

Spring 6-14-2024

## Parent-Child Cultural Values (Mis)Matches and Youth Mental Health among Latinx Families

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**Latinx Parent-Child Cultural Value Profiles and Correlates**

A Dissertation

Presented in

Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy

By

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May, 2024

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## Acknowledgements

I would first like to express gratitude to my advisor, Dr. Antonio J. Polo, for his support and guidance with this dissertation. His feedback, reflections, and words of encouragement were instrumental in accomplishing this task. I would also like to thank my dissertation committee members, Drs. Joanna Buscemi, Jocelyn Carter, Maria Ferrera, and Eva Patrikakou for their support throughout this process. The collaborative effort made this dissertation a meaningful and powerful one. I want to thank the Chicago Public School students and families who shared their stories with us. It is because of you that made this dissertation possible. I dedicate this work to you.

Getting to this stage of my educational career would not have been possible without the support of the communities that shaped my development. As a product of Chicago Public Schools, I want to thank Hanson Park Elementary and Luther Burbank Elementary school teachers for their commitment, care, and belief in students like me. Your compassion and investment in students truly make a difference. My deepest gratitude and love go to my *mamá* Lupita, *papá* Fila, *hermano* Javy, and *abuela* Tita for their unwavering support from day one. This PhD is all of ours.

## **Biography**

The author was born in Chicago, IL on September 6, 1993. Jesus Solano-Martinez graduated from James B. Conant High School in Hoffman Estates, IL, 2012. He received his Bachelor of Arts degree in Psychology from the University of Illinois at Chicago in 2015.

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## Abstract

When compared to youth from other ethnic backgrounds, Latinx youth present with higher levels of mental health problems (e.g., internalizing). Various heritage cultural values, such as affiliative obedience, have been found as protective against mental health problems in Latinx youth. These findings, however, have not been ubiquitous, have not often included parent or combined parent and child perspectives, and have been limited by design and methodological shortcomings (e.g., single reporters, difference scores). The Acculturation Gap Distress – Expanded (AGD-E) model was used as the guiding theoretical framework to examine parent-child heritage cultural value endorsement patterns and their association to youth mental health and other child and parent correlates. This study included 295 Latinx children ( $M_{age} = 11.45$ ,  $SD = 0.95$ ), slightly more females ( $n = 163$ ; 55.3%) than males, and their parents of predominately low income and Mexican American backgrounds. Latent profile analysis (LPA) revealed a three-profile solution. Two groups were in values mismatches profiles: HY\_MP (high youth, moderate parent) ( $n = 74$ ; 25%), MY\_HP (moderate youth, high parent) ( $n = 70$ ; 24%), while the third and largest group was in a values match profile, HY\_HP (high youth, high parent) ( $n = 151$ ; 51%). Cross-sectional (but not longitudinal) findings showed that youth in the MY\_HP profile had higher levels of externalizing problems than the HY\_MP profile,  $\chi^2(2, N = 295) = 7.91$ ,  $p < 0.01$ , and the HY\_HP profile  $\chi^2(2, N = 295) = 16.64$ ,  $p < 0.01$ . Youth in the MY\_HP profile had higher internalizing problems than youth in the HY\_HP profile  $\chi^2(2, N = 295) = 4.45$ ,  $p < 0.05$ . No differences were found across profiles in youth acculturative stress or parental depression. Findings suggests the potential benefits of parent-child cultural value congruence. Individual-, family-, and society-level implications are discussed.

*Keywords:* Latinx, affiliative obedience, youth mental health, latent profile analysis

## **Latinx Parent-Child Cultural Value Profiles and Correlates**

As of 2022, there were 63.6 million Latinx individuals - up from 50.5 million in 2010 - living in the United States (U.S.) (U.S. Census Bureau, 2022). U.S. Latinx individuals experience well-documented mental health disparities. In particular, Latinx youth have been found to be consistently at higher risk for depression and anxiety symptoms compared to their non-Latinx White counterparts (Twenge & Nolen-Hoeksama, 2002; Mikolajczyk et al., 2007; McLaughlin et al., 2007). Research has documented gender differences in internalizing problems as Latinx females consistently show higher rates of anxiety and depression when compared to males (Wagstaff & Polo, 2012). Furthermore, recent national data have found that, compared to other ethnic groups, youth of Latinx backgrounds experience higher incidences of major depressive episodes (Substance Abuse and Mental Health Services Administration (SAMHSA), 2020). Some studies have also identified Latinx youth as reporting greater incidences of behavioral problems such as arguments, physical fights, and substance use when compared to youth from other ethnic groups (Kann et al., 2018; Johnston et al., 2018; Cano et al., 2015; Chen & Jacobson, 2012). Gender differences in Latinx youth within the externalizing problems domain have not been uniform in the literature. For instance, some studies have found higher externalizing problems in Latinx females relative to males (Atherton et al., 2018; Kulis et al., 2010), other studies have found the opposite pattern (Pereyra et al., 2019), while others find no gender differences (Bennett et al., 2020). Given the growing trend in population size and increased risk of maladaptive psychological outcomes, it is important for the field to focus on identifying factors that contribute to the socioemotional well-being of U.S. Latinx youth and families.

To begin the process of identifying the unique factors playing a role in the lives of Latinx families in the U.S., it is important to carefully consider the context in which these families reside. First, Latinx youth navigating U.S. society are exposed to a myriad of expectations (e.g., speaking the English language) that oftentimes differ and conflict from their heritage country. As a result, many Latinx youth have to balance two different cultures (i.e., heritage culture and U.S. culture) simultaneously. When faced with cultural conflicts or mainstream values that do not align with their heritage culture, it can pose risk on the wellbeing of Latinx youth. One mechanism through which this occurs is that different cultural expectations create cultural stressors, such as acculturative stress, for Latinx youth. Acculturative stress can be defined as the harm on an individual's physical, social, and psychological well-being due to difficulties that result from the acculturation process (Berry, 1997).

Similar to the way that Latinx youth are navigating U.S. life, so are their parents. And similar to the youth's process, Latinx parents are also grappling with the reality of navigating two distinct, and oftentimes conflicting, cultures. One of the major differences between a Latinx parent and child, however, is the notion that oftentimes Latinx parents have been found to have heritage cultural values more ingrained due to their time in their country of origin relative to their children (Schwartz et al., 2006). Furthermore, work with Latinx families have put forth that children may adopt U.S. cultural values at a quicker rate when compared to their parents due to children's higher exposure (e.g., through schooling) to U.S.-based cultural values (Lau et al., 2005). As such, it is possible that children who adopt a U.S.-based culture (e.g., values) while denying or endorsing to a lower degree their heritage culture, may place parents at risk for mental health problems (Szapocznik et al., 1978).

This study aims to identify the impact of parent and youth heritage cultural values on youth mental health, parental mental health, and youth acculturative stress. The following sections will begin with a review of the literature on heritage cultural values, with a focus on affiliative obedience, their connection to youth internalizing and externalizing problems, parental depression, and youth acculturative stress in Latinx families. The study is guided by a prominent model, the Acculturation Gap Distress-Expanded (AGD-E) model (Telzer, 2010), that has examined the relation of some of these variables through an acculturation lens. As will be covered in the following sections, the majority of empirical work testing the AGD-E model has focused exclusively on the negative impact of cultural differences, rather than potential benefits of cultural matches, on Latinx youth wellbeing. It is the hope of this study to significantly contribute to the research base of heritage cultural values and Latinxs social-emotional wellbeing by taking a dyadic-, strength-based approach in understanding the potential protective nature of heritage cultural values.

### **Cultural Values in US Latinx Families**

Latinx families have been characterized as being particularly cohesive and interdependent (Rivera et al., 2008) and to be collectivistic in nature (Sue & Sue, 2016). A central factor in this conceptualization of the Latinx family is the role that cultural values play. Latinx parents act as important socializing agents of heritage cultural values for their children (Calzada et al., 2013). Although there is considerable heterogeneity in the Latinx community, common cultural practices, beliefs, values and customs have been identified. Heritage cultural values such as obligation and duty to the family, family cohesion and closeness, familism, and *respeto* (respect for adult and authority figures), have been identified as prominent in the lives of Latinx children and their parents (Knight et al., 2010; Crockett et al., 2022).

Familism is a core cultural value in Latinx families that is characterized by family loyalty, unity, obligation and obedience, and includes a key feature of subjugation of one's individuals needs in favor of the family unit (Lugo Steidel & Contreras, 2003). As a multidimensional construct, familism has been characterized as three separate components: supportive familism (perceived level of support and closeness to family unit), obligation familism (perceived responsibility to provide economic, social, and/or emotional support to family unit), and referent familism (degree to which one maintains behaviors consistent with family unit expectations and values) (Valdivieso-Mora et al., 2016). Further, familism has been characterized as having both attitudinal (e.g., belief of prioritizing family over self) and behavioral (e.g., financial support to parents) components (Cahill et al., 2021).

*Respeto* can be defined as respect to adult figures and respect in interpersonal relationships (Calzada et al., 2010). Applied to Latinx families, *respeto* refers to the deference that children give their parents given the hierarchical nature of the parent-child relationship. Across Latinx families, research has highlighted *respeto* as a critical cultural value in raising a “well-behaved” child (Harwood, 1992; Harwood et al., 1996; Arcia et al., 2000). A closely related, but narrower and more specific, cultural value is affiliative obedience. Affiliative obedience consists of an individual's unconditional respect and deference to adults and parental authority figures (Diaz-Guerrero, 1994). Affiliative obedience plays a role in youth's socioemotional development in that youth who are high in affiliative obedience are characterized as polite, well-behaved, dutiful, and respectful (Clark et al., 2015).

Affiliative obedience and the related, but broader cultural value of *respeto*, are particularly important to study in Latinx families due to their potential role in shaping parents' ability to set the foundation for family expectations. Both affiliative obedience and *respeto* have

been highlighted as especially salient in Latinx families. In a study with adolescents from a variety of ethnic backgrounds, it was found that Latinx adolescents endorsed significantly higher levels of respect towards their family members when compared to European counterparts (Fuligni et al., 1999). Similarly, in a sample of young girls from Latinx, African American, and European American backgrounds, it was found that African American and Latinx girls endorsed greater levels of respect towards their parents compared to the European American girls (Dixon et al., 2008).

It has been well-documented that across Latinx ethnic groups and generations, Latinx families' heritage cultural values such as affiliative obedience, respect, and familism stem from a collectivistic foundation of improving and valuing the group (i.e., family) rather than promoting individual or self-interests (Sue & Sue, 2016). Although all of these cultural values in Latinx families have been identified as playing a critical role in the lives of Latinx families, most of the literature examining these different cultural values and their impacts on Latinx family and individual socioemotional functioning has focused on the broader value of familism. As a multidimensional cultural value, one characteristic included in familism is obedience. Few studies, however, have teased apart these related, but different cultural values when examining their relation to Latinx youth wellbeing. Furthermore, much less emphasis and study has been given specifically to affiliative obedience and its connection to family and individual well-being. Given that aspects of *respeto* and familism are included in affiliative obedience, efforts will be made to distinguish these cultural values when reporting findings connected to mental health.

A major component of this study focuses on the association between affiliative obedience and mental health problems in Latinx youth. Since fewer studies have focused on affiliative obedience, the following sections include information on the link between closely related

constructs (i.e., familism and *respeto*) and both internalizing and externalizing problems. Efforts are made to specify the cultural value or construct used in the reported studies. This is particularly relevant for multidimensional constructs such as familism as measures of familism oftentimes have items overlapping with *respeto* and/or affiliative obedience.

