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Pain severity and emotion dysregulation among Latinos in a community health care setting: relations to mental health

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ABSTRACT

Background: Although pain severity is often related to poorer mental health and is one of the most common presenting complaints in community health care settings, there is little understanding of the pain experience in relation to anxiety/depressive symptoms and disorders among Latino populations in medical contexts.
Method: To address this gap, the current study explored an interactive model of pain severity and emotion dysregulation in relation to anxiety/depressive symptoms and psychopathology among 274 Latinos who attended a community-based primary health care clinic [86.9% female; M_{age}=39.3 (SD=11.2); 96.0% indicated Spanish as their first language].
Results: Results indicated a statistically significant interaction between pain severity and emotion dysregulation for suicidal symptoms, social anxiety symptoms and number of mood/anxiety disorders, such that more severe pain and greater levels of emotion dysregulation related to poorer mental health. Both pain severity and emotion dysregulation were significant predictors of depressive symptoms, but only pain severity was a significant predictor of anxious arousal symptoms.
Conclusions: These novel findings suggest a clinically significant interplay between pain severity and emotion dysregulation among Latinos in. The results are discussed in relation to the need for new screening and intervention tactics that address interrelations between pain severity and emotional dysregulation among Latinos seeking treatment in community health-care-based settings.

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Latinos are among the largest and most rapidly growing racial/ethnic groups in the United States [1]. Unfortunately, US Latinos also face significant mental health care disparities [2]. For example, when compared with non-Latino Whites, Latinos are less apt to seek and utilize mental health services [3,4]. Of mental health problems, anxiety/depressive symptoms are particularly prevalent among Latinos [5–7].

Primary care/community health care medical settings are the most common health care domain. Due partially to such factors as stigma for seeking mental health care, community health care settings represent an ideal point of contact for early intervention in Latino mental health [8]. Numerous studies have demonstrated the feasibility and initial efficacy of primary care interventions for Latinos suffering from depression (e.g., [9–11]) and, to a lesser extent, anxiety (e.g., [12]). However, there remains a lack of information about risk factors for anxiety/depressive symptoms and psychopathology among Latinos in general and in community health care setting settings specifically [13].

Pain is one factor that is both highly prevalent and frequently co-occurs with anxiety, depression and general medical problems [14]. For example, "pain complaints" account for more than half of all outpatient primary care visits [15]. Primary care patients who endorse pain are also significantly more likely to suffer from anxiety or depressive disorders [16], and pain severity covaries with anxious/depressive symptom severity [17,18]. Although pain research among Latinos is limited [19], available studies have reported that pain severity and overall distress are greater among Latinos compared to Caucasians (e.g., [20]). Among Latinos, pain severity has been associated with greater anxiety

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and depressive symptoms [21,22]. Moreover, there is some evidence that Latinos tend to endorse a greater number of somatic symptoms associated with mental health problems relative to other cultural groups (e.g., [23]). Yet, we are not aware of any research that has examined pain severity in relation to anxiety and depressive symptoms and psychopathology among Latinos in community health care settings.

Beyond pain severity, there has been an increasing recognition of the importance of understanding how one reacts to emotional distress in the expression of aversive internal states, including pain as well as anxiety/depressive symptoms and psychopathology [24]. Emotion regulation reflects a multidimensional construct with maladaptive emotion regulation (emotion dysregulation) implicated as a transdiagnostic risk factor for anxiety and depressive disorders [25]. Although there are various definitions of emotion dysregulation, most converge on the idea that it reflects difficulties in employing a set of abilities wherein one can observe, understand, evaluate and differentiate one's emotions and subsequently access strategies to regulate them and to control behavioral responses [24]. While there has been very little work examining emotion dysregulation among Latinos, greater levels of emotion dysregulation are associated with anxiety and depressive symptoms among this population [26]. There also is some empirical evidence that lesser levels of emotion dysregulation may buffer against effects of discrimination on mental health [27] and serve as a protective factor for stress more generally [28]. Despite these observations, studies have not yet evaluated the explanatory role of emotion dysregulation in relation to anxiety and depressive symptoms and psychopathology among Latinos in community health care settings.

