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The Differential Relationships of Familism support and Familism obligation values with Academic Achievement and Mental Health among Latina/o Early Adolescents in a Charter School Network

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**The Differential Relationships of Familism support and Familism obligation values with
Academic Achievement and Mental Health among Latina/o Early Adolescents in a Charter**

School Network

By

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Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

August 2017

Dedication

To my loving family and friends: You not only have supported and loved me, you have helped form, inspire, and cultivate who I am and the work that I do. Especially to my older brother, Kelly, who has always inspired and supported me.

Acknowledgments

This dissertation as well as my graduate experience were made possible with the help of several people. First, I would like to thank my committee. My dissertation chair, Dr. Cindy Carlson, gave me invaluable guidance throughout this process. Thank you for making me a better writer and challenging me to be clear and thoughtful about my research. Also, thank you for agreeing to take on my dissertation with an ambitious timeline and for helping me to stay motivated and dedicated. I would also like to thank Dr. Erin Rodriguez for bringing your research interests to the University of Texas, helping to inspire and create this research project, and allowing me to be a part of your lab in its very beginning phases. This dissertation would not be possible without you. I would like to thank Dr. Natasha Beretvas for being incredibly helpful and supportive as I grappled with the methods of this dissertation. Finally, I would like to thank Dr. Luis H. Zayas, whose work has not only informed my research interests but also been very influential in my clinical work. Thank you for taking the time to serve on my committee as well as the incredible work you do for Latina/o youth.

My current research has been greatly informed by my clinical work with youth as well as my earlier research experiences. Dr. Elizabeth Minne, Dr. Roger Olivarri, Dr. Katie Hartmann, and Dr. Kevin Stark: you each served as supervisors to me in my work with youth and greatly shaped who I am as a clinician and as a person which, in turn, has influenced my research. I would also like to thank Dr. Stephanie Cawthon. You were my first advisor at University of Texas. You taught me how to conduct research as well as supported and mentored me.

None of this would be possible without the support of my family & friends. Mom, Dad, & Kelly; thank you for helping shape who I am, loving me, supporting me and encouraging me

to persevere through challenges. Annie, Ashley, Brooke, and Kris; thank you for your tireless editing and emotional support as friends during this process. There are countless other friends and guides whose company and support helped me throughout this process. You know who you are. Thank you. Finally, thank you to the youth who I have worked with. Thank you for sharing your stories with me and for inspiring me to be a better researcher and clinician.

The Differential Relationships of Familism support and Familism obligation values with Academic Achievement and Mental Health among Latina/o Early Adolescents in a Charter School Network

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The University of Texas at Austin, 2017

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U.S. born Latina/o adolescents have a disproportionately higher lifetime prevalence of mental health disorders, higher rates of school dropout, and score lower on academic achievement measures when compared to their Non-Latina/o, White or Asian peers. Given the substantial exposure to risk factors, identifying and understanding salient sources of resilience is essential to promoting and enhancing positive adjustment among Latina/o youth. Familism is a cultural value embraced by many Latina/os that has been associated with positive academic and psychosocial outcomes for Latina/os adolescents. When measured, familism commonly includes dimensions of obligation, support and family as referent. Previous studies have indicated that dimensions of familism, such as obligation and support, may differentially predict psychological well-being and academic achievement. No published studies to date have examined the differential relationships of the constructs of familism obligation and familism support values explicitly as separate predictors in the contexts of both mental health and academic achievement for Latina/o youth.

The primary purpose of this quantitative study was to examine the differential predictive relationships of familism support and familism obligation values on mental health and academic

achievement of Latina/o adolescents. A secondary purpose was to examine the potential moderating or mediating roles of family functioning and gender on these pathways. This study is consistent with the Cultural Ecological Transactional Theory of Resilience as a framework for describing how multiple factors may contribute to risk or resilience of Latino youth. Participants were 36 Latina/o youth between the ages of 11-15 years old in a Central Texas middle school. Results found evidence for the moderating role of family distress on the relationship between familism obligation values and GPA among both male and female Latino adolescents. Implications, limitations and areas for further research are discussed.

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Chapter 1

Introduction

In the year 2013, approximately 54 million Latina/os comprised 17 percent of the population of the United States (Center for Disease Control and Prevention [CDC], 2015). “Latina/o” is not a racial or ethnic category, but rather refers to individuals whose ancestors originate from Latin America, many of who speak Spanish and are of biracial Indigenous and European (“Mestizo”) ancestry.¹ Latina/os in the United States are a diverse group racially, culturally, socioeconomically, linguistically, and in generation status. The Latina/o population in the United States continues to grow rapidly and is comprised of a large number of first and second-generation immigrants. As of 2010, one in five U.S. children is the child of an immigrant, and immigrants from Latin America constitute the largest proportion of this group (US Census Bureau, 2010).

Adolescents of all backgrounds are at greater risk than other age groups for developing mental health and psychosocial issues; however, Latina/o youth are experiencing depression and suicidality at alarming rates as compared to their non-Latina/o, African-, European-, or Asian-American peers (Toppelberg & Collins, 2010). Nearly fifty percent of Latinas (girls or women of Latin American descent) in the United States meet criteria for a depressive disorder, and over a quarter have seriously considered attempting suicide (CDC, 2014). U.S. born Latina/os have higher rates of referrals for behavior issues and a higher lifetime prevalence of mental health disorders than their non-Latina/o White or Asian peers (Flores et al., 2002; Hovey & King, 1996). Additionally, Latina/os have the lowest rates of high school graduation when compared to

¹ The word “Latina/o,” and its lack of specificity for describing a diverse group, will be discussed in greater detail in the literature review.

their peers from other ethnic backgrounds (Aud Fox & Kewal Ramani, 2010; NAEP, 2011; Swanson, 2008). Twenty-eight percent of Latina/o minors live below the poverty line, which is three times the rate of non-Latino Whites (U.S. Census Bureau, 2002). Consequently, they are more likely to live in neighborhoods with higher rates of violence (Bumpass & Lu, 2000; Leyendecker & Lamb, 1999; Marín & Marín, 1991) and attend poorly-funded, lower-quality, segregated schools that do not adequately prepare them for post-secondary academic success or even high school graduation (Chapa & Valencia, 1993; DeBlassie & DeBlassie, 1996; Eamon, 2005; U.S. Department of Education, 2003). These circumstances contribute to the cycle of poverty that perpetuates both poor emotional and physical health outcomes as well as access to better schools and, consequently, economic opportunities for future generations.

In addition to socioeconomic stressors, many Latina/o youth, especially children of immigrants, must navigate a dual process of adapting to predominant U.S. cultural norms while simultaneously maintaining ties to the cultural values of their family and community (Padilla, 2006). The difficulties related to navigating this cultural adaptation process have been linked with poor mental health outcomes, low academic achievement, low self-esteem, conduct problems, school failure, drug abuse, and financial instability (e. g., Gonzales & Kim, 1997; Gonzales, Knight, Morgan-Lopez, Saenz, & Sirolli, 2002; Phinney, 1992; Szapocznik & Kurtines, 1980; Szapocznik & Kurtines, 1993). Additionally, they potentially face heightened levels of exposure to stress and adversity related to disparities in socioeconomic and immigration status as well as discrimination, which further increases their risk for mental health problems and academic challenges (Costello et al., 2003; Canino & Roberts, 2001; Grant et al., 2003; Hovey & King, 1996; Roberts, Roberts, & Chen, 1997).

Given the substantial risks facing Latina/o adolescents, it is imperative to identify areas of intervention that promote resilience, reduce risk for mental health problems, and improve academic outcomes. Numerous recent studies have found that traditional Latina/o cultural values may be protective factors for Latina/o youth mental health and academic success (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil, Wagner, & Vega, 2000; Harker, 2001; Unger et al., 2002). Familism is a central cultural value in many Latina/o communities and is marked by a strong sense of loyalty and reciprocity with family members (Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002). Familism has been a focus of study in Latina/o youth resilience literature for the past 30 years. In particular, familism has been associated with positive academic and psychosocial outcomes such as academic achievement and psychological well-being for Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil, Wagner, & Vega, 2000; Harker, 2001; Unger et al., 2002).

Despite the established relationships between familism values and youth adjustment outcomes, investigators have only recently examined the mechanisms by which familism predicts mental health and academic achievement. Preliminary studies have indicated that dimensions of familism, such as *obligation* (the sense of obligation to one's family) and *support* (the emphasis on close family relationships) may differentially predict psychological well-being and academic achievement. Supportive relationships have been indicated as a primary mechanism by which familism predicts mental health in Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Gil et al., 2000; Harker, 2001; Unger et al., 2002). In contrast, studies have indicated that feelings of obligation may be risk factors under certain circumstances and protective under others. No published studies to date have examined the differential association

of the distinctive constructs of familism obligation and familism support with mental health and academic achievement outcomes among Latina/o adolescents.

Family functioning may influence the association of familism values with Latina/o youth adjustment. *Family functioning* describes an individual's satisfaction with their family on dimensions such as emotional closeness, the ability to communicate needs, express feelings and resolve conflicts, family roles, and overall connectedness (Mansfield, Keitner, & Dealy, 2015, Epstein, Bishop, & Levin, 1978). Several studies have indicated that familism values among Latina/o youth are often protective in great part due to the association with reduced familial conflict (Smokowski & Bacallao, 2006), increased warmth among parent and youth (Romero et al., 2004) and greater feelings of connectedness with one's family (Updegraff et al. 2005; Chiariello & Orvaschel, 1995; Cumsille & Epstein, 1994, 2004, & Pena et al., 2011). However, in other circumstances, such as heightened familial stress, strong familism values may increase risk (Gulbas & Zayas, 2015). In sum, positive family functioning appears to mediate the positive relationship of familism support values with academic achievement and mental health for Latino youth and moderate the relationship between familism obligation and the outcome variables.

Familism values and their relationship with academic achievement and mental health also appear to differ for males and females. For example, Cupito, Stein, & Gonzalez (2015) found that adolescent Latina girls had stronger familism values and feelings of obligation overall, and that those values were associated with fewer depressive symptoms for females but not males. In contrast, familism values may contribute to depressed Latina girls' feelings of burdensomeness and increase their risk of attempting suicide (Gulbas & Zayas, 2015). Taken together, the relationships between familism obligation values and the outcome variables appear to be stronger for girls than for boys, therefore, gender is proposed as a moderator in these relationships.

The purpose of the current study was to examine the influence of familism on the mental health and academic outcomes of 1st (1.5) and 2nd generation Latina/o adolescents who attend the 5th -8th grades in a charter school network dedicated to providing academically rigorous instruction to ethnic minority youth. Quantitative methods were utilized to investigate how the dimensions of familism obligation and familism support differentially predict academic achievement and mental health among Latino adolescents. Family functioning and gender were examined as potential moderating or mediating factors in these relationships. The study, which is consistent with the Cultural Ecological Transactional Theory of Resilience as a framework for examining risk and resilience in ethnic minority youth, examined the extent to which familism values influence Latina/o youth mental health and academic achievement (Kuperminc, Wilkins, Roche, & Álvarez-Jiménez, 2009). Findings contribute to a growing body of literature that seeks to provide insight into the design of culturally competent mental health care and academic programs for Latina/o youth.

Chapter 2

Literature Review

The literature review will provide an overview of the characteristics of Latina/os in the United States and the systems of influence that may contribute to mental health and academic achievement concerns of Latina/o adolescents. The second section will discuss familism as a potential protective factor for Latina/o youth. The facets of familism, particularly obligation and support, and their differential relationships with academic achievement and mental health will be discussed. Family functioning and gender will also be discussed as possible mediators or moderators of the association between familism and academic achievement and mental health respectively. The review will highlight gaps in previous literature pertaining to these relationships and propose research questions regarding how these constructs and contexts may interrelate. The review is grounded in the Cultural Ecological Transactional Theory of Resilience (Kuperminc, Wilkins, Roche, and Alvarez-Jimenez, 2009), which will also be discussed as a framework for understanding the socio-ecological, cultural, familial and individual risk and resilience variables that impact the adjustment of Latina/o adolescents.

The Latina/o Population in the United States: Cultural and Sociological Context

Demographic Definitions and Population Statistics. Latina/os in the United States are a diverse group racially, culturally, socioeconomically, linguistically, and in generation status. The words “Latina/o” and “Hispanic” have often been used interchangeably in the United States to refer to individuals whose ancestors originate from Latin America (Katiria Perez & Cruess, 2014). The word “Hispanic” was generated by the United States government in the 1970s to describe the many Spanish-speaking people living in the United States (Passel & Taylor, 2009) while the word “Latina/o” describes persons whose ancestors originate from Latin America. For

the sake of this study, the word “Latina/o” will be used to describe the overall participant group and in discussing relevant literature. However, it should be noted that studies with Latina/o individuals have been completed with diverse populations of people whose ancestors originate from different countries and cultures and who are of different ethnic, cultural, linguistic and economic backgrounds.

As of 2013, approximately 54 million Latina/os lived in the United States and comprised 17 percent of the overall population (CDC, 2015). Individuals of Mexican descent form the largest subgroup, representing 64% of the Latina/o Population in the United States. Puerto Ricans, Salvadorans, Cubans, Dominicans and Guatemalans make up the majority of the remaining population, representing 9.4%, 3.8%, 3.7%, 3.1%, and 2.3% of the overall Latina/o population, respectively. Latina/os can be of Indigenous, Asian, European, African or multiple ancestries. The majority of Latina/os in the United States are of mixed Indigenous and European ancestry (Mestizo); however, the term “Latina/o” comprises a larger group that includes multiple different racial backgrounds.

The U.S. census lists “Hispanic” as a category separate from racial categories (the following racial categories are provided on the census: White, Black or African American, American Indian and Alaska, Native, Asian, Native Hawaiian and Other Pacific Islander) (U.S. Census Bureau, 2015). “Hispanic” and “Non-Hispanic White alone” are offered within a separate category and individuals may select both a racial category and choose “Hispanic” or “Non-Hispanic White Alone.” Though individuals self-identify with these categories when completing the census, many individuals do not feel that their race or ethnicity are accurately captured by these categories. This complicates discussing statistics about race and ethnicity in research, given that many individuals may identify with multiple categories. Therefore it is necessary to describe

the specific background and circumstance (i.e. generational status, country of origin, level of education, and current social and economic contexts) of Latina/o individuals in order to characterize shared experiences among unique groups based on immigration status, cultural heritage, educational attainment, income, and the process of acculturation.

Generation Status. Generation status is an important aspect of diversity among Latina/os in the United States. Latina/os who were born outside of the United States are considered to be first generation. Children of first generation immigrants born in the United States are considered to be second generation. Those who are born to parents who are second generation are considered third generation and it follows similarly for subsequent generations. However, there are a large number of children born outside of the United States who migrated at a very young age, thus having the experience of being American without the citizenship status, often called the “1.5” generation. This “1.5” generation grow up having all of the experiences and memories in the United States but are exposed to increased risk and stress due to their lack of documented citizenship in the only country they know (Abrego & Gonzales, 2010).