### **Cultural Values and Youth Internalizing Problems**

**Familism.** Numerous studies have found youth reports of familism to be associated with lower levels of internalizing problems in Latinx youth (Stein et al., 2024; Stein et al., 2015; Arizaga et al., 2020; Zeiders et al., 2013). In addition to youth reports of familism, studies have examined parent reports of familism and links to mental health in Latinx youth. In their study with Latinx parents and youth ( $M_{\text{age}} = 15.7$ ) of Mexican backgrounds, higher maternal and paternal reports of familism were associated with lower levels of adolescent depressive symptoms (Delgado et al., 2011). Further, a research study with Mexican American 5<sup>th</sup> graders and their parents examined the association between paternal attitudinal familism and youth internalizing (mood and anxiety symptoms combined) problems (White & Roosa, 2012). Results from this study revealed a negative association between paternal familism and youth internalizing problems in this Latinx youth sample. Similar to the findings of youth familism and internalizing problems, parental reports of familism seem to play a protective role on youth internalizing symptoms.

Stein and colleagues (2014) produced a review of the familism literature using a developmental science framework to better understand how different familism domains (e.g., attitudinal versus behavioral) impact youth wellbeing across different developmental time points. The review revealed that while some studies (e.g., Ayón et al., 2010; Delgado et al., 2011; Smokowski & Becallao, 2007) showed youth attitudinal familism to predict lower internalizing



mental health problems, other studies revealed the opposite trend with higher youth attitudinal familism associated with higher internalizing problems (Kuhlberg et al., 2010). Furthermore, some research examining behavioral familism (e.g., extensive family responsibilities) has found it to be linked to higher internalizing problems in Latinx youth (East & Weisner, 2009).

Although the vast majority of studies find familism as a protective heritage cultural value in Latinx youth psychosocial functioning, it is worth noting that some of the discrepant findings may be due to the multifaceted nature (i.e., attitudinal, behavioral) of familism.

In a recent meta-analysis with 73 independent studies, Cahill and colleagues (2021) examined the effect sizes of attitudinal familism on an array of socioemotional domains (e.g., internalizing problems) among the Latinx population. In their study, Cahill and colleagues (2021) categorized the effects of familism on internalizing problems (e.g., depressive symptoms, anxiety) by developmental period (e.g., early adolescence, late adolescence, young adulthood, middle adulthood, late adulthood). Relevant to this current study, the findings presented are those found within the early adolescence developmental period (ages 11-15) (Cahill et al., 2021). Of the 73 studies included in the meta-analysis, 46 studies examined the effect sizes of familism on internalizing problems in Latinx youth. Results from the meta-analysis found a significant and negative association between familism and internalizing problems in early adolescent Latinx youth, and this effect was particularly stronger when compared to other developmental periods (Cahill et al., 2021). Findings from this study support the general finding from the literature that familism is protective against internalizing problems, and particularly more so for youth in the early adolescence period. It is worthwhile to note, however, that this meta-analysis did not provide information on the who the reporter (e.g., parent or child) on the familism measure was,

making it difficult to draw conclusions on whether familism values would be protective depending on the reporter of said value.

In many of the aforementioned studies, the familism measure under inspection included an array of subscales (e.g., support, obedience, interconnectedness, family honor, etc.) that were compiled into one single familism score. This methodological approach makes it difficult to identify which specific domain of this multifaceted heritage cultural value is playing a role in the link to youth mental health. Researchers have called for the field to clearly delineate multifaceted cultural values (e.g., attitudinal versus behavioral familism) to best understand their connection to youth mental health (Stein et al., 2014). Narrower, more specific heritage cultural values (i.e., *respeto* and affiliative obedience) may provide insight into the unique ways that cultural values impact youth mental health in Latinx families.

**Respeto.** *Respeto* has been investigated in the link to internalizing problems in the Latinx youth population. First, there is some research that has highlighted the protective role of *respeto* against internalizing problems in Latinx youth. In their study with 1,922 Latinx adolescents ( $M_{age} = 13.97$ ) Lorenzo-Blanco and colleagues (2012) found that as youth endorsed greater levels of *respeto* towards parents, this was associated with lower reports of depressive symptoms. This cultural value of respect towards parents/family has also been found to be protective against depressive and anxiety symptoms in Latinx college students, pointing to its influence on mental health on older Latinx individuals (Corona et al., 2017). This protective effect, however, has not been consistently found in the literature when looking at parent report of *respeto* and associations with youth mental health.

In a study with Mexican and Dominican families, Calzada and colleagues (2012) examined the mental health of 4- and 5-year-old children using a cultural framework of Latinx

parenting and found that parent socialization messages of *respeto* (e.g., “I tell my child to defer to adult wishes”) were significantly and positively related to internalizing problems (e.g., depression and anxiety) in children. In another study, researchers did not find an association between *respeto* and internalizing problems in Latinx children ( $M_{age} = 4.78$ ) (Calzada et al., 2017). Hence, although there is some evidence that *respeto* acts a protective factor against internalizing problems in Latinx youth, the findings are not as consistent when compared to the familism-youth mental health link and clear conclusions surrounding *respeto*'s relation to internalizing problems in youth requires additional study. An examination of a closely related, but narrower and more specific Latinx heritage cultural value (i.e., affiliative obedience) may help elucidate these findings.

**Affiliative Obedience.** The link between affiliative obedience and youth mental health (e.g., internalizing problems) has been examined in research with Latinx families. Research with youth from Latinx backgrounds have found that higher affiliative obedience is associated with lower depressive symptoms (Polo, 2002; Polo & Lopez, 2009). Similarly, Cupito et al. (2015) found a negative association between Latinx adolescents' level of affiliative obedience and depressive symptoms, but only among females. Finally, Martinez et al. (2012) found that affiliative obedience was not associated with separation/panic symptoms or with social anxiety among Latinx students. Instead, they found that higher affiliative obedience, along with higher familism and higher family obligation, were associated with *higher* harm avoidance (e.g., trying to do things other people will like). As can be seen in Table 1, a total of five studies could be identified that examined the link between affiliative obedience and internalizing problems in Latinx youth. Three of these studies found that affiliative obedience was protective against depressive symptoms in Latinx youth (Polo, 2002; Polo & Lopez, 2009; Cupito et al., 2015).

Martinez and colleagues (2012) found the opposite trend when examining anxiety as the mental health outcome indicator in that endorsement of this cultural value was linked to higher reports of anxiety. Similar to the *respeto* – youth mental health research findings, the findings on affiliative obedience-youth mental health tend to be more mixed, albeit the studies examining affiliative obedience are more limited in numbers compared to the attention the familism literature has received.

### **Cultural Values and Youth Externalizing Problems**

**Familism.** In a recent overview of the familism literature, Smola and Fuligni (2024) identified and highlighted the protective role that youth familism has had on externalizing problems in Latinx youth. They highlighted key studies that found that higher familism in Latinx youth was linked to lower associations with deviant peers (i.e., peers engaging in defiant aggressive and antisocial behaviors), lower externalizing problems (Germán et al., 2009; Roosa et al., 2011) and lower engagement in risky behaviors (e.g., physical fights, skipping school) (Wheeler et al., 2017; Telzer et al., 2014). Further, this protective effect of familism has been identified in Latinx adolescents when examining an array of externalizing problems such as aggressive behavior, conduct problems, and rule breaking (Marsiglia et al., 2009). Similar to the general findings of the protective effects of youth familism on internalizing problems, the research base examining the connection between familism and externalizing problems in Latinx youth tend to lend support to the general finding that youth familism is a protective factor against externalizing problems.

Research has also examined the relation between parent report of familism on externalizing problems in Latinx youth. First, a study with Latinx children ( $M_{\text{age}} = 9.2$ ) of Puerto Rican backgrounds found that parent reports of familism was protective against antisocial

behaviors in Latinx girls (Morcillo et al., 2011). Furthermore, paternal attitudinal familism has been found to be protective against Latinx youth engagement with deviant peers (Delgado et al., 2011; Germán et al., 2009). And in a study with 7<sup>th</sup> grade Latinx students and their parents, higher maternal reports of familism were associated with lower levels of externalizing problems (e.g., aggressive behaviors) (Germán et al., 2009). Similar to the findings of parent report of familism on youth internalizing problems, the overall findings of parent report of familism on youth externalizing problems follow the same protective pattern where higher reports of this heritage cultural value has been found to be linked to lower levels of youth mental health problems.

In the meta-analysis conducted by Cahill and colleagues (2021), the effects of familism on externalizing problems in Latinx youth were examined in 21 independent studies. Results from this meta-analysis revealed a significant, negative effect of familism on externalizing problems, pointing to the protective effect of familism on externalizing problems. Importantly, however, and as noted above, this meta-analysis did not provide information on the differentiation between familism reporter (i.e., parent versus child) making it difficult to conclude whether different perspectives on cultural values impact youth externalizing problems differently depending on the reporter of the heritage cultural value.

**Respeto.** *Respeto* in Latinx youth has also been examined in connection to externalizing problems. First, in a sample of 6<sup>th</sup> grade Latinx youth in Southern California, researchers found that youth *respeto* for adults was associated with lower risk of lifetime smoking in both cross-sectional and longitudinal analysis (Johnson et al., 2006). Similarly, Ma and colleagues (2017) found that as Latinx adolescents endorsed greater levels of *respeto* towards adults and authority figures, this was significantly associated with lower reported levels of substance use. This

protective finding of *respeto* on substance use in Latinx youth, however, has not been a consistent finding. For instance, a study assessing the links between acculturation, cultural values and substance use in a sample of Latinx middle school students, found no direct, significant association between *respeto* and substance use (Gil et al., 2000).

The literature on *respeto* and mental health in Latinx youth has also been explored by examining parent report of this heritage cultural value. In their study with Mexican and Dominican-origin pre-kindergarten and kindergarten school children, researchers assessed for mothers' report of behavioral manifestations of *respeto* (e.g., "I tell my child to defer to adult wishes") and emotional functioning in their children (Calzada et al., 2012). Results from this study found a positive and significant association between mothers' reported levels of *respeto* and externalizing problems this sample of Latinx pre-school children. Relative to the extensive research base of familism and mental health in Latinx youth, the scholarly work investigating *respeto* is more limited. Unlike the protective familism-youth mental health general findings, the literature on *respeto* is more mixed with some studies highlighting this cultural value as protective (Johnson et al., 2006; Ma et al., 2017) while others (Calzada et al., 2012) highlighting its link to higher externalizing problems in Latinx youth.

**Affiliative Obedience.** Similar to the limited research on *respeto*, significantly less research has explored the link between affiliative obedience and externalizing problems. As can be seen in Table 1, only two cross-sectional studies were identified where this association was examined. First, Polo (2002) conducted a study with 163 Mexican American families and found that higher youth affiliative obedience was strongly and significantly associated with lower levels of externalizing problems (e.g., aggressive behaviors), lower misconduct, and lower risky behaviors. More recently, Martinez and Polo (2018), drawing from a large school-based sample

of Latinx youth from Massachusetts, California, and Illinois, also found that higher endorsement of youth affiliative obedience was associated with lower externalizing problems. The research area linking affiliative obedience and youth externalizing behaviors is limited but available evidence suggests that youth affiliative obedience plays a protective role against externalizing problems in Latinx youth.

### **Research Gaps in Affiliative Obedience– Mental Health Link**

As shown in Table 1, only a small number of studies have examined the relation between parent and/or child affiliative obedience and youth mental health problems. Furthermore, this literature is limited by several design shortcomings. Although a variety of mental health outcomes (e.g., broadband internalizing and externalizing problems, depressive symptoms, anxiety, aggression) have been examined in relation to affiliative obedience in Latinx families, the majority of the studies have only included youth reports of cultural values. Given the characteristics of respect and deference to adults/authority figures in affiliative obedience, it is undoubtedly the case that parents play a major role in transmitting this cultural value to their children. Without examining parent report of affiliative obedience, a significant piece of the story is missed, and findings linked to youth mental health are limited. Only Polo's (2002) study included both internalizing and externalizing problems in the same study, and thus limiting our understanding of the impact that affiliative obedience has on different manifestations of mental health problems in youth. Lastly, none of the studies identified employed a longitudinal design to track changes in youth mental health across time. This gap in the literature leaves the field with the question of the impact that cultural values have on youth mental health outcomes across time.

