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### Cultural Beliefs and Professional Empathy Influence Continuity of Healthcare

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LOMA LINDA UNIVERSITY  
School of Behavioral Health  
in conjunction with the  
Faculty of Graduate Studies

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Cultural Beliefs and Professional Empathy  
Influence Continuity of Healthcare

by

Jael A. Amador

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A Dissertation submitted in partial satisfaction of  
the requirements for the degree  
Doctor of Philosophy in Clinical Psychology

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September 2015

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Each person whose signature appears below certifies that this dissertation, in his/her opinion is adequate, in scope and quality, as a dissertation for the degree Doctor of Philosophy.

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I dedicate this dissertation to Sparta. Good boy.

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## ABSTRACT OF THE DISSERTATION

### Cultural Beliefs and Perceived Professional Empathy Influence Continuity of Care

by

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Doctor of Philosophy, Graduate Program in Clinical Psychology  
Loma Linda University, September 2015  
Dr. Patricia M. Flynn, Chairperson

Negative healthcare encounters have implications for preventive medical services and continuity of healthcare. This study examined the influence of positive cultural beliefs about health professionals and perceived professional empathy on continuity of cancer screening care in the context of a negative healthcare encounter. A mixed-methods research approach was implemented to examine the relations among cultural beliefs, perceived professional empathy, interpersonal emotions, and continuity of care among 237 Latin American (Latino) and non-Latino White (Anglo) American women that reported a negative healthcare encounter. Multi-group structural equation modeling revealed that for Latino and Anglo women, positive cultural beliefs about health professionals in general were associated with higher perceived empathy on the part of a professional involved in a negative encounter. In addition, for Latino women, perceptions of higher professional empathy and less negative emotions were associated with better continuity of cancer screening. These findings highlight both cultural and interpersonal psychological factors involved in healthcare interactions that may ameliorate the detrimental effects of negative healthcare encounters such as disruptions in continuity of care.

## **CHAPTER ONE**

### **INTRODUCTION**

Continuity of healthcare, defined as an ongoing patient-professional relationship based on trust and responsibility, improves the delivery of preventive medical services (Saultz & Lochner, 2005). Unfortunately, approximately one third of Latin American (Latino) adults under the age of 65 in the United States lack a usual source of healthcare (National Center for Health Statistics, 2014), which may contribute to suboptimal cancer screening rates among Latino women (American Cancer Society, 2009a). This is particularly relevant from a health disparities perspective since poor cancer screening compliance and delayed follow-up for abnormal screening results are some of the potential factors that may contribute to higher mortality rates among lower socioeconomic status (SES) and ethnic minority populations (American Cancer Society, 2009b). For example, Latinas are 20% more likely to die from breast cancer and nearly 50% more likely to die from cervical cancer as compared to non-Latino White (Anglo) American women (American Cancer Society, 2009a; Jemal et al., 2004; Reynolds, 2004).

#### **Negative Healthcare Encounters**

Research indicates that SES, ethnicity, insurance status, language, culture, and patients' perceptions of the healthcare encounter are associated with continuity of healthcare (Betancourt, et al., 2011; Doescher, et al., 2001; Pippins, et al., 2007). For instance, patients who report negative healthcare encounters such as those marked by long waiting times, poor communication, and a lack of perceived respect are more dissatisfied with their healthcare and less likely to have continuity of care (Abraído-

Lanza, et al., 2011; Betancourt et al., 2011; Blanchard & Lurie, 2004). Moreover, less favorable cultural beliefs about healthcare professionals, such that they are unfriendly and not trustworthy, have been associated with a greater likelihood of perceiving healthcare encounters negatively which, in turn, negatively influences continuity of care (Betancourt et al., 2011).

In addition to the impact that negative healthcare encounters have on subsequent patient health behaviors and outcomes, healthcare professionals and institutions may also experience adverse financial ramifications in light of recent healthcare reform provisions. For instance, the Affordable Care Act currently mandates the use of patient experience measures in order to receive government reimbursements for care (Millenson & Macri, 2012). These measures include, among other things, patient evaluations of interpersonal dimensions of healthcare, such as health professional communication and responsiveness. As such, policy analysts have underscored the importance of integrating quality improvement efforts with disparities reduction initiatives in order to improve patient outcomes (Weinick & Hasnain-Wynia, 2011).

Despite healthcare professionals' good intentions and efforts to provide high quality care, patients may still experience negative healthcare encounters. Fortunately, recent research suggests there are things health professionals can do to ameliorate the deleterious outcomes associated with negative healthcare encounters. For example, a recent study revealed that patient perceived health professional empathy was associated with greater continuity of care for both Latino and Anglo women, despite the fact that the healthcare encounter was perceived negatively (Amador, 2012). Considering that unfavorable cultural beliefs about healthcare professionals negatively impact breast

cancer screening compliance (Betancourt, et al., 2010b) and continuity of care (Betancourt et al., 2011), it may be that more favorable cultural beliefs about healthcare professionals could positively impact continuity of care through perceived professional empathy. The aim of this research was to examine the associations between patients' positive cultural beliefs about health professionals and perceived health professional empathy and their potential influence on continuity of care in the context of a negative healthcare encounter.

### **Cultural Beliefs about Health Professionals**

Beliefs about members of a group are influenced by our interactions with individuals from those groups (Karasawa, et al., 2007) and inform our decisions to continue these interactions (Fiske, et al., 2007). In the context of healthcare, positive or negative interactions with healthcare professionals that are socially shared among members of low SES or ethnic minority groups may eventually become part of the group's socially shared (e.g. cultural) belief systems. Research suggests that these socially shared beliefs may in turn influence patients' perceptions, emotional reactions, and behaviors when it comes to subsequent healthcare encounters (Betancourt, et al., 2011; Betancourt, et al., 2010a; Bogart, 2001; Bogart, et al., 2004; Gorin, 2005). For instance, low income patients who held more negative beliefs about physicians sought less care, were less satisfied, and were less likely to adhere to treatment (Bogart et al., 2004). Other research with Latino and Anglo women revealed that those with more negative cultural beliefs about health professionals were more likely to report healthcare mistreatment and increased levels of anger towards their healthcare professionals

(Betancourt et al., 2011).

