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# The role of culture in the somatic response of peer-victimized Latino youth

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The Role of Culture in the Somatic Response of Peer-Victimized Latino Youth

A Thesis

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

BY

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MAY, 2010

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VITA

The author was born in Newark, NJ, on April 14, 1980. He graduated from Union Catholic Regional High School, received dual Bachelor of Arts degrees in Psychology and Sociology from Drew University in 2002, and a Master of Arts degree in Forensic Psychology from the City University of New York – John Jay College in 2004. In 2010, he was awarded the American Psychological Association Minority Fellowship Program Predoctoral Mental Health and Substance Abuse Services fellowship.

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## CHAPTER I

### INTRODUCTION

The United States Latino population is comprised of more than 45 million persons and has accounted for more than 50% of the overall population growth in the U.S. since the year 2000 (Dockterman, 2009; Fry, 2008). It is projected that by 2025 nearly three in every ten children residing in the United States will be of Latino descent (Fry & Passel, 2009). Approximately 60% of children of immigrants are from families of Latino descent, the majority being of Mexican descent (Shields & Behrman, 2004). A significant proportion of the U.S. Latino population is comprised of first- and second-generation children. *First-generation* refers to children that are foreign-born while *second-generation* refers to children born in the U.S. who have at least one parent who is foreign-born. Therefore, Latinos are a significantly large group for whom the interplay between native and mainstream U.S. cultural values may be particularly salient.

Evidence of nativity differences has been found in the expression of psychopathology among U.S. Latino groups indicating that immigrant adults from this ethnic group display lower lifetime prevalence rates of psychiatric disorders when compared to their U.S.-born counterparts (Alegría et al., 2008; Vega et al., 1998a). The literature also lends support to the presence of nativity differences in children, particularly relative to externalizing behaviors (Buriel, Calzada, & Vasquez, 1982; Harris, 1999). Specifically, the research demonstrates that immigrant children are at lower risk for exhibiting symptoms of externalizing behaviors (e.g. misconduct, aggression, etc.) than U.S.-born youth. While there is ample evidence to support that intergenerational differences exist within Latinos,

little is known regarding the mechanisms that may be driving these differences; in particular whether they are due to cultural, biological, or other factors.

Culture, as expressed through language and family values, may be one such mechanism that may help account for mental health differences within Latino cultural groups. Race, ethnicity, and culture are often implicated when attempting to explain findings, particularly when the populations studied include individuals of ethnic minority backgrounds (Betancourt & López, 1993). However, these explanations are often post-hoc and without a testable hypothesis regarding these cultural influences. The strength of the present study is that theory was used to formulate a priori hypotheses on why differences in the somatic expression of distress exist within Latinos. In addition, we utilized multiple indicators to operationalize a Latino cultural orientation and determined whether this construct impacted the somatic response reported by youth. The use of both theory and measurement allowed for a more robust evaluation of how culture influenced the relationship between a stressor and its subsequent response.

### Culture and Mental Health

Culture, by definition, is a construct that can take on many forms and influence the way individuals develop and express psychopathology (Aguilar-Gaxiola, Kramer, Resendez, & Magaña, 2008). Triandis (2007) describes culture as consisting of three properties: (1) emerges from interactions between persons and the environment, (2) contains shared elements, and is (3) transmitted across time and generations. While definitions of culture are common in the literature, the process of measuring culture and evaluating cultural differences has not

received as much attention. Betancourt and López (1993) argued for the adoption of a definition of culture that is based on theory and the measurement of sociocultural variables. Studying the specific variables and mechanisms by which culture influences behavior makes for better contributions to cross-cultural research. Using theory to guide a priori hypotheses regarding cross-cultural differences helps alleviate the issue of offering post hoc explanations for differences when they are found.

One way that an individual's cultural background is influential is through their *idiomatic expressions of distress* (Keyes & Ryff, 2003). The *Diagnostic and Statistical Manual of Mental Disorders-IV-TR* (American Psychiatric Association, 2000) includes some of these unique expressions. For Latinos, *mal de ojo*, *nervios*, *ataque de nervios* and *susto* are of particular relevance. In addition, within depressive and anxiety disorders, the DSM-IV-TR acknowledges that members of some cultural groups manifest or experience symptoms largely in somatic terms. Cultural values, beliefs, and language can influence this expression or suppression of psychiatric symptoms. The influence can be especially strong when an individual is an ethnic minority within their country of residence, such as Latinos residing in the United States (Aguilar-Gaxiola et al., 2008).

The *problem suppression-facilitation model* provides a possible theoretical framework for understanding these unique forms of expression of distress (Weisz, Sigman, Weiss, & Mosk, 1993; Weisz, Suwanlert, Chaiyasit, & Walter, 1987). The model posits that family and social norms, customs, and practices vary across cultures and differentially impact youth's behavior. These socialization forces

influence the way children and adolescents express behavior problems and symptoms. Support for this model has been found in cross-cultural research. For example, in Thailand, children are believed to be influenced largely by Buddhist beliefs of nonaggression, politeness, and respectfulness (Weisz et al., 1987). Relative to U.S. youth, Thai children were more likely to display internalizing symptoms. In contrast, U.S. youth, who are members of a more individualistic-oriented society, exhibited more externalizing behaviors than their Thai counterparts. Similar differences were found when U.S.-born youth were compared to youth in Kenya and Jamaica, where values of obedience and respect to authority are thought to be stronger than in the United States (Lambert, Weisz, & Knight, 1989; Weisz et al., 1993). One important limitation of the aforementioned studies was that culture was implied, using the child's country of origin as proxy, rather than operationalized and measured.

Polo & López (2009) further evaluated the problem suppression-facilitation model. In their study, cultural socialization variables implicated by Weisz and his colleagues were measured following Betancout and López's (1993) recommendations. The study focused on the expression of internalizing symptoms exclusively with Mexican-Americans, a U.S. ethnic group with varying levels of exposure to mainstream U.S. socialization influences. Results indicated that immigrant youth were more likely to report internalizing problems such as social anxiety and loneliness than their U.S.-born counterparts. Furthermore, youth who reported greater deference and respect towards adults and parents – a core Mexican cultural value – were less likely to display internalizing problems.

Therefore, Polo & López provided partial evidence that expressions of distress in youth may be driven, at least in part, by cultural influences. In addition, the study demonstrated how within group differences can exist, specifically between those of Latino backgrounds.

### Latino Family Values

Family cultural variables can function as potential indicators of the socialization process posited by the problem-suppression facilitation model, serving as markers of cultural differences within different ethnic groups (Feldman, Rosenthal, Mont-Reynaud, Leung, & Lau, 1991). Family is a cultural variable that is of particular relevance to Latinos. Often labeled as *familismo*, or familism, it describes the value placed on close relationships with family and friends, including obedience and respect for elders (Alarcón, 2008). It is based on the universal concept of collectivism, that is, the needs of the individual are secondary to the needs of the family group. It provides Latino groups with a rooted identity and an avenue for support, particularly for recent immigrants. Additionally, it has been posited that family-centered values may serve a protective function, shielding members of Latino families from negativistic environmental attacks (Coll, Akerman, & Cicchetti, 2000; Vega, 1990). A few studies have specifically demonstrated the protective effects of family cultural values in regards to antisocial behaviors in Latino adolescents (Brook, Whiteman, Balka, Win, & Gursen, 1998; Gil, Wagner, & Vega, 2000; Smokowski & Bacallao, 2007; Sommers, Fagan, & Baskin, 1993; Vega, Gil, Warheit, Zimmerman, & Apospori, 1993). Youth who uphold more traditional family

values are more likely to be socialized by the family system than their peers. When family connections become diffused, the socialization by peers increases, and thus the potential to be influenced by deviant peers also increases. Evidence for the protective effects of family cultural values, in regards to academic outcomes, has also been demonstrated through research (Esparza & Sánchez, 2008). Similarly, children who display stronger family ties are more likely to want to attend classes and do their homework so as to please the family system. In contrast, children with diminished traditional family values will be more likely to be socialized outside the family environment, and therefore, be at higher risk of being socialized in a maladaptive manner by peers. Thus, not only is familism an important value for Latinos, it also serves a protective function. Therefore, the literature has shown evidence that family cultural values may act as moderators of the expression of distress in ethnic minority youth.