### **Acculturation Gap Distress (AGD-E) Model - Expanded**

Acculturation can be defined as a multidimensional process of cultural change that occurs when two or more cultural groups interact and includes a multitude of domains such as practices, beliefs, media, language, identity, and cultural values (Telzer, 2010). It has been well-documented that families of immigrant backgrounds undergo an array of acculturation processes as they adapt to a new, mainstream culture (Portes & Rumbaut, 2006). Theoretical frameworks have been put forth to empirically examine the acculturation process in families from minoritized backgrounds. One prominent theory is the acculturation gap distress (AGD) model which posits that, among immigrant families, children acculturate to the mainstream culture (i.e., U.S.) at quicker rates than their parents (Szapocznik & Kurtines, 1993). Vastly based on clinical work with Latinx families from Cuban backgrounds, the AGD model put forth that acculturation-based differences, or acculturation mismatches, between parents and children leads to family conflict and ultimately to youth maladjustment (Szapocznik & Kurtines, 1993). Although theoretically logical, empirical support for the AGD model is limited and inconclusive.

Telzer (2010) conducted a review of studies that empirically tested the AGD model with families of minoritized backgrounds. One of Telzer's notable claims from this review is that acculturation/cultural mismatches between parents and children are more complex than first proposed by the original formulation of the AGD model. Whereas Szapocznik and Kurtines (1993) proposed a unidimensional approach to the acculturation process (i.e., children acculturating to U.S. culture quicker than parents), a review of the literature revealed a bidimensional process in immigrant families' experiences with heritage and mainstream acculturation processes (Berry, 2006). These findings led to the formation of the Acculturation Gap Distress – Expanded (AGD-E) model. In this bidimensional approach, a variety of parent-child cultural gaps can emerge. The four different types of gaps include: youth more acculturated



than the parent in the mainstream culture (gap 1: mainstream cultural gap higher), youth less acculturated than the parent in the mainstream culture (gap 2: mainstream cultural gap lower), youth more acculturated than the parent in the heritage culture (gap 3: heritage cultural gap higher), and youth less acculturated than the parent in the heritage culture (gap 4: heritage cultural gap lower) (Telzer, 2010). Affiliative obedience is considered a heritage cultural value in Latinx families and hence, research findings presented in the following sections will focus on gaps 3 and 4 of the AGD-E model.

In a meta-analysis examining studies that tested components of the AGD-E model, Lui (2015) conducted a review of 62 studies and results showed significant associations between parent-child acculturation mismatches and youth mental health outcomes. Of these studies, only seven studies operationalized acculturation mismatches as differences in cultural values between parents and their children. Across these seven studies, six found support for the link between parent-child cultural value mismatches and negative mental health outcomes in youth (Phinney & Ong, 2002; Juang et al., 2007; Céspedes, & Huey, 2008; Hwang & Wood, 2009; Hwang et al., 2010; Toro, 2011). Relevant to the current investigation of heritage cultural gaps, five of the six studies found evidence in linking parent-child heritage cultural value mismatches (e.g., traditional gender role beliefs, familism, respect, parental control, family obligations) to increases in internalizing problems such as depression (Juang et al., 2007; Céspedes, & Huey, 2008; Hwang & Wood, 2009; Hwang et al., 2010). The remaining studies found that parents and youth's heritage cultural value mismatches were linked to lower reports of life satisfaction (Phinney & Ong, 2002) and physical aggression (Toro, 2011). In the following section, additional studies that have examined parent-child heritage culture and links to youth mental health will be highlighted.

## **Parent-Child Heritage Cultural Mismatches and Latinx Child Mental Health**

**Internalizing.** First, Stein and Polo (2014) conducted a research study with Latinx parent-child dyads and examined their reports of affiliative obedience and associations to youth mental health. Results from this study showed that children endorsed a higher number of depressive symptoms among parent-child dyads characterized by parents endorsing greater levels of affiliative obedience when compared to their children. Other studies, however, have not found parent-child heritage cultural value mismatches to be linked to youth internalizing problems. In a study with Latinx adolescent females, researchers found that parent-youth heritage cultural value mismatches of familism were not associated with internalizing problems (Baumann et al., 2010). Similarly, other studies have not found direct effects of parent-youth heritage cultural value mismatches on youth internalizing problems (Schwartz et al., 2016; Telzer et al., 2016). Although findings support the claim that parent-child heritage cultural values mismatches are associated with higher youth internalizing problems, some studies have not found that effect, calling for a closer examination of this relation.

**Externalizing:** Within the externalizing problems domain, research has found that heritage cultural values (e.g., familism, family obligation, respect) mismatches between parents and their children, with the former endorsing higher levels than their child, has been linked to higher youth externalizing problems (e.g., rule breaking & aggressive behaviors) (Baumann et al., 2010; Telzer et al., 2016; Toro & Nieri, 2018). Other studies have found a direct effect of parent-child collectivistic values on higher rates of youth binge drinking (Schwartz et al., 2016). In another study conducted with Mexican families, researchers assessed for parent-youth cultural value mismatches and links to family processes and youth internalizing and externalizing problems across time (5<sup>th</sup> grade – 10<sup>th</sup> grade) (Gonzales et al., 2018). This study examined

whether profiles characterized by widening heritage cultural value gaps between parents and youth would be linked to increased internalizing and externalizing problems in youth at the 12<sup>th</sup> grade (Gonzales et al., 2018). Compared to all other classes combined (i.e., classes not characterized by youth decreasing in heritage cultural values), mother-daughter profiles characterized by youth showing slight to moderate declines in Mexican cultural values (e.g., familism, respect, obligation, religiosity), experienced greater levels of parent-youth conflict, and in turn greater increases in internalizing and externalizing problems (Gonzales et al., 2018).

Gonzales and colleagues' (2018) study provided rich information in regard to parent-child heritage cultural gaps and links to family conflict and youth psychological adjustment across time. The use of a person-centered methodological approach (i.e., latent class analysis) allowed for a closer examination of mother- and father-youth cultural gaps and impacts on internalizing and externalizing problems in a sample of Latinx youth. However, some limitations are worth noting. First, by combining all other mother-youth classes into one, it is difficult to delineate the impacts that unique cultural gaps identified in the AGD-E model have on family and youth functioning. Further, the lack of specifically identifying which heritage cultural values (i.e., familism, respect, obligation, religiosity) increased/decreased across time make it difficult to ascertain which particular domain is most impactful to youth mental health outcomes.

### **Parent-Child Heritage Cultural Mismatches and Latinx Family Domains**

In addition to the investigation of parent-child heritage cultural mismatches on youth mental health in Latinx families, studies have examined impacts of these mismatches on other family-level domains. In their study with Latinx adolescents and their parents, Schwartz and colleagues (2016) found that mismatches (i.e., youth reporting lower than their parents) in parent-child heritage collectivistic values were associated with lower adolescent reports of

family functioning (i.e., parent involvement, positive parenting, parent-adolescent communication, family cohesion). Similar findings were reported by Telzer and colleagues (2016) where a mismatch (youth reporting less than parents) in family obligation was linked to lower levels of family support in a sample of 9<sup>th</sup> and 10<sup>th</sup> grade Mexican adolescents and their parents. Baumann and colleagues (2010) found that parent-daughter mismatches in familism, where the former reported higher values, were linked to lower levels of mutuality, or how attuned mothers and daughters were with each other.

As described in this section, there has been empirical work examining the connection between parent-child heritage cultural mismatches and a variety of family-level variables (e.g., family functioning, family conflict, cohesion, communication, etc.). These critical domains align with the formulation of the AGD and AGD-E model where parent-child cultural mismatches would be linked to negative family dynamics. Findings from the literature have indeed found support for the parent-child heritage mismatch and negative family dynamic outcomes in the AGD-E model. Although the aforementioned family-level variables have provided considerable information on the impact of parent-child heritage culture mismatches on family dynamics, no study has examined the effects of parent-child heritage cultural mismatches on two equally important variables in the study of culture and youth mental health in Latinx families: parental depression and youth acculturative stress.

**Parental Depression.** Similar to the alarming rates of depression in Latinx youth, Latinx parents have been identified as having elevated rates of mental health problems. National data using the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III) found that in a sample of more than 2,700 Latinx parents, 14% had met diagnostic criteria for a major depressive disorder using fully structured diagnostic interviews to assess mental health

disorders using the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, DSM-5, (Grant et al., 2015). In this sample of Latinx parents, it was found that those who were born outside of the U.S. had a significantly lower prevalence (29%) of mental health disorders relative to those U.S.-born (51%). This finding is consistent with other national studies which have found that Latinx individuals born outside of the U.S. present with better mental health outcomes compared to U.S.-born Latinxs (Alegría et al., 2008). These findings suggest that there is a protective context in their country of origin that may serve Latinx parents well upon immigrating to the U.S. One of those potential protective factors is values instilled from their country of origin (i.e., heritage cultural values). Compared to the literature on Latinx youth cultural values and their mental health, however, research on parent-child heritage cultural values and mental health among Latinx parents is limited. There is a significant gap in this area of research and to the best of our knowledge, this will be the first study to examine parent-child heritage cultural values and links to parental depression in a sample with Latinx youth and their parents.

**Youth Acculturative Stress.** A substantial body of literature suggests that acculturative stress is a strong predictor of mental health problems (e.g., depression and anxiety) in Latinx youth (Cruz et al., 2019; Sirin et al., 2013; Soares-Morales & Lopez, 2009). Given the nature of some heritage cultural values and close ties to family unity, heritage cultural values may buffer against risk for mental health problems in Latinx youth. Limited research, however, has directly examined the links between youth acculturative stress and cultural values in Latinx families, and particularly among Latinx youth. In studies with Latinx adolescents, higher endorsement of familism has been found to be associated with lower levels of acculturative stress (Buchanan & Smokowski, 2009; Gil et al., 2000). This relation, however, has not been consistently found in the literature. For instance, a study with Latinx high school students found no association

between their reports of attitudinal familism and acculturative stress (Piña-Watson et al., 2013). These discrepant findings call for a closer examination between heritage cultural values and youth acculturative stress by employing a dyadic (i.e., parent and child reports) approach to best understand the link between cultural values and Latinx youths' experiences of acculturative stress.

### **Research Gaps and Methodological Limitations**

Research that has examined the link between cultural values and youth mental health has produced mixed findings. While some research has identified affiliative obedience as being protective against youth mental health distress, this has not been a ubiquitous finding. Very few research studies (see Table 1) have directly examined the link between affiliative obedience and mental health in Latinx youth. Given the close tie to parental cultural values, research has been conducted to examine differences in cultural values between parents and their children and their implications to children's well-being. The AGD model has been put forth as one explanation behind the degree of cultural differences between parents and children and their links to family conflict and ultimately youth adjustment (Szapocznik & Kurtines, 1993).

A review of the literature testing the AGD model, however, has revealed limited support for the original formulation of this model (Telzer, 2010; Lui, 2015). A variety of explanations behind the discrepant findings in the link between cultural values and youth mental health have been proposed. First, one area that has been identified as playing a role in the lack of uniform findings in the realm of cultural values and youth mental health is *real* versus *perceived* cultural value mismatches (Telzer, 2010). In essence, this refers to solely relying on one reporter (i.e., perceived gaps) when reporting on cultural variables for multiple family members (e.g., self and parent). This raises significant concerns when examining the relation between cultural

mismatches and any youth outcome as one cannot be certain whether a cultural mismatch is truly present or just perceived by one reporter. It is very possible that youth or their parents under/overestimate the other's level of cultural values leading to a potential inaccurate portrayal of a cultural value mismatch between the two. To address this limitation, the current study included multiple reporters (i.e., parents and their children) of their own cultural values to reduce bias in this area.

