

Winter 3-22-2024

Family Obligation, School Climate, and the Academic Achievement of Latinx Youth Living in One- and Two-Parent Households

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**Family Obligation, School Climate, and the Academic Achievement of Latinx Youth Living
in One- and Two-Parent Households**

A Thesis

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

By

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January 25, 2024

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Acknowledgments

I am grateful to several people who supported me to complete this thesis. Thank you to my thesis chair, Dr. Antonio Polo, for his guidance through every step of this project. I would not have been able to accomplish this without his support. Thank you to Dr. Molly Brown for being on my committee and providing thoughtful feedback to enhance this work. I would also like to thank mi mama y hermana, who served as my inspiration for this project and who have continued to support me in every way possible. Thank you to my husband for his unconditional support, which has served as a pillar of strength throughout this process. Finally, I want to extend my sincerest appreciation to the students, families, and staff of the Chicago Public Schools, whose time and commitment made this project possible.

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Abstract

Latinx youth are achieving lower levels of educational attainment when compared to their ethnic or racial peers from other backgrounds. Addressing these academic disparities is imperative, with the Latinx population in the U.S. experiencing substantial growth. Guided by the Positive Youth Development Model and the Integrative Model of Child Development, this study explored family obligation and school climate as factors associated with academic achievement. Participants included 268 Latinx youth, including 101 (37.7%) in one-parent households. Participants were 5th through 7th-grade students (56.7% female; $M_{\text{age}} = 11.4$), mainly 2nd generation (US-born with foreign-born parents; 77.2%), and primarily identified as Mexican American (70.5%). Analyses revealed that there were no significant differences in levels of family obligation ($F(2,421), p = .06$) or standardized test scores ($t(257) = -0.62, p = .132$) across household types. School climate moderated the relation between family obligation and test scores ($b = 5.78, 95\% \text{ CI} [.73, 10.8], t(152) = 2.26, p < .02$), but only among youth residing in two-parent households. These results underscore the intricate dynamics of cultural values, family composition, and environmental factors that may influence academic achievement among Latinx youth.

Keywords: Latinx, adolescents, household composition, family obligation, academic achievement, school climate

Family Obligation, School Climate, and the Academic Achievement of Latinx Youth Living in One- and Two-Parent Households

The Latinx population in the United States witnessed a substantial 23% increase, reaching approximately 62.1 million people from 2000-2021 (United States Census Bureau, 2021). Between 2006 and 2016, the number of Latinx youth under 18 saw a 22% increase (Lopez et al., 2018). Latinx youth in the U.S. encounter both structural and academic hurdles, leading to a substantial achievement gap compared to their Asian, White, and Black counterparts (National Center for Education Statistics, 2022). Despite national efforts, these educational disparities persist in higher education, with Latinx students exhibiting higher high school dropout rates and lower college enrollment rates compared to any other racial or ethnic group (National Center for Education Statistics, 2022). As the Latinx youth population in the U.S. rapidly grows, researchers must discern the contributing factors to these academic disparities.

Latinx Youth and Education

Latinx youth have made significant strides in educational achievement and attainment over the past few decades (Battle & Browne, 2018). Yet, the educational gap persists, starting as early as elementary school. For example, from 1992 to 2019, White youth scored (230) on average better in reading than their Latinx (209) counterparts based on test data from the 4th-grade National Assessment of Educational Progress (NAEP) exam (National Center for Education Statistics, 2022). Furthermore, the 4th-grade reading level of Latinx youth has not significantly changed since 1992 (National Center for Education Statistics, 2022). This achievement gap persists in 8th grade but has narrowed since 1992. Similar gaps exist in science and math test scores on the NAEP in which the average scores for Latinx 4th, 8th, and 12th graders remained lower than those of their White peers (Hussar et al., 2020).

Alternatively, as Latinx youth progress through high school, a lower percentage of Latinx students are dropping out, and more are enrolling in colleges (Krogstad, 2016). Between 2010 and 2020, the Latinx high school dropout rate drastically declined from 15.1% to 7.4% (National Center for Education Studies, 2020). Yet, Latinx youth still have higher high school dropout rates compared to their White (4.7%), Black (4.2%), and Asian (2.4%) peers (National Center for Education Statistics, 2022). Of note, high school dropout rates were higher for males than for females among those who were Latinx (8.9 vs. 5.9%) (National Center for Education Statistics, 2022). Additionally, high school dropout rates differed by nativity among Latinx youth. Latinx youth born outside of the U.S. were more likely to drop out of high school (15.8%) than first-generation Latinx youth (6.1%) and second-generation or higher (5.0%) (National Center for Education Statistics, 2022).