In addition to being socialized to have close and warm relationships with family members, Latino children are also expected to care for them. The obligation to the family has also been posited to be a characteristic that differentiates the parental expectations of youth from Latino backgrounds, relative to those from European-American backgrounds (Fuligni, Tseng, & Lam, 1999). A great value is placed on devotion, loyalty, and affiliative obedience by parents and attempts made to engrain the same values in their children (Díaz-Guerrero, 1994). Latino youth are often expected to put the interests of the family above all other interests (Mordkowitz & Ginsburg, 1986). Higher levels of responsibility to the

family may indicate more positive adjustment for youth in immigrant, Latino families (Kuperminc, Jurkovic, & Casey, 2009). However, in the United States, family obligation and obedience values can often come into conflict with the more mainstream goal of autonomy, thus creating a possible source of distress for Latino families (Fuligni, Tseng, & Lam, 1999).

The longer a person is exposed to the mainstream U.S. culture, the more likely they are to internalize the mainstream values, rather than the cultural values of their native country. Phinney, Ong, and Madden (2000) found evidence to support that there may be intergenerational differences in regards to family obligation and obedience values among Latino families. Specifically, first- and second-generation children may display more traditional, family-oriented values than later generations. Therefore, children displaying more obligation, obedience, and loyalty to their families can be regarded as exhibiting a more Latino cultural orientation as opposed to youth with more autonomous views of themselves within the family structure. Family obligation and obedience values provide indicators of the potential conflict between internal versus external influences on Latino children.

#### Language as Cultural Variable

Estimates indicate that approximately 7.8 million children between the ages of 5 and 17 speak Spanish in the home (U.S. Census Bureau, 2006). According to 2007 estimates, 43% of first-generation Latino children speak English “less than very well,” compared to 21% of second-generation children, and 5% of third-generation and beyond children (Fry, 2009). Thus, the interplay



between Spanish and English language dominance can be especially salient for Latino youth, and particularly for those of earlier generations.

Children of immigrant parents often are more adept at the English language than their caregivers and thus are often involved in translating, surrogate parenting of their siblings, and advocacy, among other tasks that are facilitated by their more proficient English skills (Buriel, Perez, de Ment, Chavez, & Moran, 1998; Valenzuela, 1999). Thus, the increased contact with family members by earlier-generation children can lead to increased socialization through family factors, and reduce the potential to be influenced by external cultural factors relative to later generation children (Harris, 1999).

However, as children become more proficient in the English language, they become less so in Spanish, contrary to common belief that second-generation children tend to be bilingual (Fillmore, 1991, 2000). Additionally, the loss of a child's first language through the acculturation process may create communication barriers with their family (Fillmore, 2000). The socialization process between parent and child is then disrupted, creating more potential external influences on the child. Therefore, Spanish and English language use and proficiency can serve as potentials indicator of the cultural orientation of Latino children. In concert with the values of family obligation and obedience, it can assist in identifying any possible culturally-anchored expressions of stress and anxiety.

### Anxiety and Somatization

Anxiety disorders as a class are the most common type of disorders found among children (Bernstein, Borchardt, & Perwien, 1996). Prevalence rates are reported to be as high as 21% of child community samples (Kashani, Orvaschel, Rosenberg, & Reid, 1989). An early childhood and adolescent onset (Kessler et al., 2005; Pine, Cohen, Gurley, Brook, & Ma, 1998), as well as a chronic course (Last, Hansen, & Franco, 1997), are characteristic of anxiety disorders. Due to the high prevalence as well as the detrimental effects of anxiety symptoms, it is clear that this is a disorder worthy of attention from researchers. However, the prevalence of anxiety disorders in children, particularly among ethnic minority groups, is not known (Zahn-Waxler, Klimes-Dougan, & Slattery, 2000).

Emerging evidence indicates that internalizing symptoms may be particularly salient for Latino populations. Latino children report higher levels of depressive symptoms and suicidal ideation than youth from other ethnic groups (Grunbaum et al., 2004; Hill, Bush, & Roosa, 2003; Joiner, Perez, Wagner, Berenson, & Marquina, 2001; Kovacs, 1992; Roberts & Chen, 1995; Roberts & Sobhan, 1992; Siegel, Aneshensel, Taub, Cantwell, & Driscoll, 1998; Wight, Aneshensel, Botticello, & Sepulveda, 2005). In addition, Latino children endorse higher anxiety and anxiety-related symptoms than non-Latino youth (Glover, Pumariega, Holzer, Wise, & Rodriguez, 1999; Piña & Silverman, 2004; Varela, Sanchez-Sosa, Biggs, & Luis, 2008; Varela et al., 2004).

Somatic symptoms have been found to be additional diagnostic features in children across a number of disorders including depression and anxiety (Bernstein

et al., 1997; Egger, Angold, & Costello, 1998; Taylor, Szatmari, Boyle, & Offord, 1996). Somatization is the expression of distress through physiological, or somatic, symptoms (Kirmayer & Young, 1998). Somatic symptoms can include reports of bodily aches and pains, as well as headaches, dizziness, upset stomach, among other manifestations (Keyes & Ryff, 2003). Of children in clinical samples diagnosed with anxiety-spectrum disorders, 60% to 94% have been found to display somatic symptoms indicating that this is a common display of internalizing symptoms (Ginsburg, Riddle, & Davies, 2006; Last, 1991; Masi, Favilla, Millepiedi, & Mucci, 2000). Cross-cultural research on the expression of somatic symptoms in youth populations has been relatively rare in the literature. An emerging literature is attempting to respond to this inattention, and will be reviewed as follows.

Current research has been examining the possibility of culturally-anchored manifestations of anxiety in Latino youth through the expression of somatic symptoms. Piña & Silverman (2004) examined differences in somatic response among ethnically diverse groups of youth using a sample of 152 Latino and European-American children undergoing treatment at an anxiety disorders specialty clinic. Results indicate that European-American and Latino children have more similarities than differences among themselves in regards to internalizing symptoms of depression and anxiety. However, significant differences were found in regards to somatic symptoms, with Latino children displaying more physical symptoms than European-American youth. In addition, differences within the Latino sample in regards to language were observed. Latino

participants who preferred their interview in Spanish reported more somatic symptoms than Latino children who preferred the English administration of the questionnaire. However, language proficiency was not measured or reported within the study, and the language preference of the questionnaire was used as a proxy. This study suggests that Spanish dominant children who may not be as acculturated to American society are more vulnerable to somatization, perhaps because they are more influenced by cultural and familial practices associated with a traditional Latino cultural orientation (Hill et al., 2003).