Latina/o Early Adolescents in the United States: Risk and Resilience

Early Adolescents of all backgrounds are at greater risk than other age groups for developing mental health and psychosocial issues; however, Latina/o youth face disproportionate risk in many categories. U.S. born Latina/os have higher rates of referrals for behavior issues and a higher lifetime prevalence of mental health disorders than their Non-Latina/o White or Asian peers (Flores et al., 2002; Hovey & King, 1996). 1st and 1.5 generation Latina/o youth have disproportionately high rates of school dropout, incarceration, law enforcement interaction, gang affiliation, and substance use (Eaton et al., 2012; Carson & Sabol, 2012; Portes & Rumbaut, 2005; Smokowski, David-Ferdon, & Stroupe, 2009). Furthermore, they score lower than their

peers on academic achievement measures (Ainsworth, 2002; Roscigno, 2000), complete fewer grades of school (U.S. Department of Education, 2003), and have overall lower earnings and family income (Marotta & García, 2003) compared to non-Latina/o Whites and sometimes other minority groups.

Acculturation Stress. The experience of stress related to acculturation has been indicated as a significant risk factor for psychosocial adjustment for Latina/o youth (Lara, Gamboa, Kahramanian, Morales, & Bautista, 2005). Many Latina/o youth must undergo a dual process of adapting to the varying prevailing U.S. cultural values while simultaneously maintaining ties to other cultural practices and beliefs of their family and community (Padilla, 2006). Acculturation in the United States describes the process of negotiating between one's "home culture" (i.e., from the country of origin of one's parents or grandparents) and the "host" or U.S. Culture. In current models, both acculturation and enculturation (identification with one's home culture) can happen simultaneously and are not mutually exclusive (Berry, 1997; Gonzales, Fabrett, & Knight, 2009; LaFromboise, Coleman, & Gerton, 1993; Szapocznik, Kurtines, & Fernandez, 1981). Individuals can, in fact, have both a strong affiliation with their home culture and their host culture as well as be exposed to many additional layers of cultural and socio-political influence.

Acculturation processes present risks when individuals perceive the process of adapting to multiple cultures to be stressful (Gonzales, Fabrett, & Knight, 2009), and those who do not specifically experience those processes as stressful are at reduced risk. Differences in acculturation between youth and their families pose a significant stressor especially for adolescents who face different norms outside their homes and communities from their parents' norms. For example, a young adolescent may rebel against their parents' values due to attempts

to align with the norms of their peers. Differences in levels of acculturation between adolescents and their parents have been associated with increased family conflict, greater feelings of loneliness and social isolation, and depression (Hovey, 2000). Additionally, acculturation stress has been related to increased externalizing behaviors such as aggression and behavioral problems, (Fridrich & Flannery, 1995; Smokowski, Rose, & Bacallao, 2009), internalizing behavior problems such as depression and anxiety (Smokowski & Bacallao, 2007; Suarez-Morales & Lopez, 2009) and alcohol and substance abuse (Buchanan & Smokowski, 2009; De La Rosa, 2002). Specifically among second-generation Latina/o adolescents, acculturation stress was associated with greater perceived family dysfunction, hopelessness about one's future, and suicidal thoughts (Hovey & King, 1996).

Specific risk factors that contribute to increased acculturation stress for Latina/o youth include language-related challenges, perceived discrimination, and the sense of the U.S. as an unwelcoming or closed society (Vega, Khoury, Zimmerman, Gil, & Warheit, 1995). Additionally, acculturative stress has been linked to greater social anxiety for Mexican-American youth which may be due in part to feelings of being caught between two cultures, feeling discriminated against, or feelings of loneliness or disconnection among family and community (Polo and Lopez, 2009). Greater exposure to U.S. culture may be a risk factor, especially if this exposure results in Latina/o youth distancing themselves from their families' culture. For example, in a study of Latina/o youth across the United States, second-generation youth were at far greater psychological risk, attempting suicide almost three times as often as first generation youth (Peña, Zayas, Cabrera-Nguyen, & Vega, 2008). Youth living in the Dominican Republic who had stronger affiliations with the United States, such as having more friends in the U.S. or greater use of electronic media from the U.S., had an increased risk of suicide and decreased

mental health (Peña, Zayas, Cabrera-Nguyen, & Vega, 2012). Therefore, processes that buffer the potential stress of acculturation processes and promote feelings of hopefulness need to be better understood in order to help Latina/o youth navigate this process in the more healthy way.

Developmental Level: Early Adolescence. Early Adolescence (approximately age 10 - 14) constitutes an important developmental period. According to Eriksonian Theory of Development (1968), identity formation is the primary psychosocial task of adolescence and begins in early adolescence. This is a time of conflicting desires to gain independence while also maintaining closeness with one's family. The increased independence of adolescents leads to greater involvement with significant others outside of the family such as greater interactions with neighborhoods, communities, and schools. During this period young people begin to define themselves and start to think about what they wish to do with their future. They ask questions such as, "Who am I?" and "What is my place in this world?" (McAdams, Josselson, & Lieblich, 2006). According to Erikson (1963), when an adolescent is able to accurately understand their own personal strengths, weaknesses, interests and attributes and match these with "outlets for expression available in the environment," they supported in the process to explore and develop their own identity. Otherwise, they enter a state of role confusion.

This phase of seeking independence from one's parents may pose additional stressors in the lives of first and second-generation Latina/o adolescents who may be exposed to different cultural values regarding independence than their parents endorse. First (1.5) and 2nd generation Latina/o adolescents may have additional challenges within this developmental phase if the values and goals of their families differ substantially from those of their schools, neighborhoods and community. Cheung, Chudek & Heine (2011) found first generation and 1.5 generation youth may acculturate faster than their parents due to increased exposure to the culture of their

peers, schools, and the broader community. Additionally, first and second generation Latina/o youth have been observed to acculturate more quickly than their parents and these differential processes of acculturation have been associated with increased familial conflict, specifically between parents and adolescents (Szapocznik, Prado, Burlew, Williams, & Santisteban, 2007; Szapocznik & Kurtines, 1993). In particular, these cultural gaps produced by differing levels of acculturation often lead to Latina/o adolescents seeking greater independence, congruent with U.S. values, as they transition to adulthood while their parents may seek greater family connectedness and vigilance of youth as reflected in familism values (Szapocznik, Prado, Burlew, Williams, & Santisteban, 2007).

Furthermore, undocumented Latina/o youth and youth who grow up in homes of undocumented parents may experience even greater anxiety and internalizing symptoms as compared to Latina/o peers who are documented and have documented parents (Potochnick & Ferreira, 2010, Gonzales, Suárez-Orozco, & Dedios-Sanguinetti, 2013). These increased internalizing symptoms have been associated with stressors related to fear of deportation, feelings of hopelessness about one's future due to citizenship status, and stressors related to acculturation.

Educational and Economic context of Latina/os in the United States.

Along with stressors related to acculturation processes, Latina/os economic hardship at disproportionate rates as compared to their Non-Latina/o White and Asian peers and at comparable rates to African American youth (U.S. Census, 2008) and thus are more likely to live in neighborhoods with higher rates of violence (Bumpass & Lu, 2000; Leyendecker & Lamb, 1999; Marín & Marín, 1991). Economic stressors have been well-documented as risk factors in adolescent adjustment and negatively impact academic achievement (Guo, 1998; Korenman et

al., 1995; Roscigno, 2000; Smith et al., 1997). Economic hardship places additional stressors on the whole family, making it necessary for parents to work longer hours. Longer, less flexible work hours, means parents have less ability to monitor and engage with their children which may increase conflict or negative interactions in the home and, in turn, may impact youths' ability to focus in school (Conger et al., 1993). Economic disadvantage also contributes to Latina/o adolescents being more likely to attend poorly-funded, lower-quality, segregated schools that do not adequately prepare them for post-secondary academic success or even high school graduation (Chapa & Valencia, 1993; DeBlassie & DeBlassie, 1996; Eamon, 2005; U.S. Department of Education, 2003). Furthermore, few schools deliberately provide culturally and linguistically relevant approaches for Latina/o youth (Leyendecker & Lamb, 1999). Bernal, Saenz, & Knight (1991) suggest that this lack of cultural relevance may create a "cultural conflict or mismatch" between youths' school and home values that in turn may negatively impact academic achievement.

Academic Achievement. Considering their exposure to poorer quality schools and relative economic disadvantage, it is not surprising that Latina/o youth score lower than their peers on academic achievement measures (Ainsworth, 2002; Roscigno, 2000), complete fewer grades of school (U.S. Department of Education, 2003), and have overall lower earnings and family income (Marotta & García, 2003) compared to non-Latina/o whites and sometimes other minority groups. Researchers have found that acculturative stress and discriminatory experiences pose particular risk, predicting low academic achievement for Latina/o adolescents (DeGarmo and Martinez 2006). Additionally, youth who experienced feeling belittled by their teachers felt greater acculturative stress, which in turn was related to poor academic performance (Gil & Vega 1996). Research has also indicated several environmental protective factors for academic

achievement among Latina/o populations such as supportive relationships with adults and consistent rules and school-wide culture (Alva, 1991; Battistich, Solomon, Kim, Watson, & Schaps, 1995; Tan, 1999).

Mental Health. Latina/o adolescents have disproportionately higher rates of depressive symptoms (McLaughlin, Hilt, & Nolen-Hoeksema, 2007, Toppelberg & Collins, 2010) and externalizing behaviors such as smoking cigarettes, binge drinking (Centers for Disease Control and Prevention, 2014), aggression, and rule-breaking (Forster, Grigsby, Soto, Schwartz, & Unger, 2014) as compared to their non-Latina/o White peers. U.S. born Latina/os have higher rates of referrals for behavior issues and a higher lifetime prevalence of mental health disorders than their non-Latina/o White or Asian peers (Flores et al., 2002; Hovey & King, 1996). Roberts et al. (1997) found that Mexican–American middle school students were more likely to have impairing depression than nine other ethnic groups when controlling for family income.

Despite higher rates of depression and other mental health concerns, Latina/os are less likely to seek mental health services (Trachanatzi, 2013). This may be due in part to cultural stigmas around mental health concerns and a tendency to express psychological stress through somatization or physical symptoms (Canino, 2004; Çinarbaş, 2007). Somatization has been defined as the physical “manifestation of emotional problems and psychological distress” (Çinarbaş, 2007, p.17). In particular, studies with youth have indicated greater somatic complaints (such as headaches, stomachaches and tightness in the chest) in Latinas/os when compared to Anglo Americans (Canino, 2004). Somatic symptoms have been linked with major life stressors and changes as well as poverty, acculturation, parental education among other sociocultural influences. However, even when controlling for these variables, somatic complaints have been found to be higher among Latinas/os (Canino, 2004).

Similar to the overall population, Latina girls have higher rates of depression than their male peers (Roberts et al., 1997) and are experiencing depression and suicidality at alarming rates as compared to their African-, European-, or Asian-American peers (Toppelberg & Collins, 2010). In 2013, nearly fifty percent of Latinas in the United States met criteria for a depressive disorder, and over a quarter had seriously considered attempting suicide (CDC, 2014). Latina adolescents are at higher risk for attempting suicide than African American or European American girls or Latina/o, African American or European American boys (CDC, 2014). Alarming, in 2013, almost half of Latinas endorsed feelings of hopelessness and met criteria for depression in the past year. Of those, over 25 percent had contemplated attempting suicide, and more than 15% had actually attempted suicide (CDC, 2014). Despite this, Latina/os are less likely than their non-Latina/o White counterparts to receive appropriate mental health treatment (Lagomasino et al., 2005; Larkey, Hecht, Miller, & Alatorre, 2001; Sheppard et al., 2008).

Clearly, suicidal behavior is a significant mental health concern among Latina/o adolescents, especially girls. The interpersonal-psychological theory of suicide (Joiner, 2005; Joiner et al., 2009; Van Orden et al., 2010) posits that the desire to commit suicide is motivated by two interpersonal beliefs: perceived burdensomeness (i.e., belief that others will be better off if you are dead) and low belonging/social alienation (i.e., feeling of being not being an integral part of a group). According to this theory, an individual will only attempt suicide when they have both the desire and the ability to die by suicide. Both of these beliefs appear to be related to both actual and perceived interpersonal experiences, including cognitive distortions (the tendency to adopt beliefs that are more rigid or skewed interpretations of reality and often negative, (Spirito & Esposito-Smythers, 2006b).

Academic Achievement and Mental Health. Depression is strongly related to decreased academic performance, test scores, academic effort, and academic self-efficacy (Alva and de los Reyes, 1999; Zychinski & Polo, 2012). Academic achievement and depression have been found to be negatively associated with each other (Simonoff et al., 1997) on measures of standardized achievement tests (e.g., Herman et al., 2008; Ialongo et al., 1996), grade point average (e.g., Accordino et al., 2000; Shahar et al., 2006), and teachers' ratings of mental health (e.g., Bandura et al., 1999; Ward et al., 2010). However, few studies have investigated the underlying mechanisms of this relationship (e.g., Lundy et al., 2010), or explored other contributing factors to both of these outcomes among Latina/o adolescents specifically (Ward et al., 2010).

Poor academic performance may contribute to depression due to low feelings of self-efficacy, which have been linked to depression (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Ehrenberg, Cox, & Koopman, 1991). According to Bandura's theory of self-efficacy, depression can result from a lack of belief in one's ability to attain desired goals, especially when those goals are central to an individual's values and sense of purpose in life (Bandura, 1997). For example, youth who attend schools where very few of their peers graduate or go to college may develop low beliefs about their own academic self-efficacy via vicarious experiences (e.g., observing others like them succeed or fail). Conversely, positive academic experiences give evidence to youth believing that they can succeed, consequently increasing their feelings of efficacy and their hopefulness for the future.

Youth may be particularly at risk for academic and mental health difficulties in early adolescence when academic demands and grading systems become more challenging while they simultaneously begin to assert their independence. This combination of circumstances may lead to increased societal and familial pressure to achieve academically (Ehrenberg et al., 1991) or

alternatively commit more time to helping support one's family. This represents a period in which, if family and school produce conflicting demands, youth may experience considerable stress and internal conflict.

The Role of Familism in Latina/o Adolescent and Early Adolescent Adjustment

Given the substantial risks facing Latina/o youth, it is imperative to identify areas of intervention that promote resilience. Numerous recent studies have found that familism values may be protective factors for Latina/o youth mental health and academic success (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil, Wagner, & Vega, 2000; Harker, 2001; Unger et al., 2002). Familism is a central cultural value in many Latina/o communities and is marked by a strong sense of loyalty and reciprocity with family members (Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002). In particular, familism has been associated with positive academic and psychosocial outcomes such as academic achievement and psychological well-being for Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil, Wagner, & Vega, 2000; Harker, 2001; Unger et al., 2002).

Familism Definition and Measurement. Currently, there is no established and agreed upon uniform definition of familism (Losada, Márquez-González & Knight, 2010), which warrants caution when describing its impact (Freeberg & Stein, 1996; Rodriguez, Mira, Paez, & Myers, 2007). Familism was first described in the 1940s by sociologists Burgess and Locke (1945) who defined familism as a value that characterized the social structure of rural societies in contrast to the individualistic values that were characteristic of urban societies, and at that point, the value was not specific to Latina/os. Familism was conceptualized as individuals placing their own specific needs as secondary to the concerns and interests of their family. In the 1970s,

researchers expanded familism to include demographic and behavioral aspects in the construct (Arce, 1978). Demographic aspects described the organization of the family such as its size and proximity of family members living nearby or within the household. Behavioral elements included practices that were thought to stem from familism values, such as maintaining contact with family members, giving and receiving financial and emotional support, and turning to the family when making important decisions.