Furthermore, the educational gap persists into college. The college enrollment rates among Latinx young adults have increased since 2000, rising from 22.0% to 36.0% (Hussar et al., 2020). Yet, Asian (59.0%), White (42.0%), and Black (37.0%) peers are attending college and graduating at higher rates. Currently, Latinx students still earn bachelor's degrees or higher (21.0%) at lower rates than any other racial or ethnic group (White 45.0%, Black 29.0%, Asian 71.0%) (Hussar et al., 2020) and Latinx females are more likely to attend college (40.0%) than their male counterparts (32.0%) (Hussar et al., 2020).

Lastly, when examining other factors related to educational achievement and Latinx youth, there is a lack of readily available information that focuses on Latinx youth, family composition, and educational attainment. Much of the research either focuses on race and ethnicity and educational attainment or family composition and educational attainment.

These three concepts are rarely considered when focusing on Latinx youth. This could be because the majority of Latinx youth (56.2%) live with two married parents. Yet, research has neglected the remainder of Latinx youth who either live with one parent (29.1%-42%), cohabiting parents (10.8%), or no parents (4.0%) (Chen & Guzman, 2022).

What is known about family composition and education is that children living in one-parent households graduate from high school and college at lower rates (Barajas, 2011). Fewer (67.2%) youth from one-parent households graduate from high school compared to their two-parent counterparts (85.0%) (Hussar et al., 2020). One longitudinal study demonstrated that 12.0% of youth living in one-parent households graduated from college by the age of 24, whereas 38.0% of youth living with two-parents completed college by the same age (Ziol-Guest, et al., 2015). The educational gap among Latinx youth starts in elementary school and persists into early adulthood. This information, coupled with the lack of literature on household composition, makes it imperative to examine individual and environmental factors that can shed light on the academic outcomes of Latinx youth. Therefore, this study will examine family composition in order to address this gap in the literature and increase the accessibility of information regarding the interplay of family composition and educational attainment among Latinx youth.

Latinx Youth in One-Parent Households

The prevailing literature on children residing in one-parent households¹ has consistently underscored their elevated susceptibility to negative outcomes compared to their peers in two-

¹ There are several approaches to operationalizing household composition. The current study, like O'Malley et al. (2015) will operationally define a household by the number of parents who are currently living with the target student. Therefore, a single-family household is operationally defined as a household where the target child lives with only one caregiver. Children who are living with one parent and another adult (i.e., grandparent, older relative, etc.) will still be considered as living with only one parent as the level of involvement of the additional adult in caring for the child was not measured in this study.

parent households (Barajas, 2011; Battle, 1997; Murry et al., 2001; Richards & Schmiede, 1993).

A multitude of studies have highlighted the association between one-parent households and adverse consequences such as lower standardized test scores, reduced GPAs, higher rates of teenage pregnancy, increased instances of depression and anxiety, heightened likelihood of dropping out of high school, and engagement in delinquent behaviors (Amato et al., 2015; Barajas, 2011; Battle, 1997; Brown, 2010; Milne et al., 1986). Furthermore, households headed by one parent are more likely to live in poverty (34.4%) compared to those headed by married parents (4.7%) and cohabiting couples (16.0%) (U.S. Census, 2020). One-parent households are the second most common living arrangement in the U.S. and include 25.5 million children, (Census, 2020). Among these families, approximately 29.1% identify as Latinx (Chen & Guzman, 2022), which further emphasizes the importance of understanding the experiences of Latinx youth raised in one-parent households. Additionally, it is crucial to acknowledge that there are significant distinctions among the Latinx community since this pan-ethnic category comprises immigrant and U.S. native households (Tienda & Mitchell, 2006; Battle & Brown, 2018). Notably, the nuances within Latinx one-parent households extend to factors such as parental nativity and ethnic subgroups. For instance, the likelihood of living in a one-parent household differs between U.S.-born Latinx parents (38.0%) and foreign-born Latinx parents (24.0%) (Annie E. Casey Foundation, 2022), and distinct patterns are observed among various Latinx subgroups (Annie E. Casey Foundation, 2022; de Brey et al., 2019), with Puerto Rican (53.0%) and Dominican (53.0%) parents as the most likely to raise their child(ren) alone, followed by Central American (42.0%), Mexican (40.0%), Other Hispanic or Latinxs (40.0%), South Americans (32.0%) and Spaniards (29.0%) (de Brey, et al., 2019). Lastly, these disparities also extend to poverty rates, revealing the complex interplay of economic, social, and cultural