Varela et al. (2004) also examined somatic responses in Latino youth, and in addition included variables measuring possible cultural differences within Latino groups. The study was comprised of a community sample recruited from public schools and churches. The total sample included 53 children in Mexico, 50 Mexican-American children, and a comparison group of 51 European-American youth. Mexican and Mexican-American parents reported that their children were exhibiting more somatic symptoms than their European-American peers, again suggesting the potential role that culture may play in the expression of this form of distress. A subsequent study by Varela, Sanchez-Sosa, Biggs, and Luis (2008) also found similar results in the reporting of somatic symptoms by Mexican youth. Mexican youth residing in Mexico and Mexican-American youth residing in the United States reported more somatic symptoms than their European-American counterparts. The lack of differences between the Mexican and Mexican-American groups suggests that the ethnic differences may be driven by cultural influences rather than a product of acculturative stress. The research

supports previous findings that Latino children may be overall expressing higher rates of anxious symptomatology as compared to other ethnic groups (Glover et al., 1999).

No definitive evidence that Latino children are more or less impaired by anxiety relative to other ethnic groups exists in the literature. Therefore, there is a strong need in the literature for an epidemiological study to evaluate the presence of anxiety disorders or related symptoms using a representative, national sample. At the very least, large studies using sophisticated, diagnostic measures and large community samples with multiple ethnic groups are needed in order to acquire more substantive evidence to support that Latino youth may be more or less impacted by anxiety than other ethnic groups. Research has so far been primarily concerned with establishing patterns of differences within and between ethnic groups as evidence for cultural differences. However, what is additionally needed is to understand whether or not cultural differences can be identified and evaluated to further explain differences among groups.

A few studies in the literature are exemplary in measuring both cultural and mental health variables. Polo & López (2009) measured affiliative obedience, language proficiency, and acculturative stress as mediators of internalizing symptoms in a Latino youth population. Higher levels of affiliative obedience were demonstrated to be inversely related to depressive symptoms. In a study examining differences between Korean and Caucasian university students in psychosocial factors that lead to depressive symptoms, parental values were measured (Aldwin & Greenberger, 1987). Results indicated that perceived

traditional parental values were associated with higher depressive symptoms, allowing for a more nuanced understanding of what drove the differences between the Korean and Caucasian students. Finally, Feldman et al. (1991) employed questionnaires assessing the cultural values of collectivism and individualism, as well as traditional family values, to assess differences in correlates of externalizing symptoms among Hong Kong, Australian, and U.S. youth. Individualism was found to be associated with higher rates of misconduct. Presently, we attempted to add to this literature by identifying some cultural factors which may influence the somatic response of Latino youth to peer victimization.

#### Peer Victimization

Peer victimization is defined as being targeted aggressively by other non-family children (Bauman, 2008). Subsumed under peer victimization is bullying, which is the exposure of children to the repetitive negative actions of other children (Olweus, 1995). Bullying and peer victimization include an imbalance of power in the relationship by which the victim has trouble defending him or herself from the aggressor's actions. Bullying specifically has numerous negative ramifications for children including increased risk for legal and social problems as adults, higher risk of school avoidance and emotional problems, decreased physical activity leading to physical health concerns, and decreased academic achievement (Kochenderfer & Ladd, 1996; Oliver, Hoover, & Hazler, 1994; Storch et al., 2007).

The rates of peer victimization among elementary school children are significantly high, with rates ranging from 8% to as high as 38% (Charach, 1995; Nansel et al., 2001; Wolke, Woods, Bloomfield, & Karstadt, 2000). Physical aggressions are more common in boys while more verbal and relational forms of peer victimization are more common in girls (Nansel et al., 2001). However, the literature is for the most part in agreement that there are no significant differences between boys and girls on peer victimization rates (Bauman, 2008; Storch, Nock, Masia-Warner, & Barlas, 2003). In a representative United States sample, peer victimization was more common among 6<sup>th</sup> through 8<sup>th</sup> graders than among high school students (Nansel et al., 2001).

Differences in peer victimization rates among racial and ethnic groups have only recently been addressed in the literature, and thus far conflicting reports exist. In a study of 1<sup>st</sup> through 4<sup>th</sup> graders (Hanish & Guerra, 2000), Latino children reported being less victimized than European-American students. In contrast, studies of 3<sup>rd</sup> through 6<sup>th</sup> grade students have found either no difference or that Latino children are victimized at higher rates than their Caucasian counterparts (Bauman, 2008; Storch et al., 2003). A longitudinal study of Latino adolescents found that students who are bilingual or non-native speakers of English were reported by other students to be more likely to be peer-victimized than other students (Qin-Hilliard, 2003).

One consistent finding regarding victimization is its strong association with maladaptive responses such as anxiety and somatization, including among ethnic minority samples. For example, a strong positive relationship between peer

victimization and physical symptoms has been found in a multi-ethnic sample of youth (Nishina, Juvonen, & Witkow, 2005). In a diverse sample of early-maturing children, Latino and African-American children who reported being peer-victimized indicated elevated levels of physical symptoms as compared to non-victimized children (Nadeem & Graham, 2005). As peer victimization has been associated with increased anxiety and physical symptoms in non-Latino samples, it is important to examine how these symptoms are associated with the peer victimization of Latino youth.

The literature has thus far found conflicting evidence regarding the expression of psychopathology as a response to victimization among Latino populations. However, the nature of the factors which may be mitigating the differences among cultural groups is not known. Additionally, there is no evidence in the literature of any measurement of cultural factors which may be influencing the expression of a maladaptive response to peer victimization among these groups. Therefore, further work is needed in understanding the mechanisms that may drive a cultural expression of the anxiety-response of Latino youth to peer victimization.

#### Rationale

In sum, the current literature has shown that Latino children may be prone to exhibit an anxious response through increased reporting of somatic or physical symptoms. However, within-group differences in the extent to which these somatic symptoms are expressed have not been studied. Specifically, the role of culture, as evidenced by family and cultural variables, and how they affect the



somatic response of Latino children was examined in the present study. The study employed a theoretical framework to guide the hypotheses regarding within-group differences and used multiple cultural indicators to avoid post hoc explanations of differences. The aims were in line with Betancourt and López's (1993) recommendations at furthering the field of cross-cultural research through the use of theory to specify predictions and through the direct measurement of cultural variables.

#### Statement of Hypotheses

Hypothesis I. Latino cultural orientation was measured through three variables which are thought to be interrelated. These variables were: 1) affiliative obedience, 2) family obligation, and 3) Spanish language dominance use and proficiency. These three variables were hypothesized to be significantly positively correlated with one another, and indicative of a Latino cultural orientation construct.

Hypothesis II. It was hypothesized that there would be significant differences in Latino cultural orientation variables across family generation groups. It was predicted that higher Latino cultural orientation would be displayed by first- (immigrant youth) and second- (youth of immigrant parents) generation youth, relative to those who were third-generation (U.S.-born youth with U.S.-born parents).

Hypothesis III. Based on the problem suppression-facilitation model, the moderational role of Latino cultural orientation was evaluated. More specifically, it was expected that youth with a higher Latino cultural orientation would report

higher levels of somatic symptoms in response to peer victimization relative to their counterparts with a lower Latino cultural orientation. Figure 1 illustrates the hypothesized relationship among these variables.