In the 1970s, familism became specifically recognized among Latina/os but it was not until the late 1980s that a scale specifically designed for Latina/os was developed (Sabogal et al., 1987). This model of familism for Latina/os was conceptualized as including three dimensions: familial obligations (obligation to provide economic and emotional support for one's family), perceived support from the family (the extent to which family members are perceived as reliable sources of support), and family as referents (the belief that one's attitudes and behaviors should reflect the attitudes and beliefs of one's family members). Lugo-Steidel & Contreras (2003) believed previous models of familism did not capture important aspects of familism and created a measure that included attitudes towards maintaining family honor and pride and feelings of interconnectedness. Katiria Perez & Cruess Rodriguez (2014) contributed the addition of family conflict into models of familism to take into consideration that Latina/os value maintaining harmony within the family. Despite many differences in definition and measurement, most researchers agree that individuals who report strong familism values prioritize their family, value strong ties with family members, express a strong sense of obligation to family, and engage in reciprocal financial and emotional support with family members (Alvarez, 2007; Edwards & Lopez, 2006; Halgunseth, Ispa, & Rudy 2006; Lugo et al., 2003; Rodriguez et al., 2007; Villarreal, Blozis, & Widaman, 2005).

Until recently, all of these measures of familism were developed and normed on Latina/o adults. Recent research suggests a developmental trajectory of familism values in which different aspects of familism may be more or less salient for youth depending on developmental tasks associated with their phase of life (Stein et al., 2014). In particular, familism has been found to be most protective in adolescence. Yet, familism values have been found to decrease for Latina/o adolescents during this period due to desires for autonomy (Updegraff, Umaña-Taylor, McHale, Wheeler, & Perez-Brena, 2012).

Familism as a Protective Factor. Familism has been a focus of study in Latina/o youth resilience literature for the past 30 years. Several studies with Latina/o youth and specifically youth who are 1st and 2nd generation have linked familism to positive youth outcomes. In particular, it has been associated with psychological well-being and academic achievement for Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil et al., 2000; Harker, 2001; Unger et al., 2002). More specifically, familism has been associated with lower levels of youth violence exposure and was found to be a protective factor against depression among youth who have been exposed to violence (Kennedy & Ceballo, 2013; Cupito et al., 2015). Additionally, familism has been associated with stronger family bonds, lower family conflict, and greater psychological well-being among both boys and girls (Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2012). Knight et al. (2010) found that the overall construct of familism was positively related to ethnic pride, social support, parental acceptance, and parental monitoring and was negatively related to defiance among adolescents based on parent and adolescent report. Additionally, Brittian et al. (2013) found that Mexican American cultural values (which include familism) mediated the negative relationship between perceived discrimination and pro-social tendencies among Latina/o youth.

Piña-Watson (2013) proposes that Latina/o youth experience a positive psychological benefit as a result of having greater familism values by internalizing these cultural ideals as part of their identity and consequently having better self-esteem by adhering to values that are revered in their community and family. By endorsing values that are congruent with their community, adolescents' identities and beliefs about themselves are positively reinforced. Familism values have also been found to encourage pro-social behavior tendencies (i.e., thinking of others and helping friends or teachers) (Calderón-Tena et al., 2011) and social competence (Kuperminc, Jurkovic, & Casey, 2009). Consequently, familism may contribute to adolescents being more aware of the feelings of others before they act, leading to positive outcomes in contexts outside of the home such as school or peer groups (Calderón-Tena et al., 2011).

Recent studies have also linked traditional Latina/o cultural values to academic outcomes. Esparza and Sanchez (2008) found that youth with high familism values missed fewer classes and exerted greater effort in school. Cupito et al. (2015) propose that academic achievement may be a way for youth to honor their families and familism may influence this desire. Furthermore, feelings of obligation and sacrifice have been indicated as motivators for youth to succeed academically in order to give back to their families (Esparza & Sánchez, 2008; Fuligni, Yip & Tseng, 2002; Gonzalez et al., 2012). Familism has also been associated with a greater sense of school belonging (Stein, Gonzalez, Cupito, Kiang, & Supple, 2013), which in turn has been predictive of higher grade point average (GPA) among Latina/o students (Sánchez, Colón, & Esparza, 2005). Additionally, though conflict between mothers and adolescents had a negative impact on grades and school attachment, overall, familism was observed as a protective factor moderating this relationship (Vargas, Roosa, Knight, & O'Donnell, 2013). This indicates that familism may be protective for school performance above and beyond family functioning;

however, the study only looked at familism and mother-child conflict rather than a more holistic measure of family-functioning. Still more needs to be understood about the protective aspects of familism values and the role that family functioning may play.

Multidimensional Construct of Familism.

Recent studies have specifically examined familism among Latina/o adolescents and have found support for a multi-dimensional construct of attitudinal familism among this group. Knight et al. (2010) conducted focus groups with Mexican American adolescents and their families and, similarly to Sabogal et al. (1987), found three unique dimensions of familism: familism support (the emphasis on close family relationships), familism obligation (the sense of obligation to one's family) and familism referent (family as a referent in defining oneself). Studies have produced varied relationships among familism values when taking into account the various dimensions, such as obligation and support and when controlling for other variables such as generation status, gender, and family functioning. A few looked at obligation and support values as separate predictors and found that familism support values related to better mental health and feelings of emotional support whereas obligation values contributed to more emotional strain (Calzada, Tamis-LeMonda, & Yoshikawa, 2012; Sayegh & Knight 2011; Losada et al., 2010). However, these studies were conducted with adults, one was conducted in Spain and two focused on the influence of familism among caregivers. One longitudinal study with Latino adolescents found that familism-support values but not obligation values correlated with decreased depressive symptoms among both males and females over time (Zeiders, Updegraff, Umaña-Taylor, Wheeler, Perez-Brena, & Rodríguez, 2013). Yet, no studies have examined the differential relationships of the constructs of familism obligation and familism support values explicitly as

separate predictors in the contexts of both mental health and academic achievement among Latina/o adolescents while also taking into account potential interaction variables.

Familism support. The supportive aspects of familism values, in particular, seem to be an important mechanism by which familism predicts mental health, especially in the context of promoting a sense of feeling interconnected and cared for by one's family and community. The perception of family support has been related to greater life-satisfaction among Mexican American youth (Edwards & Lopez, 2006). Additionally, adolescent endorsement of familism support, but not obligation values, was related to mothers' report of their child having positive family role models in the extended family (Knight et al., 2010), indicating that these values may actually reflect that youth have a network of support that reinforces and confirms these values. Furthermore, internalization of familism beliefs that are consistent with one's family has been associated with adolescents feeling more connected with and supported by their family members (Harker, 2001). Adolescents who have strong familism values often view their family members as warm and view their parent's behaviors, such as closely monitoring them, being warm and supportive, and providing guidance, as the manifestation of familism. Many Latina/o adolescents who endorse familism values report feeling that their parents should closely monitor them and spend time with them, viewing this behavior as being driven by parental love, care, and presence. (Guilamo-Ramos et al., 2007). Therefore, this study hypothesized that familism support variables would be positively related to both mental health and academic achievement.

Familism-obligation. Latina/o adolescent obligation values have received a great deal of attention in recent literature and yielded varied results. Overall, obligation values have been associated with higher family functioning and with decreased likelihood of engaging in risky behaviors (such as sexual behavior and substance use) (Milan & Wortel, 2014). Cupito et al.

(2015) also propose that academic achievement may be a way for youth to honor their families. More specifically, a sense of obligation and sacrifice for the family have also been indicated as motivators for youth to succeed academically in order to give back to their families (Esparza & Sánchez, 2008; Fuligni, Yip & Tseng, 2002; Gonzalez et al., 2012).

In other circumstances, feelings of obligation have been observed to be risk factors for Latina/o youth. For example, familism obligation values strengthened the relationship between exposure to adverse life events such as trauma or family conflict and PTSD and depression among Latina adolescents (Milan & Wortel, 2014). In some circumstances, strong endorsement of familism values may decrease the autonomy of adolescents in a way that is detrimental in the face of conflicting cultural demands for independence. This phenomenon has been particularly salient among Latina adolescents at risk for suicide, whose life goals and wishes for themselves differed substantially from what their parents wished for them (Fortuna, Perez, Canino, Sribney, & Alegria, 2007; Marsiglia, Kulis, Parsai, Villar, & Garcia, 2009). Familism values may contribute to youths' feelings of burdensomeness if they perceive their needs to be greater than their family's ability to meet them and therefore choose to subjugate their own emotional needs in order to appease their family (Nolle, Gulbas, Kuhlberg, & Zayas, 2012). Related to feelings of obligation, East and Weisner (2009) found that significant family responsibilities predicted adolescent stress, internalizing symptoms, and worse school outcomes, and familism did not buffer against the detrimental effects of extensive caregiving of younger siblings.

Additionally, in certain circumstances, a strong sense of obligation to one's family may negatively impact academic achievement. If youth feel the need to help raise money to support their family or help with care taking of younger siblings, these demands may negatively impact their abilities to engage academically. Fuligni, Tseng, and Lam (1999) found with a moderate

feelings of obligation had the highest grades. Interestingly, students with the strongest feelings of obligation, though they were highly motivated to succeed academically, had similar grades to students who had lower levels of familial obligation. Fuligini et al. (1999) referenced the work of Suárez-Orozco and Suárez-Orozco (1995) in which they suggest that some Latina/o adolescents from families facing economic hardship felt the need to spend more time supporting their families rather than focusing on studying. However, they also suggested that greater feelings of obligation could be associated with having a family in greater emotional or economic need.

These values appear to be possible risk factors either when youths' values differ from their parents (often leading to increased parent-adolescent conflict) when family functioning is low and conflict is already high (Gulbas & Zayas, 2015), or when their sense of obligation requires them to choose between conflicting demands (such as school or supporting their family). However, still more needs to be understood about the specific mechanisms by which familism obligation relates to academic achievement and mental health. This study hypothesized that familism obligation values would positively predict academic achievement but not mental health. Additionally, it was hypothesized that gender and family functioning would influence the direction and strength of the relationships of familism obligation values with mental health and academic achievement.

Familism and Youth Adjustment Outcomes: Potential mediators and moderators

The relationships between familism support and familism obligation values and academic achievement and mental health have been shown to vary in previous literature based on gender and family functioning. Additionally, family functioning may partially describe the relationships between familism support values and subsequent outcomes. Therefore, family functioning and gender were explored as possible moderators and mediators in this study.

Family functioning. Familism and family functioning are both characteristics of the overall family environment. Familism comprises cultural values and an interpersonal orientation toward interdependence with the family, whereas family functioning consists of individual family members' satisfaction and perceptions of the processes of communication, emotional connectedness, roles, and problem solving in the family (Mansfield, Keitner, & Dealy, 2015). According to the McMaster Model of family functioning (Epstein, Bishop, & Levin, 1978), these processes include problem solving, communication, roles, affective responsiveness, affective involvement, and behavior control.

The positive psychosocial impact of family connectedness and family functioning across ethnic groups is strongly supported in the literature (Chiariello & Orvaschel, 1995; Cumsille & Epstein, 1994). Latina/o families who express a higher degree of familism are found to have positive interpersonal familial relationships, a higher sense of unity, greater feelings of support, a communal sense of working together to complete daily tasks, and a closeness with members of the extended family (Romero et al., 2004). Families who have strong familism values are more likely to be tight-knit (Pena et al., 2011), and have less parent-child conflict among adolescents (Smokowski & Bacallao, 2006). Adolescents who endorse high levels of family functioning are also more likely to have higher rates of well-being, decreased self-harm and lower risk for depression among adolescents (Georgiades, Boyle, Jenkins, Sanford, & Lipman, 2008; Kelada, Hasking, & Melvin, 2016). Additionally, Pena et al. (2011) found that Latina adolescents were significantly less likely to attempt suicide if they were part of a close-knit family, and that being part of a close-knit family was associated with strong familism values.

Many studies have linked cultural values, especially familism, to academic achievement and well-being in the lives of Latina/o youth but they have not accounted for the relationship

between family functioning and familism when examining the impact of the family environment on youth mental health and academic achievement. Cupito et al. (2015) propose that familism may positively impact academic achievement in part due to the mechanism by which it predicts family functioning and mental health. As described, familism support values, in particular, are associated with more family cohesion and less family conflict and these factors contribute to positive psychosocial outcomes and decreased depressive symptoms. By distinguishing between these two aspects of family environment, we will better understand the extent to which familism support predicts academic achievement above and beyond overall family functioning. Given the research on the positive impact of familism in general on the outcome variables, it was predicted that family functioning would mediate the relationship of familism support with academic achievement and mental health.

In contrast to familism support values, familism obligation values among Latina/o youth appear to have differential relationships with mental health and academic achievement based on family functioning. Similarly to familism support values, familism obligation values have been related to reduced family conflict due to youth feeling more aligned with their families' values (Lorenzo-Blanco, Unger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2012). However, other studies have indicated that obligation values can pose substantial risk for mental health outcomes when feelings of obligation exist in tandem with family conflict or stress, especially when youth feel they must subjugate their own needs to avoid burdening their family (Nolle, Gulbas, Kuhlberg, & Zayas, 2012, East and Weisner, 2009). In other circumstances, a sense of obligation and sacrifice for the family has been indicated as a motivator for youth to succeed academically in order to give back to their families and predicted academic achievement even when family conflict was high (Esparza & Sánchez, 2008; Fuligni, Yip & Tseng, 2002;

Gonzalez et al., 2012, Cupito, 2015). Familism obligation values appear to positively impact academic achievement above and beyond family functioning, therefore, it was proposed that familism obligation would have a positive relationship with academic achievement and that the relationship would be even more positive when family functioning is high. That is, family functioning would moderate the relationship between familism obligation and academic achievement.

Gender. A few studies have compared boys and girls to determine if there are differential influences of familism based on gender in the contexts of both mental health and academic achievement. Much of the research on Latina adolescents has examined the relationship between familism and suicide risk given the disproportionate number of Latina youth attempting suicide and their higher rates of depression compared to males and peers of other ethnicities (i.e. Gulbas & Zayas, 2015). In some circumstances, strong familism values among Latina youth may increase depressed Latina youth's desire to die by suicide due to a perception of being a burden to their family. The greater their feelings of burdensomeness, the more likely they may be to feel that suicide may be the only way to reduce the burden of care-taking on their family members.

In contrast, Cupito et al. (2015) found that adolescent girls have greater levels of familism and filial obligation overall and that greater levels of familism obligation and obedience were associated with fewer depressive symptoms for females but not males. Cupito et al. (2015) proposed that this gender difference might be due in part to the differential gender roles expected of Latina adolescents. For many Latina/os, traditional gender roles dictate that females should be, "submissive, chaste, and dependent," while the traditional male role is to be "dominant, virile and independent" (Comas-Diaz, 1987). Latina adolescents may have psychological benefits from adhering to traditional gender roles and the expectations of their families because adhering

to these values may increase harmony with their families and reduce parent-adolescent conflict, which is found to greatly impact mental health. However, in other circumstances such as heightened familial stress, strong familism values may increase Latina youths' feelings of burdensomeness and increase their state of risk (Gulbas & Zayas, 2015).