While much of the literature on beliefs about healthcare professionals has focused on the role of negative beliefs on health behaviors, exploring positive cultural beliefs about healthcare professionals may also provide important information relevant to improved continuity of care. Research by Bogart (Bogart, 2001) revealed that African American patients, who held beliefs about physicians such that they were competent and warm, were more likely to have a recent check-up and were more satisfied with their healthcare. Beliefs concerning the competence of healthcare professionals have also been associated with increased mammography compliance for foreign-born Latino women and less anxiety and fear about breast cancer screening for Anglo women (Kinworthy, 2014). Since research suggests that socially shared beliefs impact basic cognitive processes such as perception and judgment (Bogart, 2001), more favorable beliefs about healthcare professionals may be associated with improved continuity of care through greater perceptions of healthcare professional empathy.

### **Health Professional Empathy**

Empathy is defined as a multidimensional construct consisting of both cognitive and affective components (Davis, 1994). Barrett-Lennard (1981) highlighted the interpersonal nature of empathy by outlining three phases of the empathic cycle. Phase one reflects the process of reasoning and understanding the state of another. Phase two involves the attempt to communicate empathic understanding and phase three refers to the target's awareness of empathic communication. This process takes into account the

point of view of the target of empathy, which has been largely ignored in the literature (Håkansson & Montgomery, 2003).

Within the context of healthcare, empathy is conceived as a skill, which is communicated both verbally and non-verbally from the physician to the patient by inviting patients to share their experiences and explicitly acknowledging them (Suchman, et al., 1997). Patients then judge their healthcare professional to be empathic based on whether or not the health professional communicated empathy through their behavior. Although health professionals' attempts at conveying empathy are only beneficial if the patient is able to perceive those attempts, this construct has typically been studied from the perspective of the healthcare professional or through third-party observations.

Research that has examined patients' perceptions of health professional empathy suggests that empathy is associated with positive interpersonal experiences, emotional reactions, and health outcomes. This is because healthcare professional empathy lays the foundation for a trusting relationship in which patients are able to be more open with their healthcare professionals (Hojat, et al., 2013). Research indicates that patients who perceived empathy from a healthcare professional experienced less distress (Olson, 1995), felt more empowered (Mercer, et al., 2012), and were better able to understand health information (Chu & Tseng, 2013). Moreover, diabetic patients who reported higher perceived physician empathy had better diabetes control (Hojat et al., 2011) and lower incidence of acute metabolic complications that required hospitalization (Del Canale et al., 2012).

Effectively communicating empathy is a particularly useful tool to address negative interpersonal healthcare interactions (Back & Arnold, 2005; Halpern, 2007),

which may have implications for patients' emotional reactions and subsequent health behaviors. In fact, research reveals that perceiving empathy from a healthcare professional involved in a negative healthcare encounter is associated with better continuity of care for both Latino and Anglo women (Amador, 2012). It may also be that when patients perceive their healthcare professionals to be empathic, they are less likely experience negative interpersonal emotions such as anger towards their healthcare professionals. From this perspective, perceived empathy may play an important role in ameliorating the emotional consequences associated with negative healthcare encounters, as well as subsequent health outcomes.

### **The Present Study**

The aim of the present research was to examine the influence of positive cultural beliefs about health professionals and perceived health professional empathy on continuity of cancer screening care in the context of a negative healthcare encounter during a routine breast or cervical cancer screening. This research utilized the mixed-methods cultural research approach to instrument development and was guided by Betancourt's integrative model of culture, psychological processes, and behavior (Betancourt, et al., 1992; Betancourt & Lopez, 1993), adapted for health behavior (Figure 1) (Betancourt & Flynn, 2009; Flynn, et al., 2011). The model specifies how cultural factors (e.g. socially shared beliefs, values, norms and practices) relate to health behavior and mediating psychological phenomena. According to the model, perceptions of health professional empathy and negative interpersonal emotions are considered psychological processes (C) that directly relate to health behaviors (D) such as continuity of cancer



screening care. Perceived health professional empathy and negative interpersonal emotions (C) are also likely to be a function of aspects of culture (B) such as cultural beliefs about healthcare professionals. In fact, these cultural elements are not only likely to be related to psychological processes relevant to perceptions of the healthcare encounter but also to health behaviors, such as continuity of care.

