) barriers to treatment (Table 1; Diefenbach & Leventhal 1996; Leventhal, Meyer & Nerenz 1980). Sample questions across all categories can be found in Table 1.

With regards to how participants *describe* their distress (i.e., Category 1: Name or label), individuals were asked an open-ended question if they used common idioms to describe illness phenomena (Table 1). The following common idioms of distress, which were identified a priori, were coded if participants' responses matched them: depression/ depressed (depresion, depremida/o), anxiety/anxious (ansiedad, ansiosa/ansioso), stress/ stressed (estress, estresada/o), nerves/nervous (nervios, nerviosa/o), and *trauma (trauma)*. Other idioms of distress or descriptors not traditionally used were also of interest and coded as they were identified. Although a variety of Spanish idioms for these English words may be used across the Spanish-speaking world, words chosen for coding in this study were words most commonly used by Mexican-origin and Mexican-American Spanish speakers. We were particularly interested in whether the words used by these participants to describe their distress were consistent with the terminology typically utilized in U.S. medical settings by providers as well as standardized questionnaires.

Data Analysis

Quantitative Analysis—All data were evaluated for normality of distribution and homogeneity of variance. No significant variation from the normal distribution was found. Missing quantitative variables were replaced by the group mean. Descriptive statistics were obtained for demographic variables, health status, cognitive status, and ethnic identity. Frequencies were obtained for qualitative data. Correlations were run between symptom severity subscales of the BSI-18, demographic variables, health, and acculturation. Group differences were examined between those who met and did not meet criteria for anxiety and depression on self-reported distress scores (BSI-18). Qualitative data was organized into categories and compared to symptom severity ratings and diagnoses.

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Qualitative Analysis—Segments of transcripts ranging from a phrase to several paragraphs were assigned codes based on key questions from the interview guide or emergent categories or themes by a bilingual independent advanced-level graduate student in psychology and a licensed clinical psychologist. With the exception of the name/label category, themes were derived from participants' responses and divided into categories using the method of constant comparison (Glaser & Strauss 1967). For instance, under the category "barriers," "family concerns" was a common theme. The research assistant and clinical psychologist achieved 100% agreement on thematic coding. A copy of the full interview is available from the corresponding author upon request.

Results

Quantitative Results

Demographic Characteristics—Sixteen (64%) participants were female and nine (36%) were male. Participants were an average of 71.2 (6.4) years of age. Fifty-two percent lived with a spouse, 36% lived with adult children, and 12% lived alone. Participants were predominantly (96%) born in Mexico had an average of 4.1 (3.0) years of education; 87% had a primary school education or less. Participants had lived an average of 41.4 (18.5) years in the United States. The majority of participants endorsed an ethnic identity traditional to Mexican culture (average ARSMA MOS = 4.25 [0.58]; ARSMA AOS = 1.37 [0.40]). No participant was considered to have an assimilated ethnic identity type based on their ARSMA MOS and AOS scores (Cuèllar, Arnold & Maldonado 1995). Acculturation variables were not associated with other descriptive or demographic measures.

Medical and psychiatric characteristics—Participants reported experiencing an average of 4.7 (1.8) medical conditions, most commonly hypertension, arthritis, and chronic pain. Sixty-eight percent of the participants met diagnostic criteria for a psychiatric disorder. The most common psychiatric disorders were major depressive disorder (MDD; 56%), generalized anxiety disorder (GAD; 56%), panic disorder (PD; 24%), and posttraumatic stress disorder (PTSD; 4%). Forty-four percent of the participants met criteria for both MDD and GAD.

Age, education, medical conditions, and cognitive impairment were not associated with distress symptoms (BSI subscales). Mexican acculturation was only correlated with medical conditions (r = .43, p =.045). Finally, females scored significantly higher on the BSI Somitization (B = 3.34, p=.034) and BSI Global Distress (B = 12.23, p= .039) scales than males.