In regard to academic achievement, female Latina youth score, on average, better on standardized reading tests while males score better on mathematics achievement tests (Guo, 1998; Hao & Bonstead-Bruns, 1998; Keith & Lichtman, 1994; U.S. Department of Education, 2003). Eamon (2005) proposed that different parenting practices may account for some of the gender differences in academic performance, citing that Latina/o parents placed more rules on and more closely supervised Latina girls than boys (Bulcroft, Carmody, & Bulcroft, 1996).

Latina adolescents may have psychological benefits from adhering to traditional gender roles and the expectations of their families because adhering to these values may increase harmony with their families and reduce parent-adolescent conflict, which is found to greatly impact mental health. However, in other circumstances such as heightened familial stress, strong familism values may increase Latina youths' feelings of burdensomeness and increase their state of risk (Gulbas & Zayas, 2015). Additionally, Latina females who adhere to familism obligation values may benefit more academically in part due to different parenting practices in which many Latina/o parents placed more rules on and more closely supervised Latina girls than boys (Eamon 2005; Bulcroft, Carmody, & Bulcroft, 1996). Gender was proposed as a moderating variable in the relationship between familism obligation on academic achievement and mental health. Research has substantiated gender differences with regards to familism obligation values but not familism support values, therefore it was proposed that gender would not moderate these relationships.

Cultural Ecological Transactional Theory of Resilience.

Youth resilience literature often utilizes the Ecological Transactional Model of Development (Bronfenbrenner, 1979) (Figure 1) to understand the multiple layers that contribute to risk and resilience in an individual's development. This perspective proposes that individuals are exposed to both proximal (direct) and distal (indirect) influences on their identity, development, and overall functioning. Accordingly, the theory proposes that an individual interacts with and is impacted by five layers of sub-systems. These sub-systems are comprised of:

1. The individual - unique characteristics such as temperament, genetic makeup, gender, and cognitive abilities, etc.
2. Microsystems - systems that the individual directly interacts with such as family, peers, neighborhoods, communities and schools.
3. Mesosystems - systems that tangentially affect the individual such as their parents' work or their teachers' social systems.
4. Exosystems - systems directly outside of the microsystem such as community contexts, laws and policies that impact the microsystem.
5. Macrosystem - values and beliefs of an individual's culture, religion or ideology (Bronfenbrenner, 1988).

According to Bronfenbrenner (1988), an individual's characteristics and their microsystem are thought to have a direct impact on the individual, whereas the mesosystem, exosystem and macrosystem are thought to have indirect impacts on the individual, though they

can influence the individual on a personal level. For example, policies promoted by the government, such as education policy or immigration policy reform, would be considered part of the exosystem. They affect how much funding is allocated to schools or what curriculum is taught in the classroom and thus indirectly influence the lives of youth. More specifically affecting Latina/o youth, certain states promote bilingual education while others have historically outlawed such practices. Additionally, the macrosystem is comprised of larger societal forces such as culture, ideology, religion etc. These aspects of the macrosystem are also thought to impact individuals indirectly by influencing the policies and procedures of the exosystem.

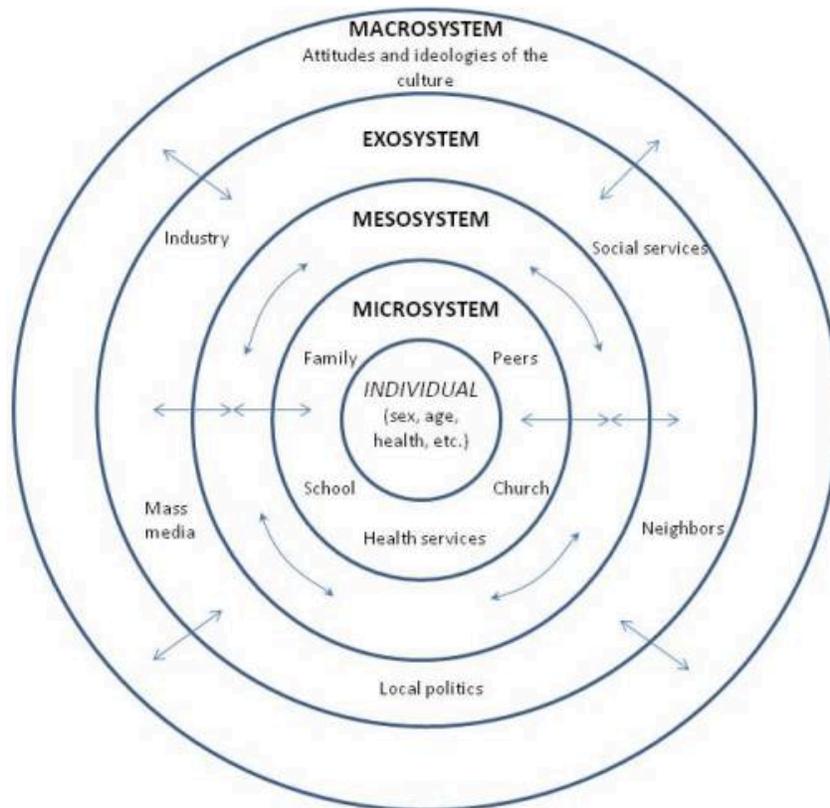


Figure 1. Bronfenbrenner's Ecological Transactional Model

The Cultural Ecological Transactional Theory of Resilience was specifically proposed in Kuperminc, Wilkins, Roche, and Alvarez-Jimenez's (2009) work on resilience among Latina/o teens in order to account for their belief that individuals are directly influenced by the

macrosystem rather than indirectly. Kuperminc et al. (2009) argue that the “macrosystem transacts with the individual to manifest a value system, or ‘lens,’ through which the individual views the world. This lens then directly impacts the way the individual organizes and interacts with his or her environment.” Accordingly, Latina/o youth are directly impacted by larger cultural values, such as familism, through influences on identity development and consequently on how they interact with their families, peers, and schools. Additionally, the authors propose that Latina/o youth are directly impacted by sociopolitical and sociocultural influences of the overall U.S. culture such as exposure to discrimination or racism, their sense of alienation or connection to predominant U.S. cultural norms propagated by the media, the extent to which U.S. cultural values are internalized as a part of their identity, and consequently their sense of belonging and connection with both predominant U.S. cultural values and the cultural values of their families.

This study will focus on how multiple systems interact to produce risk or enhance resilience in the lives of Latina/o youth. Specifically, this study will observe how the interactions of the exosystem (the cultural values of familism and its dimensions), the microsystem (the context of the family) and individual level variables (gender) contribute to individual functioning (as measured by academic achievement and mental health). The study contextualizes how variables, such as developmental level & generation status, interact with the exosystem (including both predominant cultural norms in the United States and cultural values of Latina/o youths’ families) to contribute to the current state of risk for Latina/o youth. For example, a youth born to immigrant parents in the United States (individual variable: generation status) may experience greater levels of acculturation stress and potentially mental health concerns during early adolescence (individual-level variables) due to the challenges associated with navigating,

at-times conflicting, cultural norms (exosystem) for how adolescents seek autonomy. These conflicting cultural norms may also contribute to increased parent-child conflict (microsystem-level variable: family functioning) and produce risk factors for youth adjustment. The role of familism as a protective factor and its direct impact on mental health and academic achievement will be examined before discussing how different aspects of familism values (specifically obligation and support values) may interact with individual (gender) and microsystem variables (family functioning) to differentially contribute to risk or resilience.

Statement of the Problem

U.S. born Latina/os adolescents have higher rates of referrals for behavior issues and a higher lifetime prevalence of mental health disorders than their Non-Latina/o White or Asian peers (Flores et al., 2002; Hovey & King, 1996). Additionally, they have disproportionately high rates of school dropout, incarceration, law enforcement involvement, gang affiliation, and substance use (Eaton et al., 2012; Carson & Sabol, 2012; Portes & Rumbaut, 2005; Smokowski, David-Ferdon, & Stroupe, 2009). They score lower than their peers on academic achievement measures (Ainsworth, 2002; Roscigno, 2000), complete fewer grades of school (U.S. Department of Education, 2003), and have overall lower earnings and family income (Marotta & García, 2003) compared to non-Latina/o Whites and sometimes other minority groups. Risk factors such as lower-quality schools, economic disadvantage, acculturation stress, and generation status may contribute to the current state of risk among Latino adolescents (e. g., Gonzales & Kim, 1997; Gonzales, Knight, Morgan-Lopez, Saenz, & Sirolli, 2002; Phinney, 1992; Szapocznik & Kurtines, 1980; Szapocznik & Kurtines, 1993). Given the exposure to multiple risk factors, identifying and understanding salient sources of resilience is essential to promoting and enhancing positive adjustment among Latina/o youth.

Several studies have indicated cultural values as potential protective factors for Latina/o youth well-being. Familism, in particular, has been associated with positive academic and psychosocial outcomes such as psychological well-being and academic achievement for Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil et al., 2000; Harker, 2001; Unger et al., 2002). When measured, familism commonly includes dimensions of obligation, support and family as referent. Numerous studies have indicated that supportive relationships may be the primary mechanism by which familism predicts mental health and academic achievement in Latina/o youth (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Gil et al., 2000; Harker, 2001; Unger et al., 2002). In contrast, studies have indicated that feelings of obligation may be a risk factor under certain circumstances and protective under others. In short, dimensions of familism, such as obligation and support, may differentially predict psychological well-being and academic achievement. No published studies to date have examined the differential relationships of the constructs of familism obligation and familism support values explicitly as separate predictors in the contexts of both mental health and academic achievement. The primary purpose of this study was to examine the differential predictive relationships of familism support and familism obligation on mental health and academic achievement of Latina/o adolescents. A secondary purpose was to examine the potential moderating or mediating roles of family distress (as a proxy for family functioning) and gender on these pathways. The study is consistent with the Cultural Ecological Transactional Theory of Resilience as a framework for describing how multiple factors may contribute to risk or resilience of Latino youth.

Research Questions

This quantitative experimental study examined the relationships among familism, family functioning, gender, mental health and academic achievement in the lives of Latina/o early adolescents. This study investigated the following research questions:

Research Question 1. To what extent do familism obligation values relate to Latina/o early adolescent mental health and do family distress and gender moderate these relationships?

Research Question 2. To what extent do familism support values relate to Latina/o early adolescent mental health? Does family distress mediate this relationship? Does gender moderate this relationship?

Research question 3. To what extent do familism obligation values relate to Latina/o early adolescent academic achievement and do family distress and gender moderate these relationships?

Research Question 4. To what extent do familism support values relate to Latina/o early adolescent academic achievement? Does family distress mediate this relationship? Does gender moderate this relationship?

Context of the Study: Charter School Network

Taking into account the multiple systems influencing youth, it is important to describe the educational context within which youth in this study are situated. Over the past 15 years, charter schools have grown in popularity especially for low-income youth and youth from ethnic minority backgrounds. From school year 1999–2000 to 2012–13, the number of students enrolled in public charter schools increased from 0.3 million to 2.3 million and the percentage of public school students who attended charter schools increased from 0.7 to 4.6 percent (National Center For Education Statistics, 2015). Charter schools are publicly funded schools that are usually

governed by a group or organization under a legislative contract (or charter) within the state or jurisdiction. The charter allows these schools certain flexibility and exemption from state or local regulations placed on other public schools. For example, charter schools are often exempted from using the state-mandated curriculum or following the same school calendar and are often allowed to create and manage their own budget. In order to maintain their charters, the schools must fulfill certain requirements and demonstrate success as measured by set forth standards such as state test results.

Several charter school networks have emerged out of the charter movement with the specific goal of providing a quality education for low-income, ethnic minority youth. Networks such as Rocketship Education, KIPP, IDEA, Achieve, Yes Prep and Aspire, have created schools with a mission to eliminate the achievement gap between low-income, ethnic minority youth and their middle class, non-Latina/o White peers. From 1999-2000 to the present, the population of Latina/o students attending charter schools has steadily increased. Over this time period, the percentage of Latina/o youth in charter schools increased from 20 to 29 percent while the percentage of Non-Latina/o White students decreased from 42 to 35 percent and the percentage of Non-Latina/o Black and American Indian/Alaska Native students decreased from 34 to 28 percent and from 2 to 1 percent, respectively. Additionally, children in poverty represent a greater proportion of charter school students than traditional public school students. In school year 2012–13, the percentage of students attending high-poverty schools, schools in which more than 75 percent of students qualify for free or reduced-price lunch (FRPL) under the National School Lunch Program, was 36 percent for charter school students and 23 percent for traditional public school students. Given the unique (despite growing) nature of these types of schools, it is important to bear in mind that the youth in this study are attending these types of

schools when taking into account the multiple contexts that may influence their lives.

Chapter 3

Methodology

This study was embedded within a larger study being conducted by Dr. Erin Rodriguez examining bilingualism and cognitive flexibility among Latina/o early adolescents (*Resilience in the Mental Health of Latina/o Adolescents: Bilingualism, Executive Function, and Coping*) and therefore utilized the same procedures. The University of Texas's Institutional Review Board approved this study (study number: 2014-10-0123; approved 3/27/2015). The study was funded the College of Education Small Grants program at the University of Texas at Austin.

Participants

This study included 36 early adolescents who met the following criteria: (a) The parent/legal guardian of the child consented to being contacted by the researcher; (b) The child was bilingual, speaking English and Spanish; (c) The parent or guardian spoke either English or Spanish; (d) The parent or guardian was 18 years or older; (e) the early adolescent was between the ages of 11 and 15. Based on a priori power analysis calculated with the G*Power statistical analysis program (Faul, Erdfelder, Buchner, & Lang., 2009), 29 participants provided sufficient power to detect an effect size of .3 with a corrected p-value of .025 for two separate multiple regression analyses with 5 variables in each model .

Procedure

Recruitment of participants. Participants were recruited for the larger study from three charter schools in Central Texas. These charter schools have a similar school-wide culture and are all part of the same national charter school network whose specific mission is to help students from educationally underserved communities develop skills to attend and succeed in college and beyond. These schools were selected due to the high percentage of students who are Latina/o.

Permission to Contact forms were distributed to all 5th-7th-grade middle school students who were present in their homeroom classes at three charter middle schools on the day of recruitment. *Permission to Contact* forms were written in both English and Spanish. The forms briefly described the study and gave parents the option to decline permission to contact or to agree and complete their contact information as well as eligibility requirements. The middle school students were asked to return the forms whether parents checked “yes” or “no,” and if the class had at least an 80% return rate, the entire class was entered into a raffle for one child in each class to receive a University of Texas folder.

Bilingual (English/Spanish) research assistants contacted families who consented and provided more details about the study. If parents were interested in participating, research assistants confirmed each child’s age and grade. Eligible and interested parent-child dyads were invited to individual sessions lasting approximately 3 – 4 hours and were given the option of participating in either private offices, at the university, or their own homes.