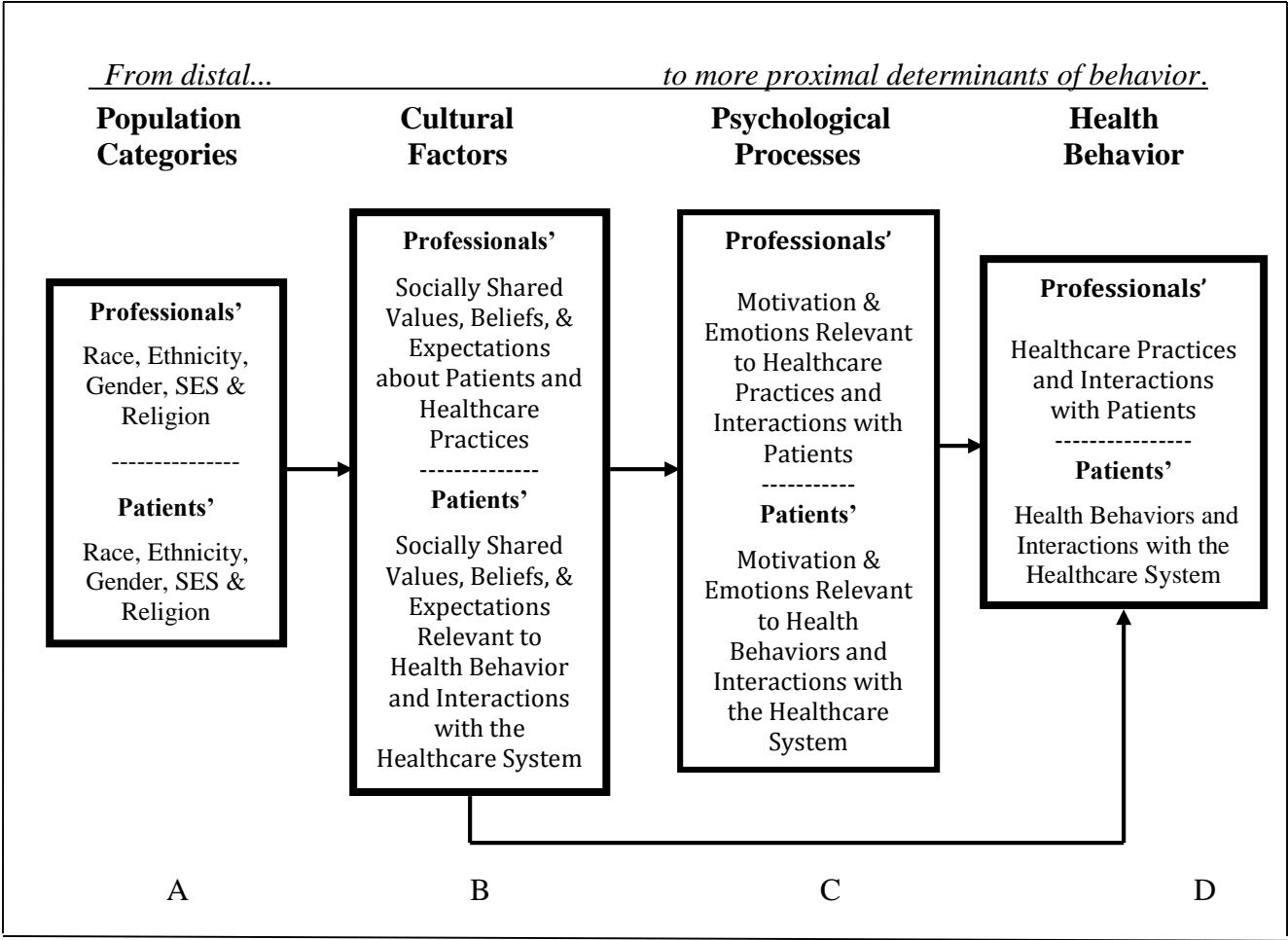


Figure 1. *Betancourt's Integrative Model of Culture, Psychological Processes and Behavior Adapted for Health Behaviors (Betancourt & Flynn, 2009)*

## **Hypotheses**

It was hypothesized that positive cultural beliefs about health professionals would be associated with greater continuity of cancer screening care following a negative healthcare encounter, directly and/or indirectly, through patient perceived healthcare professional empathy and negative interpersonal emotions, for both Latino and Anglo women. Specifically, higher scores on positive cultural beliefs about health professionals were expected to be positively associated with perceived health professional empathy. Higher scores on perceived health professional empathy and lower scores on negative interpersonal emotions were, in turn, expected to positively influence continuity of cancer screening care.

## CHAPTER TWO

### METHODS

#### Participants and Procedures

Multi-stage stratified sampling was conducted to obtain nearly equal proportions of self-identified Mexican-origin Latino and Anglo women of varying demographic backgrounds. Based on U.S. Census tract data from the Federal Financial Institutions Examination Council, demographic projections for ethnicity, education, income, and age were anticipated for a number of recruitment settings including churches, markets, universities, mobile home parks, and community settings in Southern California. Once permission was obtained from the selected sites, a Spanish and/or English language recruitment flyer was posted describing the study, eligibility criteria, and the time and on-site location where interested women could go to participate in the study.

Approval for the study was obtained from the Institutional Review Board prior to data collection. Bilingual Spanish-English research assistants greeted the interested women at each research location, described the purpose of the study, and restated the eligibility criteria (self-identified Mexican-origin Latino or Anglo women,  $\geq 20$  years old, able to read English or Spanish). After participants provided informed consent, they were administered an English or Spanish version of the instrument which took approximately 30 to 45 minutes to complete. Participants were compensated \$15 for their participation.

After data were collected from each site, the distribution of participants across demographic criteria was examined. Based on the updated demographic distributions, additional recruitment settings were identified and flyers were posted to recruit participants that would meet the corresponding demographic criteria. As a result of multi-

stage stratified sampling, the sample was well balanced between Latino (n=164) and Anglo (n=171) women for a combined sample of 335 women from diverse socioeconomic backgrounds. Of the total 335 participants, 237 Latino and Anglo women reported at least one negative healthcare encounter during a breast or cervical cancer screening exam.

### **Research Approach and Measures**

The study utilized a bottom-up mixed methods cultural research approach to instrument development (Betancourt et al., 2010b). The approach begins with semi-structured interviews with the populations of interest (e.g. Latino and Anglo women), in order to obtain specific observations relevant to an area of research (e.g. patient-professional relations). Findings from the qualitative interviews are then utilized to develop quantitative instruments to measure the variables of interest. This methodological approach reduces the potential for researchers to develop instruments based on stereotypical views of culturally diverse populations because the populations of interest provide the necessary content used in the construction of the quantitative instrument. Moreover, the inclusion of a comparison group (e.g. Anglos) produces instruments that can be used with minority and mainstream populations to examine ethnic-based disparities.

In the first phase of research, 20 interviews were conducted with Latino ( $n=10$ ) and Anglo ( $n=10$ ) women to identify cultural beliefs about health professionals and specific instances of negative healthcare encounters. Specifically, participants were asked, “In your opinion what are health professionals that perform breast and cervical

cancer screening exams like?” Then, participants were asked, “Can you tell me about your experience with health professionals who perform breast and/or cervical cancer screening exams?” Participants that responded with a positive experience were asked if they ever had a negative experience and if so to describe the experience. Participants that responded to the general question with a negative experience were also asked to describe a positive experience. For the purposes of this study, only perceptions of negative healthcare encounters were examined.