Despite a large portion of the sample meeting criteria for a psychiatric disorder, average BSI-18 scores for the sample fell below the pathological range. Average subscale scores were: Somatization = 4.8 (4.1), Depression = 6.3 (6.9), and Anxiety 5.5 (5.8); mean GSI was 15.8 (14.3). Consistent with the high levels of depressive and anxiety comorbidity, the bivariate correlation between the BSI Depression and Anxiety Scales was high (r = .88, $p < .01$). The BSI-18 depression subscale successfully differentiated between depressed and non-depressed individuals ($t(22) = -3.74$; $p = .001$), but the anxiety subscale did not differentiate between individuals meeting or not meeting criteria for an anxiety disorder ($t(22) = -1.25$; $p = .224$).

Qualitative Results

All but one participant completed the interview. Study participants used a broad range of words to describe their distress. Although 17 of the 24 participants met criteria for a DSM-IV disorder, the other seven all described experiencing emotional distress. Thus, because the

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entire sample was distressed in some way, the qualitative data references the sample as a whole, unless otherwise noted. The frequency of use of all of the distress idioms is listed in Table 2.

Label/name of illness—Sixteen of the 24 participants used common idioms of distress (e.g., depression/depressed (depresion, depremida/o), anxiety/anxious (ansiedad, ansiosa/ansioso) during interviews (Table 2). Of the 16 participants who used these common idioms of distress, 13 also used other idioms to describe their distress; eight participants used *only* other idioms to describe their distress. Combined, 21 of the 24 participants used other idioms to describe their distress.

Physical Symptoms of Distress—Among the notable findings was information about how participants *experience* and *interpret* their distress. Endorsement of physical symptoms was relatively low across the entire sample; only nine participants reported experiencing any physical symptoms that they believed were associated with their psychological distress (Table 3). The most commonly endorsed physical symptom was restlessness.

Consequences of distress—Although the majority of participants (N = 16) endorsed emotional symptoms as the primary consequence or "difficulty" associated with their distress, social, physical, and behavioral consequences were also discussed (Table 3). Decreases in energy, activity, and social interaction were also commonly mentioned consequences.

Causes of distress—With regards to perceived causes of emotional distress, family-related issues were the most commonly endorsed perceived causes of distress (Table 3). Participants endorsed worry about family, death of a loved one, and family conflict as perceived causes of distress.

Cure/treatment—All but one participant endorsed having used at least one method for treating their symptoms; activity, social support, spirituality, and group therapy were the most commonly mentioned curative methods (Table 3). Other curative methods included exercise, seeking companionship/affection, thinking positively, and acceptance, although several participants discussed avoidance techniques, such as trying not to think about it. Approximately one-third of participants voiced positive views about both taking medications and receiving counseling.

Perceived barriers—Participants primarily endorsed, similar to causes of distress, barriers that were family-related. One-third of participants reported unavailability of, misunderstanding by, or current (e.g. "my family tells me that they cannot help me") or feared (e.g. "I cannot say anything to them because the next day I will need them for something") rejection by family members as a major barrier to receiving treatment.

Integration of Qualitative and Quantitative Results

Of the eight participants who did not use common idioms of distress, all eight described experiencing distress in using other distress words, and 37% met criteria for DSM-IV diagnosis. However, BSI-18 scores for these eight participants were lower, although not statistically significant (Somatization = 4.14 (4.52), Depression = 3.57 (4.82), Anxiety = 3.00 (3.65), GSI = 10.42 (12.02)) than for the 16 who used common idioms of distress (Somatization = 5.37 (3.96), Depression = 7.81 (7.35), Anxiety = 6.93 (6.35), GSI = 18.93 (14.77)). Other idioms mentioned were *tristeza* (N = 9) and *desesperación* (N = 8). Seven participants did not meet criteria for any DSM-IV disorder, but still qualitatively described

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experiencing distress. Of those participants, all seven used uncommon idioms while only three used common idioms.

Discussion

National census data and clinical research point to ethnic minority persons as constituting an important segment of the aging population in the country in need of mental health attention. While the ethnic composition of the elderly population grows, mental health service utilization remains lower than expected among aggregated U.S. Latinos (i..e. Alegria et al., 2008). The purpose of this investigation was to better understand how Mexican-American older adults describe, experience, and present anxiety and depression. Results indicate that while many older Mexican-Americans experience clinically significant criteria for both anxiety and depression, the manner in which they self-report their symptoms differs from Western terminology.