Data collection. Data collection consisted of two graduate research assistants (GRAs) administering the questionnaires to the parent and early adolescent during the same session. At least one of the GRAs spoke Spanish and explained the measures to the parent in Spanish if that was their preferred language. Early adolescent measures were administered in English. Based on parent and early adolescent preference, measures were either read aloud to the participant or the participant was allowed to complete independently. GRAs informed the participants of the limits of confidentiality in a psychological study and obtained informed consent from both the parent and the early adolescent. GRAs explained directions of all measures to ensure the participant understood how to complete the measure accurately. The order that the measures were given to the participants differed in order to reduce order effects of distributing the measures.

Questionnaires were administered in separate rooms when possible, and in separate areas of the room as space allowed in participant homes. Upon completing the session, caregivers and early adolescents were each compensated \$25 cash for their time and were provided with a list of community mental health resources, should they or someone they know require assistance. Parents signed a release of information form giving permission for their early adolescent's school to release their grades, state test scores, behavior records, and special education status. Grades, state test scores, and attendance records were then obtained directly from schools who were given the release of information forms.

Instrumentation

Familism obligation and support. Familism support and familism obligation values were measured using the early adolescent responses of the familism obligation and familism support subscales on the Mexican American Cultural Values Scale (MACVS) (Knight et al., 2010). The MACVS is a 50-item measure that measures culturally linked values of Mexican Americans in adolescence and adulthood. The scale contains 9 subscales that measure aspects of Mexican-American values (familism support, familism obligations, familism referents, religion, respect, traditional gender roles) and what were called "mainstream" United States values (material success, independence and self-reliance, and competition and personal achievement). Respondents used a 5-point Likert scale to indicate how well each attribute applies to them. Specifically, early adolescents completed the familism obligation subscale (five items; e.g., "A person should share his or her home with relatives if they need a place to stay") and the familism support subscale (six items; e.g., "Family provides a sense of security because they will always be there for you"). Items were rated on a 5-point scale with higher scores indicating stronger endorsement of values measured by the subscale. The average of the questions for familism

support values and familism obligation values, respectively, was calculated to create an average score for each of the subscales in the same manner in which they were calculated by Knight et al. (2010) and Zeiders et al. (2013). These averages were used for statistical analyses.

The MACVS was originally validated in two separate studies. In the Puentes study, the measure was validated with 598 Mexican American seventh graders in an urban area in the Southwest. In La Familia study, the measure was with validated a population of 750 Mexican-American early adolescents (mostly 5th graders) who attended 47 public, religious charter schools in the same southwestern area. In both studies, internal consistency for Mexican American Values (Puentes Study $\alpha = .89$; La Familia Study $\alpha = .84$) and for the overall familism subscale (including support, obligation and referent values) (Puentes Study, $\alpha = .84$; La Familia Study, $\alpha = .80$) were good according to criteria reported by Ponterotto, J. G., & Ruckdeschel, D. E. (2007) based on sample size and number of items. However, the Cronbach's alpha for familism obligation values subscale (Puentes Study, $\alpha = .65$; La Familia Study, $\alpha = .54$) and familism support values (Puentes Study, $\alpha = .67$; La Familia Study, $\alpha = .62$) were poor to questionable. A subsequent longitudinal study with 492 Mexican and Mexican American adolescents (ages 13 – 15 years old) found that familism obligation ($M \alpha = .75$) and familism support ($M \alpha = .76$) were acceptable (Zeiders et. al. 2013).

Family Functioning/Distress. Family functioning was measured by using the General Functioning (GF) scale on the Family Assessment Device (FAD) (Epstein et al., 1983). The FAD is a questionnaire designed to evaluate families according to the McMaster Model of Family Functioning. The FAD is made up of 7 scales (affective involvement, affective responsiveness, behavioral control, communication, problem solving, roles, and general family functioning).

Problem solving refers to the ability to solve both emotional and logistical problems within the family. *Communication* refers to the ability to express oneself clearly and directly with other family members. *Roles* refers to the way in which families divide responsibilities and manage health and other concerns as well as maintain ties with extended family. *Affective Responsiveness* measures the extent to which individual family members experience a full range of emotions and how appropriately or effectively they are expressed in the family context. *Affective Involvement* pertains to the extent to which family members are interested and involved in the lives of one another. *Behavior Control* measures the ability of the family to set and maintain behavioral expectations. *General Functioning* is an overall measure of each individual's satisfaction with general family functioning. This scale is derived from a specific sub-section of questions that pertain to overall functioning. The scores on the GF scale are higher for lower functioning, therefore the family functioning construct in this study is labeled "family distress." The FAD has shown strong reliability and construct validity in both psychiatric and non-clinical samples over the age of 12 (Kabacoff, Miller, Bishop, Epstein, & Keitner, 1990; Miller, Epstein, Bishop, & Keitner, 1985). The reliability coefficient for each subscale varies, ranging from .72-.92 (Epstein et al., 1983).

The McMaster Model of Family Functioning and the Family Assessment Device (FAD) was developed and validated using a predominantly middle class European American sample (Aarons, McDonald, Connelly, & Newton, 2007). Aarons et al. performed confirmatory factor analysis with the FAD on a sample of Latina/o caregivers ($n= 323$, 74.6% of whom were Mexican American, 10.2%) in the United States and compared that sample to European American caregivers ($n = 1,302$). They found that Latina/os in the sample scored similarly to European Americans on the general functioning subscale that is used in this study. The reliability

coefficient of the general functioning subscale was good among the Latina/o participants (.82). Reliability, validity and separate norms for early adolescents and specifically Latino early adolescents have not been reported in a previous study.

Mental Health. Mental health of the early adolescent was measured using the internalizing symptoms subscale on the Youth Self Report (YSR) measure of the Achenbach System of Empirically Based Assessment (ASEBA). ASEBA is a set of integrated instruments designed to assess children's problems and competencies. The YSR is a youth-completed measure to assess child and adolescent emotional and behavioral health from 11-18 years of age. The YSR contains 112 statements similar in structure and content to the CBCL/6-18 (which is parent questionnaire measure to assess child and adolescent behavior and personality from 6-18 years of age). Respondents used a 3-point Likert scale to indicate how well each statement is true for them in the previous six months. The internalizing symptoms subscale, which was used in the proposed study, includes symptoms related to anxiety, depression and somatization. Specifically, the YSR internalizing scale consists of three subscales: Anxious/depressed, Withdrawn/depressed, and Somatic complaints. Scores from these subscales were added together to create an internalizing scale score. The Anxious/depressed, Withdrawn/depressed, and Somatic complaints subscales consist of 13 items, 8 items, and 3 items, respectively, measured using a three-point Likert scale (less than average, average, more than average). When combined to create the YSR internalizing scale, the score ranges from 0 to 48, with a higher score indicating a higher number of, and greater severity of internalizing problems.

The YSR was normed on a nationally representative sample of 1,057 children and adolescents consisted of 48% female and 8% Latina/o respondents (Achenbach & Rescorla, 2001). Chronbach's alpha for the internalizing scale of the YSR was .90 and test-retest reliability

was also calculated and was .80. In a clinical sample of 320 Latino Adolescents in the United States the YSR internalizing scale reliability was .85 (Smokowski & Bacallao, 2007). This sample reflected a similar population to the current study.

Demographic information. The early adolescent's parent completed a survey that provided basic information about characteristics of both the child and the parent. This survey is available in Appendix A.

Academic achievement. Cumulative grade point average (GPA) was used as a proxy for academic achievement. Because most of the questionnaires were completed over the summer of 2015, the cumulative GPA of the semester following (Fall 2015) was used for the GPA. Cumulative grade point average was chosen as a measure of academic achievement because it demonstrates youth performance over time rather than performance at a single point in time. Additionally, grades demonstrate effort and mastery, which are both essential for post-secondary success.

Research Questions and Analyses

This study examined the relationships among familism, family functioning, gender, mental health and academic achievement in the lives of Latina/o early adolescents.

Preliminary analyses. Descriptive statistics, including means, standard deviations, ranges, minimum and maximum values were analyzed for each variable. Data from each quantitative variable were examined for potential outliers. A correlation matrix was produced that included all variables in the study. This matrix was examined for evidence of multicollinearity that could invalidate the results of multiple-regression analysis. Tolerance statistics were calculated for each independent variable in the regression analysis in order to assess for multicollinearity. According to Menard (2002), an R^2 of 0.80 or higher for any of the

independent variables is indicative of multicollinearity.

This study investigated the following research questions and test the following hypotheses:

Research Question 1. To what extent do familism obligation values relate to Latina/o early adolescent internalizing symptoms and do family distress and gender moderate these relationships?

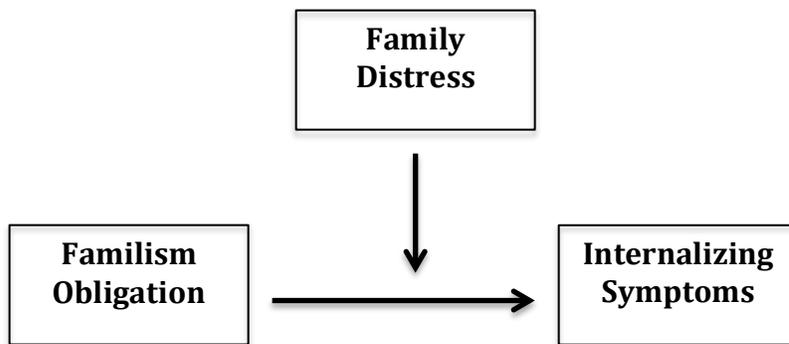


Figure 2. Family distress as moderator between familism obligation and internalizing symptoms.

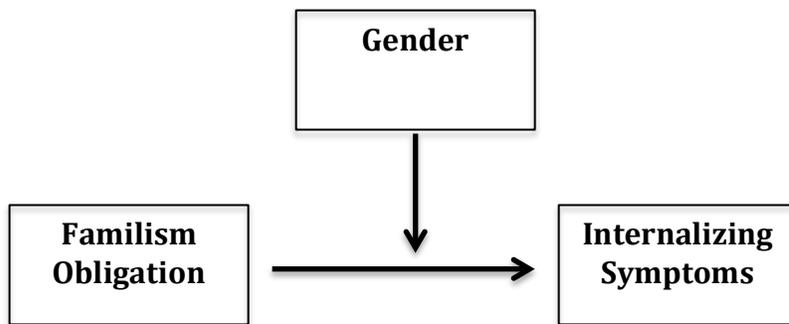


Figure 3. Gender as moderator between familism obligation and internalizing symptoms.

Hypothesis 1. There will be a negative relationship between familism obligation values and Latina/o early adolescent internalizing symptoms moderated by family distress and gender. Hypothesis 1 is depicted in Figures 2 and 3.

To answer this question, gender was effects coded (female = 0, male = 1) and the cross products (gender x family obligation) and (family functioning x family obligation) were created

to test for an interaction effect. Hypothesis 1 would be supported if high familism-obligation values are negatively related to internalizing symptoms, the relationship between familism-obligation and internalizing is more negative when family functioning is high, and more negative for girls than it is for boys (Baron & Kenny, 1986). For all comparisons, significance was achieved if the F ratio meets or exceeds the .025 level.

Research Question 2. To what extent do familism support values relate to Latina/o early adolescent internalizing symptoms? Does family distress mediate and gender moderate this relationship?

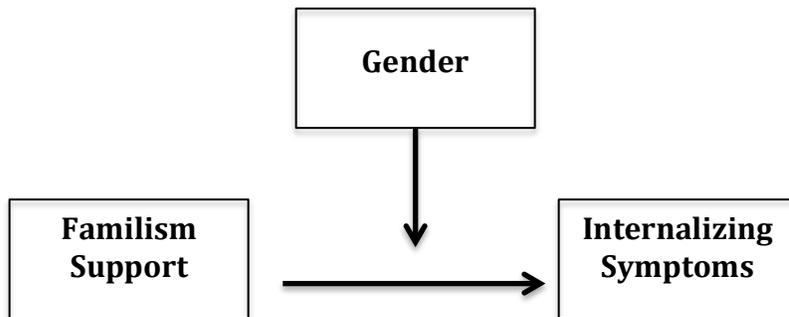


Figure 4. Gender as moderator between familism support and internalizing symptoms

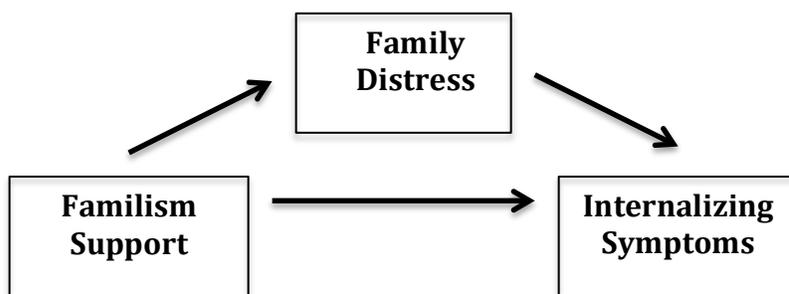


Figure 5. Family distress as mediator between familism support and internalizing symptoms

Hypothesis 2a. There will be a negative relationship between familism support values and Latina/o early adolescent internalizing symptoms mediated by family distress (Figures 5).

To answer question 2a, gender was effects coded (female = 0, male = 1) and the cross products (gender x familism support) were created to test for an interaction effect. Hypothesis 2a would be supported if high familism-support values are negatively related to internalizing symptoms and the relationship between familism-support values and internalizing is the same for girls as it is for boys.

Hypothesis 2b. Gender will not moderate the relationship between familism support values and Latina/o early adolescent report of internalizing symptoms (Figure 4).

To answer question 2b, a multiple regression (Keith, 2006; Preacher et al., 2007) was calculated with the level of familism-support and family distress as the independent variables and internalizing symptoms as the dependent variable. To establish if any of the relationships between the individual variables were significant, simple regressions were calculated with familism-support predicting family functioning, family functioning predicting internalizing symptoms and familism-support predicting internalizing symptoms. If any of these relationships failed to meet significance, then no mediation would be presumed to exist, and the hypothesis would be supported (Baron & Kenny, 1986). If all three relationships were significant, a multiple regression with familism-support and family functioning predicting mental health symptoms would be calculated. Mediation would be supported if familism-support remains significant after controlling for family functioning. If familism-support is no longer significant when family functioning is controlled for, full mediation would be found. If familism-support remains significant when family functioning is controlled for, partial mediation would be supported.

Research question 3. To what extent do familism obligation values relate to Latina/o early adolescent GPA and do family distress and gender moderate these relationships?

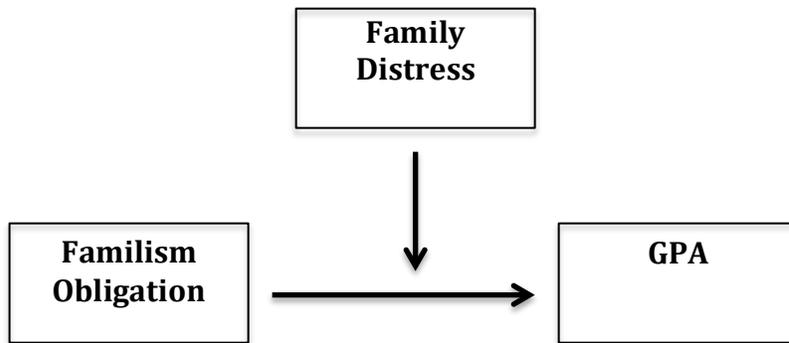


Figure 6. Family distress as moderator between familism obligation and GPA.