The qualitative interviews were transcribed and coded in their original language by a group of trained monolingual English and bilingual Spanish-English judges using procedures consistent with the conventional approach to content analysis (Hsieh & Shannon, 2005). Frequency distributions were calculated for Latino and Anglo women separately based on the resulting content codes. In the second, quantitative phase of research, close-ended items were developed based on the most frequently reported content codes. Items were constructed in the language of the interview from which they emerged in order to ensure measurement equivalence. All items were then translated using the double-back, decentering, and final back translation procedures (Brislin, 1980). The resulting instruments are reported below.

### ***Positive Cultural Beliefs about Healthcare Professionals***

A review of responses from the qualitative interviews revealed 12 positive cultural beliefs about health professionals that perform breast and cervical cancer screening exams. Participants were asked to think about healthcare professionals that perform breast and cervical cancer screening exams and indicate the extent to which they agreed

with each of the statements based on a Likert scale ranging from 1 “not at all” to 7 “very much.” Approximately one-half of the participants were presented with the items in relation to male health professionals first, followed by the same items in relation to female health professionals. The other half of participants responded to items in relation to female health professionals first, followed by the presentation of items in relation to male health professionals. A review of findings from the exploratory factor analysis, and item level skew and kurtosis resulted in a more parsimonious six item scale reflecting positive beliefs about healthcare professionals (knowledgeable, trustworthy, friendly, compassionate, honest, communicative). Reliability analysis demonstrated good internal reliability for both Latino ( $\alpha = .84$ ) and Anglo ( $\alpha = .89$ ) women and measurement equivalence between the Latino and Anglo samples was achieved.

### ***Perceived Health Professional Empathy***

Findings from the interviews also resulted in the identification of 24 negative interpersonal healthcare encounters (e.g. lack of respect, privacy concerns, communication issues) with professionals during a breast or cervical cancer screening exam. After indicating if they had experienced one or more of the negative incidents, participants responded to items designed to assess the level of empathy demonstrated by the health professional involved in the negative incident that bothered them the most. Items from a newly developed and validated six-item perceived healthcare professional empathy scale (Amador, 2012), which was adapted from Davis’ Interpersonal Reactivity Index (Davis, 1980) were used to assess the health professional’s perspective taking and empathic concern. Sample items include “During the screening examination, I felt the

health professional saw things from my perspective” and “During the screening examination, I felt the health professional was genuinely concerned for my well-being.” All items were placed on a Likert scale ranging from 1 “strongly disagree” to 7 “strongly agree.” Factor reliabilities for each sample were excellent (Latino  $\alpha = .96$ , Anglo  $\alpha = .96$ ) and measurement equivalence was achieved.

### *Negative Interpersonal Emotions*

To assess the degree to which participants experienced negative emotions as a result of the negative incident, they were first presented with the question, “How much did you feel the following emotions towards the healthcare professional, as a result of the incident?” Then they were asked to rate the degree to which they experienced three emotions (i.e. anger, rage, and irritation) on a 7-point Likert scale anchored at the extremes from “not at all” to “very much”. The scale demonstrated good reliability for each ethnic group (Latino,  $\alpha = .79$ ; Anglo,  $\alpha = .81$ ) as well as measurement equivalence.

### *Continuity of Cancer Screening Care*

Based on previous research (Betancourt et al., 2011; Flynn et al., in press), participants indicated if as a result of the negative healthcare encounter they returned for future cancer screenings to the same health professional involved in the negative incident.

### *Covariates*

Since health disparities are considered to be a function of patient, professional, and healthcare system factors (Smedley, Stith, & Nelson, 2003), a number of covariates were



examined based on previous research (Betancourt et al., 2011). Patient factors included age, income, education, country of birth, survey language, and social desirability, as assessed by the 13-item Marlow Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Professional factors included ethnicity and gender. Healthcare system factors included insurance status, usual source of care, and frequency of prior contact with the health professional.

## CHAPTER THREE

### RESULTS

#### Preliminary Analyses

Of the 335 participants recruited for this study, a total of 237 women reported at least one negative healthcare incident (Table 1). Latino women were less likely to have a consistent source of healthcare (80.1% vs. 89.4%;  $\chi^2(1) = 5.17, p = .02$ ) than Anglo women. Anglo women who reported a negative interpersonal encounter were younger ( $M=47.48, SD= 16.20$ ) than those who did not ( $M=56.40, SD= 19.90$ ),  $t(166) = 3.46, p=.001$ . Latino women who reported a negative interpersonal encounter were more likely to have completed the instrument in English as compared to Latino women who did not (57.1% vs. 35.3%;  $\chi^2(1)= 6.10, p=.02$ ).

A total of 32 participants were missing data on more than half of the items from one of the noted multi-item scales or key covariates such as the gender of the health professional and were eliminated from subsequent analysis, as they could not be reliably imputed. A missing value analysis and a Little's Missing Completely at Random test did not indicate statistical deviation from randomness for Latino ( $p=.42$ ) and Anglo ( $p=.61$ ) samples. The expectation-maximization method was used to impute scores for 20 participants, resulting in a final sample of 205 participants (Latino  $n=98$ ; Anglo  $n=107$ ). There were no statistically significant differences between the omitted sample and the retained sample in terms of age, annual household income, years of education, or insurance status.