A major aim of this study was how these individuals *described* their psychopathology. Our results indicated that although the majority of participants suffered from either depression or anxiety (according to the DSM-IV), there was a great deal of variance within the sample with regards to the words used and the conditions these words described. We coded a total of 23 distress words, including the five common idioms mentioned by the participants. While we expected a high frequency of use of all the common idioms and more variance among other idioms, we were surprised that the common idioms such as “stress” and “trauma” were virtually absent, while a term that we did not expect to see, “desperate (desesperado),” was mentioned by seven (29%) of the participants.

A full third of the participants failed to ever mention any of the common idioms of distress in the qualitative interviews. This finding is inconsistent with previous work that has established that the term “ataque de nervios”/ “nervios” is indeed a common idiom because it was recognized by the majority of a Spanish sample as well as a comparison Hispanic American migrant sample of participants ages 18 – 65 (Dura-Vila & Hodes, 2012). However, our findings are consistent with other research showing that age may play a role in idioms of distress and that *older* minority adults do not tend to use the same terms as do mental health professionals to describe their emotional experiences (De La Cancela & Guzman 1991). In our sample, the individuals who did not report common idioms still described their distress using other words, suggesting that common idioms of distress might not be applicable to a significant portion of this population and that relying solely on these words in interviews and questionnaires may cause the assessor to miss valuable diagnostic data. In our sample, the eight participants who failed to use common idioms of distress also scored lower on all four BSI subscales, and only three of eight met criteria for at least one DSM-IV disorder (compared to 14 of 16 who endorsed common idioms) yet all still described themselves as distressed using other idioms in qualitative interviews. Because these eight participants still described themselves as distressed, we question whether the common idioms of distress and instruments that use similar Western distress labels, such as the MINI and the BSI-18, can adequately capture the unique reports of distress in this population, especially in brief screening situations.

We were also interested in how the participants *experienced* and *interpreted* their pathology. Despite the common notion that Latino individuals report more somatic symptoms than Anglos, endorsement of physical symptoms of psychological distress was surprisingly low in this sample in both quantitative (e.g., BSI-18) and qualitative assessment. These findings are inconsistent with a large body of research linking Latino ethnic groups to increased endorsement of somatic symptoms of distress (Diefenbach et al. 2004; Escobar et al. 1989; De La Cancela & Guzman 1991; Zinbarg et al. 1994). Although it is unclear why this

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occurred, one possible explanation is that the recruitment method (by soliciting individuals who felt “tense or down”) included mostly individuals who experience their distress psychologically, rather than somatically. However, this finding may indicate that older Latinos who have psychological insight into their distress may not be nearly as somatically preoccupied as previously believed. More recent studies seem to be consistent with this finding (e.g., Bauer et al., 2012).

Consistent with other research (Cabassa et al. 2008), results from this study suggest that family issues may play a role in both the development and maintenance of adult- or late-life onset of depression and anxiety. The three most common causes cited for the development of pathology was familial in nature. However, family concerns were also the most common barriers to receiving treatment, reported by one third of the sample. Reasons cited included stigma (“I can’t even talk to my family about this [depression]…I can’t tell them how I feel”); rejection (“They will scold me when I talk about it”; “I’m the one whom they should be taking care of them”; “They tell me, ‘You should get up, you should cook, we can’t do anything for you’”), guilt (“I can’t say anything to [my family members] because I will need them for something”), or availability (“No one in my family has time to take me to my appointments.”). Finally, many participants endorsed beliefs about curative methods that are contemporary and in line with treatments that have demonstrated effectiveness in older adults, including attending group therapy and behavioral activation.

Our sample of older Mexican-Americans revealed high rates of anxiety and depression. Generalized anxiety disorder and major depression were the most common diagnoses. Furthermore, anxiety and depression symptomatology overlapped considerably. This comorbidity, i.e., anxious depression, is consistent with both late-life and cross-cultural research demonstrating mixed anxiety-depression among these groups, independently (Fuentes & Cox 1997; Palmer, Jeste & Sheikh 1997; Lenze & Wetherell 2009; Schraufnagel et al. 2006).