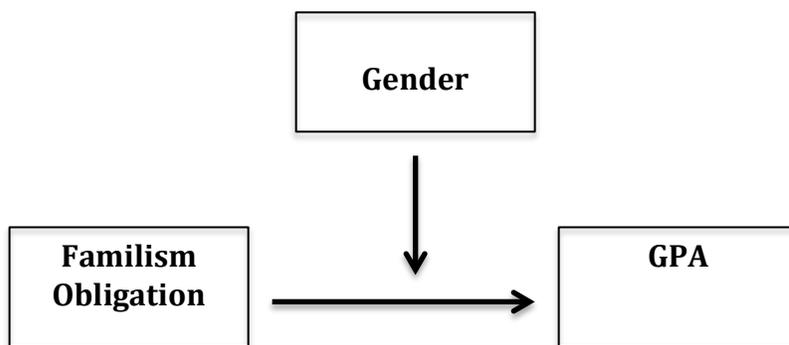


Figure 7. Gender as moderator between familism obligation and academic achievement.

Hypothesis 3: There will be a positive relationship between familism obligation values and GPA moderated by family distress and gender (Figures 6 & 7).

To answer this question, gender was effects coded (female = 0, male = 1) and the cross products (gender x family obligation) and (family functioning x family obligation) were created to test for interaction effects. Hypothesis 3 would be supported if familism-obligation values were positively related to GPA and the relationship between familism-obligation and GPA was more positive when family functioning is high and more positive for girls than it is for boys.

Research Question 4: To what extent do familism support values relate to Latina/o early adolescent GPA? Does family distress mediate this relationship? Does gender moderate these relationships?

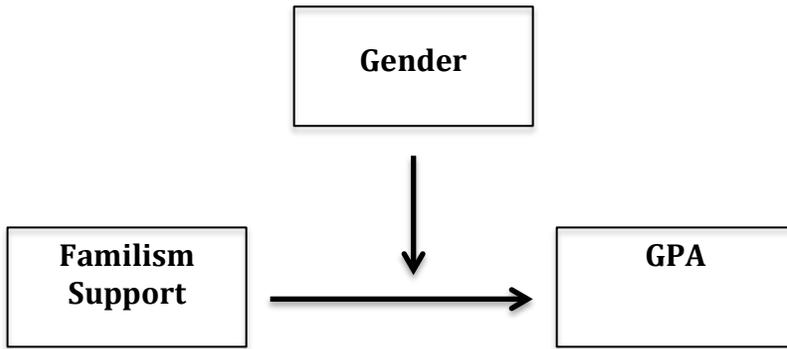


Figure 8. Gender as moderator between familism support and GPA.

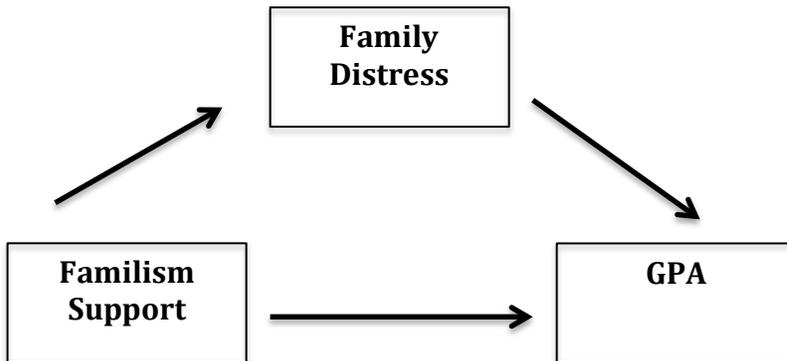


Figure 9. Family distress as mediator between familism support and GPA

Hypothesis 4a. There will be a positive relationship between familism support values and GPA mediated by family distress (Figure 9).

To answer question 4a, gender was effects coded (female = 0, male = 1) and the cross product (gender x family support) was created to test for an interaction effect. Hypothesis 4b would be supported if high familism-support values are positively related to academic

achievement and the relationship between familism-support values and academic achievement is stronger for girls than it is for boys.

Hypothesis 4b. There will be a positive relationship between familism support values and GPA and gender will not moderate this relationship (Figure 8).

To answer question 4b, a multiple regression (Keith, 2006; Preacher et al., 2007) was calculated with level of familism-support and family distress as the independent variables and GPA as the dependent variable. To establish if any of the relationships between the individual variables were significant, simple regressions were calculated with familism-support predicting family distress, family distress predicting GPA and familism-support predicting GPA. If any of these relationships failed to meet significance, then no mediation was presumed to exist and the hypothesis would be supported. If all three relationships were significant, a multiple regression with familism-support and family functioning predicting GPA would be calculated. Mediation would be supported if familism-support remains significant after controlling for family functioning. If familism-support was no longer significant when family distress was controlled for, full mediation would be found. If familism-support remained significant when family functioning was controlled for, partial mediation would be supported.

Chapter 4

Results

Preparation of the data, calculation of preliminary statistics, reliability statistics and correlations were conducted using SPSS 23.

Descriptive statistics.

Thirty-six students participated in the study. All participants completed the demographic questionnaire. One participant did not complete the YSR due to time constraints; therefore that participant was not included in analyses that included internalizing symptoms. Another participant did not complete the back page of the MACVS which included 2 items from the familism support scale and 1 item from the familism obligation scale. For this participant, the 4 of 6 completed familism support items, and the 4 of 5 completed familism obligation items were averaged and entered for the subscale scores.

Frequencies of participants' gender, age, grade, parent nationality, parent generation status, and economic status (as determined by eligibility for free or reduced lunch) were calculated to provide a general summary of participant characteristics (Table 1). The median age of participants was 12 years old. The majority of the participants were girls whose parents considered themselves first generation of Mexican descent and were from low-income backgrounds as determined by receiving free lunch.

Table 1

Participant Characteristics

Characteristic	Sample N	Sample %
Gender		
Female	23	63.9
Male	13	36.1
Age		
11	7	19.4
12	15	41.7
13	14	38.9
Grade		
Fifth	1	2.8
Sixth	9	25.0
Seventh	17	47.2
Eighth	9	25.0
Parent identified Ethnicity/Nationality/Heritage		
Mexican	29	80.5
Honduran	3	8.3
Cuban	1	2.8
Guatemalan	1	2.8
Hispanic/Latino	1	2.8
No Response	1	2.8
Parent Self-Reported Generation Status		
First	28	77.8
Second	3	8.3
Third	1	2.8
No Response	4	11.1
Family Income as Measured by Free or Reduced Lunch Qualification		
Qualify for free lunch	28	77.8
Qualify for reduced cost lunch	6	16.7
Do not qualify for free or reduced cost lunch	2	5.5

Descriptive statistics for all measured continuous variables are summarized in Table 2. Among the participants, all students had a GPA that was considered passing. Among boys, 3 had a GPA of 90 or above, 4 had 80 - 89 and 7 had at 70 - 79. Among girls, 1 had a 90 or above, 20 had 80 - 89 and 12 had at 70 - 79. Eighteen percent of girls had internalizing symptoms in the clinical range, and 36 percent of girls and 40 percent of boys had internalizing symptoms in the “at risk” range. Additionally, 60 percent of boys and 83 percent of girls reported family distress. Reports of means from the familism obligation and familism support values were very similar to scores found among participants from a recent study in which these scales were been found to be reliable (Zeiders et al., 2013).

Table 2

Descriptive Participant Statistics for Variables

Scale		Female	Male	Combined
Internalizing Symptoms	M	57.82	57.62	57.74
	SD	11.34	7.62	10.00
	N	22	13	35
Family Distress	M	2.12	2.03	2.12
	SD	0.28	.23	0.27
	N	23	13	36
Familism Support	M	4.32	4.50	4.38
	SD	0.40	0.51	0.44
	N	23	13	36
Familism Obligation	M	4.28	4.25	4.27
	SD	0.38	0.46	0.41
	N	23	13	36
GPA	M	79.64	79.85	79.71
	SD	6.51	7.04	6.61
	N	23	13	36

Note. GPA above 70 was considered passing at the school youth in this study attended. Internalizing symptoms score greater than or equal to 60 was considered “at-risk” and greater than or equal to 70 was considered in the “clinical” range. Family Distress was measured using the General Functioning (GF) Scale of the Family Assessment Device (FAD). Scores greater than 2.00 indicated family distress or

discord. Average values on previously validated participant group of similar background were 4.45 for the familism support scale and 4.26 on the familism obligation scale (Zeiders et al., 2013).

Preliminary Statistical Analyses

Descriptive statistics, including means, standard deviations, ranges, minimum and maximum values were analyzed for each variable. Inspection of frequency distributions, histograms, and scatterplots yielded no outliers. A correlation matrix was produced which included all variables in the study (Table 3). Tolerance statistics were also calculated for each independent variable in the regression analysis in order to assess for multicollinearity. According to Menard (2002), an R^2 of 0.80 or higher for any of the independent variables is indicative of multicollinearity. Inspection of tolerance statistics yielded no evidence of multicollinearity.

Table 3

Continuous Variables Correlations

	Familism Support	Familism Obligation	Family Distress	Internalizing Symptoms	GPA
Familism Support	--	--	--	--	--
Familism Obligation	.594**	--	--	--	--
Family Distress	-.079	-.101	--	--	--
Internalizing Symptoms	.054	.073	.141	--	--
GPA	.054	-.051	.068	-.045	--

Note. n= 35; * p <0.025; **p <0.01

The data were then examined to assure that statistical test assumptions of normality, linearity, and homoscedasticity were met. The normal distribution of continuous variables were determined by: (a) the normal curves for each variable observed in the histograms, and (b) the observed skew values for each variable. Examination of scatterplots showed no significant violation of linearity. The homoscedasticity assumption was not violated, as determined by

observing: (a) an equal spread of errors above and below the regression line, (b) the model residual scatterplots, and (c) the values for the Durbin Watson test, which fell between 1.5 and 2.5, signifying no severe or influential outliers. In sum, all statistical assumptions were satisfied.

Reliability. Adequate published reliability were lacking for the familism support and familism obligation subscales of the Mexican American Cultural Values Scale. Published reliability statistics were only available for studies conducted with Mexican and Mexican American participants; whereas individuals of Cuban, Guatemalan, and Honduran decent were among participants in this study. Therefore, Cronbach’s alphas were calculated for the familism scales in the study. Results appear in Table 4. Christmann and Van Aelst (2005) note that the internal reliability statistic Cronbach’s alpha usually must be above a value of .75 to be considered a reliable instrument. Calculation of reliability statistics indicated poor reliability for the Familism Obligation subscale, which consisted of five items with a range from 0 to 5 (Table 4). Reliability was improved by dropping two items from the scale, but reliability of the revised three-item scale remained lower than optimal ($\alpha = .629$). Given that the scale was important to the overall model, the scale was retained, but represented a substantial limitation in the interpretation of overall results. The Familism Support Scale, which consisted of six items with a range from 0-5 had nearly acceptable reliability and was retained without alteration.

Table 4

Reliability statistics (Cronbach’s alpha) for familism

Scale	Number of Items	Alpha
Familism Support	6	.694
Familism Obligation	5	.380

Primary Analyses: Tests of Research Questions

This quantitative experimental study examined the relationships among familism, family distress, gender, mental health and academic achievement in the lives of Latina/o early adolescents. The results of the following research questions are presented below. For all comparisons, significance was achieved if the F ratio met or exceeded the .025 level.

Research Question 1. To what extent do familism obligation values relate to Latina/o youth mental health and do family distress and gender moderate these relationships?

Hypothesis 1. It was hypothesized that there would be a negative relationship between familism obligation values and Latina/o early adolescent internalizing symptoms moderated by family distress and gender. To answer this question, gender was effects coded (female = -1, male = 1) and the cross products (Gender x Familism Obligation) and (Family Distress x Familism Obligation) were created to test for an interaction effect. Hypothesis 1 would be supported if high familism obligation values were negatively related to internalizing symptoms, the relationship between familism obligation and internalizing symptoms was more negative when family distress was low, and more negative for girls than it was for boys (Baron & Kenny, 1986).

Results. Internalizing symptoms were not significantly related to familism obligation values, and the addition of gender and family distress into to the model did not account for a significant amount of the variance (Table 5). Therefore, the hypothesis was not supported.

Table 5

Regression analyses predicting internalizing symptoms from familism obligation values, family distress, gender, and the interaction terms Familism Obligation x Family Distress and Familism Obligation x Gender.

Variable	Internalizing Problems				
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>T</i>	<i>P</i>
Familism Obligation	2.39	4.78	.098	.50	.621
Gender	-.320	1.94	-.03	-.17	.870
Family Distress	6.10	7.22	.16	.84	.406
Familism Obligation x Family Distress	4.51	18.59	.05	.24	.810
Familism Obligation x Gender	1.02	5.31	.04	.19	.848
<i>R</i> ²			.036		
<i>F</i>			.215		

Note. N = 35. All results non-significant.

Research Question 2. To what extent do familism support values relate to Latina/o early adolescent internalizing symptoms? Does family distress mediate and does gender moderate this relationship?

Hypothesis 2a. It was hypothesized that there would be a negative relationship between familism support values and Latina/o early adolescent internalizing symptoms mediated by family distress. To answer question 2, a multiple regression (Preacher et al., 2007) was calculated with level of familism support and family distress as the independent variables and internalizing symptoms as the dependent variable. To establish if any of the relationships between the individual variables were significant, simple regressions were calculated with familism support predicting family distress, family distress predicting internalizing symptoms,

and familism support predicting internalizing symptoms, controlling for family distress. Mediation was presumed to be supported if familism support remained significant after controlling for family distress. If familism support was no longer significant when family distress was controlled for, that would be evidence of full mediation. If familism support remained significant when family distress was controlled for, partial mediation would be supported.

Results. Internalizing symptoms were not found to be significantly related to familism support values (Table 6), and the addition of family distress into the model did not account for a significant amount of variance. Therefore, the hypothesis was not supported.

Table 6

Mediation effects of family distress (FD) on the relationship between familism support (FS) and internalizing symptoms (IS)

Variable	<i>B</i>	<i>T</i>	<i>P</i>
Mediation <i>a</i> path (FS on FD)	-.080	-.46	.646
Mediation <i>b</i> path (FD on IS)	.143	.82	.418
Total effect <i>c</i> path (FS on IS; No mediator)	.054	.31	.759
Direct effect <i>c'</i> (FS on IS including FD mediator)	.059	.34	.739

Note. N=35. All results non-significant.

Hypothesis 2b. It was hypothesized that gender would not moderate the relationship between familism support values and Latina/o early adolescent report of internalizing symptoms. To answer question 2b, gender was effects coded (female = 1, male = -1) and the cross products (Gender x Familism Support) were created to test for an interaction effect. Hypothesis 2b would be supported if high familism support values were negatively related to mental health symptoms

and the relationship between familism support values and mental health were the same for girls as for boys.

Results. The addition of gender into the model did not account for a significant amount of the variance (Table 7). The hypothesis was partially supported in that gender was not a moderator of the relationship between internalizing symptoms and familism support.