Table 1

*Sample demographics based on ethnicity*

	Negative Healthcare Encounter		No Negative Healthcare Encounter	
	Latino ( <i>n</i> = 98)	Anglo ( <i>n</i> = 107)	Latino ( <i>n</i> = 51)	Anglo ( <i>n</i> = 47)
Age <i>M(SD)</i> <sup>a, d</sup>	46.48 (13.88)	47.48 (16.20)	43.67 (15.56)	56.40 (19.90)
Education <i>M(SD)</i> <sup>c, d</sup>	11.30 (3.96)	14.03 (2.52)	10.88 (4.50)	13.26 (2.28)
Income (%)				
≤ \$14,999	23.5	26.2	29.4	44.7
\$15-24,999	19.4	15.9	25.5	23.4
\$25-39,999	15.3	15.0	13.7	4.3
\$40-59,999	14.3	14.0	15.7	10.6
\$60-79,999	7.1	13.1	2.0	6.4
\$80-100,000	8.2	2.8	3.9	2.1
>\$100,000	6.1	8.4	5.9	4.3
Not Specified	6.1	4.7	3.9	4.3
Place of birth (%) <sup>c, d</sup>				
Mexico	58.2	0.0	54.9	0.0
USA	41.8	97.2	45.1	100.0
Spanish survey (%) <sup>b, c, d</sup>	42.9	0.0	64.7	0.0
Health insurance <sup>d</sup>	73.5	82.2	62.5	91.3
Usual source of healthcare <sup>d</sup>	76.5	82.2	72.9	91.1

Note: <sup>a</sup> refers to significant differences between Anglos who had vs. did not have a negative healthcare encounter.

<sup>b</sup> refers to significant differences between Latinos who had vs. did not have a negative healthcare encounter.

<sup>c</sup> refers to significant differences between Latinos and Anglos who had vs. did not have a negative healthcare encounter.

<sup>d</sup> refers to significant differences between Latinos and Anglos who had vs. did not have a negative healthcare encounter.

An examination of the demographic variables for the retained sample revealed equal distribution across ethnicity for age, income, and health insurance status (Table 1). Still, Latino women reported fewer years of education compared to Anglo women,  $t(165.54) = 5.21, p = .00$ . As expected, Latino women were more likely to be born

outside of the U.S. ( $\chi^2(1)=75.62, p=.00$ ) and to have completed the survey in Spanish ( $\chi^2(1)=56.18, p=.00$ ). Approximately 50% of Latino women and 60% of Anglo women reported that a male healthcare professional was involved in the negative healthcare encounter (Female: 50% of Latino; 40% of Anglo).

Prior to testing the study hypotheses using structural equation modeling, an examination of potential covariates was conducted. Results revealed that insurance status, frequency of prior contact with the health professional, social desirability, and gender of the health professional were associated with the study variables. For Latino women, greater social desirability was associated with lower scores on negative interpersonal emotions ( $r = -.25, p = .01$ ). Latino women that reported a female as compared to a male health professional was involved in the negative interpersonal encounter reported higher scores on positive cultural beliefs about health professionals ( $r = .35, p = .00$ ) and greater continuity of care ( $r = .27, p = .01$ ). Greater prior frequency of contact with the health professional involved in the negative interpersonal encounter was associated with better continuity of care ( $r = .28, p = .01$ ), and having insurance was associated with better continuity of care for Latino women ( $r = .30, p = .00$ ).

Anglo women that reported a female as compared to male health professional was involved in the negative interpersonal encounter reported higher scores on positive cultural beliefs about health professionals ( $r = .23, p = .02$ ), higher scores on perceived empathy ( $r = .25, p = .01$ ), lower scores on negative interpersonal emotions ( $r = -.36, p = .00$ ) and greater continuity of care ( $r = .27, p = .01$ ). Greater prior frequency of contact with the health professional involved in the negative interpersonal encounter was

associated with higher scores on perceived empathy ( $r = .28, p = .00$ ), lower levels of rage ( $r = -.23, p = .02$ ) and better continuity of care ( $r = .35, p = .00$ ).

Table 2 includes the frequency, means, standard deviations and correlations for the study variables after accounting for the noted covariates. Concerning ethnic group differences, Latino women reported lower levels of negative interpersonal emotions, particularly in the case of irritation. Fisher's  $r$ -to- $z$  test of differences also revealed some significantly different bivariate correlations based on ethnicity. The relations between perceived health professional empathy and negative interpersonal emotions were stronger for Anglo than for Latino women. These findings suggested the need for a multi-group test of structural invariance.