Work among the majority population suggests that emotion dysregulation also may impact the association between pain severity and the experience of negative moods [29] by amplifying the experience of pain (e.g., [30]). Indeed, the emotional impact of pain depends on emotion intensity, which can be mitigated through emotion regulation [31]. As informed by the initial empirical observations, pain severity and emotion dysregulation may operate with one another to increase the probability of the greater expression of anxiety and depressive symptoms and psychopathology. Accordingly, greater pain severity may be exacerbated by an individual's lack of emotional regulatory skills. Conversely, an individual's emotion regulatory processes may become more disrupted in the context of elevated pain severity. Therefore, these processes may function synergistically to confer greater risk for anxiety and depressive symptoms and psychopathology. From this perspective, a logical next step in research is to further explore the potential interplay of current pain severity and emotion dysregulation as an integrative explanatory process for vulnerability in the expression of anxiety and depressive symptoms and disorders among Latinos in community health care settings.

The aim of the current study was to examine main and interactive effects of current pain severity and emotion dysregulation in relation to anxiety and depressive symptoms/psychopathology among Latinos attending a community health care clinic. It was expected that there would be an interaction between pain severity and emotion dysregulation, such that greater pain severity and emotion dysregulation would be associated with increased anxiety/depressive symptoms and psychopathology. Effects were expected to occur over and above theoretically relevant covariates, including ethnicity, gender, age, number of years in the United States, educational attainment, marital status and negative affectivity. These demographic variables have been shown to be related to anxiety and depression in past work (e.g., [32,33]). Negative affectivity was included as a covariate as it is widely considered a "general distress" variable highly associated with anxiety and depression [34].

1. Method

1.1. Participants

Individuals (n=289) for this study were recruited from a community health care facility located in an urban southwestern area. Potential participants were excluded if there was a history of psychosis (n=10). Further, five multivariate outliers (see below) were discovered and excluded from analyses, resulting in a total of 274 adults.

The inclusion criteria included ability to read, write and communicate in Spanish and being between 18 and 64 years old. Participants were excluded if they exhibited limited mental competency and/or inability to provide informed, voluntary, written consent or if they endorsed current or past psychotic-spectrum symptoms via structured interview screening.

1.2. Measures

Validated, Spanish-language versions of all measures were employed in the present study.

1.2.1. Demographics questionnaire

Demographic information collected included gender, age, race, educational level and marital status.

1.2.2. Positive and Negative Affect Scale (PANAS [35])

The PANAS is a self-report measure asking participants to rate the extent to which they experience each of 20 different feelings and emotions (e.g., interested, nervous) based on a Likert scale that ranges from 1 (*very slightly or not at all*) to 5 (*extremely*). The measure yields two factors (negative and positive affectivity) with strong documented psychometric properties [35]. The current study utilized the trait version of the PANAS, inquiring about how participants feel "in general," as has been done in past work among Spanish-speaking populations [36]. The negative affectivity subscale (PANAS-NA) was used in the present investigation (Cronbach's α=.89).

1.2.3. Graded Chronic Pain Scale (GCPS [37])

The GCPS has acceptable psychometric properties, providing a reliable and valid method of assessing global pain severity [38] and has previously been used among Spanish-speaking samples (e.g., [39]). Items (e.g., "How would you classify your pain?") assess the severity of respondents' pain on average during the past 3 months using separate 0–10 numerical rating scales. Total scores were calculated by summing, yielding a continuous composite score of characteristic pain severity. This measure demonstrated excellent internal consistency in the present sample (Cronbach α=.91).

1.2.4. Difficulties in Emotion Regulation Scale (DERS [40])

The DERS is a 36-item self-report measure on which respondents indicate, on a 5-point Likert-style scale (1=*almost never* to 5=*almost always*), how often each item applies to them [40]. The DERS has demonstrated high levels of internal consistency (α=.93 [40]) and adequate test–retest reliability over a 4–8-week period (ρ=.88 [40]). In the current investigation, the DERS-total score was used to indicate a global composite index of emotion dysregulation [40]. The DERS-total score demonstrated good internal consistency in the current sample (Cronbach's α=.89), which is consistent with other work utilizing the DERS among Spanish speakers [41].

1.2.5. Inventory of Depression and Anxiety Symptoms (IDAS [42])

The IDAS is a 64-item self-report instrument that assesses distinct affect symptom dimensions within the past 2 weeks. Items are answered on a 5-point Likert scale ranging from "*not at all*" to "*extremely*." The IDAS subscales show strong internal consistency and convergent and discriminant validity with psychiatric diagnoses and self-report measures as well as short-term retest reliability with both community and psychiatric patient samples [42,43]. The present study used the general depression subscale (20 items; e.g., "I felt exhausted" or "I did not have much of an appetite"), the suicidality subscale (6 items; e.g., "I had thoughts of suicide"), the social anxiety subscale (5 items; e.g., "I was worried about embarrassing myself socially") and the anxious arousal