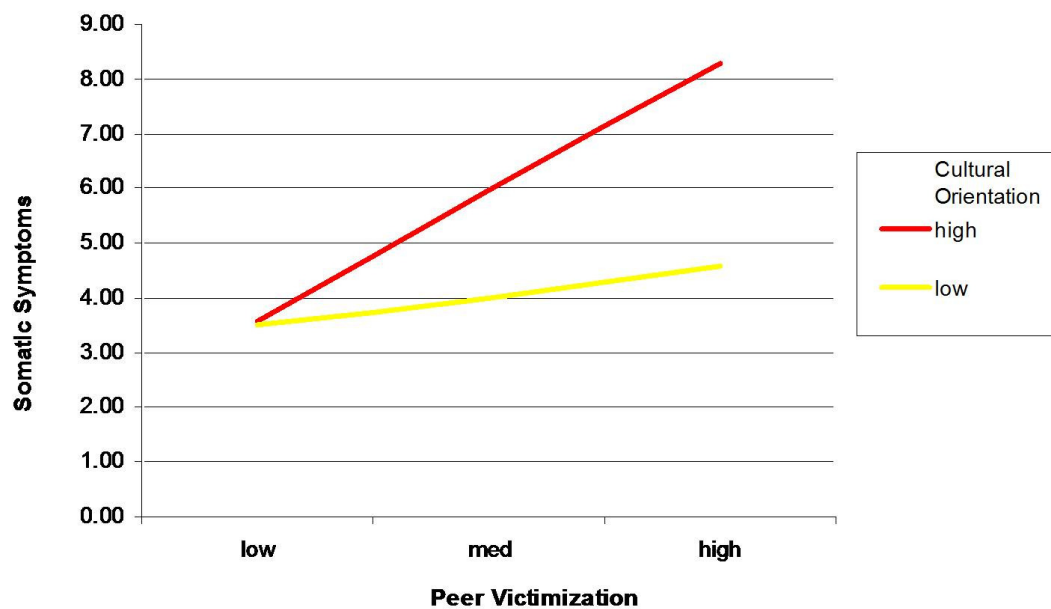


Figure 1. The hypothesized relationship between peer victimization and somatic symptoms as moderated by cultural orientation.

## CHAPTER II

### METHOD

Identification of Chicago-area middle schools with predominantly Latino populations was accomplished through the use of the Chicago Public School's website (<http://www.cps.k12.il.us>). One was selected due to its proximity to the laboratory offices, as well as its large population of Latino students. The school is located in a neighborhood which is predominantly Latino and low-income. The school principal was approached and agreed to collaborate with the study.

#### Research Participants

The sample size of the present study was comprised of 134 students. Participants included 58 female (43.3%) and 76 male (56.7%) students aged 10 to 14 years old ( $M = 11.89$ ,  $SD = .96$ ). The majority of the children were born in the United States (84.3%,  $n = 113$ ). Other youth countries of origin (15.7%;  $n = 21$ ) represented in our sample included Mexico ( $n = 15$ ), Puerto Rico ( $n = 1$ ), Guatemala ( $n = 1$ ), Honduras ( $n = 3$ ), and Argentina ( $n = 1$ ).

Participants classified in the first-generation group were those not U.S. born (15.7%;  $n = 21$ ). Of these children, 66.7% ( $n = 14$ ) were of Mexican descent, 4.8% ( $n = 1$ ) were of Puerto Rican descent, and 28.6% ( $n = 6$ ) were of Central or South American descent. Participants in the second-generation group were those who reported that they were U.S. born but both parents were born outside the U.S (52.2%;  $n = 70$ ). Of second-generation children, 78.3% ( $n = 54$ ) had both parents of Mexican descent, 5.8% ( $n = 4$ ) were children of parents of mixed Latino descent, 11.6% ( $n = 8$ ) had parents of Puerto Rican descent, and 4.3% ( $n = 3$ ) had

parents of Central or South American descent. The third-generation and beyond group comprised of U.S.-born participants who had at least one parent also born in the U.S (32.1%; n = 43). This group was comprised of 61.7% (n = 82) of children with both parents being of Mexican descent, 21.1% (n = 28) had parents of Puerto Rican descent, 6.8% (n = 9) had parents of Central or South American descent, and 10.5% (n = 14) had parents of mixed Latino descent.

### Procedure

The recruitment process included presenting 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grade classrooms with information about the study. The information packets included a letter from the school's principal showing support for the research, as well as a parent consent form. The parental consent forms were collected over the course of two weeks, and assent from students was obtained on the date of the survey.

All 186 students in the 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grades were initially recruited for the study. Of these, 142 (76.3%) returned parental consent forms indicating their agreement to participate in the study. Eight (5.4%) children were excluded from the data analyses because they did not report at least one parent that was of Latino descent. The final available sample size therefore consisted of 134 students.

Students signed assent forms indicating their agreement to participate in the study and completed surveys administered in their school classrooms. Students were given a small prize (e.g., pen/pencil) for returning the parental consent form and those who completed the survey were entered into classroom raffles which included several prizes worth \$5 to \$10.

Permission to conduct the study was granted by the Institutional Review Board of DePaul University. Classroom surveys took place during a time period which was agreed upon by the principal investigator, the principal of the school, and 5<sup>th</sup> through 7<sup>th</sup> grade classroom teachers. Data collection occurred over a span of three days, with approximately three classrooms surveyed each day. Assent was sought from the students prior to beginning the survey. Each participant completed an individual survey which was coded with an identification number to increase confidentiality. A member of the research team read the items out loud and asked participants to follow along at the same pace. Two other lab personnel were present in the room to ensure that students were given additional assistance, as needed. The research team included the principal investigator, several doctoral level psychology students, and undergraduate and B.A.-level research assistants. The surveys lasted approximately two hours.

Ten English Language Learner students who participated in our study were administered a separate bilingual survey after consultation with their teachers. All study measures were translated by bilingual lab personnel using established forward and backward translation guidelines (Brislin, 1986). Students who were administered the bilingual version of the survey were read items in both English and Spanish to help facilitate comprehension of survey items.

### Materials

Multiple domains were tapped using parent and child questionnaires for the present study. The domains are grouped into four categories including cultural orientation, somatic complaints, peer victimization, and demographics.

### Cultural Orientation

Three measures, or indicators, were used to create the Latino cultural orientation latent construct. The indicators were comprised of scales measuring affiliative obedience, family obligation, and language use and proficiency.

#### Affiliative Obedience vs. Active Self-Affirmation (Díaz-Guerrero, 1994).

The measure serves as an indicator of family cultural values that may be inherent to Latino culture. The scale was originally a component of a larger inventory aimed to measure sociocultural aspects of Mexican and Puerto Rican youth (Fernandez-Marina, Maldonado-Sierra, & Trent, 1958;  $\alpha = .81$ ). The scale consists of 22 items rated using a five-point Likert scale from *Strongly Disagree* (0) to *Strongly Agree* (4). Some sample items include “A son must never question his father’s orders” and “All adults should be respected.” Higher scores on this scale indicate a greater propensity for affiliative obedience, which is indicative of more traditional Latino cultural values. In the current study, internal consistency was found to be adequate ( $\alpha = .79$ ).

Family Obligation (Fuligni et al., 1999). This scale measures youth’s views on respect for their family members; their expectations on assistance with tasks and spending time with their families; and their obligation to support and stay near their families in the future. The internal consistency was found by Fuligni and colleagues to be good ( $\alpha \geq .81$ ). The scale consists of 12 items asking children questions such as “How often do you think you should take care of your brothers and sisters” and “How often do you think you should run errands that the family needs” which the child is asked to respond to using a five-point Likert

scale ranging from *Almost never (1)* to *Almost Always (5)*. Another 13 items, examples including “How important is it to you that you treat your grandparents with great respect” and “How important is it to you in the future that you live at home with your parents until you are married,” have a five-point response scale ranging from *Not at all important (1)* to *Very Important (5)*. Higher scores indicate a higher endorsement of family obligation values, and thus, stronger support of traditional Latino cultural values. Internal consistency in the present study was found to be good ( $\alpha = .86$ ).