Table 2 summarizes the literature and studies that have included Latinx samples with parent and child-reported cultural values and links to mental health problems. One major limitation in the literature examining parent-child cultural mismatches and youth mental health is the methodological computations of these mismatches (see Table 2). One of the most common ways that researchers have measured and calculated cultural mismatches in parent-child dyads is through the use of a difference score. The method of difference scores entails subtracting one reporter's score on a given measure from the other reporter's score on that same measure. A variety of issues are worth noting when using this method to compute cultural mismatches between parents and their children. First, difference scores allow for magnitude of effects (e.g., small, medium, large differences) but don't allow for a clear examination of the direction of any given cultural mismatch (Lui, 2015). Secondly, using difference scores to calculate cultural mismatches between parents and youth does not account for overall mean levels of reporters' cultural endorsements. As a result, this creates doubt in whether a significant cultural mismatch is present or whether it is either children's or parents' overall low/high levels of cultural value endorsement driving a significant mismatch-family functioning-mental health finding. To address this methodological limitation, the current study employed a person-centered approach,

latent profile analysis (LPA), to assess for parent-child levels of (mis)match cultural value endorsement.

As acculturation and acculturation mismatches are comprised of multiple domains (e.g., language, beliefs, behaviors, values), the literature has not been consistent in their definition of culture and cultural mismatches between parents and children. Studies have resorted to various measurements of acculturation in Latinx families ranging from measures that assess culture as a global domain (i.e., mainstream versus heritage culture involvement), single domain (e.g., language) or multiple domains (e.g., language, behaviors, values). Specifically, studies examining parent-child cultural value (mis)matches in Latinx families have resorted to global measures of culture (i.e., acculturation to mainstream vs. heritage culture) or multiple domains of culture (e.g., language, media use, behaviors, values). The current research focused on one specific domain of culture (heritage cultural values) in Latinx parent-child dyads to help elucidate the unique relation between affiliative obedience and youth/parental mental health and youth acculturative stress. Of the seven studies in Table 2 that examined parent-child cultural value mismatches and links to child mental health, the majority of the studies employed a cross-sectional design and thus limiting our understanding of the potential impact that parent-child cultural value mis(matches) have on changes in child mental health across time. Hence, the current study employed a longitudinal design to address this gap in the literature.

Lui's (2015) meta-analysis provided some support for the AGD-E model and found that mismatches in acculturation (e.g., cultural values) in parents and their children were significantly related to intergenerational cultural conflict and ultimately negative mental health (i.e., internalizing and externalizing problems) outcomes for youth. The AGD-E model, and in particular the third and fourth gap (i.e., heritage cultural gap higher/lower), has been met with



more empirical support when compared to the original formulation of the model. However, there are some gaps in the literature that have used the AGD-E model as a guiding framework that are worth noting. First, more than half of the studies resorted to the method of difference scores to calculate the parent-child cultural mismatch which presents serious interpretability challenges (e.g., direction of the cultural gap). Additionally, studies that conceptualized cultural values as a measure of general cultural value mismatches between parents and children limit our understanding of which specific cultural value(s) impact youth internalizing and/or externalizing problems.

The AGD-E model rests on the notion that mismatches in acculturation between parents and their children will lead to youth maladjustment. This conceptualization of the acculturation process on Latinx families overlooks the potential positive benefits that a match in culture in parents and children have on Latinx families' social emotional wellbeing. To the best of our knowledge, no studies have tested the AGD-E model examining parental mental health as a distal outcome in the relation between parent-child cultural value mis(matches) and mental health in Latinx parents. Furthermore, the AGD-E model will benefit from including contextual factors (e.g., youth acculturative stress) closely associated with cultural values in Latinx families. This study aims to fill in these gaps.

#### Aims and Hypotheses

This study aims to:

1. Derive parent-child profiles defined by cultural values from parent and child self-reports of affiliative obedience.
  - a. Although no prediction on the specific number of profiles is made, it is expected that more than one profile will emerge from the data and at least one of the

profiles will be characterized by differences in affiliative obedience between parents and children.

2. Examine differences in youth mental health problems between the derived affiliative obedience parent-child profiles.
  - a. Test the third and fourth gaps (heritage cultural gaps) of the AGD-E model (Telzer, 2010) model by examining whether affiliative obedience parent-child profiles predict child internalizing and externalizing problems. It is hypothesized that children in parent-child dyads characterized by mismatches in affiliative obedience endorsement will report higher mental health problems. In cross-sectional analyses, it is expected that children in dyads characterized by parents endorsing higher levels of affiliative obedience than their children will report the highest child internalizing and externalizing problems compared to all other profiles. Longitudinally, it is hypothesized that parent-child profiles characterized by mismatches in endorsement of affiliative obedience (i.e., children endorsing lower levels compared to their parents) will predict increases in internalizing and externalizing problems in children across two time points.
  - b. Test whether parent-child dyads who are matched and both endorse high levels of affiliative obedience report lower levels of mental health problems. It is hypothesized that significantly lower levels of youth internalizing and youth externalizing problems will be found among those in profiles characterized by both youth and parent reporting higher levels of affiliative obedience both cross-sectionally and longitudinally.

3. Examine differences in parental depression and youth acculturative stress between the derived affiliative obedience parent-child profiles.
  - a. Test whether heritage cultural mismatches predict higher levels of parental depression and youth acculturative stress. Specifically, it is hypothesized that significantly higher parental depression and youth acculturative stress will be found among those who are in parent-child profiles characterized by youth reporting lower levels of affiliative obedience than their parents.
  - b. Test whether parent-child dyads who are matched and both endorse high levels of affiliative obedience report lower levels of parental depression and youth acculturative stress. In particular, it is hypothesized that significantly lower mean levels of parental depression and youth acculturative stress will be found in profiles characterized by both children and parents reporting high levels of affiliative obedience.

## **Method**

### **Participants**

This study consisted of 295 Latinx parent-child dyads. Children sampled included slightly more females ( $n = 163$ ; 55.3%) than males ( $n = 132$ ; 44.7%), were of ages 10-14 ( $M_{age} = 11.5$ ,  $SD = 0.95$ ), and were in the 5<sup>th</sup> ( $n = 67$ ; 22.7%), 6<sup>th</sup> ( $n = 112$ ; 38.0%), and 7<sup>th</sup> ( $n = 116$ ; 39.3%) grade. The ethnic breakdown of children in this study included Latinx only ( $n = 265$ ; 89.8%), mixed Latinx and European American only ( $n = 16$ ; 5.4%), mixed Latinx and African American only ( $n = 9$ ; 3.1%), and Latinx mixed with 1 or more other ethnic groups ( $n = 5$ ; 1.7%). Children were of Mexican American ( $n = 207$ ; 70.2%), Puerto Rican ( $n = 32$ ; 10.8%), Central or South American ( $n = 17$ ; 5.8%), mixed Mexican and Puerto Rican ( $n = 17$ ; 5.8%),

mixed Mexican and Central or South American ( $n = 11$ ; 3.7%), and other Latinx backgrounds ( $n = 11$ ; 3.6%). Most of the children in the study were second generation (child U.S.-born, either or both parents foreign-born) ( $n = 223$ ; 75.6%), but third generation (child U.S.-born, both parents U.S.-born, one or more grandparents foreign-born) ( $n = 30$ ; 10.2%), first generation (child foreign-born) ( $n = 22$ ; 7.5%), and those of non-immigrant background ( $n = 20$ ; 6.8%) were also represented in the sample.

The majority of the children's parents<sup>1</sup> interviewed were biological mothers ( $n = 261$ ; 88.5%). The remaining parents included the children's biological father ( $n = 29$ ; 9.8%), grandmother ( $n = 4$ ; 1.2%), and stepfather ( $n = 1$ ; 0.3%). Parents were predominately of low socio-economic backgrounds with reported household incomes of less than \$40,000 a year (81%). Some parents reported annual household income levels of \$40,000-\$75,000 (13.5%), while a few reported annual household incomes of over \$75,000 (4.1%). Parental education was coded as low versus high education for both mothers and fathers in this sample. Parents who completed a GED/high school diploma or below (e.g., 8<sup>th</sup> grade or less) were coded as low education. Parents who obtained more than a GED/high school diploma (e.g., community college, university graduate) were coded as high education. The majority of mothers in this sample were identified as low educational attainment ( $n = 209$ ; 70.8%) and the remainder as high educational attainment ( $n = 86$ ; 29.2%). With respect to paternal education, nine out of the 295 cases missing data on educational attainment. Based upon available data, the majority of fathers were identified as low educational attainment ( $n = 230$ ; 80%) and the remainder as high educational attainment ( $n = 56$ ; 20%).

## **Measures**

**Affiliative Obedience.** Parents and children completed an abbreviated version of the *Affiliative Obedience vs Self-Affirmation scale* (Diaz-Guerrero, 1994), which assesses the degree to which a person believes adults and parents should be respected and not questioned. The abbreviated measure included 10 items, which were derived from a factor-analysis of the original 18-item scale. Both parents and children responded to items such as, “A person must always respect his or her parents” using a scale from 1 (*Strongly Agree*) to 5 (*Strongly Disagree*). Scores were reverse-coded so that higher scores reflected higher affiliative obedience. High internal consistency was found in this sample for the affiliative obedience scale, which was collected from youth during a classroom survey (Time 1;  $\alpha = .84$ ), and from parents during a one-on-one interview (Time 2;  $\alpha = .85$ ).

**Youth Self Report – Internalizing Problems.** Youth completed the *Youth Self Report* (YSR; Achenbach & Rescorla, 2001) during the classroom surveys at Time 1 and then again, one year later (Time 3) to assess for baseline and changes in problems associated with anxiety, depression, and somatic complaints. The YSR internalizing problems broadband scale includes 31 items scored on a three-point scale (0 = *not true*, 1 = *somewhat*, 2 = *often true*). Sample items include, “I am too fearful or anxious” and “I am unhappy, sad, or depressed.” At Time 1, high internal consistency ( $\alpha = .89$ ) was found for the internalizing problems broadband scale. A year later (Time 3), youth completed the same internalizing problems broadband scale and internal consistency was also high ( $\alpha = .91$ ).

**Youth Self Report – Externalizing Problems.** Youth completed the *Youth Self Report* (YSR; Achenbach & Rescorla, 2001) during the classroom surveys at Time 1 and then again, a year later (Time 3) in order to assess for baseline and changes in problems associated with rule-breaking and aggressive behavior. The YSR externalizing problems broadband scale includes 32

items scored on a three-point scale (0 = *not true*, 1 = *somewhat*, 2 = *often true*). Sample items include, “I break rules at home, school, or elsewhere” and “I get in many fights.” At Time 1, high internal consistency ( $\alpha = .86$ ) was found for the externalizing problems broadband scale. Youth completed this same measure a year later (Time 3) and high internal consistency ( $\alpha = .89$ ) was found.

**Acculturative Stress.** Youth completed the nine item *Acculturative Stress Scale* (Vega, 1993) during their one-on-one interview (Time 2) which measures stress associated with cultural conflict, language difficulties, and discrimination. A sample item includes, “How often are you treated unfairly because you are of your ethnic background?” and items were rated using a scale from 1 (*not at all*) to 4 (*a lot*). Internal consistency ( $\alpha = .72$ ) was found to be adequate for this measure for this sample.

**Parental Depression.** Parents completed the *Center for Epidemiological Studies – Depression scale* (CES-D; Radloff, 1977) during their individual interviews (Time 2) to assess for parental depression. The CES-D is a well-validated 20-item self-report of experienced depressive symptoms a week prior to responding to survey items. Parents rated items (e.g., “I felt lonely”) on a Likert-type scale from 0 (*rarely or none of the time, less than one day*) to 3 (*most or all of the time, 5-7 days*). High internal consistency ( $\alpha = .87$ ) for this measure was found for this sample.