Table 7

*Regression analyses predicting internalizing symptoms from familism support values, gender, and the interaction term familism support values*gender.*

Variable	Internalizing Symptoms				
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>T</i>	<i>Sig</i>
Familism Support	1.32	4.20	.06	.31	.756
Gender	.19	1.87	.02	.10	.920
Familism Support*Gender	.45	4.20	.02	.11	.916
<i>R</i> ²			.004		
<i>F</i>			.038		

Note. N=35. All results non-significant.

Research question 3. To what extent do familism obligation values relate to Latina/o early adolescent GPA and do family distress and gender moderate these relationships?

Hypothesis 3. It was hypothesized that there would be a positive relationship between familism obligation values and Latina/o early adolescent GPA moderated by family distress and gender. To answer this question, gender was effects coded (female = 1, male = -1) and the cross products (Gender x Familism Obligation) and (Familism Distress x Familism Obligation) were created to test for interaction effects. Hypothesis 3 would be supported if familism obligation values were positively related to GPA and the relationship between familism obligation and GPA

was more positive when family distress was low and more positive for girls than it was for boys.

Results. The interaction term for familism obligation and family distress was significant indicating that family distress moderated the relationship between familism obligation and GPA (Table 8). In order to better understand the interaction of familism obligation and family distress in predicting academic achievement, familism obligation values and familism distress scores were trichotomized for the sake of this graphical display (Figure 10) with “low” including values one standard deviation below the mean, “medium” including values within one standard deviation of the mean and “high” including values above one standard deviation of the mean. In contrast to the hypothesis, GPA was not found to be significantly related to familism obligation variables, and the addition of gender into the model did not account for a significant amount of the variance. Therefore, the hypothesis was partially supported.

Table 8

Regression Analyses predicting GPA from familism obligation, family distress, gender, and the interactions terms Familism Obligation x Family Distress and Familism Obligation x Gender.

Variable	GPA				
	<i>B</i>	<i>SE B</i>	B	<i>T</i>	<i>P</i>
Familism Obligation	-2.98	2.90	-.18	-1.03	.313
Gender	-.50	1.17	-.07	-.43	.671
Family Distress	2.75	4.33	.11	.64	.529
Familism Obligation*Family Distress	-28.21	11.29	-.50*	-2.5	.018
Familism Obligation*Gender	3.16	3.23	.19	.98	.335
<i>R</i>²			.046		
<i>F</i>			1.34		

Note. N=36. **p* < .025.

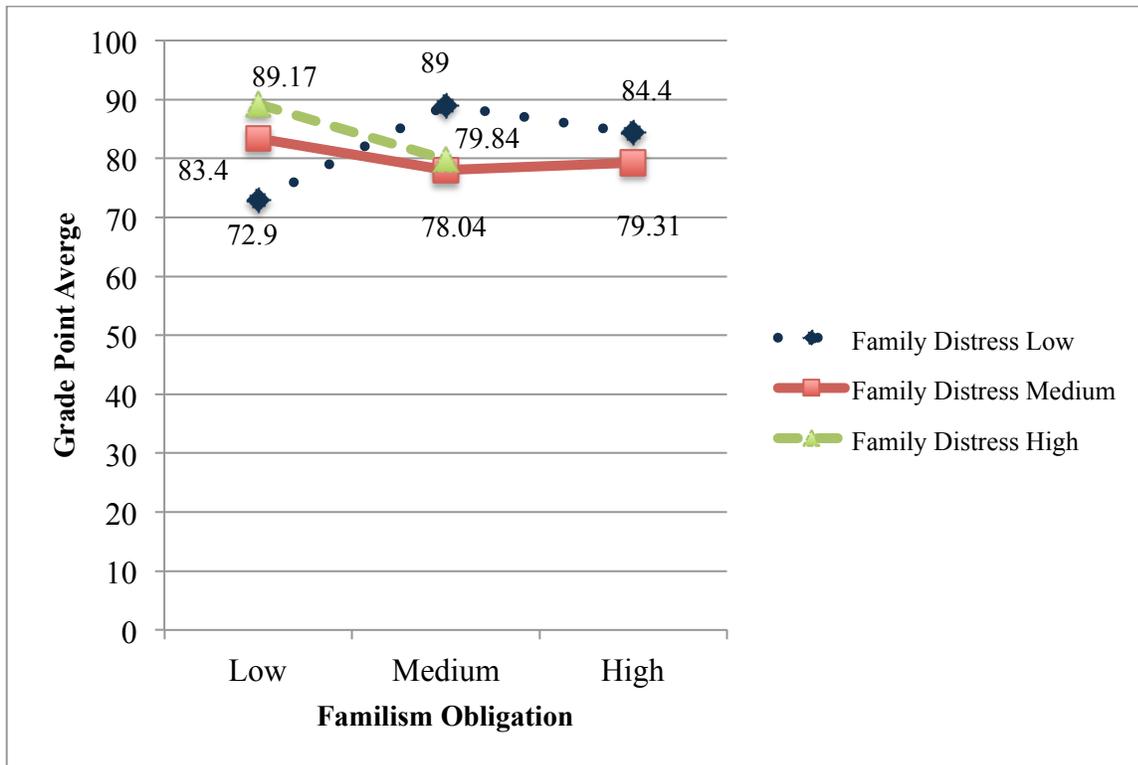


Figure 10. Family distress as a moderator in the relationship between familism obligation values and GPA.

Research Question 4. To what extent do familism support values relate to Latina/o early adolescent GPA? Does family distress mediate this relationship? Does gender moderate this relationships?

Hypothesis 4a. It was hypothesized that there would be a positive relationship between familism support values and GPA mediated by distress. To answer question 4a, a multiple regression (Preacher et al., 2007) was calculated with familism support and family distress as the independent variables and GPA as the dependent variable. To establish if any of the relationships between the individual variables were significant, simple regressions were calculated with familism support predicting GPA, family distress predicting GPA and familism support predicting GPA, controlling for family distress. Mediation would be supported if familism

support remained significant after controlling for family distress. If familism support was no longer significant when family distress was controlled for, this would be evidence of full mediation. If familism support remained significant when family distress was controlled for, partial mediation would be supported.

Results. GPA was not significantly related to familism support values (Table 9), and the addition of family distress into to the model did not account for a significant amount of the variance (Table 10). Therefore, the hypothesis was not supported.

Hypothesis 4b. It was hypothesized that there would be a positive relationship between familism support values and GPA and gender would not moderate this relationship. To answer question 4b, gender was effects coded (female = 1, male = -1) and the cross product (Gender x Familism Support) were created to test for an interaction effect. Hypothesis 4b would be supported if high familism support values were positively related to academic achievement and the relationship between familism support values and academic achievement was stronger for girls than it is for boys.

Results. GPA was not significantly related to familism support values (Table 9), and the addition of gender into to the model did not account for a significant amount of the variance (Table 10). Therefore, the hypothesis was partially supported in that gender was not found to moderate the relationship between familism support values and academic achievement.

Table 9

Mediation effects of family distress (FD) on the relationship between familism support (FS) and GPA (GPA)

Variable	B	T	P
Mediation a path (FS on FD)	-.08	-.46	.646
Mediation b path (FD on GPA)	.07	.42	.680
Total effect c path (FS on GPA; No mediator)	.05	.32	.754
Direct effect c' (FS on GPA including FD mediator)	.06	.34	.733

Note. N = 35. Gender was coded -1 = males, 1 = females. All results non-significant.

Table 10

Regression Analyses predicting GPA from familism support values, gender, and the interaction term Familism Support x Gender.

Variable	GPA				
	B	SE B	B	T	Sig
Familism Support	.72	2.70	.05	.27	.791
Gender	-.07	1.22	-.01	-.06	.953
Familism Support x Gender	1.21	2.70	.08	.45	.657
R²			.01		
F			.01		

Note. N = 36. All results non-significant.

Summary

It was hypothesized that both familism obligation and support values would be positively related to academic achievement and be negatively associated with mental health symptoms.. Additionally, it was hypothesized that family distress would weaken (moderate) the relationships between obligation values and the outcome variables, and family distress would explain (mediate) the relationships between support values and the outcome variables. It was also hypothesized that the relationships between familism obligation values and the outcome variables would be stronger among girls than boys.

Results found evidence for the moderating role of family distress on the relationship between familism obligation values and GPA among both male and female Latina/o early adolescents. Without accounting for family distress, GPA was not found to relate to familism obligation nor did the addition of gender into the model account for a significant amount of the variance. Familism obligation did not significantly predict internalizing symptoms and the addition of gender and family distress into the model did not contribute any additional significant variance. Familism support was neither significantly related to internalizing symptoms nor to GPA and the addition of gender and family distress into the model did not account for any significant variance.

Chapter 5

Discussion

Latina/o early adolescents have higher rates of mental health symptoms and academic concerns when compared to their non-Latina/o white peers. Therefore, understanding salient sources of risk and resilience among Latina/o early adolescents was the primary motivation on this study. More specifically, familism was examined as a central focus due to its previous associations with academic and psychosocial outcomes among Latina/o youth (e.g., Ayón et al., 2010; Ceballo et al., 2014; Gil et al., 2000; Harker, 2001; Unger et al., 2002). The primary purpose of this study was to examine the differential predictive relationships of familism support and familism obligation values on mental health and academic achievement of Latina/o early adolescents. A secondary purpose was to examine the potential moderating or mediating roles of family distress and gender on these pathways. It was hypothesized that both familism obligation and support values would be positively related to academic achievement and be negatively associated with mental health symptoms. Academic achievement was measured using the proxy of grade point average (GPA), and mental health symptoms were measured using the proxy of internalizing symptoms. Additionally, it was hypothesized that family distress would weaken (moderate) the relationships between obligation values and the outcome variables, and family distress would explain (mediate) the relationships between support values and the outcome variables. In line with previous studies, it was hypothesized that the relationships between familism obligation values and the outcome variables would be stronger among girls than boys.

Results found evidence for the moderating role of family distress on the relationship between familism obligation values and GPA among both male and female Latina/o early adolescents. In contrast to previous literature, among this sample, neither familism support nor

obligation values were found to be significant predictors of either academic achievement or internalizing symptoms when moderators were absent from the model. In the remainder of this discussion, the implications of these results will be examined, and the study limitations and areas for further research discussed.

Familism Obligation and Academic Achievement: The Moderating Role of Family Distress

Overall, previous literature has been inconclusive with regard to whether or not familism obligation values are protective or risk factors for academic adjustment among Latina/o teens. Many studies indicate that when feelings of obligation exist in tandem with family conflict or stress, they may pose substantial risk for adverse mental health outcomes and potentially for academic achievement (Nolle et al., 2012; East & Weisner, 2009). East and Weisner (2009) found that significant family responsibilities predicted adolescent stress, internalizing symptoms, and worse school outcomes, and familism did not buffer against the detrimental effects of extensive caregiving of younger siblings. In contrast, other studies found a positive relationship between familism obligation values and academic achievement and concluded that academic achievement may be a way for adolescents to honor or give back to their families (Esparza & Sánchez, 2008; Fuligni et al., 2002; Gonzalez et al., 2012) even in the face of high family conflict (Esparza & Sánchez, 2008; Fuligni et al., 2002; Gonzalez et al., 2012; Cupito, 2015).

A key finding of this study was evidence for the moderating role of family distress (as measured by the general functioning scale on the family assessment device) on the relationship between familism obligation values and GPA among Latina/o early adolescents. In the current study, there was a curvilinear relationship between familism obligation values and GPA when moderated by family distress. Specifically, when family distress was low, early adolescents in this study with moderate levels of familism obligation values had higher GPAs than those with

low or high levels of familism obligation values. Thus, moderate levels of familism obligation values were protective for academic achievement among youth with minimal distress in their families. In contrast, moderate levels of familism obligation values in conjunction with high or medium family distress yielded lower academic performance and were indicated as a risk factor (youth with high or medium distress did not endorse high familism values).

Fuligni et al. (1999), found a similar curvilinear relationship between familism obligation values and youth GPA in which youth with moderate levels of familism obligation values had higher GPAs than those with low or high obligation values. In contrast to the curvilinear relationship with GPA, Fuligni et al. found that other measures of academic adjustment (e.g. study time, academic aspiration, academic expectation) were directly related to familism obligation values in that those with the strongest feelings of obligation studied the most and had greater academic aspirations and expectations for themselves. This implies that among youth in their study, strong familism obligation values related to more effort and focus on academics but resulted in lower grades than those with more moderate levels of obligation. However, their study did not include family distress as a moderator, was conducted with 10th and 12 graders, and was done more than 15 years ago. Vargas, Roosa, Knight, & O'Donnell, 2013 examined familism values as a moderator in the negative relationship between Latino family adjustment as measured by adolescent mother-child conflict and grades. In their study, they used the same familism scale from the MACVS as the current study but did not specifically isolate obligation values. Among their participants, high familism values buffered the negative relationship between mother-child conflict and grades. However, they did not specifically look at familism support and familism obligation separately.

This study contributes to literature that indicates a nuanced relationship between familism obligation values and academic adjustment of Latina/o youth. These differential relationships appear to vary based on variables that exist in multiple layers of contexts in the youths' lives. Additionally, there is still not agreement or consistency in how these multiple contextual variables are measured and conceptualized in the lives of Latina/o early adolescents. Difficulties in measurement and conceptualizing of the constructs and implications for future research will be discussed further in the limitations section of this discussion.

Familism Support Values and Latino Youth Adjustment: Inconsistent Outcomes

It was predicted that the supportive aspects of familism values would predict positive family functioning which would in turn relate to higher grades and greater psychological well-being for Latina/o early adolescents. However, among the youth in this study, these relationships were not found to be statistically significant. Furthermore, familism support values were neither related to GPA nor mental health even when taking into account the interaction variables of family distress and gender. The lack of evidence for the protective influence of familism support values and composite familism values diverges from several studies indicating familism values as being related to positive youth outcomes and being associated with Latina/o adolescents feeling more connected with and supported by their family members (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Ceballo, Suarez, & Aretakis, 2014; Gil, Wagner, & Vega, 2000; Harker, 2001; Unger et al., 2002). For example, Zeiders et al. (2013) found that familism-support but not obligation values correlated with decreased depressive symptoms among both males and females over time. Familism as a composite has also been associated with stronger family bonds, lower family conflict, and greater psychological well-being among both boys and girls (Lorenzo-Blanco et al., 2012).

The failure to detect a significant relationship between familism support and either academic or mental health outcomes may be due to numerous factors. The small number of participants and the challenges in consistency and accuracy of measurement of familism may contribute to limitations of this study's ability to detect relationships that may in fact exist. These will be discussed in greater detail in the limitations section of this discussion. Unfortunately, there is still limited research examining to multiple aspects of familism values among Latina/o youth. Future studies should specifically examine the differential predictive roles of familism support and familism obligation values with academic achievement and mental health in more contexts and with larger samples to verify or challenge this finding. Additionally, qualitative follow-up studies with the same populations would help to better understand how these constructs interrelate based on youths' contexts both at home and at school.

