

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

Sarah E. Hayes, Cameron L. Randall., Shari A. Robinson, Daniel W. McNeil

West Virginia University



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

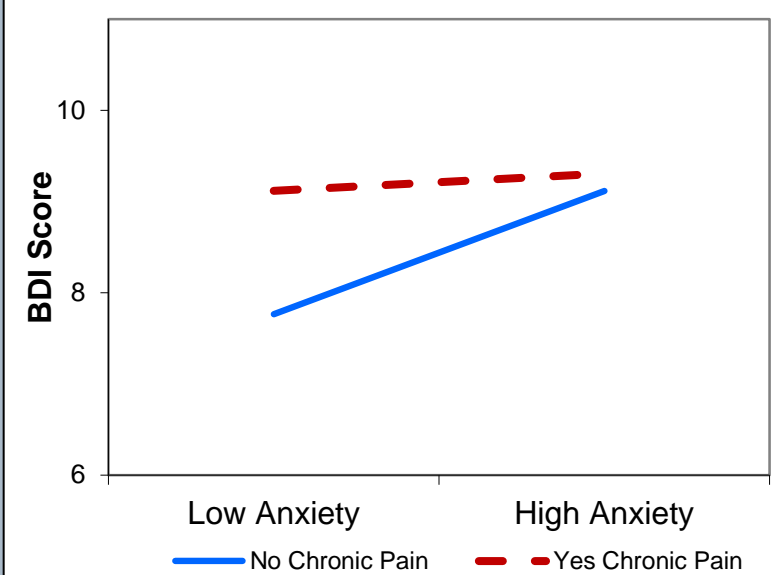
- In women, chronic pain moderated the relation between cultural anxiety with majority culture (a subscale of the Cultural Involvement and Detachment Anxiety Questionnaire) and depression, $B = .61$, $p = .05$
- This relation was not observed in American Indian women with high cultural anxiety
- No such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

Contact Information

Sarah E. Hayes
sehayes@mix.wvu.edu
West Virginia University
Department of Psychology
53 Campus Drive, P.O. Box 6040
Morgantown, WV 26505-6040