Language Use and Proficiency Measure. The language use and proficiency measure was developed by Polo & López (2009;  $\alpha = .88$ ) for use in a study on cultural factors and internalizing distress in Mexican and Mexican-American youth populations. The measure consists of nine items. Children rated their perception of their Spanish language proficiency using a four-point Likert scale ranging from *Very well (4)* to *Not well at all (1)*. The questionnaire included three items asking participants to respond to their perception of how well they can read, write, and speak in Spanish. Similarly, children were asked to rate their English language proficiency in reading, writing, and speaking using the same four-point Likert scale. Finally, three items assessed language use by asking children to rate how often they spoke English or Spanish with their parents, siblings, and friends. Children were asked to respond to items using a five-point Likert scale with possible responses as follows: *Only Another Language, Not English (5)*, *Mostly Another Language, Sometimes English (4)*, *Both English and Another Language Equally (3)*, *Mostly English, Sometimes Another Language (2)*, and

*Only English (1)*. The English language proficiency items were reverse coded, so that increased English language proficiency resulted in lower scores. All three subscales were then combined for a total Spanish language dominance use and proficiency measure. High scores on this measure indicate higher Spanish language use and proficiency, and lower English language use and proficiency. Good internal consistency was found in the present study for the language use and proficiency items ( $\alpha = .86$ ).

### Somatic Symptoms

Multiple indicators were also used to create a latent construct of somatic symptoms, as follows:

#### Multidimensional Anxiety Scale for Children – Somatic Symptoms.

Estimates of child report of somatic problems were obtained using the Multidimensional Anxiety Scale for Children (MASC; March, 1997). The MASC is a widely used self-report measure of anxiety. There is evidence that the MASC displays cross-culturally valid properties for use in both Latin American and European-American youth populations (Varela et al., 2008). For the present study, raw scores on two subscales of the MASC will be used as two separate indicators for somatic symptoms. The first subscale is the Somatic/Autonomic Symptoms which according to normative sample data has demonstrated adequate internal consistency (March, 1997;  $\alpha = .73$ ). The Somatic/Autonomic Symptoms subscale consists of six items with some examples including “I have pains in my chest” and “I feel sick to my stomach.” Children respond to items using a four-point Likert scale ranging from *Never (0)* to *Often (3)*. Higher scores indicate the



expression of more somatic symptoms. The internal consistency of the Somatic/Autonomic Symptoms subscale was found to be adequate in the present study ( $\alpha = .77$ ).

Multidimensional Anxiety Scale for Children – Tense Symptoms. The Tense Symptoms subscale of the MASC was also used as a second indicator of somatic symptoms. In normative sample data, the internal consistency of this scale was found to be adequate (March, 1997;  $\alpha = .79$ ). The Tense Symptoms subscale is comprised of six items such as “I feel restless and on edge” and “My hands shake”. Children respond to items on this scale also using a four-point Likert scale ranging from *Never (0)* to *Often (3)*, higher responses indicating a greater expression of tense symptoms. The internal consistency of the Tense Symptoms subscale was found to be adequate in the present study ( $\alpha = .76$ ).

Youth Self Report – Somatic Complaints. Further estimates of child report of somatic symptoms were obtained using the Youth Self Report (YSR; Achenbach & Rescorla, 2001). The YSR is a widely used measure of behavioral, emotional, and social problems in children. The YSR was normed using a probability sample of United States youth (see Achenbach & Rescorla, 2001). Internal consistency data from this normative sample was found to be good ( $\alpha = .80$ ). The Somatic Complaints scale consists of 10 items rated by children using a three-point Likert scale ranging from *not true (0)* to *very true/often true (2)* for the six months prior to the administration. Examples of items include “I feel dizzy or lightheaded” and “I feel overtired without good reason.” Higher scores are

indicative of a stronger somatic response. Internal consistency for this scale was found to be adequate in the present study ( $\alpha = .76$ ).

### Peer victimization

In the present study, peer victimization was measured with a subscale of the California School Climate and Safety Survey – Secondary Version (CSCSS; Furlong, Casas, Corral, Chung, & Bates, 1997). The CSCSS is a self-report scale that measures a child's school environment over the month prior to administration. The 21-item School Violence Victimization subscale was used to measure children's perceptions of peer victimization occurrences within their school. A previous study found evidence for good internal consistency for this measure (Furlong et al., 1997;  $\alpha = .86$ ). Children were asked to rate items dichotomously as either *Yes* (2) or *No* (1). Higher scores indicate a higher frequency of peer-victimizing events. Examples of items include "You were threatened going to school or on the way home from school," and "Someone made fun of you, put you down." In the present study, the internal consistency for this measure was good ( $\alpha = .82$ ).

### Demographics

A 23-item demographics section was included and it was divided into questions about the child and his or her family. For the purposes of this study, relevant items of note included the child's country of origin and Latino background (e.g., Mexican, Puerto Rican). Additionally, relevant questions about the child were asked including the child's age, sex, and grade in school.

## CHAPTER III

### RESULTS AND ANALYSIS

#### Missing Data and Preliminary Analyses

Overall, missing data was low in the present study with less than 1% of data missing. One participant failed to complete one item on the Family Obligation scale while another participant failed to complete one item on the School Violence Victimization subscale. The items are believed to be missing completely at random. Therefore, linear interpolation methods were used to create data points on these two items for these two participants.

Means and standard deviations for all measures used in the present study are presented in Table 1. On average, children in our sample reported being exposed to almost three events of victimization in the school setting. Almost three-quarters of our sample (73.9%) reported having been victimized at least once in the school setting over the past month. More than two out of every five youth (41%) in our sample reported above normal (borderline to clinical) levels of somatic symptoms as evidenced by having T-scores greater than 60 on the YSR Somatic Complaints subscale.

#### Hypothesis #1

The first hypothesis predicted that the three cultural values of family obligation, affiliative obedience, and language use and proficiency would be strongly, positively correlated with one another. The hypothesis was tested through the computation of Pearson correlation coefficients using raw scores of all measures. Results of the Pearson correlations revealed that the variables of

affiliative obedience and family obligation were significantly correlated with each other and the relationship was strong and positive ( $r = .51, p < .001$ ). Language use and proficiency was approaching significance with affiliative obedience ( $r = .16, p = .07$ ). Finally, language use and proficiency and family obligation were not significantly correlated ( $r = .10, p = .26$ ).

Table 1  
*Correlations between Variables and Descriptive Statistics (total sample, N = 134)*

Variable	Family Obligation	Affiliative Obedience	Lang Use and Prof	YSR – SC	MASC - SA	MASC - TR	Peer Vic
Family Obligation							
Affiliative Obedience	.51***						
Lang Use and Prof	.10	.16					
YSR – SC	-.16	-.13	-.15				
MASC – SA	-.03	-.09	-.04	.64***			
MASC – TR	-.09	-.15	.01	.50***	.73***		
Peer Victimization	-.01	.10	-.13	.41***	.35***	.29**	
Sample Mean	3.91	3.64	2.27	4.37	10.43	10.82	2.93
Standard Deviation	.53	.60	.66	3.59	3.80	3.81	3.16

Note. \*\* $p < .01$ . \*\*\* $p < .001$ . YSR – SC = Youth Self Report Somatic Complaints scale; MASC – SA = Multidimensional Anxiety Scale for Children Somatic/Autonomic Symptoms scale; MASC – TS = Multidimensional Anxiety Scale for Children Tense Symptoms scale

### Hypothesis #2

For our second hypothesis, we predicted differences in the Latino cultural orientation variables across youth generational status. Specifically, we predicted

that first- and second-generation children would demonstrate significantly higher scores on the Latino cultural orientation variables than children from later generations. A one-way multivariate analysis of variance (MANOVA) was used to determine the effect of generational status on the three dependent variables of affiliative obedience, family obligation, and language use and proficiency. Our independent variable, intergenerational status, was computed at three levels: first generation, second generation, and third and later generations.