Table 2

*Correlations, means, and standard deviations of study variables as a function of ethnicity*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Positive Cultural Beliefs	-												
2. Parcel 1	.803*** (.860***)	-											
3. Parcel 2	.862*** (.859***)	.535*** (.608***)	-										
4. Parcel 3	.847*** (.823***)	.517*** (.618***)	.618*** (.513***)	-									
5. Perceived Empathy	.276** (.425***)	.230* (.351***)	.262** (.450***)	.200* (.261**)	-								
6. Parcel 1	.288** (.460***)	.251* (.380**)	.271** (.478***)	.201* (.294**)	.971*** (.944***)	-							
7. Parcel 2	.226* (.366*)	.164 (.279**)	.241* (.395***)	.159 (.239*)	.956** (.885***)	.907*** (.854***)	-						
8. Parcel 3	.280** (.432***)	.246* (.374**)	.243* (.419***)	.216* (.295**)	.951** (.941***)	.890*** (.886***)	.845*** (.847***)	-					
9. Negative Emotions	-.127 (-.254**)	-.100 (-.244*)	-.123 (-.291**)	-.095 (-.096)	<b>-.180</b> ( <b>-.540***</b> )	<b>-.195</b> ( <b>-.542***</b> )	<b>-.161</b> ( <b>-.501***</b> )	<b>-.163</b> ( <b>-.562***</b> )	-				
10. Anger	-.088 (-.188)	-.094 (-.169)	-.082 (-.233*)	-.046 (-.059)	<b>-.141</b> ( <b>-.482***</b> )	<b>-.174</b> ( <b>-.502***</b> )	<b>-.127</b> ( <b>-.452***</b> )	<b>-.107</b> ( <b>-.511***</b> )	.884*** (.885***)	-			
11. Rage	-.181 (-.223**)	-.126 (-.251**)	-.184 (-.244*)	-.144 (-.063)	-.234* ( <b>-.375***</b> )	-.232* ( <b>-.381***</b> )	-.211* ( <b>-.333***</b> )	-.211* ( <b>-.389***</b> )	.779*** (.793***)	.539*** (.563***)	-		
12. Irritation	-.054 (-.229**)	-.036 (-.195*)	-.048 (-.253**)	-.053 (-.120)	<b>-.082</b> ( <b>-.492***</b> )	<b>-.087</b> ( <b>-.471***</b> )	<b>-.050</b> ( <b>-.468***</b> )	<b>-.099</b> ( <b>-.503***</b> )	.849*** (.823***)	.681*** (.630***)	.436*** (.435***)	-	
13. Continuity of Care	.139 (.344***)	.180 (.257**)	.139 (.290**)	<b>.030</b> ( <b>.328***</b> )	.370*** (.397***)	.359*** (.427***)	.324** (.329**)	.380*** (.386***)	-.317*** ( <b>-.340***</b> )	-.354** ( <b>-.278**</b> )	-.144 ( <b>-.249**</b> )	-.295** ( <b>-.325***</b> )	-
<i>M</i>	5.48 (5.45)	5.72 (5.63)	5.24 (5.16)	5.47 (5.55)	4.00 (3.76)	4.05 (4.05)	3.91 (3.54)	4.03 (3.65)	<b>3.41</b> ( <b>4.39</b> )	3.83 (3.85)	2.46 (2.44)	<b>3.95</b> ( <b>4.78</b> )	1.46 (1.47)
<i>SD</i>	1.04 (0.99)	1.18 (1.06)	1.31 (1.35)	1.21 (1.11)	1.86 (1.69)	1.89 (1.89)	1.94 (1.77)	1.86 (1.99)	1.81 (2.13)	2.15 (1.69)	2.15 (1.96)	2.22 (1.97)	0.50 (.50)

*Note:* Values for Latino participants are presented in upper portion of cell, and values in parentheses represent Anglo participants. Boldface indicates that groups differ significantly at  $p < .05$

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

## Structural Equation Modeling

Bentler's structural equation modeling program (EQS 6.1; Bentler, 2005) with the maximum likelihood (ML) method of estimation was employed to test the study hypothesis concerning the direct and/or indirect influence of cultural beliefs about healthcare professionals on continuity of care through perceived professional empathy and interpersonal emotions. In order to maintain a parsimonious model without using up model degrees of freedom, the variance from covariates found to significantly influence the research variables (i.e. insurance, frequency of health professional contact, gender of health professional, social desirability) was partitioned from each study variable prior to testing the study hypothesis (Kammeyer-Mueller & Wanberg, 2003). To determine whether the cultural belief items relevant to male or female healthcare professionals should be used in the structural equation model, each participants' data was reviewed to identify the gender of the healthcare professional involved in the negative healthcare encounter. Cultural beliefs about male healthcare professionals were used for participants who indicated a male professional was involved in the negative encounter whereas beliefs about female healthcare professionals were used in the case of a negative incident with a female professional.

Screening of the data revealed a violation of multivariate normality for both samples. Therefore, the ML robust statistics, which corrects for such violations are reported. The adequacy of model fit was determined by using a nonsignificant  $\chi^2$  goodness of fit statistic, a ratio of less than 2.0 for the  $\chi^2/df$  (Tabachnick & Fidell, 2001), a Comparative Fit Index (CFI) of .95 or greater (P. Bentler, 2005), the Yuan-Bentler F statistic for small sample sizes (Bentler, 1999), and a Root Mean Square Error of

Approximation (RMSEA) of less than .08 (MacCallum, et al., 1996), with the 90% confidence interval (Kline, 2011).

The structural equation model based on the hypothesized theory-based relations among positive cultural beliefs about health professionals, perceived health professional empathy, negative interpersonal emotions and continuity of cancer screening care fit the data well for both Latino and Anglo women (Figure 2). The study variables accounted for approximately 24% of the variance in continuity of cancer screening care for Latinos and 23% of the variance for Anglos.

The main study hypothesis concerning the direct and/or indirect influence of positive cultural beliefs about health professionals on continuity of care through interpersonal psychological phenomenon was confirmed for both Latino and Anglo women. Results revealed that positive cultural beliefs about healthcare professionals indirectly influenced continuity of care through perceived health professional empathy and negative interpersonal emotions for Latino ( $\beta_{\text{indirect}} = .117, p = .02$ ) and Anglo ( $\beta_{\text{indirect}} = .155, p = .05$ ) women. For Anglo women, there was also a direct and positive trend concerning the influence of cultural beliefs about health professionals on continuity of cancer screening care. For both Latino and Anglo women, higher scores on positive cultural beliefs about health professionals positively influenced perceived health professional empathy. In turn, higher scores on perceived health professional empathy and lower scores on negative interpersonal emotions positively influenced continuity of care for Latino women. A similar trend was also apparent for Anglo women.

Because preliminary analyses revealed that ethnicity moderated the relations among perceived professional empathy and negative interpersonal emotions, a test of



structural invariance was conducted. A review of the Lagrange multiplier test ( $LM \chi^2(1) = 8.23, p = .004$ ) suggested significant between-ethnic group differences in the path between perceived professional empathy and negative emotions. The magnitude of this effect was stronger for Anglo as compared to Latino women.