These findings should be interpreted within the context of several limitations. The sample is small and had very low levels of formal education and modest American acculturation. Further, these non-randomly selected participants were from a rural area and may not be representative of other older Latinos. A larger, more heterogeneous sample is needed to better support the distinct terms or idioms to describe distress. The assessments used were validated with Spanish-speaking samples, not necessarily Mexican-Americans, and most were not designed to be administered orally by an assessor. Finally, the sample was comprised of participants who were seeking medical, psychiatric, or other services; as stated above, their conceptualizations of distress may differ from those of non-treatment seeking older Mexican-Americans. In particular, because these participants responded to a recruitment flier asking if they felt “tense or down,” these participants may have had insight into their psychological distress.

This study provided new insight into how older adult Mexican-Americans describe and interpret their distress, yielding some unique findings that warrant replication and future exploration. Specifically, employing a broader range of illness conceptualizations may help mental health clinicians improve the assessment and the quality of care provided to older Latinos experiencing psychiatric symptoms. For some U.S. geographic areas these findings may be particularly relevant in order to respond to increased need for mental health care. For instance, California, Texas, and Florida constitute the highest number of Mexican-American occupants nationwide and also happen to be the states with the highest percentage of individuals aged sixty-five and older (U.S. Census Bureau, 2010). Despite the elusiveness of adequate depression and anxiety care for this growing population, providers serving

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Mexican-American geriatric communities who explore their cultural beliefs about causes, maintenance, and treatment of their problems may be a step further in narrowing this gap.

Acknowledgments

The authors would like to acknowledge the contributions of Bernardo Ng, M.D. and Al Camacho, M.D. to this project.

The research was supported by a Career Development Award (K23 MH067643) from the National Institutes of Mental Health and a Career Development Award (CSRD-068-10S) from the Clinical Science R & D Program of the Veterans Health Administration. The contents do not reflect the views of the Department of Veterans Affairs or the United States Government.

References

Alegria M, Canino G, Shrout P, Woo M, Duan N, Vila D, Torres M, Chen C, Meng X. Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. The American Journal of Psychiatry. 2008; 165:359–369. [PubMed: 18245178]

Andreu Y, Galdón MJ, Dura E, Ferrando M, Murgui S, García A, Ibáñez E. Psychometric properties of the Brief Symptom Inventory-18 (BSI-18) in a Spanish sample of outpatients with psychiatric disorders. Psichothema. 2008; 20:844–850.

Bauer AM, Chen C, Alegría M. Prevalence of physical symptoms and their association with race/ethnicity and acculturation in the united states. General Hospital Psychiatry. 2012; 34:323–331. [PubMed: 22460006]

Beyene Y, Becker G, Mayen N. Perception of aging and sense of well-being among Latino elderly. Journal of Cross-cultural Gerontology. 2002; 17:155–172. [PubMed: 14617971]

Bobes J. A Spanish validation study of the mini international neuropsychiatric interview. European Psychiatry. 1998; 13:198s–199s.

Borowsky SJ, Rubenstein LV, Meredith LS, Camp P, Jackson-Triche M, Wells KB. Who is at Risk of Nondetection of Mental Health Problems in Primary Care? Journal of General Internal Medicine. 2000; 15:381–388. [PubMed: 10886472]

Burnam MA, Hough RL, Escobar JI, Karno M, Timbers DM, Telles CA, Locke BZ. Six-month Prevalence of Specific Psychiatric Disorders Among Mexican Americans and Non-Hispanic Whites in Los Angeles. Archives of General Psychiatry. 1987; 44:687–694. [PubMed: 3498452]

Cabassa LJ, Hansen MC, Palinkas LA, Eli K. Azúcar y nervios: explanatory models and treatment experiences of Hispanics with diabetes and depression. Social Science & Medicine. 2008; 66:2413–2424. [PubMed: 18339466]

Callahan CM, Unverzagt FW, Hui SL, Perkins AJ, Hendrie HC. Six-Item Screener to Identify Cognitive Impairment Among Potential Subjects for Clinical Research. Medical Care. 2002; 40:771–781. [PubMed: 12218768]

Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. Mentally Healthy Aging: A Report on Overcoming Stigma for Older Americans. Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; Rockville, MD: 2005. DHHS Pub. No. (SMA) 05-3988

Cresswell, JW.; Plano Clark, VL. Designing and conducting mixed methods research. 2nd edn. Sage Publications Inc; Thousand Oaks, CA: 2010.