Overall, significant differences were found among the three levels of generation on the dependent measures, Wilk's  $\Lambda = .59$ ,  $F(6, 258) = 13.12$ ,  $p < .001$ . The multivariate  $\eta^2$  based on Wilk's  $\Lambda$  was small (.23), indicating that 23% of multivariate variance of the dependent variables is associated with generational status. Table 2 contains the means and the standard deviations of the dependent

Table 2

*Mean Scores and Standard Deviations for the Effects of Generational Status on Three Latino Cultural Orientation Variables*

Variable	1 <sup>st</sup> Generation (N = 21)		2 <sup>nd</sup> Generation (N = 70)		3 <sup>rd</sup> or Later Generation (N = 43)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Language Use and Proficiency	3.01	.72	2.36	.45	1.74	.49
Affiliative Obedience	3.78	.50	3.64	.66	3.57	.54
Family Obligation	3.96	.66	3.90	.48	3.90	.54

variables for the three groups. Univariate analyses of variance (ANOVA) on the dependent variables were conducted as follow-up tests to the MANOVA. The ANOVA on language use and proficiency was significant,  $F(2, 131) = 45.61, p < .001, \eta^2 = .41$ . However, the ANOVAs were not significant for both affiliative obedience,  $F(2, 131) = .91, p = .41, \eta^2 = .01$ , and family obligation,  $F(2, 131) = .14, p = .87, \eta^2 = .00$ .

Post hoc analyses to the univariate ANOVA for language use and proficiency consisted of conducting pairwise comparisons to find which generational level affected language use and proficiency most strongly. A Levene's test was significant,  $F(2, 131) = 6.66, p = .002$  indicating heterogeneity among the variances. Therefore, we conducted post hoc comparisons with the use of the Dunnett's *C* test which assumes that the variances are heterogeneous among the three generational groups. There was a significant mean difference at the .05 level between first-generation children and second-generation children ( $M = .65, SD = .17$ ), as well as between first-generation children and third-generation or later generation children ( $M = 1.27, SD = .17$ ). In addition, there was a significant mean difference at the .05 level on Spanish language dominance use and proficiency between second- and third-generation or later children ( $M = .62, SD = .09$ ). Our results provide partial support for our hypothesis as Spanish language use and proficiency decreased in each subsequent generational group. However, the results indicate that significant differences do not exist in family

obligation and affiliative obedience cultural variables across levels of generational status.

Table 3

*Multivariate and Univariate Analyses of Variance F Ratios for Generational Status for Three Latino Cultural Orientation Variables*

Variable	ANOVA			
	MANOVA	Affiliative Obedience	Family Obligation	Language Use and Proficiency
	$F(6, 258)$	$F(2,131)$	$F(2,131)$	$F(2,131)$
Generational Status	13.12***	.91	.15	45.61***

*Note.*  $F$  ratios are Wilk's approximation of  $F$ s. MANOVA = multivariate analysis of variance; ANOVA = univariate analysis of variance.

\*\*\* $p < .001$ .

### Hypothesis #3

Structural equation modeling (SEM) was used to posit a model by which the relationship between peer victimization and somatic symptoms is moderated by cultural orientation. SEM is a statistical technique allowing for the testing and estimation of causal relationships using a combination of statistical data and assumptions (Kline, 2005). The use of SEM allows for the testing of structural and measurement relationships within our model. Specifically, we employed a structural regression model which allowed us to use both path analysis and the creation of latent constructs comprised of multiple indicators. The use of multiple

indicators alleviates problems with measurement error, and creates more robust latent constructs.

In our model, a Latino cultural orientation was hypothesized to serve as a moderator of the relationship between peer victimization and the display of somatic symptoms. We predicted that children endorsing a stronger Latino cultural orientation would be more likely to exhibit somatization in response to being peer-victimized. In contrast, children with lower Latino cultural orientations would display less somatic symptoms as a response to peer victimization. Multiple measures were used to create latent constructs of our moderator and criterion variables. Our predictor variable, peer victimization, was introduced into the model as a manifest construct (see Figure 2).

A latent construct of Latino cultural orientation was created based on two cultural measures including the Family Obligation scale and the Affiliative Obedience vs. Active Self-Affirmation scale. It was originally intended that Language Use and Proficiency scale serve as a third indicator of the Latino cultural orientation construct but it was dropped from our model due to it being uncorrelated with our other two cultural variables (see Table 1). Peer victimization was included in our model as a manifest construct measured by the School Violence Victimization subscale. Finally, our criterion variable was the latent construct of somatic symptoms which was comprised of three indicators which included the Somatic/Autonomic Symptoms and Tense Symptoms subscales of the MASC, and the Somatic Complaints subscale of the YSR. See



Figure 2 for a graphical representation of our structural model that includes all manifest and latent constructs.

In order to test for moderation using SEM, a product term was calculated from our predictor variable (peer victimization) and our moderator latent construct (Latino cultural orientation) to create an interaction term. Before the interaction term was created, all the indicators were centered in order to reduce correlations between the product terms by maintaining a mean of zero. A cross-product term was then created using techniques outlined by Kenny and Judd (1984) in which a latent construct serves as the interaction term, and is created from the cross-products of the latent variable and the predictor variable. An interaction term was constructed by which the indicators subsumed under the

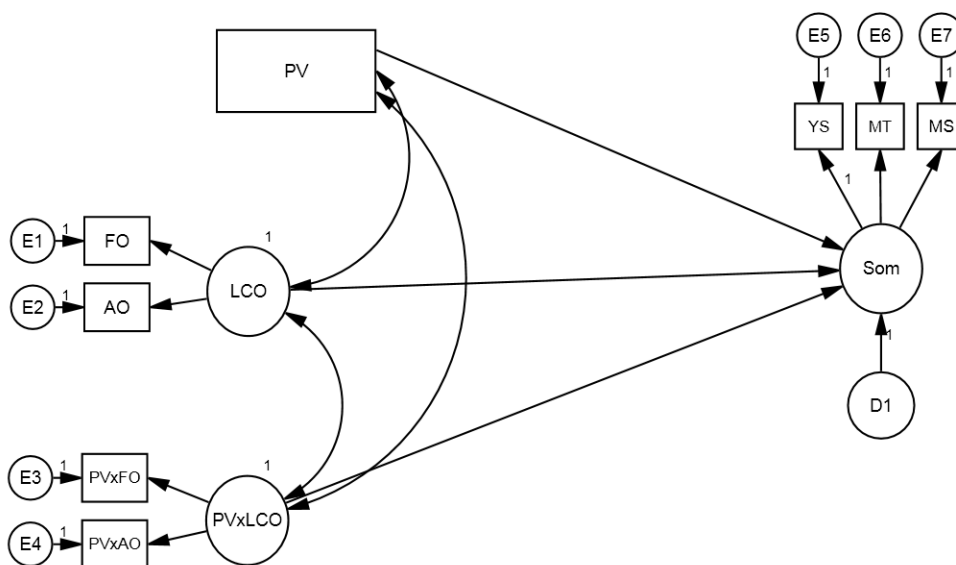


Figure 2. Structural model of the moderating effects of Latino cultural orientation on the relationship between peer victimization and somatic symptoms.

PV = Peer Victimization; LCO = Latino Cultural Orientation; FO = Family Obligation; AO = Affiliative Obedience; PVxLCO = Interaction Terms; Som = Somatic Symptoms; YS = YSR Somatic Complaints scale; MT = MASC Tense Symptoms scale; MS = MASC Somatic/Autonomic Symptoms scale;

Latino cultural orientation latent construct were each multiplied by the indicator of the peer victimization latent construct.

