Chronic pain moderates the relation between depression and culturally-related anxiety in American Indians: Gender differences

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Purpose
The role of culturally-related anxiety among Native Americans with chronic pain is largely unexplored. The purpose of this study was to determine the role of culturally-related anxiety among American Indians with chronic pain and to better understand gender differences in the chronic pain experience.

Background

Chronic Pain
• Chronic pain affects up to 30% of people in the United States
• Associated with anxiety and depression
• American Indians underrepresented in chronic pain research
• Culture impacts the chronic pain experience

Culturally-Related Anxiety
• Negative affect experienced by American Indians in relation to:
  • Integrating into majority culture
  • Fear of losing contact with tribal group
  • Fear of being socially rejected if they become “too acculturated”
• Measured by the Cultural Involvement and Detachment Anxiety Questionnaire

Gender
• Chronic pain affects more women than men
• Women with chronic pain report higher rates of depression than men with chronic pain

Methods
A pan-tribal sample of attendees (n=227) at an American Indian Pow-Wow in the northeastern United States completed a battery of self-report questionnaires. The sample included participants who identified their primary race/ethnicity as either American Indian or white.

Measures
• Overall physical health item: “In general, how would you say your health is?”
• Current chronic pain item: “Do you now have severe and prolonged (chronic) pain, that is, pain that you have had for 6 months or more?”
• Perception of healthcare availability item: “Do you believe there are enough medical and health services available to people in your community”
• Social Ladder: “Indicate where you believe you stand in society” (10=most money, most education, best jobs; 1=least money, least education, worst jobs or no jobs
• Beck Depression Inventory-II (BDI-II)
• Cultural Involvement and Detachment Anxiety Questionnaire e.g. “I experience worry or anxiety about…working with people other than Native Americans; maintaining knowledge of my ethnic group’s ancestry; having adequate health care provided in the majority (white) culture”
• Demographics Questionnaire
  • Age
  • Gender
  • Primary race/ethnicity identification
  • Residence

Participants
Age
M = 40.9, SD = 14.5; Range 18-77

Gender
Women (n = 129)
Men (n = 98)

Primary Race/Ethnicity
American Indian (n =150)
White (n = 84)

American Indians - Residence
On reservation (n =53)
Off reservation (n =97)

Results

Current Chronic Pain
Prevalence of current chronic pain
• American Indian (29.3%)
• White (34.2%)

Individuals with chronic pain placed themselves lower on a social ladder than those with chronic pain, t(234) = 2.26, p = .024

Compared to Native Americans with no chronic pain, Native Americans reporting chronic pain were:
• Older, t(149) = 2.65, p = .002
• Lower income, t(144)= 2.68, p < .008
• More depressed, t(149) = 2.29, p = .004

Availability of health care services
• American Indians living on a reservation believed that there were significantly fewer medical services available to them compared to those not living on a reservation t(149) = 2.52, p < .02.

Gender Differences
• In women, chronic pain moderated the relation between cultural anxiety with majority culture (a subscale of the Cultural Involvement and Detachment Anxiety Questionnaire) and depression, B=.61, p = .05
• This relation was not observed in American Indian women with high cultural anxiety
• No such relation was found in American Indian men p = .1

Correlation of Measures
• Participant scores on the Beck Depression Inventory and scores on the Native American Cultural Involvement and Detachment Anxiety Questionnaire were moderately positively correlated, r = .41, p < .01

Figure
Figure 1. Women: Interaction of Cultural Anxiety and Chronic Pain

Conclusions
• Women without chronic pain and low cultural anxiety were more likely to have lower depression scores than women with chronic pain and low anxiety
• There are gender differences in the pain experience of American Indian men and women

Discussion
• Clinicians who provide care for American Indians with chronic pain should assess for depression and culturally-related anxiety
• Future research could include other American Indian tribes, more in-depth assessments of health and mental health, other tribes, more in-depth assessment, analog behavioral observation of minority/majority culture interactions
• Limitations include reliance on self-report, and chronic pain as a dichotomous (yes/no) variable

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