Cuèllar I, Arnold B, Maldonado R. Acculturation rating scale for Mexican Americans-II: A revision of the original ARSMA scale. Hispanic Journal of Behavioral Sciences. 1995; 17:275–304.

Derogatis, LR. BSI 18, Brief Symptom Inventory 18. NCS Pearson Inc; Minneapolis, MN: 2001. Administration, scoring and procedures manual.

De La Cancela, V.; Guzman, LP. Latino mental health service needs: Implications for training psychologists. In: Myers, HF.; Wohiford, P.; Guzman, LP.; Echemendia, RJ., editors. Ethnic Minority Perspectives on Clinical Training and Services in Psychology. American Psychological Association; Washington, DC: 1991. p. 59-64.

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Diefenbach GJ, Disch WB, Robison JT, Baez E, Coman E. Anxious Depression among Puerto Rican and African-American older adults. Aging and Mental Health. 2009; 13:118–126. [PubMed: 19197697]

Diefenbach MA, Leventhal H. The Common-Sense Model of Illness Representation: Theoretical and Practical Considerations. Journal of Social Distress and the Homeless. 1996; 5:11–38.

Diefenbach GJ, Robison JT, Tolin DF, Blank K. Late-life anxiety disorders among Puerto Rican primary care patients: impact on well-being, functioning, and service utilization. Journal of Anxiety Disorders. 2004; 18:841–858. [PubMed: 15474856]

Dura-Vila G, Hodes M. Cross-cultural study of idioms of distress among Spanish nationals and Hispanic American migrants: susto, nervios and ataque de nervios. Social Psychiatry and Psychiatric Epidemiology. 2012; 47:1627–1637. [PubMed: 22270268]

Escobar JI, Rubio-Stipec M, Canino G, Karno M. Somatic Symptom Index (SSI): A new and abridged somatization construct: Prevalence and epidemiological correlates in two large community samples. The Journal of Nervous and Mental Disease. 1989; 177:140–146. [PubMed: 2918297]

Fuentes K, Cox BJ. Prevalence of anxiety disorders in elderly adults: A critical analysis. Journal of Behavior Therapy and Experimental Psychiatry. 1997; 28:269–279. [PubMed: 9489688]

Gerst K, Al-Ghatrif M, Beard HA, Samper-Ternent R, Markides KS. High depressive symptomatology among older community-dwelling Mexican Americans: The impact of immigration. Aging and Mental Health. 2010; 14:347–354. [PubMed: 20425654]

Glaser, BG.; Strauss, AL. The Discovery of Grounded Theor. Aldine Transaction; Chicago: 1967. Strategies for qualitative research.

González HM, Vega WA, Williams DR, Tarraf W, West BT, Neighbors HW. Depression care in the United States: too little for too few. Archives of General Psychiatry. 2010; 67:37–46. [PubMed: 20048221]

Grant BF, Stinson FS, Hasin DS, Dawson DA, Chou SP, Anderson K. Immigration and Lifetime Prevalence of DSM-IV Psychiatric Disorders Among Mexican Americans and Non-Hispanic Whites in the United States: Results From the National Epidemiologic Survey on Alcohol and Related Conditions. Archives of General Psychiatry. 2004; 61:1226–1233. [PubMed: 15583114]

Hinton L, Apesoa-Varano EC, González HM, Aguilar-Gaxiola S, Dwight-Johnson M, Barker JC, Tran C, Zuniga R, Unützer J. Falling through the cracks: Gaps in depression treatment among older mexican-origin and white men. International Journal of Geriatric Psychiatry. 2012

Jimenez DE, Alegría M, Chen C, Chan D, Laderman M. Prevalence of psychiatric illnesses in older ethnic minority adults. Journal of the American Geriatrics Society. 2010; 58:256–264. [PubMed: 20374401]

Jimenez DE, Bartels SJ, Cardenas V, Alegria M. Stigmatizing attitudes toward mental illness among racial/ethnic older adults in primary care. International Journal of Geriatric Psychiatry. 2013 doi: 10.1002/gps.3928. [Epub ahead of print].

