Symptoms of Anxiety and Healthy Behaviors Mediate Associations between Perceived Discrimination, Optimism, Social Support, and Health-Related Quality of Life among Hispanic Americans with Low Income

Kymberley K. Bennett, Ricardo M. Marte, Jillian M. R. Clark, Kadie M. Harry, Alisha D. Howarter, Denisse Tiznado, & Kalon R. Eways

University of Missouri, Kansas City

Abstract

Data were collected from 133 low income participants of Hispanic descent to test the Reserve Capacity Model. Results showed symptoms of anxiety and healthy behaviors partially mediated associations between perceived discrimination, optimism, social support, and mental health-related quality of life.

Background

Health disparities have existed across racial groups for centuries, with minorities having higher rates of mortality and disease than European Americans; low socioeconomic status and discrimination have been offered as causes. A majority of research on discrimination, however, has focused on measuring outcomes with African Americans, so additional work is necessary to understand these processes in Hispanic Americans.

Gallo and Matthews (2003) proposed a theoretical model, the Reserve Capacity Model (RCM), to explain connections between poverty, discrimination, and poor health in underrepresented groups. The RCM proposes that people from underrepresented groups experience more stress than their counterparts, and that they deplete their reserves quickly when coping with these stressors. Low reserves, in turn, are associated with the experience of negative emotions. Negative emotions, then, impact health through an intermediate pathway that includes engaging in unhealthy behaviors.

In the current study, we used the RCM as a means to test for mechanisms that underlie disparities for Hispanic Americans in mental health-related quality of life.

Methods

Procedure: Questionnaire data were collected from Hispanic Americans recruited from a local Salvation Army when they signed up for a program that provides holiday gifts to families under the federal poverty line. Participants chose to complete materials in either English or Spanish, and were compensated with a $5 gift card to a local convenience store.

Participants: Data were collected from 133 participants (all of Hispanic descent):
- 90% female
- Mean age = 34.6 years (*SD* = 9.2)
- 68% were married or partnered
- 41% reported an annual income < $10,000
- 43% reported completing less than 9th grade, 27% reported completing some high school but did not finish
- 28% were unemployed but looking for work, 25% worked full-time outside the home
- 79% reported Spanish as preferred language

Measures: Consistent with the RCM, we assessed stress, reserves, negative emotions, an intermediate pathway, and a health outcome:
- *Stress*:
  - Perceived discrimination (PEDQ; Brondolo et al., 2005)
- *Reserves*:
  - Intrapersonal: Dispositional optimism (LOTR; Scheier et al., 1994)
  - Interpersonal: Social support (Belonging subscale of the ISEL; Cohen et al., 1985)
- *Negative emotions*:
  - Symptoms of anxiety (STAI; Spielberger et al., 1987)
- *Intermediate pathway*:
  - Engagement in healthy behaviors (5 items from BRFSS, 2011)
- *Health outcome*:
 - Mental health-related quality of life (QoL; Mental Component Score [MCS] of the SF-12; Ware et al., 1996)

Results

Table 1: Descriptives and Correlations for Study Variables

Variable name	1	2	3	4	5	6
1. Perceived discrimination (PEDQ)	--	-.05	-.06	.23*	-.07	-.38***
2. Dispositional optimism (LOTR)		--	.32**	-.41***	.11	.33***
3. Social support (Belonging subscale; ISEL)			--	-.35***	.15	.38***
4. Symptoms of anxiety (STAI)				--	-.21*	-.62***
5. Engagement in healthy behaviors (BRFSS)					--	.29**
6. Mental health-related QoL (SF-12 MCS)						--
Mean	24.52	20.57	12.12	40.70	20.87	46.64
SD	7.45	3.90	2.69	9.30	2.93	9.75

*p < .05, **p < .01, and ***p < .001.

Figure 1: Path Model Testing Symptoms of Anxiety and Healthy Behaviors as Mediators of Associations between Stress, Reserves, and QoL
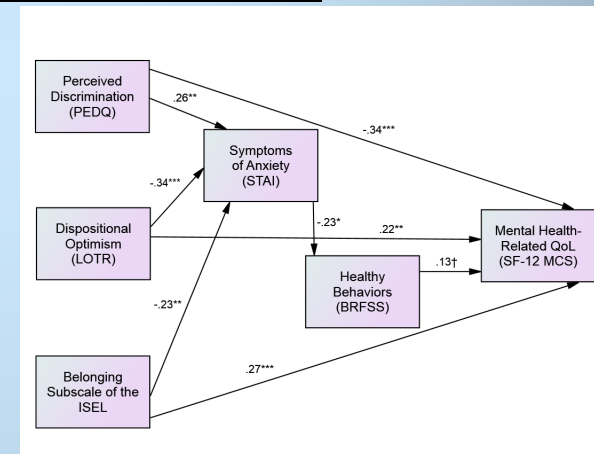
Parameter coefficients: †p = .06, *p < .05, **p < .01, and ***p < .001.
Model fit: χ^2 (3) = .82, p = .84; ratio = .27; NFI = .99; CFI = .99, and RMSEA = .01.

Discussion

This study tested the RCM as a means of explaining disparities in mental health-related QoL among low income Hispanic Americans. Results support the RCM, as the double-mediated model fit the data well. Findings suggest that the experience of anxiety symptoms and engaging in unhealthy behaviors are mechanisms that link perceived discrimination and low reserves to poor QoL. In addition to *changing material conditions* for underrepresented groups, these data suggest that interventions targeting successful coping (including the many benefits of regular exercise and a healthy diet) will have beneficial health effects.