A Population Succeeding Academically while Quietly in Distress

Similarly to previous studies (Toppelberg & Collins, 2010; CDC, 2014; Flores et al., 2002; Hovey & King, 1996), participants in this sample endorsed high levels of individual distress as measured by the YSR and family distress as measured by the family assessment device. Yet in contrast to previous studies, their distress was not directly related to their academic achievement. Approximately half of this population endorsed having either at-risk or clinically significant levels of internalizing symptoms (18% of girls had internalizing symptoms in the "clinical range" and 36% of girls and 40% of boys had internalizing symptoms in the "at risk" range). Furthermore, most of the youth in this study reported distress in their families as measured by the general functioning scale of the family assessment device, (60% of boys and 83% of girls). It should be noted that children and adolescents have been found to report greater distress in the families than their parents when they are suffering from psychological distress

(Tamplin, Goodyer, & Herbert, [1998](#)). However, among families with low socioeconomic status, the discrepancies in parents vs. youth report are much less (Georgiades et al. ,2008). Additionally, SES has been associated with greater report of family distress among all members within one family (Georgiades et al. ,2008). Ninety-five percent of the young adolescents in this study were living in “low income” households as measured by qualifying for free or reduced cost lunch and approximately half of the early adolescents endorsed internalizing symptoms. Therefore, the early adolescents reports of family distress in this sample should be interpreted in context with potential economic strain and emotional distress.

Despite the apparent distress in their families, early adolescents with high and medium levels of family distress actually performed better academically than those with lower levels of family distress when familism obligation values were low, indicating family distress in the absence of feelings of obligation as a protective factor for GPA. In previous studies, family distress and mental health symptoms were found to be strongly related to decreased academic performance, test scores, academic effort, and academic self-efficacy (Alva and de los Reyes, 1999; Zychinski & Polo, 2012). Academic achievement and depression have been found to be negatively associated with each other (Simonoff et al., 1997) on measures of standardized achievement tests (e.g., Herman et al., 2008; Ialongo et al., 1996), grade point average (e.g., Accordino et al., 2000; Shahar et al., 2006), and teachers’ ratings of mental health (e.g., Bandura et al., 1999; Ward et al., 2010). However, all of the youth in this study had cumulative GPAs of 70 or above and in the passing range. The following section will explore the role of the school as an additional important variable in understand the relationships between academic and emotional adjustment among Latina/o youth.

The Role of School

As mentioned, when interpreting these results, the unique context of the schools that the youth in this study attended should be considered. Youth in this study attended charter schools that are all part of the same national charter school network whose specific mission is to help students in educationally underserved communities develop skills to attend and succeed in college and beyond. The schools have an extended school day in which youth typically start between 7-7:30 a.m. and stay at the school until almost 5 p.m. Middle school students are typically assigned additional homework for each class. In order to attend the school, both youth and their parents must sign a contract agreeing to adhere to the values of the school, such as youth having strong attendance and completing quality work, and parents agreeing to attend a certain number of school-organized events.

Given that the youth in this study have parents who specifically enrolled them in schools that emphasize academic achievement and attending college, it may be that youth in this study are more likely to interpret obligation values through engaging in school work. Many first generation Latina/o students' parents decided to immigrate in order to allow their children to have a better education leading to a better life (Portes & Rumbaut, 2001), which may contribute to some parents choosing a school specifically focused on preparing for college. Therefore, the type of school the youth in this study attend may indicate a preference among parents for youth to dedicate themselves to school work above other duties. Latina/o adolescents may be especially motivated to do well in school for their parents who have sacrificed for their education (Portes & Rumbaut, 2001). Additionally, because the schools are known for helping low-income youth gain acceptance to college, economic stress (which may be related to perceived family distress) may be a motivator for early adolescents at these schools to succeed academically.

In contrast, the long hours of the school day and the additional demands of home work may place youth who have a great deal of responsibility at home into a difficult position of needing to decide between school work and family responsibilities. This may be a potential explanation for youth who have high family distress and feelings of obligation performing worse academically. However, this is speculation; the role of school culture, structure, demands and quality was not directly measured. Future research should specifically examine the influence of the school culture, demands, and quality on Latina/o youth academic and psychosocial outcomes.

Limitations

There are limitations to this study that should be considered when interpreting the results. A central limitation to the study is small sample size. Due to the limited sample size, it was not possible to examine parent and child reports of the same variables in the same model, although the literature suggests that parent-child cultural value match, as well as other parent factors contribute to youth adjustment. A smaller sample also limits the statistical power to detect relationships and interactions that may have been present. Furthermore, the number of boys and girls in the study was unequal (13 boys and 22 girls). Combined with the small sample size, this likely limited the ability to statistically detect gender differences among this sample. Additionally, data for this study were collected at only one time-point which limits this studies ability to detect the direction of the effects of the variables.

Finally, the proposed research questions and variables would best be examined with structural equation modeling analysis, which was not possible with this sample size.

A second limitation of this study was the challenge in consistently and reliably measuring familism values and their dimensions. Recent studies have specifically examined familism among Latina/o adolescents and have found support for a multi-dimensional construct of

attitudinal familism among this group. To create the multi-dimensional measure of familism (MACVS) used in this study, Knight et al. (2010) conducted focus groups with Mexican American adolescents and their families and, similarly to Sabogal et al. (1987), found three unique dimensions of familism: familism support (the emphasis on close family relationships), familism obligation (the sense of obligation to one's family) and familism referent (family as a referent in defining oneself).

The MACVS was originally validated in two separate studies. In the Puentes study, the measure was validated with 598 Mexican American seventh graders in an urban area in the Southwest. In La Familia study, the measure was with validated a population of 750 Mexican-American early adolescents (mostly 5th graders) who attended 47 public, religious charter schools in the same southwestern area. In both studies, internal consistency for Mexican American Values (Puentes Study $\alpha = .89$; La Familia Study $\alpha = .84$) and for the overall familism subscale (including support, obligation and referent values) (Puentes Study, $\alpha = .84$; La Familia Study, $\alpha = .80$) were good according to criteria reported by Ponterotto, J. G., & Ruckdeschel, D. E. (2007) based on sample size and number of items. However, the Cronbach's alpha for familism obligation values subscale (Puentes Study, $\alpha = .65$; La Familia Study, $\alpha = .54$) and familism support values (Puentes Study, $\alpha = .67$; La Familia Study, $\alpha = .62$) were poor to questionable. A subsequent longitudinal study with 492 Mexican and Mexican American adolescents (ages 13 – 15 years old) found that familism obligation ($M \alpha = .75$) and familism support ($M \alpha = .76$) were acceptable (Zeiders et. al. 2013).

Adequate published reliability were lacking for the familism support and familism obligation subscales of the Mexican American Cultural Values Scale and published reliability statistics were only available for studies conducted with Mexican and Mexican American

participants; whereas individuals of Cuban, Guatemalan, and Honduran descent were among participants in this study. Therefore, Cronbach's alphas were calculated for the familism scales in the study. Reliability statistics indicated poor reliability for the Familism Obligation subscale ($\alpha = .380$). Reliability was improved by dropping two items from the scale, but reliability of the revised three-item scale remained lower than optimal ($\alpha = .629$). Given that the scale was important to the overall model and already contained a small number of items, the scale was retained. The lack of reliability of this scale presents a substantial limitation in the interpretation of overall results.

Much of the previous literature on familism values and their relationships with Latina/o youth academic achievement has been conducted using composite measures of familism values rather than examining familism values as multi-dimensional. Furthermore, different measures of familism, obligations values and other cultural values have been used across studies. Still more needs to be understood about how familism is conceptualized and measured specifically in the lives of Latina/o early adolescents.

Along with the inconsistency of the familism scale, no studies to date have produced separate norms of the Family Assessment Device among early adolescents and youth, or more specifically among Latina/o early adolescents and youth. More specifically, the youth in this study come from low-income first and second generation families. SES has been associated with greater report of family distress among all members within one family. Yet, there are no norms among low-income Latino early adolescents so it is uncertain how the youth in this study's reports of family distress compare to similar populations. These factors should also be taken into account when interpreting what is meant by many early adolescents in this study endorsing a high amount of distress in their families.

Finally, the participants of this study represent a small but growing segment of Latina/o youth that attend charter schools with an emphasized mission and culture focused on academic achievement and college preparation. Therefore, generalizing results of this study to youth in other charter schools or public schools should be done with caution.

Implications for Research

This study contributes an additional layer of nuance to our understanding of how the multi-dimensional aspects of familism may influence the lives of Latina/o youth. Consistent with Lugo et al.'s (2003) measures of attributional familism, familism appears to have unique dimensions that differentially influence youth adjustment. However, King et. al.'s measure, which is one of the first multi-dimensional measures of familism validated on youth, has yielded questionable reliability for the familism obligation subscale and has mostly been used with Mexican American youth. Follow-up studies should continue to examine the constructs of familism obligation, support, and referent among Latina/o youth as well as determine if these scales may be valid for other populations of Latina/o youth. Additionally, follow-up studies should collect data over time to understand the direction of the relationships of these constructs and determine if they remain consistent over time.

Still more needs to be understood about how additional variables such as school, socioeconomic and family-level variables interrelate with familism and youth adjustment. Given that the youth in this study have parents who specifically enrolled them in schools that emphasize academic achievement and attending college, it may be that youth in this study are more likely to interpret obligation values through engaging in school work. Schools of this nature should be specifically examined and compared to other types of schools when examining the relationship between familism obligation values and academic achievement. This study is in

line with theory that suggests that familism is a unique, multidimensional construct that is psychometrically different from family functioning and influences Latina/o youth adjustment.

Implications for Practice

The intersection between familism obligation values and family distress and their combined influence on academic achievement warrants a better understanding of both family dynamics and cultural values when designing interventions and programs to help Latina/o youth succeed academically. Additionally, consistent with previous research, approximately half of the youth in this study were experiencing internalizing symptoms such as anxiety, depression, somatization, or a combination of these as well as distress in their families. Despite the lack of relationship between internalizing symptoms and academic achievement among youth in this study, these rates constitute an important risk and should encourage schools to provide mental health services and screening even to youth who may appear to be doing well in school. In fact, many youth who are performing well academically may not be identified as being in need of emotional support and may fall under the radar. Efforts to support Latina/o youth both academically and emotionally should include the family when possible, as well as take into account the cultural values and economic demands of the youth and their families.

Summary

This study is consistent with previous literature indicating that Latina/o youth are facing significant psychosocial distress and that familism values play an important role in teens' adjustment. More specifically, this study indicates the important role that family functioning plays in how familism obligation values impact Latina/o academic achievement. Furthermore, familism obligation and family support values appear to differentially relate to academic achievement in the lives of Latina/o youth. Still more needs to be understood and confirmed

about how familism support and familism obligation values are measured and conceptualized as well as what how other contextual factors (e.g. school quality and culture, other family dynamics, socio-economic variables) impact their relationship with Latina/o youth adjustment.

Appendix A

Demographic Questionnaire

We would like to ask you a few questions about yourself. Please answer all of the questions as completely as possible.

1. What is your gender?
 Male
 Female
 Other (please specify)
2. Which of the following best describes your current status?
 Single Remarried
 Married Widowed
 Divorced Living with someone
 Separated
3. What was the highest grade of school you completed? (Circle one)

Elementary	1	2	3	4	5	6	7	8
High School	9	10	11	12				
Post High School (technical or trade school)	1	2	3	4				
College	1	2	3	4	Degree? _____			
Graduate / Professional	5	6	7	8	Degree? _____			
4. What is your date of birth and age? Month____ Day____ Year ____ Age _____
5. Has your work schedule or job changed in the past year?
 No change in work or job status (1) Working more hours (4)
 Working fewer hours or on unpaid leave (2) Working at a different job (5)
 Had to quit previous job (3) Other, please specify (6)

6. Approximately what is your gross annual family income?

<input type="checkbox"/> Under \$10,000	per year
<input type="checkbox"/> \$10,000 - 20,000	per year
<input type="checkbox"/> \$20,001 - \$30,000	per year
<input type="checkbox"/> \$30,001 - \$40,000	per year
<input type="checkbox"/> \$40,001 - \$50,000	per year
<input type="checkbox"/> \$50,001 - \$60,000	per year
<input type="checkbox"/> \$60,001 - \$70,000	per year
<input type="checkbox"/> \$70,001 - \$80,000	per year
<input type="checkbox"/> \$80,001 - \$90,000	per year
<input type="checkbox"/> \$90,001 - \$100,000	per year
<input type="checkbox"/> Over \$100,001	per year

7. Please indicate the number of children currently residing in your home. _____

8. What is your relationship to the child participating in the study?

- | | |
|--|--|
| <input type="checkbox"/> Biological Parent (1) | <input type="checkbox"/> Foster Parent (4) |
| <input type="checkbox"/> Step Parent (2) | <input type="checkbox"/> Grandparent (5) |
| <input type="checkbox"/> Adoptive Parent (3) | <input type="checkbox"/> Other, please specify (6) _____ |

9. How would you describe your race (check all that apply)?

- | | |
|--|---|
| <input type="checkbox"/> White (1) | <input type="checkbox"/> American Indian / Native Alaskan (4) |
| <input type="checkbox"/> Black or African American (2) | <input type="checkbox"/> Native Hawaiian / Pacific Islander (5) |
| <input type="checkbox"/> Asian (3) | <input type="checkbox"/> Other, please specify (6) _____ |

10. How would you describe your ethnicity?

- Not Hispanic or Latina/o (1)
 Hispanic or Latina/o (2)

Describe what Hispanic/Latina/o ethnic group(s) (Ex: Mexican, Puerto Rican, Ecuadorian)

11. In what country were you born? Country _____

**If outside of the U.S. indicate # of years/months living in the U.S.*

Years _____ Months _____

12. What is your generational status?

- First Generation (born outside of the U.S.)
 Second Generation
 Third generation
 Fourth (or higher) generation

13. How long have you resided in Austin, TX? Years _____ Months _____

12. What language(s) do you speak?

a) Language: _____

What is your ability to communicate in this language?

Not at all Able 1	Slightly Able 2	Somewhat Able 3	Very Able 4	Completely Able 5
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b) Language: _____

What is your ability to communicate in this language?

Not at all Able 1	Slightly Able 2	Somewhat Able 3	Very Able 4	Completely Able 5
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c) Language: _____

What is your ability to communicate in this language?

Not at all Able 1	Slightly Able 2	Somewhat Able 3	Very Able 4	Completely Able 5
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INFORMATION ABOUT YOUR CHILD

The following questions are about your child who is participating in the study.

13. What is your child's gender? ___ Male ___ Female

14. What is the date of birth and age of your child participating in the study?

Month___ Day___ Year ___ Age _____

15. How would you describe your child's race (check all that apply)?

- | | |
|-----------------------------------|--|
| ___ White (1) | ___ American Indian / Native Alaskan (4) |
| ___ Black or African American (2) | ___ Native Hawaiian / Pacific Islander (5) |
| ___ Asian (3) | ___ Other, please specify (6)_____ |

16. How would you describe the ethnicity of your child?

- Not Hispanic or Latina/o (1)
- Hispanic or Latina/o (2)

Describe what Hispanic/Latina/o ethnic group(s) (Ex: Mexican, Puerto Rican, Ecuadorian)

17. What grade is your child in? _____

18. What is your child's Grade Point Average (GPA)? _____

19. Does your child have any medical condition or chronic illness?

- No (1)
- Yes (2)

If yes, please describe:

20. Has your child ever received the following services (check all that apply)?

- Counseling (1)
- Speech & Language (2)
- Special Education Services (3)
- Other (4)

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