Karasz A, Watkins L. Conceptual Models of Treatment in Depressed Hispanic Patients. The Annuals of Family Medicine. 2006; 4:527–533.

Karno M, Golding JM, Burnam MA, Hough RL, Escobar JI, Wells KM, Boyer R. Anxiety Disorders among Mexican Americans and non-Hispanic Whites in Los Angeles. The Journal of Nervous and Mental Disease. 1989; 177:202–209. [PubMed: 2703825]

Lenze EJ, Wetherell JL. Bringing the bedside to the bench, and then to the community: a prospectus for intervention research in late-life anxiety disorders. International Journal of Geriatric Psychiatry. 2009; 24:1–14. [PubMed: 18613267]

Leventhal H, Diefenbach M, Leventhal EA. Illness Cognition: Using Common Sense to Understand Treatment Adherence and Affect Cognition Interactions. Cognitive Therapy and Research. 1992; 16:143–163.

Leventhal, H.; Meyer, D.; Nerenz, D. The common sense representation of illness danger. In: Rachman, S., editor. Medical psychology. Vol. Vol. II. Pergamon Press; New York: 1980. p. 7-30.

Palmer BW, Jeste DV, Sheikh JI. Anxiety disorders in the elderly: DSM-IV and other barriers to diagnosis and treatment. Journal of Affective Disorders. 1997; 46:183–190. [PubMed: 9547116]

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Schraufnagel TJ, Wagner AW, Miranda J, Roy-Byrne PP. Treating minority patients with depression and anxiety: what does the evidence tell us? General Hospital Psychiatry. 2006; 28:27–36. [PubMed: 16377362]

Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, Hergueta T, Baker R, Dunbar GC. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. The Journal of Clinical Psychiatry. 1998; 59:22–33. [PubMed: 9881538]

Stockdale SE, Lagomasino IT, Siddique J, McGuire T, Miranda J. Racial and Ethnic Disparities in Detection and Treatment of Depression and Anxiety Among Psychiatric and Primary Health Care Visits, 1995-2005. Medical Care. 2008; 46:668–677. [PubMed: 18580385]

U. S. Census Bureau. The Hispanic Population: 2010. Population Division, Ethnicity and Ancestry Branch; United States: 2010.

Unützer J, Katon W, Callahan CM, Williams JW Jr. Hunkeler E, Harpole L, Hoffing M, Della Penna RD, Noël PH, Lin EH, Areán PA, Hegel MT, Tang L, Belin TR, Oishi S, Langston C. Collaborative Care Management of Late-life Depression in the Primary Care Setting. Journal of the American Medical Association. 2002; 288:2836–2845. [PubMed: 12472325]

Wells K, Klap R, Koike A, Sherbourne C. Ethnic Disparities in Unmet Need for Alcoholism, Drug Abuse, and Mental Health Care. The American Journal of Psychiatry. 2001; 158:2027–2032. [PubMed: 11729020]

Woodward AT, Taylor RJ, Bullard KM, Aranda MP, Lincoln KD, Chatters LM. Prevalence of lifetime DSM-IV affective disorders among older african americans, black caribbeans, latinos, asians and non-hispanic white people. International Journal of Geriatric Psychiatry. 2012; 27:816–827. [PubMed: 21987438]

Vega WA, Sribney WM, Achara-Abrahams I. Co-Occurring Alcohol, Drug, and Other Psychiatric Disorders Among Mexican-Origin People in the United States. American Journal of Public Health. 1998; 93:1057–1064. [PubMed: 12835179]

Zinbarg RE, Barlow DH, Liebowitz M, Street L, Broadhead E, Katon W, Roy-Byrne P, Lepine JP, Teherani M, Richards J, Brantley PJ, Kraemer H. The DSM-IV field trial for mixed anxiety–depression. American Journal of Psychiatry. 1994; 151:1153–1162. [PubMed: 8037250]