## **Procedure**

The study procedures in this study were reviewed and approved by DePaul University’s Institutional Review Board (IRB). The data used in this study were drawn from a larger study which had, as one of its aims, to deliver a school-based intervention to youth identified as being at-risk for depression. Participating schools were part of the Chicago Public Schools (CPS)

district and had a significant enrollment of Latinx youth. Students were recruited from eight public schools and all schools were high need based on the percentage of economically disadvantaged students enrolled, which ranged from 77.5 to 97.2 ( $M = 92.0$ ,  $SD = 6.3$ ). The percentage of Latinx students at the schools ranged from 72.3 to 94.9 ( $M = 84.8$ ,  $SD = 8.0$ ). The data from children that were examined for this study were collected from two classroom surveys (Time 1 and Time 3) collected approximately one year apart as well as from one-on-one interviews (Time 2). Parent data were collected from individual parent interviews (Time 2). Parental permission and student assent were obtained for the classroom surveys. Parents and children also separately consented to the individual parent and child interviews. For the classroom surveys, DePaul staff presented study information (e.g., survey information) and distributed parental consent forms for students to take home to their parents. Parents were asked to fill the consent packets out and have their children return the completed consent forms back to school. Students received a pen and pencil set as a thank you for returning the completed consent form. DePaul staff reviewed the signed consent forms and coordinated with CPS staff to organize a school visit to complete the classroom surveys with students who assented and whose parents had consented to their child's participation. Administration of the classroom surveys consisted of DePaul staff distributing paper surveys to students and reading the survey questions aloud as students filled out their surveys. For each classroom that participated in this 45-minute survey, students were given raffle tickets for small prizes for one of every eight students.

Upon completion of the classroom surveys with students, parents and their children were invited to participate in an individual interview. These interviews lasted approximately 90 minutes and were conducted at an agreed upon time between DePaul staff and families. Prior to beginning the individual interview, DePaul staff read and reviewed the parental consent and

youth assent form with parents and children, respectively. As a thank you, youth received a \$25 gift card and parents \$30 in cash for completing their individual interviews. The study oversampled students who were at risk for depression, in part because the goal was to identify those who may have chronic depression and may be good candidates for a school-based coping skills program.

## **Results**

### **Preliminary Analyses**

Table 3 shows the correlations among key study and demographic variables. Significant and positive correlations were found between youth internalizing and externalizing problems at both time points. Higher youth-reported affiliative obedience was associated with lower youth internalizing and externalizing problems at Time 1. Similarly, higher youth reports of affiliative obedience were significantly associated with lower externalizing problems at Time 3. There were no significant correlations between parent report of affiliative obedience and any of the key study variables. Similarly, no significant correlations between parental depression and any of the key study variables were found. Higher youth reports of acculturative stress were significantly correlated with higher Time 1 and Time 3 youth internalizing and externalizing problems. Significant positive correlations were found between maternal and paternal education. Both maternal and paternal education were also significantly positively correlated with youth nativity. Those of U.S.-born backgrounds reported higher education relative to those who were born outside of the U.S. Older youth reported higher Time 1 externalizing problems and females, relative to males, reported higher Time 1 internalizing problems. Similarly, females, relative to males, reported higher internalizing problems at Time 3. Older youth reported higher internalizing and externalizing problems at Time 3.



Using the Achenbach System of Empirically Based Assessment, age and gender norms were used to calculate T-scores and percentile ranks for each youth's broadband internalizing and externalizing scale score on the YSR measure. T-scores between 65-69 are considered as borderline risk and T-scores of 70 or higher are classified as falling within the clinical range (Achenbach & Rescorla, 2001). At Time 1, slightly more than half of the youth's internalizing problems T-scores fell within normal limits ( $n = 164$ ; 55.6%). The remaining youth's Time 1 internalizing scores fell within the borderline ( $n = 62$ ; 21.0%) and clinical ( $n = 69$ ; 23.4%) range. At Time 1, the majority of youth's externalizing problems T-scores fell within normal limits ( $n = 253$ ; 85.8%). The remainder of youth's Time 1 externalizing problems fell within the borderline ( $n = 25$ ; 8.5%) and clinical ( $n = 17$ ; 5.8%) range. At Time 3, 27 cases had missing data on the YSR measure and a total of 268 cases were analyzed for YSR borderline and clinical cutoff scores. At Time 3, the majority of youth's internalizing scores fell within normal limits ( $n = 214$ ; 79.9%). Further, roughly one in five youth had internalizing problems scores that fell within the borderline ( $n = 26$ ; 9.7%) and clinical ( $n = 28$ ; 10.4%) range at Time 3. Similarly, in Time 3, almost nine in ten youth had externalizing scores that fell within normal limits ( $n = 241$ ; 89.9%), while the remaining had externalizing scores that fell within the borderline ( $n = 14$ ; 5.2%) and clinical ( $n = 13$ ; 4.9%) range.

A closer examination of parental depressive symptoms was conducted to determine risk levels for depression based upon parents' sum scores on the 20-item CESD measure. Response options on the CESD measure ranged from 0-3 with the highest possible total score of 60. In this measure, higher scores indicated higher level of parental depressive symptoms. Based on the recommended cutoff score of 16 or greater to indicate at-risk levels for depression (Lewinsohn et al., 1997), approximately one in five parents ( $n = 58$ ; 19.7%) in this sample met or surpassed the

cutoff score for depression risk. The remainder of parents' scores fell within normal limits ( $n = 237$ ; 80.3%).

### **Latent Profile Analysis**

This study used exploratory latent profile analysis (LPA) to identify profiles within this sample using Mplus version 8.9 (Muthén & Muthén, 1998-2023). LPA is the same as Latent Class Analysis (LCA) with the exception of using continuous, rather than categorical, indicators. Incorporating this person-centered approach allowed for a closer examination of unobservable groups that shared similarities in relation to their measure responses. Additionally, this statistical approach allowed for the inclusion of multiple reporters (i.e., parents and children) and used their responses as indicators in the LPA. Parent and children's responses to the affiliative obedience items were used as indicators in the LPA. A total of 20 indicators were used, ten from children's self-report and ten from parent report. Respondents were grouped together based on their self-reports of affiliative obedience and classified into distinct, mutually exclusive profiles.

The LPA results were finalized based upon an iterative process where model fit was evaluated using a variety of statistical indicators. The analysis employed the Bayesian Information Criterion (BIC), sample-size adjusted BIC (ssaBIC), and the Akaike Information Criterion (AIC) to evaluate model fit where lower values are considered to signify better overall model fit. A likelihood ratio test, Lo-Mendell Ruben Test (LMRT), was also used to assess for model fit as it provided a statistical comparison to models with fewer profiles (Lo et al., 2001). Lastly, an entropy index, a measure of how well the model distributed data across profiles was considered in deciding the best-fitting model. Research studies have found that entropy values of 0.80 or higher are typically considered good data classification (Clark & Muthen, 2009).

Table 4 includes the LPA results for the model fit statistics for a 2-, 3-, and 4-profile solution. The combination of statistical indicators and conceptual considerations supported a 3-profile solution as the best-fitting model for the current study. Although statistical indicators (i.e., AIC, BIC, ssaBIC) reduced in value through the iterative process of evaluating model fit with two, three and four profiles, the LMRT did not support a 4-profile ( $p = 0.40$ ) solution as being a statistically significant better model fit compared to a 3-profile ( $p = 0.03$ ) solution. In other words, adding a fourth profile to the model did not provide better model fit as determined by the statistical likelihood ratio test. Furthermore, a 3-profile solution was considered an appropriate model given the pattern of parent-child affiliative obedience responses and differentiation across the profiles.

Figure 1 shows the three distinct, parent-child affiliative obedience profiles defined by respondents' mean values on the affiliative obedience measure, along with a table of the parallel parent-child affiliative obedience indicators. Of the three profiles that emerged from the LPA, two were found to have a mismatch in parent and youth reports of affiliative obedience. These findings supported our hypothesis of identifying at least one profile characterized by differences in affiliative obedience as reported by parents and youth. Specifically, profile 1, labeled as HY\_MP (high youth, moderate parent) ( $n = 74$ ; 25%) includes youth with high levels of affiliative obedience while parents who endorsed moderate levels of the cultural value. Profile 2, labeled as MY\_HP (moderate youth, high parent) ( $n = 70$ ; 24%) shows the opposite trend. In the MY\_HP profile, youth reported moderate levels of affiliative obedience while parents endorsed high levels of affiliative obedience. Profile 3, labeled as HY\_HP (high youth, high parent) ( $n = 151$ ; 51%) is characterized by both parents and youth endorsing high and matching levels of affiliative obedience.

## Demographic Characteristics across Profiles

After having derived the parent-child affiliative obedience profiles, chi-square and ANOVA tests in SPSS V.26.0 were carried out to examine whether there were meaningful demographic differences across profiles. Youth gender, youth nativity, youth ethnicity and parental education were examined as categorical variables using chi-square while age was examined as continuous variable using ANOVA. Youth gender was coded as 1 = male and 2 = female. Youth nativity was coded into three groups: 1<sup>st</sup> = First generation non-U.S.-born; 2<sup>nd</sup> = Second generation, youth U.S.-born, one or both parents non-U.S.-born; 3<sup>rd+</sup> = Third generation plus, youth U.S.-born, both parents U.S.-born, one or more grandparent non-U.S.-born or not of immigrant background. Maternal and paternal education variables were coded as 1 = Low education and 2 = High education.

Table 5 shows demographic characteristics across the derived parent-child affiliative obedience profiles. The HY\_MP ( $n = 74$ ; 25%) and MY\_HP ( $n = 70$ ; 24%) were comparable in sample distribution in that each profile had roughly equal number of parent-youth dyads. The HY\_HP ( $n = 151$ ; 51%) profile had the largest proportion of parent-child dyads and represents the largest profile. Across all profiles, the mean age of youth ranged from 11.4-11.5 and there were no statistical differences in age across profiles,  $F(2, 292) = .47, p = .63$ . Further, there were no statistical differences in the proportion of girls and boys across profiles,  $\chi^2(2, N = 295) = .47, p = .79$ , with all profiles having slightly more girls than boys. Similarly, no statistical differences,  $\chi^2(4, N = 295) = 5.91, p = .21$ , in nativity status across profiles were found. The HY\_MP profile included youth of first-generation backgrounds ( $n = 5$ ; 7%), second generation ( $n = 62$ ; 84%), and third-plus generation ( $n = 7$ ; 9%). The MY\_HP profile included youth of first-generation backgrounds ( $n = 5$ ; 7%), second generation ( $n = 48$ ; 69%), and third plus

generation ( $n = 17$ ; 24%). The HY\_HP profile included youth of first-generation backgrounds ( $n = 12$ ; 8%), second generation ( $n = 113$ ; 75%), and third plus generation ( $n = 26$ ; 17%). Lastly, no statistical differences,  $\chi^2(6, N = 295) = 6.37, p = .38$ , in youth ethnicity were found with the majority of youth identified as Latinx only across profiles: HY\_MP ( $n = 69$ ; 93%), MY\_HP ( $n = 59$ ; 84%), and HY\_HP ( $n = 137$ ; 91%).

With regards to socioeconomic status (SES), the majority of parents across all profiles (HY\_MP;  $n = 55$ ; 74%), (MY\_HP;  $n = 59$ ; 86%), (HY\_HP;  $n = 125$ ; 84%) reported annual household incomes of less than \$40,000. Table 5 also presents the breakdown of parental education levels, low versus high, across the derived parent-child affiliative obedience profiles. There were no statistical differences of maternal,  $\chi^2(2, N = 295) = 2.28, p = .32$ , or paternal  $\chi^2(2, N = 286) = .53, p = .77$ , education across all profiles. The majority of parents were identified as having low education attainment. In profile 1, HY\_MP, the majority of mothers ( $n = 52$ ; 70%) and fathers ( $n = 58$ ; 83%) were coded as low education attainment. A similar trend followed in the remaining profiles. In profile 2, MY\_HP, more than half of the mothers ( $n = 45$ ; 64%) and the majority of fathers ( $n = 53$ ; 78%) were identified as having obtained low educational attainment. Lastly, in profile 3, HY\_HP, the majority of mothers ( $n = 112$ ; 74%) and fathers ( $n = 119$ ; 80%) were identified as having obtained low educational attainment.