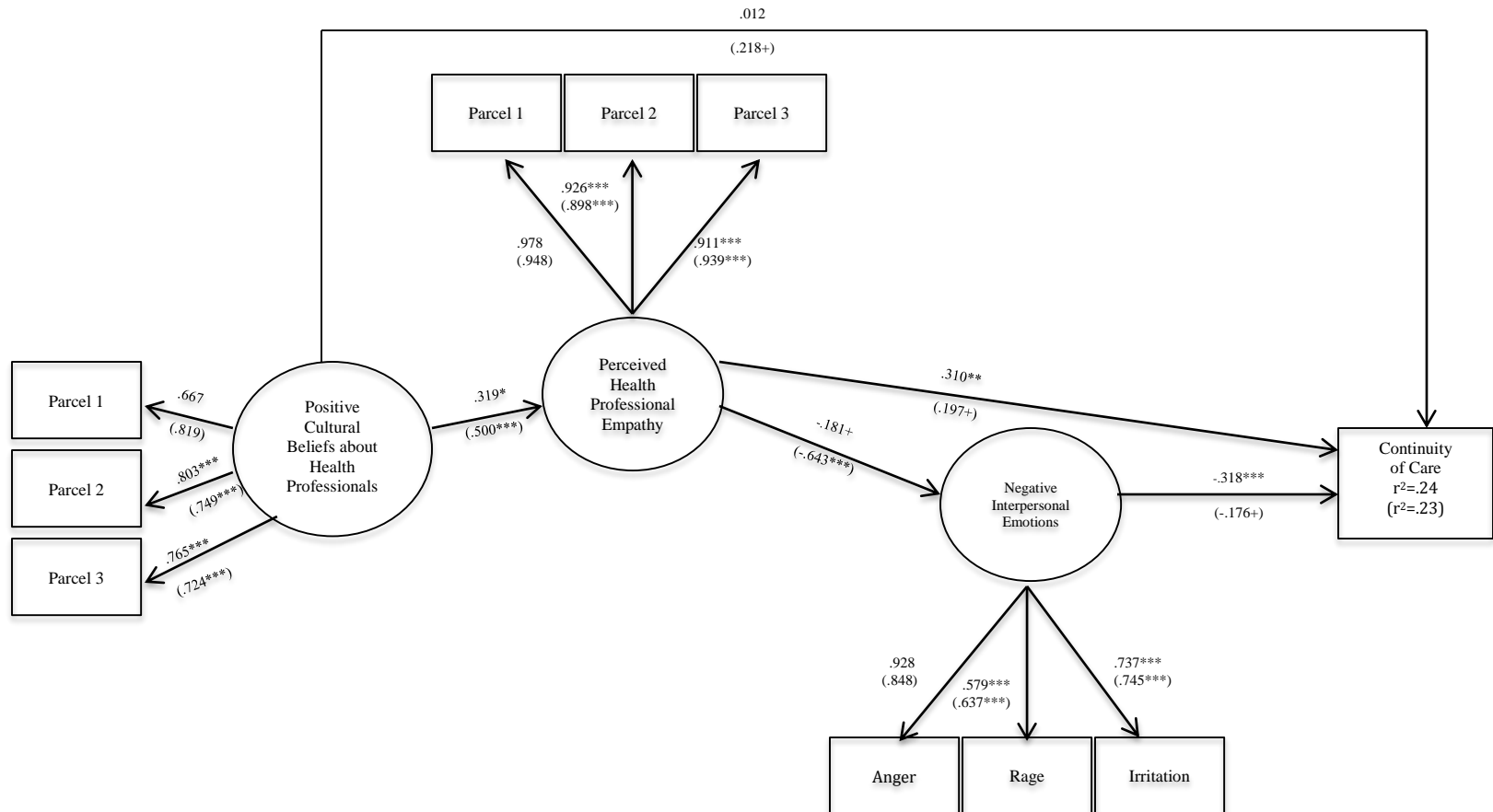


Figure 2. Final model with standardized path coefficients; variance from a number of covariates was controlled for prior to SEM

Latino Fit Indices: CFI= 1.00, S-B $\chi^2$  (31, n=98) = 25.82  $p = .73$ ,  $\chi^2/df=0.83$ , Y-B F(31, 67)= 1.03,  $p = 0.45$ , RMSEA= .000, 90% CI (.000, 0.057)  
 Anglo Fit Indices: CFI= 1.00, S-B $\chi^2$  (31, n=107) = 27.56,  $p = .64$ ,  $\chi^2/df=0.89$ , Y-B F(3,76)= 1.04,  $p = 0.43$ , RMSEA= .000, 90% CI (.000, 0.061)

## CHAPTER FOUR

### DISCUSSION

Findings from this study revealed that Latino and Anglo American women had better continuity of cancer screening care following a negative healthcare encounter when they perceived that their health professional was being empathic during their healthcare encounter. Moreover, patients were more likely to perceive that the health professional involved in the negative encounter was being empathic when they held more positive cultural beliefs about health professionals in general. These findings highlight both cultural and interpersonal psychological factors involved in healthcare interactions that may ameliorate the detrimental effects of negative healthcare encounters such as disruptions in continuity of healthcare. Intervention efforts designed to improve culturally diverse patients' perceptions of health professionals and healthcare professionals' empathy skills could have important implications for improving patient-professional relations and reducing cancer screening health disparities among low SES and ethnic minority populations.

Consistent with previous findings concerning the influence of perceived professional empathy (Amador, 2012), Latino patients, and to some extent Anglo patients, who perceived greater empathy on the part of the professional involved in a negative healthcare encounter had greater continuity of cancer screening care. These findings are encouraging from an intervention perspective considering that empathy is a trainable skill (Halpern, 2007). In fact, research suggests that empathy-skills training is an effective means for improving health professionals' empathic communication (Back &

Arnold, 2005; Satterfield & Hughes, 2007). This acquired skill can be utilized to reduce distress emotions among patients (Verheul, et al., 2010) as well as unfavorable outcomes associated with negative healthcare interactions (Halpern, 2007). For example, if a health professional finds that she has to rush her patient through an appointment, she can attempt to communicate empathic understanding for the patient by offering to schedule another visit or phone call should the patient have any additional questions or concerns. This may result in the patient evaluating the health encounter more positively and subsequently returning for future healthcare with that professional.