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Table 1

Qualitative assessment using an illness representation model

Illness Attribute	Domain	Sample Questions
Identity	Idiom(s) of distress; symptoms	"What words do you use to describe how you feel when you are in distress?"
Cause	Personal; situational; biological	"What do you think causes these feelings?"
Consequence	Health; social; interpersonal	"Describe the difficulties that you deal with because of these feelings."
Course	Long-term; short-term	"How long have you felt [idiom of distress]?"
Cure	Primary care; mental health practitioner; self-help; traditional	"How do you get help for these feelings?"
Barriers	Structural; cultural	"What has made it difficult to get help?"

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Table 2

Labels used to describe distress in a sample of 24 rural older Mexican-Americans.

Spanish word	English translation	N in total sample	N by DSM-IV diagnosis*				
			MDD	GAD	PD	PTSD	No dx
tristeza, triste	sadness, sad	9	6	5	3	1	3
nervios, nerviosa/o	nerves, nervous	8	5	3	2	-	2
ansiedad, ansiosa/o	anxiety, anxious	7	4	6	3	-	1
desesperación, desesperada/o	desperation, desperate	7	5	4	3	-	1
depresión, deprimida/o	depression, depressed	6	4	3	1	-	1
inquietud, inquieta/o	restlessness, restless	5	3	2	1	-	2
preocupación, preocupada/o	worry, worried	5	3	2	1	1	2
mieda/o	scared	3	2	3	2	1	1
decepción, decepcionada/o	deception	2	2	1	1	-	-
panico	panic	2	1	1	1	-	1
tensión, tensa/o/tensionada/o	tension, tense	2	1	1	-	-	-
angustia	anguish	1	1	-	-	-	-
cansada/o	tired	1	-	1	-	-	-
crisis	crisis	1	1	-	-	-	-
culpable	guilty	1	1	1	1	-	-
desasosiego	restlessness/agitation	1	1	1	-	-	-
encerrada/o	closed in/trapped	1	-	-	-	1	-
enfadada/o	angry	1	-	-	-	1	-
frustrada/o	frustrated	1	-	1	-	-	-
melancolia	melancholy	1	-	-	-	1	-
susto	scared	1	1	1	-	-	-
temor	fear	1	1	1	-	1	-
trauma	trauma	1	1	1	1		

*Participants could have more than one diagnosis. MDD = Major depressive disorder; GAD = Generalized anxiety disorder; PD = Panic disorder; PTSD = Posttraumatic stress disorder; No dx = No DSM-IV diagnosis.

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Table 3

Symptoms, consequences, causes, and cures of distress in 24 rural older Mexican-Americans.

	N endorsing	DSM-IV Diagnosis	
		Yes	No
Physical Symptoms			
Pain	5	5	0
Cardiac	4	3	1
Tension	2	2	0
Fatigue	2	1	1
Respiratory	1	1	0
Gastrointestinal	1	1	0
At least one symptom	9	8	1
Consequences			
Emotional symptoms	16	11	5
Social withdrawal	5	4	1
Activity	4	3	1
Energy	4	4	0
Health	2	1	1
Disability	1	1	0
Role functioning	1	1	0
At least one consequence	22	16	6
Causes			
Worry about family	9	6	3
Death of a loved one	7	4	3
Family conflict	6	5	1
Personal health	5	4	1
Isolation	5	2	3
A short term stressor	4	4	0
A long term stressor	3	3	0
Living situation	3	3	0
A chemical imbalance	1	1	0
At least one cause	21	15	6
Cures			
Activity/hobbies	17	13	4
Spirituality	13	10	3
Social support	13	8	5
Group therapy	12	9	3
Distraction	9	3	6
Medications-positive view	9	8	1
Medications-negative view	2	2	0
Counseling-positive view	9	9	0
Counseling-negative view	1	0	1

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	N endorsing	DSM-IV Diagnosis	
		Yes	No
Primary care doctor	7	5	2
Clergy	4	3	1
Natural remedies/herbs	4	3	1
At least one cure	23	16	7