Qualitative Analysis of Pain Beliefs in Native Americans: Preliminary Findings

Cassandra A. Sturycz, MA, Bethany L. Kuhn, BS , Shreela T. Palit, MA, Edward W. Lannon, BA, Michael F. Payne, BA, Heather B. Coleman, BA, Lucinda Chee, BS, Kathryn A. Thompson, Sam Herbig, Joanna O. Shadlow, PhD & Jamie L. Rhudy, PhD

Department of Psychology, The University of Tulsa, 800 South Tucker Drive, Tulsa, OK 74104

Introduction

Native Americans (NA) are the ethnic group with the highest prevalence of pain in the U.S.; but, little has been done to understand what contributes to this health disparity. The present data were collected from a semi-structured pain interview that is part of the Oklahoma Study of Native American Pain Risk (OK-SNAP), a large-scale, multimodal study designed to assess pain risk factors in Native Americans and non-Hispanic white controls. Past research has suggested that the way that NA's react to painful events, by limiting their facial reactivity to unpleasant stimuli for example, may play a role in the development of stereotypes which depict NAs as stoic. The current analysis examined the relationship between familial stoic beliefs about pain and pain outcomes.

The present data were from 44 (25 Native American) healthy men and women. Participants were recruited from the community and undergraduate universities in the Midwest through fliers, online postings, and mass e-mails.

Methods

The interview is comprised of several open-ended questions that ask about participants' experiences with pain. The current investigation focused on a single question: “What did your parents (or elders) teach you about pain?”

Results

Past research has suggested that the way that NA's react to painful events, by limiting their facial reactivity to unpleasant stimuli for example, may play a role in the development of stereotypes which depict NAs as stoic. The current analysis examined the relationship between familial stoic beliefs about pain and pain outcomes.

The interview is comprised of several open-ended questions that ask about participants' experiences with pain. The current investigation focused on a single question: “What did your parents (or elders) teach you about pain?”

Responses were coded into several categories that largely corresponded to pain coping strategies noted in the literature (e.g., avoidance, seeking treatment, stoicism, behavioral coping, cognitive coping, seeking social support).

Theme Identification

Nothing:

At any point during the response the participant indicated that they did not feel like his/ her parents/elders taught them anything about pain, even if they go on to identify other themes.

Avoid:

The participant indicates that parents/elders advised them to avoid experiences that could cause pain or that painful experiences are bad.

Treatment:

The participant indicates that parents/elders taught that pain is treatable either by mentioning the ability to treat pain at home or by seeking medical help.

Hide:

The participant indicates that parents/elders believed (or showed through actions) that showing pain was undesirable, embarrassing, or a sign of weakness, and that instead one should “suck it up,” be tough, or be quiet.

Behavioral Coping:

The participant indicates that parents/elders taught that one should do something to make it better, such as: “walk it off” or shower.

Cognitive Coping:

The participant indicates that parents/elders taught that one should change the way one thinks about pain to make it better, such as: pain is natural and informative, or to utilize positive self-statements (e.g., “it is going to be okay”)

Social Support:

The participant indicates that parent/elders encouraged him/her to seek support from others. For example, by telling someone when one is in pain.

Follow Rules:

The participant indicates that one should do what parents/elders tell him/her to do.

Data Analysis

Inter-rater Reliability

Two raters compared independent thematic scoring and evidenced reliability in the theme of “Hide” (Kappa=.81) and Kappa values for themes ranged from .15 to 1.0. Chi Square Analysis

50% of NA participants recalled their parents or elders taught them to hide their pain, whereas only 5.6% of control participants reported it., which was a significant difference between these two racial groups (p=.02).

Conclusions

Beliefs about expressing pain could contribute to the increased risk of chronic pain in NA individuals by reducing pain’s value as an adaptive danger signal.

As this is an ongoing study, additional data will allow further identification of differences in pain attitudes between NAs and non-Hispanic whites.

Further, possible effects on pain outcome measurements (e.g., pain threshold/ tolerance), central sensitization (e.g., nociceptive flexion reflex), and central nervous system modulation of pain (e.g., emotional control of nociception, conditioned pain modulation) should be explored.

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