The conceptual model in Figure 2 was fitted and parameters estimated using Amos 18.0's maximum likelihood estimation (MLE) procedure. The solution was inadmissible as it produced a negative error variance estimate for the affiliative obedience factor. Negative error variance estimates are typically referred to as Heywood cases and typical causes include misspecification, small sample size, less than three indicators per latent construct, and outliers (Kline, 2005). Our model was specified based on theory informed by the literature thus we did not suspect misspecification to be an issue. In addition, outlier analyses were ran using SPSS 17.0 and there was no indication of problems with outliers on the affiliative obedience measure. Therefore, it is probable that our sample size may be too small and coupled with having a latent construct with only two indicators may be leading to negative error variance estimates. Thus, it was decided that the error variance for the affiliative obedience factor would be fixed to one minus the reliability for the affiliative obedience measure or .19.

The model in Figure 2 with the error term for affiliative obedience fixed to .19 was ran. The model displayed good fit ( $\chi^2(16) = 24.03$ ,  $p = .089$ ; GFI = .958; AGFI = .904; NFI = .936; RMSEA = .061 [90% CI = .000 - .109]). Both the affiliative obedience (.69) and family obligation (.73) factors displayed significant and high standardized loadings (see Figure 3). Similarly, the factor loadings for our somatic symptoms were also all significant, and all standardized loadings were high. The YSR - Somatic Complaints subscale loaded at .69, the MASC –

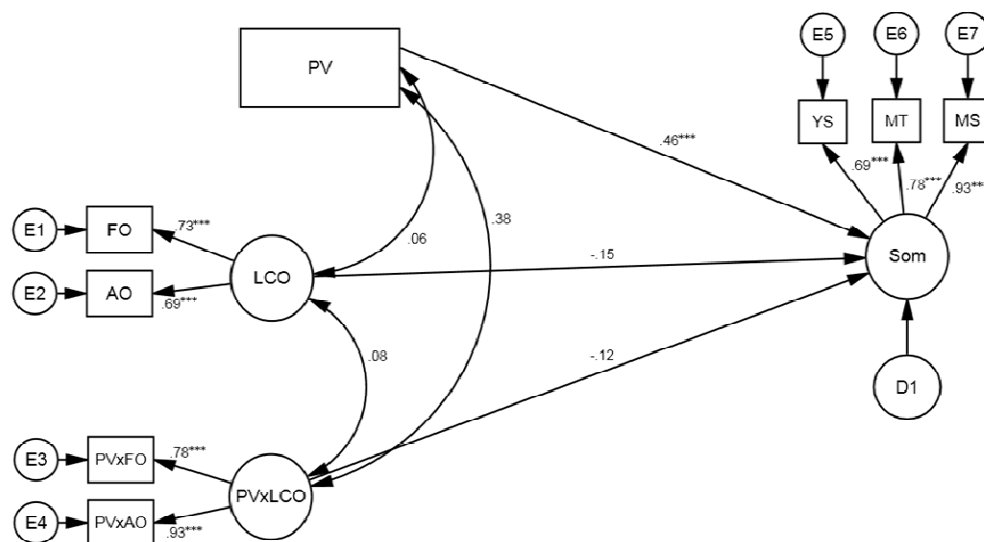


Figure 3. Model of total sample featuring standardized estimates of the relationship between Latino cultural orientation, peer victimization, and somatic symptoms (N = 134).

\*\*\*p <.001

Tense Symptoms subscale at .78, and the MASC – Somatic Symptoms loaded at .93.

As illustrated in Figure 3, there is a positive relationship between peer victimization and the expression of somatic symptoms ( $\beta = .46$ ,  $p < .001$ ) indicating that as children experience more peer victimizing events, they are exhibiting a higher somatic response. The Latino cultural orientation latent construct is not significantly related to the expression of somatic symptoms ( $\beta = -.15$ ,  $p = .156$ ). In addition, the interaction between peer victimization and Latino cultural orientation is also not significant ( $\beta = -.12$ ,  $p = .220$ ).

### Additional Analyses

As our results did not indicate any evidence of a direct relationship between the latent constructs of Latino cultural orientation and somatic symptoms, we decided to examine the influence of each of our individual independent variables (affiliative obedience, family obligation, and language use and proficiency) on our three dependent variables (YSR-Somatic Complaints, MASC-Somatic/Autonomic, and MASC-Tense Symptoms), and also to examine any moderational effects of our independent variables. Hierarchical regressions were conducted where peer victimization and one of our independent variables was entered in Step 1, and the interaction term was added at Step 2. If the interaction added in Step 2 is significant, moderation is then indicated. Table 4 presents results of the hierarchical regression analyses where either the main effect or the interaction effect was significant.

Family obligation's influence on somatic complaints, as measured by the YSR, approached significance ( $\beta = -.155$ ,  $p = .050$ ) and the negative relationship indicates that higher levels of family obligation reduce the amount of somatic symptoms expressed by youth. In addition, affiliative obedience is significantly negatively associated with somatic complaints ( $\beta = -.172$ ,  $p = .030$ ) and the MASC – Tense Symptoms subscale ( $\beta = -.184$ ,  $p = .028$ ). Therefore, high levels of affiliative obedience are associated with reduced somatic symptoms. Affiliative obedience and family obligation were not found to be significantly associated with somatic symptoms in any other models. Language use and proficiency was not found to be a significant predictor of any of our measures of somatic

symptoms. Finally, none of our cultural factors were found to have a moderating effect on the relationship between peer victimization and somatic symptoms. See Table 4 for the results of our hierarchical linear regression models.

Table 4

*Hierarchical Linear Regression Models Evaluating Latino Cultural Orientation Factors as Moderators of the Relationship between Peer Victimization and Somatic Symptoms*

<i>Predictor</i>	$\beta^*$	<i>t (df)</i>	<i>P</i>
a. DV = YSR – Somatic Complaints			
Step 1		(2, 133)	
Peer Victimization	.41	5.26	<.001
Family Obligation	-.16	-1.98	.050
Step 2		(3, 133)	
Peer Victimization	.42	5.14	<.001
Family Obligation	-.15	-1.94	.055
Interaction	-.04	-.467	.641
b. DV = YSR – Somatic Complaints			
Step 1		(2, 133)	
Peer Victimization	.43	5.51	<.001
Affiliative Obedience	-.17	-2.19	.030
Step 2		(3, 133)	
Peer Victimization	.44	5.23	<.001
Affiliative Obedience	-.17	-2.19	.030
Interaction	-.02	-.291	.641
c. DV = MASC – Tense Symptoms			
Step 1		(2, 133)	
Peer Victimization	.31	3.72	<.001
Affiliative Obedience	-.18	-2.22	.028
Step 2		(3, 133)	
Peer Victimization	.35	4.01	<.001
Affiliative Obedience	-.19	-2.27	.025
Interaction	-.13	-1.47	.144

*Note.* Table only includes models in which at least the Latino cultural orientation factor was significant in Step 1.

\* Standardized beta coefficients

## CHAPTER IV

### DISCUSSION

There continues to be a paucity of research that employs both theory and measurement of cultural variables to examine the effects of culture on psychopathology. In the present study, we sought to alleviate this dearth in the literature through the use of the problem suppression-facilitation model and the measurement of Latino cultural orientation variables of family obligation, affiliative obedience, and language use and proficiency. A multigenerational sample of Latino youth was evaluated to examine the extent to which cultural factors may impact the relationship between peer victimization and somatic symptoms. A model was constructed on which several variables functioned as indicators of a Latino cultural orientation latent construct. Employing the problem suppression-facilitation model, we predicted that a stronger Latino cultural orientation would be associated with a stronger relationship between somatic symptoms and peer victimization. The reason for this is that somatic symptoms have been previously found in the literature to be a more common response to stressful situations among Latino children than other ethnic groups (e.g., Piña & Silverman, 2004; Varela et al., 2004, etc.).