For both Latino and Anglo women, positive cultural beliefs about health professionals were associated with greater perceived health professional empathy. These findings are consistent with previous research, which revealed a similar yet opposite effect regarding the impact of negative cultural beliefs (Betancourt et al., 2011). In this respect, Latino and Anglo women who held negative cultural beliefs about health professionals were more likely to perceive healthcare mistreatment. Considering that socially shared beliefs about groups (e.g. health professionals) are influenced by our interactions with those groups (Karasawa et al., 2007) and inform our decisions to continue these interactions (e.g. continuity of care), intervention efforts that focus on improving the healthcare experiences of low SES and ethnic minority patient populations could help reduce health disparities (Persky, et al., 2013). When these patient populations collectively experience more positive healthcare encounters, there is also likely to be a more positive shift in their socially shared beliefs about health professionals, which in turn may influence their general perceptions of healthcare encounters.

Research suggests that when individuals perceive their goals to be in harmony,

they tend to have more positive beliefs of one another (Fiske, et al., 2002). A recent intervention developed by Penner and colleagues (Penner et al., 2013) provides an excellent example of how to intervene at both the patient and professional level to improve patient's perceptions of their health professionals. Low income Black patients, who signed a contract along with their non-Black physician indicating they were "on the same team" and had common goals, reported that their healthcare professionals were more trustworthy than those in a control condition. The intervention group was also more likely to adhere to the physician's treatment recommendations.

In addition to improving patients' beliefs about their health professionals, is also likely that Penner and colleague's intervention induced the healthcare professionals' empathic feelings towards their low SES Black patients. Research demonstrates that feelings of similarity are associated with increased empathy and pro-social motivation (Krebs, 1975). When patients and health professionals are made to feel like they are on the same team and are working on common goals, potential differences based on SES, ethnicity, or culture may as a consequence be minimized. In fact, when patients perceive greater collaborative communication on the part of their culturally discordant health professionals they also report better treatment adherence (Schoenthaler, et al., 2012). This is particularly important in the context of patient-professional relations, as the cultural divide between health professionals and their low SES and ethnic minority patients may contribute to greater healthcare disparities (Betancourt et al., 2011). In fact, perceiving another to be culturally dissimilar to oneself is associated with reduced empathic concern (Nelson & Baumgarte, 2004). Future interventions that induce empathic feelings and perspective taking on the part of health professionals could also be effective at improving

culturally diverse patients' perceptions of their health professionals.

The analysis of invariance revealed some interesting ethnic differences concerning the association between perceived health professional empathy and anger, which was weaker for Latino than Anglo women. These findings may be associated with *simpatía*, which is a Latino cultural script characterized by the tendency to emphasize the positive while minimizing the negative in social settings (Triandis, et al., 1984). It may be culturally inconsistent for patients high in *simpatía* to bring up negative aspects of the healthcare encounter, which may cause them to report less anger than they may actually experience. Consistent with *simpatía*, Latino women from this study may have overemphasized the positive aspects of the medical encounter such as their healthcare professionals' level of empathy. The potential underreporting of anger and over reporting of empathy by Latino women may have resulted in a weaker association between perceived empathy and anger emotions. Another potential explanation may have to do with the collectivistic value orientation, which has been associated with higher empathy (Heinke & Louis, 2009). It may be that Latino women, who may be more collectivistic compared to Anglo women, are more empathic and thus forgiving of their health professionals involved in the negative healthcare encounter.

The hypotheses of this study were developed from theoretical considerations and the subsequent results have important implications on patient health and the delivery of healthcare services. The findings could be used to develop educational interventions for health professionals, which focus on the factors that contribute to positive patient-professional relations. Knowing how to navigate the medical encounter in such a way that the patient has a positive experience has both financial and health benefits. For instance,

implementing an empathy skills training program for healthcare professionals could result in improved patient experience scores, which are associated with financial incentives for health professionals based on provisions from the Affordable Care Act (Millenson & Macri, 2012). At the same time, improving the quality of healthcare for low SES and ethnic minority populations could, in turn, reduce disparities in cancer screening rates among underserved women in the United States.

Despite the significance of the study findings, some limitations should be considered. For instance, the Latina sample of this study reflected the demographic reality of Southern California, which is predominantly of Mexican cultural background. Therefore, it is unclear whether the results would be the same with Latinas from other regions of the U.S. that represent different Latin American origins. Future research could include Latinas from different national origins or levels of acculturation. At the same time, the generalizability of the study findings to Anglo women from other regions of the U.S. should also be viewed with caution. In addition, although the Yuan-Bentler test statistic for smaller sample sizes was employed in the present study, the relatively small sample size used for the separate analysis of each ethnic group, may have limited the potential for detecting some significant paths. This may be particularly true for Anglo women considering that there were paths approaching significance. Finally, while the tested propositions are solidly grounded in theory, the cross-sectional design of this study limits the test of temporal relations. Future work could employ longitudinal data to examine such relations in a more definitive manner.

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## **APPENDIX A**

### **POSITIVE CULTURAL BELIEFS OF HEALTHCARE PROFESSIONALS**

Female/Male healthcare professionals are

1. Knowledgeable
2. Trustworthy
3. Friendly
4. Compassionate
5. Honest
6. Communicative

## **APPENDIX B**

### **PATIENT'S PERCEPTION OF HEALTHCARE PROFESSIONAL'S EMPATHY**

During the screening examination, I felt the health professional...

1. was genuinely concerned for my well being.
2. Saw things from my perspective.
3. Was interested in what I was going through.
4. Understood my concerns.
5. Showed Compassion.
6. Tried to understand how I was feeling before proceeding with the screening exam.

**APPENDIX C**  
**NEGATIVE EMOTIONS**

How much did you feel the following emotions towards the healthcare professional,  
as a result of the negative incident?

1. Anger.
2. Rage.
3. Irritation.



## **APPENDIX D**

### **CONTINUITY OF CANCER SCREENING CARE**

1. As a result of this incident, did you change healthcare professionals (or do you plan to change healthcare professionals)?