### **Covariate Analysis**

Given the significant correlations to this study's outcome variables, youth internalizing and externalizing problems, age and gender were included as part of a covariate analysis to further explore if differences across these variables were present when examining across the derived parent-youth affiliative obedience profiles. Using the recommended BCH approach, covariates were evaluated by regressing parent-child affiliative obedience profiles on age and

gender. As seen in Table 6, using profile 2, MY\_HP, as the reference profile, neither covariate of age nor gender showed significant differences across profiles,  $p > .05$ . In order to fully understand the potential impact of age and gender in the relation between the derived parent-youth affiliative obedience profiles and distal outcomes of this study, age and gender were included as covariates in study analyses<sup>2</sup>.

### **Missing Distal Outcome Data**

A missing data analysis was conducted using SPSS version 26 to inspect whether there were missing data on this study's distal outcome variables (i.e., youth acculturative stress, parental depression, youth internalizing and externalizing problems). Of the 295 cases in the study, a total of 35 (11.9%) participants had at least one missing data point on one of the distal outcome variables. Closer examination revealed missing data in youth acculturative stress ( $n = 8$ ; 2.7%), Time 1 internalizing problems ( $n = 1$ ; 0.3%), Time 1 externalizing problems ( $n = 1$ ; 0.3%), Time 3 internalizing problems ( $n = 27$ ; 9.2%), and Time 3 externalizing problems ( $n = 27$ ; 9.2%). There were no missing data on parental depression across the 295 cases. Missing data were handled using the multiple imputation method. In this method, SPSS outputs various datasets in which the missing values are replaced by plausible estimates given the participants' responses to the measures. For the current analysis, SPSS used the default setting of five imputations to create the imputed data set where pooled averages across all imputed datasets were used to replace the missing values on key distal outcome variables. This imputed dataset was used to examine mean level profile differences on the study's distal outcome variables of interest.

### **Profile Group Differences - Cross Sectional**

In order to test aim 2a and 2b of this study, a mean level profile difference analysis was conducted using the automatic approach of the BCH method (Bakk et al., 2016). This approach allows for the examination of distal outcomes after having derived the profiles and simulation studies have supported the BCH method as outperforming other statistical methods (Asparouhov & Muthén, 2015). In particular, one of the notable strengths of the BCH method is that it allows for the indicators to independently create the formation this study's latent profiles and hard-classifies participants in their respective profiles using weighted multiple group analysis. This approach makes it so other variables of interest (e.g., distal outcomes) do not influence the profiles in regard to shifting participants from one profile to the other.

Table 7 presents the mean values on study variables, along with the multiple group cross-sectional profile difference results from the BCH method, across the derived parent-child affiliative obedience profiles. Descriptively, youth in the MY\_HP profile showed the highest internalizing and externalizing problems when compared to other profiles. As can be seen in Table 7, results from the cross-sectional, multiple group analyses using the BCH approach revealed significant differences between the parent-youth affiliative obedience profiles. A significant difference in internalizing problems was found between the MY\_HP profile  $\chi^2 (2, N = 295) = 4.45, p < 0.05$  and the HY\_HP profile. Significant differences in externalizing problems emerged between the MY\_HP profile and the HY\_MP profile,  $\chi^2 (2, N = 295) = 7.91, p < 0.01$  and between the MY\_HP profile and the HY\_HP profile  $\chi^2 (2, N = 295) = 16.64, p < 0.01$ . Findings from the analysis supported aim 2a of this study as youth in profiles with a cultural value mismatch defined by parents endorsing higher affiliative obedience compared to youth (i.e., MY\_HP) reported higher internalizing and externalizing problems compared to the other two profiles. Furthermore, results from these cross-sectional analyses revealed that the HY\_HP

profile, the profile where parents and youth matched in their high endorsement of affiliative obedience, reported significantly lower internalizing problems,  $\chi^2(2, N = 295) = 4.45, p < 0.05$ , compared to the MY\_HP profile. Relatedly, a significant difference in externalizing problems was found between the HY\_HP profile and the MY\_HP profile  $\chi^2(2, N = 295) = 16.64, p < 0.01$ . This finding provided partial support for hypothesis 2b of this study where it was predicted that youth in profiles characterized by having matched with their parents with regards to high endorsement (i.e., HY\_HP) of heritage cultural values would report the lowest mental health problems compared to all other parent-child affiliative obedience profiles.

As shown in Table 7, multiple group analyses using the BCH approach revealed no significant differences in parental depression  $\chi^2(2, N = 295) = 2.11, p = 0.35$  or youth acculturative stress  $\chi^2(2, N = 295) = 2.67, p = 0.26$  across parent-child affiliative obedience profiles. Parents across the derived parent-child affiliative obedience profiles reported similar levels of depressive symptoms: HY\_MP,  $M = 9.08$ , MY\_HP,  $M = 10.11$ , HY\_HP,  $M = 10.89$ . These findings did not support hypothesis 3a where parents in the MY\_HP profile were predicted to report higher depressive symptoms compared to parents in the other profiles. Further, these results did not support hypothesis 3b where parents in the HY\_HP were expected to report the lowest depressive symptoms compared to parents in other profiles. Similarly, youth across the parent-child affiliative obedience profiles reported similar levels of acculturative stress: HY\_MP,  $M = 1.54$ , MY\_HP,  $M = 1.49$ , HY\_HP,  $M = 1.43$ . As such, these findings did not support hypothesis 3a where youth in the MY\_HP profile were predicted to report higher acculturative stress than youth in other profiles. Further, results from this analysis did not support hypothesis 3b where youth in the HY\_HP profile were predicted to report lower levels of acculturative stress compared to youth in other profiles.



### Profile Group Differences - Longitudinal

Multiple group longitudinal analyses examining differences in internalizing and externalizing problems were conducted using the BCH method (Bakk et al., 2016). Prior to running the analyses, Time 1 youth internalizing and externalizing symptoms were centered as it is a recommended step in regression analyses. This centering also allows for a more interpretable intercept value of Time 3 youth internalizing/externalizing problems. In these longitudinal analyses, Time 1 youth internalizing/externalizing problems were included in each of the two separate analyses when testing longitudinal changes in youth internalizing and externalizing problems. When adding Time 1 mental health problems, the output provides an intercept value, or the means of Time 3 mental health problems adjusting for Time 1 mental health problems. The results presented in the following section are the intercepts/mean values of Time 3 mental health problems. The multigroup longitudinal analyses using the recommended BCH approach revealed whether profile membership predicted changes in mental health problems across two time points (i.e., Time 1 and Time 3).

Controlling for Time 1 youth internalizing problems, no significant differences were found between the HY\_MP ( $M = 13.97$ ,  $SE = 1.01$ ,  $p = 0.37$ ) and MY\_HP ( $M = 15.35$ ,  $SE = 1.14$ ,  $p = 0.37$ ), between HY\_MP ( $M = 13.97$ ,  $SE = 1.01$ ,  $p = 0.75$ ) and HY\_HP ( $M = 14.39$ ,  $SE = 0.78$ ,  $p = 0.75$ ) profiles or between MY\_HP ( $M = 15.35$ ,  $SE = 1.14$ ,  $p = 0.50$ ) and HY\_HP ( $M = 14.39$ ,  $SE = 0.78$ ,  $p = 0.50$ ) in Time 3 internalizing problems. Controlling for Time 1 youth externalizing problems, no significant differences were found between the HY\_MP ( $M = 11.00$ ,  $SE = 0.77$ ,  $p = 0.77$ ) and MY\_HP ( $M = 10.62$ ,  $SE = 1.00$ ,  $p = 0.77$ ), between HY\_MP ( $M = 11.00$ ,  $SE = 0.77$ ,  $p = 0.67$ ) and HY\_HP ( $M = 10.60$ ,  $SE = 0.51$ ,  $p = 0.67$ ) profiles or between MY\_HP ( $M = 10.62$ ,  $SE = 1.00$ ,  $p = 0.98$ ) and HY\_HP ( $M = 10.60$ ,  $SE = 0.51$ ,  $p = 0.98$ ) in Time

3 youth externalizing problems. Taken together, parent-youth affiliative obedience profiles did not predict changes in internalizing or externalizing problems in youth from Time 1 to approximately one year later, Time 3. These results did not support part of hypothesis 2 of the current study where highest increases across time in both internalizing and externalizing problems were expected in profiles characterized by youth endorsing lower levels of affiliative obedience compared to their parents (i.e., MY\_HP profile).

### **Discussion**

Latinx youth are the largest and fastest growing minoritized group in the United States (U.S. Census Bureau, 2022). Among this group, alarmingly disproportionate rates of mental health problems have been documented when compared to youth from other ethnic groups (Alegría et al., 2010). Latinx youth exhibit high rates of both internalizing (e.g., depression and anxiety) and externalizing (e.g., rule-breaking) problems (CDC, 2019). These unsettling data called for the current study to elucidate potential protective factors against these mental health disparities by examining the role of heritage cultural values in Latinx families through a cultural- and dyadic-centered lens. Specifically, the current study incorporated reports from both parents and their children on key study variables and used a cultural, theoretical model to guide this study's research questions.

The first aim of this study was to implement a person-centered approach, latent profile analysis (LPA), to uncover unobservable groups in this study's total sample based upon respondents' reports of affiliative obedience. Results revealed a three-profile solution with varying levels of parent-youth affiliative obedience (mis)matches. This finding supported our first hypothesis in which it was predicted that more than one profile would emerge from the data and that at least one would be characterized by differences in affiliative obedience between

parents and their children. The LPA results showed that half of the total sample in this study had some degree of cultural value mismatch between parents and their children while the other half matched in their high levels of affiliative obedience endorsement. Notably, across all profiles, none of the parents or children in this study, on average, rated affiliative obedience items at or below a score of 2 (*disagree*), indicating that this cultural value seems to be one that is generally endorsed by the Latinx families in this sample. As such, no profile characterized as parents and youth reporting low levels of affiliative obedience (i.e., low youth low parent, LY\_LP) emerged from the LPA. One potential reason behind this finding could be attributed to the high enrollment of Latinx students in the schools represented in this study. As affiliative obedience has been identified as a salient cultural value in Latinx families, youth who are surrounded by peers of the same ethnic background (i.e., Latinx) endorsing similar heritage cultural values may contribute to their own endorsement of this value. Testing the impact of parent-child affiliative obedience patterns in other contexts with other student ethnic backgrounds (e.g., Asian American) could provide insight into how value endorsement may vary depending on context.

Using the advanced methodology and person-centered approach of LPA revealed that approximately 75% of Latinx youth (HY\_MP & HY\_HP) in this sample matched or exceeded their parent's endorsement of affiliative obedience. These results highlight the preservation of this heritage cultural value in this sample of Latinx families. Various studies have discussed the socialization role that parents have on transmitting heritage cultural values to their children (Hughes et al., 2006). For example, in many Latinx families, mothers play a particularly important role in this transmission of cultural values given their critical involvement in caregiving roles and communication with their children (Hossain et al., 2015). In fact, almost

90% of the parents in this study were the youth's biological mother and may help explain the majority of youth's endorsement of affiliative obedience in this sample.

The original formulation of the acculturation gap distress (AGD) model put forth that children of parents from immigrant backgrounds would acculturate to the host culture quicker than their parents, creating an acculturation gap between them, leading to family conflict and ultimately youth maladjustment (Szapocznik & Kurtines, 1993). Empirical tests of the AGD model, however, have revealed minimal evidence to support the original formulation of the AGD model (Telzer 2010; Lui, 2015). Instead, a closer examination of the impact that *heritage* culture has on family dynamics has proven to be an equally, and arguably, more impactful domain to consider given the research findings on the negative impact that gaps in heritage culture between youth and parents have on youth outcomes (Telzer 2010; Lui, 2015). The current research examined the impact of heritage cultural value (mis)matches between Latinx parent-youth dyads on youth mental health using the expanded version of the AGD model as the guiding theoretical model (Telzer, 2010).