In our present study, our Latino cultural orientation variables were posited to serve as proxies for generational or acculturative status. It was expected that later generations would display lower values of Latino cultural orientation. Support was found for a decrease in language use and proficiency in later generations. However, similar support was not found for the values of family

obligation and affiliative obedience. In addition, language use and proficiency was found to be not correlated to family obligation or affiliative obedience, while the latter two were significantly, positively correlated with one another.

One possibility that evidence was not found for a relationship between generational status, and the cultural values of family obligation and affiliative obedience, is because of the homogeneous nature of the environment in which our data were collected. Participants in the study attended the same predominantly Latino middle school located within an urban area that is also largely populated with Latinos. Therefore, the possibility exists that this predominantly Latino environment may be less impacted by the majority, American culture, and thus better able to maintain Latino cultural traditions and values in contrast to schools and neighborhoods where Latinos may be the minority. Because the predominant language spoken in school and in the culture at large is English, it becomes much easier for Spanish language use and proficiency to degrade, and eventually become nonexistent in later generations of Latinos. We speculate that the sense of community within the school where our data was collected, and within the larger, Midwestern region where the school is located, is stronger and thus more likely to maintain familial cultural values over time.

In addition to our unexpected findings regarding the relationship among the variables that comprised our original formulation of Latino cultural orientation factors, support was also provided for a converse effect regarding our hypothesized relationship between cultural variables and the expression of somatic symptoms. A stronger Latino cultural orientation, as evidenced by higher

family obligation and affiliative obedience, was associated with lower somatic symptoms. The results demonstrate that immigrant youth and youth of immigrant families have better mental health profiles than youth of later generations (e.g., U.S.-born youth of U.S.-born parents), consistent with past research findings (e.g., Buriel et al., 1982; Harris, 1999; A. J. Polo & S. R. D. López, 2009; Vega et al., 1998b).

Higher family obligation and affiliative obedience may be associated with increased family functioning. These youth may have more support at home which protects them from the possible harmful effects of being peer victimized. Consistent with this hypothesis is the fact that the language use and proficiency variable was not predictive of somatization, as this factor may be less influential in regards to family functioning.

It is also possible that children who are displaying higher Latino cultural orientations may be responding to peer victimization in ways not measured in our study. For example, children high in Latino cultural orientation may be more likely to display externalizing symptoms as a response to peer victimization while children lower in Latino cultural orientation variables may be more likely to somatize as a response to peer victimization. However, a high Latino cultural orientation is not typically associated with externalizing symptoms and previous research has typically found an association between children displaying more Latino cultural values and beliefs with internalizing symptoms (e.g. Polo & López, 2009). Therefore, the possibility exists that other forms of internalizing symptoms, such as social anxiety, withdrawal, and depressed affect, may be more



likely venues by which these children high in Latino cultural orientation may exhibit their response to stress. Further research is needed to clarify the role that culture may play and examine the nuances of Latino children's responses to stressful events.

Replication of this study is needed in order to address some of the limitations. Our sample may not have been representative of the Latino population at large as our participants resided and attended a school that was overwhelmingly Latino in the Midwestern region of the United States. Further studies should focus on recruiting Latino participants from areas that differ in their concentration of Latinos, as well as from various regions of the United States, to examine if results are able to be generalized to other U.S. Latino youth groups. In addition, the sample was recruited from a school and neighborhood that is largely comprised of low-income families, negatively impacting the generalizability of our findings. For example, it is entirely possible that the reason no generational changes were detected in our family obligation and affiliative obedience could also be due to the lack of upward economic mobility of later generation families in this study. Upwardly mobile families may have left this neighborhood for more middle- and upper-class neighborhoods that may be predominantly influenced by American cultural beliefs and ideals.

Similarly, other families may have chosen to remain in the neighborhood even after achieving economic opportunities to move to more affluent areas because they felt more comfortable residing in a majority Latino community. The heads of these particular families may be feeling the pressures of assimilation or

discrimination, and choose to remain in the neighborhood to preserve or defend their cultural values and beliefs. A comparison between the third-generation and beyond families who still reside in predominantly Latino, lower income neighborhoods, and those third-generation and beyond families who chose to move to more affluent neighborhoods where Latinos are the minority, would help elucidate any differences that may exist between these two groups. Therefore, our findings may be more indicative of the Latino experience within Latino-majority, predominantly low-income, urban areas, rather than the general experience of all Latinos residing in this country.

Another limitation in our study is its cross-sectional design which hampers our ability to clarify cause-and-effect relationships among the variables. If longitudinal studies are able to find similar results, then evidence exists of the complexities of contextual and cultural values and their influence on the mental health of Latino youth. Longitudinal designs would also allow us to observe if the expression of psychopathological symptoms changes over the time. For example, are other cultural variables protective for Latinos more strongly influenced by American beliefs, traditions, and values.

The main implication of the present study is that the importance of contextual and cultural variables cannot be understated. We were able to demonstrate that cultural values may impact the expression of psychopathology in Latino youth. In order to make more informed decisions on the treatment of Latino youth, measurement of cultural values is necessary. Our results also demonstrate the importance of using theory and measurement of cultural variables

to increase our understanding of what role culture plays in mental health outcomes. Using proxies, such as generational status, as “shortcuts” to conduct research on ethnic groups can lead to dubious results. Continuing to use these same proxies to make inferences in the assessment and treatment of Latino youth can result in poor mental health outcomes for this population. Therefore, more efforts are needed in the current literature to ensure that appropriate theory and measurement is used when examining cultural differences – anything else would be a disservice to the populations being studied and treated.

## CHAPTER V

### SUMMARY

There is emerging evidence that Latino youth report a higher prevalence of somatic complaints than children from other ethnic groups. Although culture has been implicated to explain these somatization differences, few studies have investigated the extent to which cultural factors actually influence the way Latino youth respond to stressful events. The present study employed the problem suppression-facilitation model to posit that cultural orientation plays a moderational role in the relationship between peer victimization and physical symptoms. Thus, it was hypothesized that Latino youth with a high Latino cultural orientation, as measured by their language use and proficiency, affiliative obedience, and family obligation, would report a stronger somatic response to peer victimization than that of their counterparts with a low Latino cultural orientation.

The present sample consisted of 134 Latino youth ranging in age from 10 to 14 years old. The family obligation and affiliative obedience variables were found to be positively related while neither variable was related to language use and proficiency. In addition, family obligation and affiliative obedience were not found to be related to generational status, while language use and proficiency was related to generational status. Thus, family obligation and affiliative obedience were chosen to comprise our latent construct of Latino cultural orientation while language use and proficiency was dropped from the construct. Analyses were conducted using structural equation modeling (SEM) employing multiple

indicators for cultural orientation variables and somatization, and a manifest variable for peer victimization. No evidence was found that family obligation or affiliative obedience either moderated or influenced the relationship between peer victimization and somatic symptoms in any way. However, additional analyses demonstrated that children high in affiliative obedience exhibited decreased somatic symptoms as a response to peer victimization. Evidence for a similar trend by family obligation was also found.

The main implication of the present study is that the importance of contextual and cultural variables cannot be understated. The results demonstrate that when other components of culture, such as familial factors, are examined, the influence of culture begins to emerge. Using proxies, such as generational status and language, as “shortcuts” to conduct research on ethnic groups can lead to dubious results. Continuing to use these same proxies to make inferences in the assessment and treatment of Latino youth can result in poor mental health outcomes for this population.

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