Consistent with the AGD-E model, the acculturation process for families of immigrant backgrounds is a multidimensional process that includes not only host culture (i.e., U.S.) domains but also heritage culture domains. This study added evidence for the AGD-E model in that heritage cultural mismatches between parents and youth were linked to mental health problems in this sample of Latinx youth. Specifically, cross-sectional findings revealed that youth in the profile characterized by a cultural value mismatch where parents endorsed more than their children (i.e., MY\_HP) presented with higher internalizing and externalizing problems compared to the profile where parents and children matched in their high endorsement of affiliative obedience (i.e., HY\_HP). This finding is consistent with multiple research studies

which have shown that heritage cultural value mismatches between parents and children, and in particular when the former report higher levels of heritage culture, are linked to youth maladjustment (Lui, 2015).

The largest profile that emerged from the LPA in this study was the one that matched in their high reports of affiliative obedience (i.e., HY\_HP). It was this profile in particular that fared off the best (i.e., lowest reports of mental health problems) relative to the cultural value mismatch profiles. The AGD-E model emphasizes cultural differences in parents and their children leading to youth maladjustment. Results from this study revealed that the profile characterized by a cultural value mismatch wherein youth reported less affiliative obedience than their parents (i.e., MY\_HP) and the one that research has consistently highlighted as being linked to maladaptive outcomes, was the smallest profile with less than 25% of the sample fitting this pattern. Although results provided partial support for the AGD-E model, the largest profile in this study were parents and youth who matched in their high endorsement of affiliative obedience. This finding urges the field to take a strengths-based approach and highlight the benefits of parent-child heritage cultural value concordance on youth mental health. It is a worthwhile effort, then, to begin shifting the focus from cultural mismatches and links to negative outcomes and instead formulate and test models emphasizing cultural *matches* and links to positive outcomes among Latinxs.

Unique to families of immigrant backgrounds, a variety of cultural stressors have been identified as playing a role in their socioemotional wellbeing. When considering Latinx families in particular, issues such as acculturative stress, language barriers, discrimination, and cultural conflicts within families have been linked to Latinx youth mental health problems (McCord et al., 2019; Davis et al., 2016). The third aim of this study attempted to shed light on these

realities. Results showed no meaningful differences across profiles in relation to youth's report of acculturative stress levels. Across profiles, the overall mean score for youth acculturative stress was relatively low and did not relate to profile membership. One potential reason behind this finding could be attributed to the acculturative stress measure used in this study. Although the acculturative stress measure (Vega, 1993) in this study assessed for youth's cultural stress in a variety of domains (e.g., family, school, language, cultural conflicts), the measure did not specifically tap into familial cultural conflicts between parents and children as it relates to differences in cultural value endorsement. Future studies employing a dyadic approach in examining cultural values in Latinx families and links to stressors such as acculturative stress will benefit from further assessing for familial cultural conflict between parents and children to further assess impacts of parent-child heritage cultural values.

The third aim of this study also explored whether there were meaningful differences in parental depression across the derived parent-youth affiliative obedience profiles. Our hypothesis was not supported as no meaningful differences in parental depression were found across profiles and parent-child affiliative obedience profiles were not related to parental depressive symptoms. Similar to the youth acculturative stress findings, parental depression symptoms across parents in this sample were comparable and the majority of parents' scores on the depression measure were below the clinical cutoff for depression risk. The limited research on parental cultural values and parental depression has pointed to other heritage cultural values (e.g., familism) as playing a direct role in parental mental health (Ayón et al., 2010; Calzadas & Sales, 2019). As such, parent-child heritage (mis)matches in other heritage cultural values (i.e., familism, family obligation) that have a stronger emphasis on closeness, contribution, and loyalty to the family may be more closely related to parental health. Furthermore, although the current study adds

significant value to the research base of parent-youth cultural (mis)matches and youth/parental mental health outcomes by including multiple reporters, the majority of the parents represented in this study were the child's biological mother. Future research would benefit from assessing cultural value (mis)matches between children and their fathers to obtain a better sense of whether there are differences in these cultural expectations depending on the parent being included in the analyses and whether or not these (mis)matches impact parental mental health.

Across all profiles, youth internalizing and externalizing problems decreased from Time 1 to approximately one year later, Time 3. These differences, however, were not predicted by the derived parent-child affiliative obedience profiles. The BCH longitudinal analysis revealed no significant mean level differences across profiles and hence no significant changes in internalizing or externalizing problems in this sample of Latinx youth from Time 1 to approximately one year later, Time 3 were found. The derived parent-child affiliative obedience profiles may have not predicted increases or decreases in youth mental health problems due to the approximate one-year time period between Time 1 and Time 3 youth mental health assessments. Furthermore, other parent-child relational factors may better predict youth mental health across time. Future studies would benefit from continuing to employ longitudinal approaches when assessing for the link between parent-child cultural profiles and youth mental health across time given the lack of this methodological approach in the literature.

The methodological approaches implemented in this study are worth highlighting. LPA considerably advanced the study of heritage cultural values in Latinx families as it used a dyadic approach (i.e., parents and their children self-reports on their own endorsement of heritage cultural values) for the formation of parent-child profiles. This dyadic approach allowed for a nuanced examination of parent-child (mis)matches of cultural values. This inclusion of multiple

reporters helped address the limitation that is often found in other studies that have attempted to assess the impact a cultural mismatch in families by providing a data-driven and real (mis)match instead of a perceived (mis)match when relying solely on one reporter. Moreover, the recommended BCH approach (Bakk & Vermunt, 2016) examined differences across the derived parent-child affiliative obedience profiles without having the distal outcomes (i.e., mental health problems, acculturative stress) influence profile formation. These methodological approaches outperform other commonly used strategies (e.g., difference scores) to capture (mis)matches between parents and children as it allows for an empirical approach to group respondents together based on their individual responses.

### **Limitations**

Some limitations in this study are worth noting. Latinx households have been identified as oftentimes including multigenerational family members (e.g., grandparents) and the number of multigenerational households are growing (Cohn et al., 2022). As such, including them in future studies could prove beneficial in understanding whether cultural value concordance varies between youth and the different caregivers in the home. Future studies could also benefit from incorporating an even more diverse sample when exploring the links between culture and mental health in Latinx families. For example, including a set of families with a wider spread of socioeconomic backgrounds could be useful to explore whether income levels may play a role in the intersection of culture and mental health. This is especially critical to consider given the consistent economic hardships that many Latinx families face while living in the U.S. Relatedly, future studies could benefit from including Latinx families from different subgroup categories. Although the current study provided an excellent foundation for representation of the myriad of Latinx groups in the U.S., the majority of the families in this study were of Mexican background.



In fact, results from the chi-square analyses did not reveal youth ethnicity as being statistically different across the derived parent-child affiliative obedience profiles. This should be considered when interpreting the generalizability of findings to other Latinxs as well as other minoritized groups in the country.

Lastly, many of the core cultural values (e.g., affiliative obedience, *respeto*, familism) share the commonality of the importance of family/community over self. Although inherently distinct from each other, future studies would benefit from including multiple cultural values within the same study to help identify which values may be especially impacting youth when a (mis)match has occurred (Paredes, 2023). Including multiple heritage cultural values within the same study could also elucidate which values show follow particular patterns of matches versus mismatches across parent-youth dyads. Furthermore, research studies will benefit from clearly delineating multifaceted cultural values (e.g., familism) to best understand which components of heritage cultural values are linked to youth and/or parental wellbeing. It could very well be the case that different cultural values may each be playing a unique role in the wellbeing of Latinx families.

### **Implications and Future Directions**

Decades of data point to the concerning trend that Latinx youth have increasingly high rates of both internalizing and externalizing problems and that recent societal events (e.g., COVID-19 pandemic) seem to have exacerbated these symptoms among this population in particular (Polo et al., 2024). One area that has been identified as a potential protective factor for these youth is cultural values. Although affiliative obedience has been studied and identified as a protective factor for Latinx youth, there have been a shortage of studies examining this cultural value when compared to other core values such as familism. Given the nature of affiliative

obedience (i.e., demonstrating unconditional respect), youth failing to align with this expectation may experience increased levels of both internalizing and externalizing problems as a result of parent-youth conflict.

Dyads in this study in which parents and their children shared similar reports of affiliative obedience, and in particular when both parents and children reported high levels of this cultural value, endorsed the lowest levels of mental health problems. These findings speak to the value of parents as socializing agents of culture and ways to foster this process given the positive outcomes in this study. At the individual level, professionals working with Latinx families in clinical and/or community settings should incorporate the exploration of cultural values in both youth and parents in order to detect the level of (mis)matches between parents and children. Some work has been put forth to provide clinicians with tools on how to assess for cultural values (e.g., asking for language preference, questions tapping into specific cultural values, use of validated measures, etc.) in Latinx families (Edwards & Cardemil, 2015). Given that the Latinx family has been identified to be collectivistic in nature, it is important to carefully consider the meaning of “family” within Latinx families as multigenerational households are common in Latinx families and other parental figures (e.g., grandparents) may play a crucial role in the development of Latinx youth. As such, measuring cultural value endorsement across all caregivers in the household is equally as important within the context of mental health care. Lastly, testing the impact of parent-child heritage cultural value (mis)matches on youth mental health with both clinical and community populations could shed light on whether the protective effect of affiliative obedience found in this study extends to clinical populations.

The cultural domain under inspection in this study was affiliative obedience, or the deference and utmost respect to parents, elders, and/or authority figures (Díaz-Guerrero, 1994).

Examining a specific domain (i.e., cultural value) of the acculturation process added value to the study of culture and mental health as it provided a more nuanced approach of the impact that heritage cultural values have on Latinxs' wellbeing. Overall, findings from this study shed light on the importance of youth's involvement with their family's country of origin's values (i.e., heritage cultural values) given the protective effect on mental health for youth in this sample. In particular, parents and children who were aligned in their high endorsement of affiliative obedience showed better mental health outcomes relative to parent-child dyads where cultural value mismatches occurred. Future studies would benefit from examining parent-child heritage cultural values across time to assess whether these profiles remain stable over time or when parents/children begin to diverge/converge in their endorsement of heritage cultural values. This approach would help identify developmental considerations and intervention approaches when working with Latinx families. The field is encouraged to continue this work by focusing on the myriad of strengths and cultural assets in the Latinx community that contribute to the wellbeing of Latinx youth and their families.

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### Footnotes

<sup>1</sup>The use of 'parents' in this manuscript was chosen as the majority ( $n = 290$ ; 98.3%) of caregivers interviewed were either the child's biological mother or biological father. It is important to note that multiple family members (e.g., grandparents) may be the identified 'parent' or primary caregiver. Future research should continue examining this domain and taking a culturally-, family-centered approach when working with Latinx families.

<sup>2</sup>As noted in Table 3, age and gender emerged as variables significantly associated with some of this study's distal outcomes (i.e., youth internalizing and externalizing problems). In order to comprehensively assess the potential influence of age and gender on the link between the derived parent-youth affiliative obedience profiles and youth mental health, additional analyses were run and included age and gender as covariates. Using similar steps and the recommended BCH approach, findings from these analyses mirrored the results when covariates were not included. In other words, significant and non-significant profile mean differences occurred in the same direction cross-sectionally and longitudinally. For ease of interpretation, only the analyses without covariates are presented in this manuscript.

**Table 1***Studies Linking Parent and Child Affiliative Obedience to Latinx Child Mental Health*

Study	Ethnicity	Mean Age	Reporter(s)	Mental health outcome	Design	Affiliative obedience (AO) - mental health findings
Polo, 2002 & Polo & Lopez, 2009*	Latinx	13.2	Parent & Child	Child internalizing and externalizing problems, depressive symptoms, social anxiety	Cross-sectional	Higher youth and higher parental AO associated with lower youth mental health problems
Cupito et al., 2015	Latinx	14.0	Child	Child depressive symptoms	Cross-sectional	Higher AO associated with lower mental health problems
Martinez et al., 2012	Latinx	11.9	Child	Child anxiety (physical symptoms, harm avoidance, separation/panic)	Cross-sectional	Higher AO associated with higher mental health problems
Stein & Polo, 2014	Latinx	13.1	Parent & Child	Child depressive symptoms	Cross-sectional	Greater parent-child AO discrepancies associated with higher mental health problems
Martinez & Polo, 2018	Latinx	11.8	Child	Child externalizing problems (rule-breaking & aggression)	Cross-sectional	Higher AO associated with lower mental health problems

\*Both studies examine data from the same sample

**Table 2***Studies Including Parent and Child Cultural Values and Links to Latinx Child Mental Health*

Study	Mean age	Reporter(s) of cultural values	Cultural value	Child mental health outcome	Methodological approach to calculation parent-child mismatches	Design
Céspedes & Huey, 2008	14.9	Child	Acculturation to mainstream & heritage culture & gender role beliefs	Child depressive symptoms	Difference score	Cross-sectional
Baumann et al., 2010	15.2	Parent & Child	Attitudinal familism	Child internalizing & externalizing problems	Difference score	Cross-sectional
Stein & Polo, 2014	13.1	Parent & Child	Affiliative obedience	Child depressive symptoms	Difference score	Cross-sectional
Schwartz et al., 2016	14.5	Parent & Child	Individualism & collectivism	Child self-esteem, optimism, depressive symptoms, aggressive behavior, substance use	Multilevel algorithm, latent difference score	Longitudinal
Telzer et al., 2016	11.8	Parent & Child	Family obligation	Child internalizing and externalizing problems	Difference score, interaction	Cross-sectional
Gonzales et al., 2018	NR	Parent & Child	Five value dimensions (familism-support, familism-obligation, familism-referents respect, religiosity)	Child internalizing and externalizing problems	Growth mixture modeling	Longitudinal
Toro & Nieri, 2018	15.5	Parent & Child	Familism & respect	Child self-esteem & aggression	Cross tabulation	Cross-sectional

*Note.* NR = Not reported.

**Table 3***Correlations Among Key Study Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Affiliative Obedience Y	-												
2. Affiliative Obedience - P	.11	-											
3. Internalizing Problems T1	-.16**	-.01	-										
4. Externalizing Problems T1	-.36**	.02	.55**	-									
5. Internalizing Problems T3	-.09	.06	.47**	.20**	-								
6. Externalizing Problems T3	-.24**	.00	.29**	.60**	.53**	-							
7. Parental Depression	-.01	.11	.04	-.00	.06	.05	-						
8. Youth Acculturative Stress	-.04	.01	.36**	.24**	.15*	.14*	.07	-					
9. Age	-.09	-.02	.01	.20**	.13*	.32**	.01	-.06	-				
10. Gender	-.04	-.06	.22**	.01	.27**	.02	.01	-.07	.07	-			
11. Nativity	-.05	.08	.05	.09	-.02	-.00	.07	-.11	-.04	-.12*	-		
12. Maternal Education	-.04	.06	-.04	-.03	.02	-.01	-.05	-.06	-.09	-.07	.21**	-	
13. Paternal Education	.03	.01	-.05	-.02	.07	-.03	-.07	-.08	-.04	-.10	.19**	.38**	-

*Note.* Y = Youth report; P = Parent report; T1 = Time 1; \* $p < .05$ , \*\* $p < .01$ . Gender coded as: 1 = Male; and 2 = Female. Nativity coded as: 1 = First generation (youth non-U.S.-born); 2 = Second generation (youth U.S.-born and one or both parents non-U.S.-born); and 3 = Third generation plus (youth U.S.-Born and both parents U.S.-born and one or more grandparents non-U.S.-born or not of immigrant background). Maternal and paternal education coded as: 1 = Low education and 2 = High education.

**Table 4***Latent Profile Analysis – Model Fit*

Model	AIC	BIC	ssaBIC	LRT p-value	Entropy
2-Profiles	16316.50	16541.40	16347.95	<b>*0.03</b>	0.88
<b>3-Profiles</b>	15798.35	16100.68	15840.64	<b>*0.03</b>	0.91
4-Profiles	15608.22	15987.97	15661.33	0.40	0.92

*Note.* AIC, Akaike information criteria; BIC, Bayesian information criteria; ssaBIC, sample size adjusted Bayesian information criteria; LRT, Lo-Mendell-Rubin likelihood ratio test. \* =  $p < .05$ .



**Table 5***Latent Profiles – Demographic Characteristics*

Profile	Total N (%)	M <sub>age</sub>	Gender	Nativity	Maternal Education	Paternal Education
HY_MP	74 (25%)	11.5	Boy (44.6%) Girl (55.4%)	1 <sup>st</sup> (6.8%)	Low (70.3%)	Low (82.9%)
				2 <sup>nd</sup> (83.8%)	High (29.7%)	High (17.1%)
				3 <sup>rd+</sup> (9.4%)		
MY_HP	70 (24%)	11.5	Boy (41.4%) Girl (58.6%)	1 <sup>st</sup> (7.1%)	Low (64.3%)	Low (77.9%)
				2 <sup>nd</sup> (68.6%)	High (35.7%)	High (22.1%)
				3 <sup>rd+</sup> (24.3%)		
HY_HP	151 (51%)	11.4	Boy (46.4%) Girl (53.6%)	1 <sup>st</sup> (7.9%)	Low (74.2%)	Low (80.4%)
				2 <sup>nd</sup> (74.8%)	High (25.8%)	High (19.6%)
				3 <sup>rd+</sup> (17.3%)		

*Note.* HY\_MP = High Youth Moderate Parent; MY\_HP = Moderate Youth High Parent; HY\_HP = High Youth High Parent. M<sub>age</sub> = Youth mean age; Youth nativity 1<sup>st</sup> = First generation non-U.S.-born; 2<sup>nd</sup> = Second generation, youth U.S.-born, one or both parents non-U.S.-born; 3<sup>rd+</sup> = Third generation plus, youth U.S.-born, both parents U.S.-born, one or more grandparent non-U.S.-born or not of immigrant background. Maternal and paternal education coded as: 1 = Low education and 2 = High education.

**Table 6***Covariate Analyses Using BCH Approach*

Variable	HY_MP	HY_HP
Age	-.05	-.14
Gender	-.13	-.19

*Note.* HY\_MP = High Youth Moderate Parent; MY\_HP = Moderate Youth High Parent; HY\_HP = High Youth High Parent. Profile MY\_HP served as reference group.

**Table 7***Cross-Sectional - Mean Differences Across Affiliative Obedience Profiles Using BCH Approach*

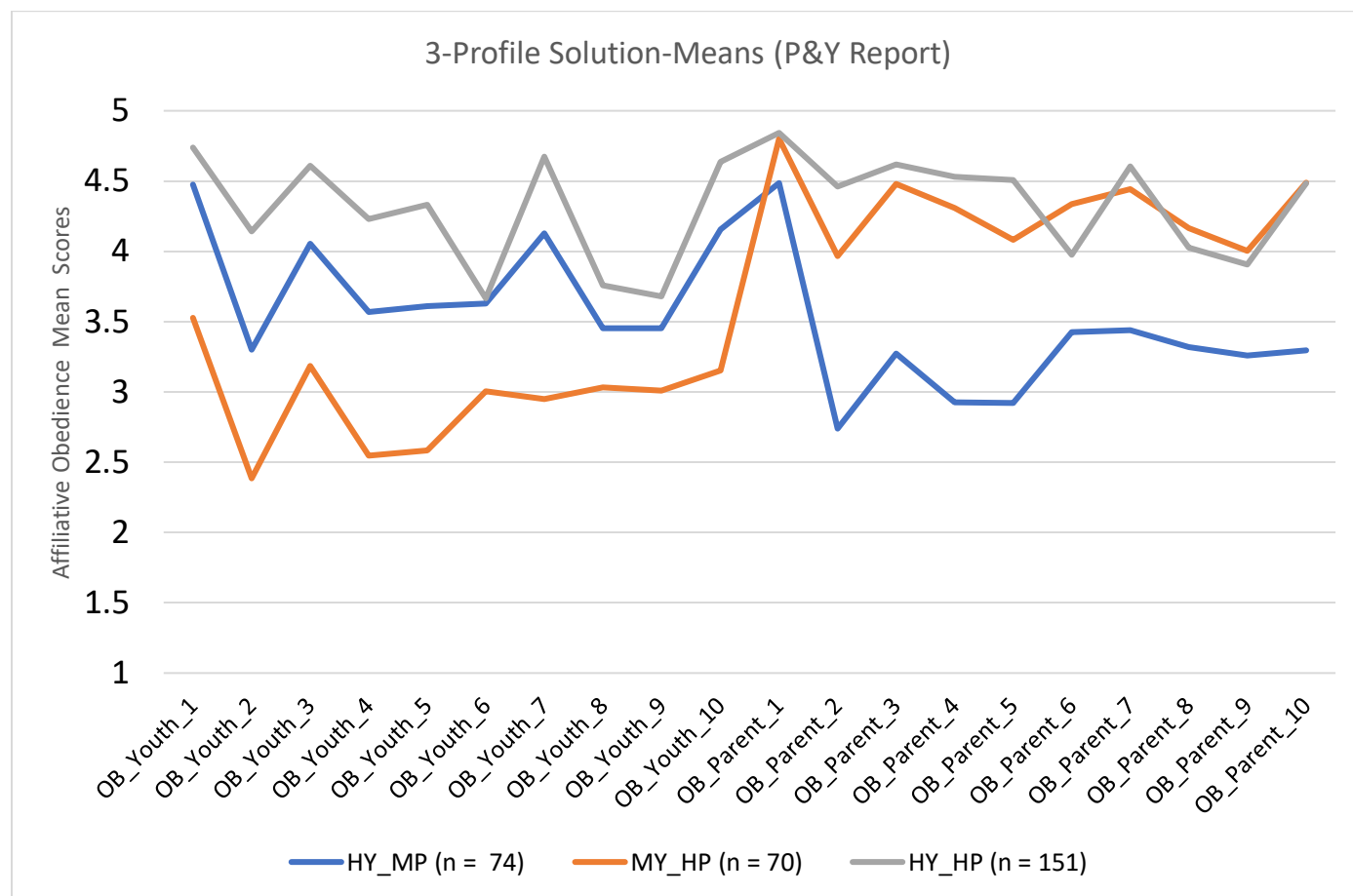
Variable	HY_MP <i>M (SE)</i>	MY_HP <i>M (SE)</i>	HY_HP <i>M (SE)</i>	<i>Significant Profile Group Differences</i>
<b>Internalizing</b>	21.31 (1.21)	<b>23.11 (1.48)</b>	<b>19.40 (0.89)</b>	<b>2 &gt; 3*</b>
<b>Externalizing</b>	<b>11.93 (0.89)</b>	<b>16.15 (1.17)</b>	<b>10.67 (0.60)</b>	<b>2 &gt; 1**; 2 &gt; 3**</b>
Parental Depression	9.08 (0.94)	10.11 (1.11)	10.89 (0.77)	-
Youth Acculturative Stress	1.54 (0.06)	1.49 (0.05)	1.43 (0.03)	-

*Note.* HY\_MP = High Youth Moderate Parent; MY\_HP = Moderate Youth High Parent; HY\_HP

= High Youth High Parent. \* =  $p < .05$ ; \*\* =  $p < .01$ .

**Figure 1**

*Latent Profile Analysis of Three-Profile Solution Distribution of Means*



Affiliative Obedience (OB) items	
1. A person must always respect his or her parents.	6. Sometimes a son must not obey his mother.
2. A father's word must never be questioned.	7. A son must always obey his parents
3. A daughter must always obey her parents.	8. Sometimes a son must not obey his father.
4. A mother's word must never be questioned.	9. Sometimes, a daughter must not obey her father.
5. A son must never question his father's orders.	10. A person must always obey his or her parents.

*Note.* HY\_MP = High Youth-Moderate Parent; MY\_HP = Moderate Youth-High Parent; HY\_HP

= High Youth-High Parent; OB\_Youth\_# = youth report, OB\_Parent\_# = parent report.