factors in shaping the experiences of Latinx families living with one parent, given that these families have the highest rate of poverty (58.0%) compared to their Black (54.0%), White (41.0%), and Asian (19.0%) counterparts (U.S. Census, 2020). These trends align with previous data points showing how racial stratification can worsen disadvantages even for marginalized populations such as mothers who are parenting alone. Therefore, expanding the literature on one-parent households and focusing on a strength-based approach is imperative, considering that 1 in 3 children live with only one parent (Annie E. Casey Foundation, 2022).

Furthermore, it is essential to counterbalance these stigmatizing findings by acknowledging that residing in a one-parent household does not inevitably lead to adverse outcomes for children. Despite what these findings may allude to, there are many instances where a sole parent successfully raises their children, prioritizing their education and fostering their overall well-being (Murry et al., 2001a; Battle et al., 1997; Richards et al., 1993). Additionally, Latinx families often value family obligation and support, which can be a protective factor for youth growing up in one-parent households.

It is vital to adopt a strength-based approach to advance the discourse on one-parent households. Recognizing these families' inherent strengths and understanding the cultural and environmental factors that contribute to academic achievement among Latinx youth in one-parent households can provide a more comprehensive and nuanced understanding of their experiences. By focusing on these strengths and examining the factors that contribute to positive outcomes, we can begin to contribute to a more holistic portrayal of one-parent households and counteract stigmatization. Therefore, this study will examine cultural and environmental factors that can provide a strength-based approach to fostering the academic achievement of Latinx youth raised in one-parent households.

Strengths and Resiliency among Children Living in One-Parent Households

Extant research on the social, emotional, and academic functioning of youth growing up in one-parent households has centered on identifying risk factors and focusing on comparisons with youth raised in two-parent households (Amato et al., 2015; Barajas, 2011; Milne et al., 1986; Sandefur & Wells, 1999). Few studies focus on the strength and protective factors of academic achievement among youth living in one-parent households (Barajas, 2011; Richards & Schmiede, 1993). Of those that do focus on strengths that promote positive academic outcomes, strong parenting skills, personal growth, communication, and family management have been identified as strengths (Richards & Schmiede, 1993). Another common strength identified across various studies was strong social support from family and community (Greeff & Fillis, 2009; Hanson, 1986; Morrison, 1995; Ramos & Tus, 2020; Richards & Schmiede, 1993) and a positive approach to problem-solving (Greeff & Fillis, 2009). Hanson (1986) discovered that positive outcomes in both physical and mental health for parents and children in one-parent households were associated with social support and effective communication between parents and their children. Children's perception of their parents' academic expectations was identified as a significant predictor of differences in achievement (Danforth & Miller, 2018; Zhan & Sherraden, 2003). Further, high levels of adolescent autonomy were linked to protective factors (Amato, 1987; Morrison, 1995; Richards & Schmiede, 1993), and strong parent-child communication have also been a common strength identified among one-parent households (Hanson, 1986). Additionally, living with one-parent can provide an environment without marital discord and reduce stress for both the child and parent (Annie E. Casey Foundation, 2022). A study conducted by Zhan & Sherraden (2003) is of importance, especially to policy work. Their findings revealed a positive association between the assets (savings and homeownership) of

caregivers who parent alone and their children's educational achievement; this relationship was mediated by parental expectations (Zhan & Sherraden, 2003).

Contrary to common assumptions, some studies challenge the notion that living in a one-parent household leads to lower academic achievement. Amato et al. (2015) explored the impact of the rise in one-parent households from 1990-2011 on state scores in the National Assessment of Educational Progress (NAEP). Their findings indicated no decrease in overall school performance despite the rise in one-parent households during this period. Despite their often-thriving outcomes, the literature is scarce when examining the strengths and resilience of youth living in one-parent households. This study addresses this gap by examining the cultural value of family obligation among Latinx youth and its association with academic outcomes, considering the moderating role of family composition.

Family Obligation among Latinx and Immigrant Families

Family obligation reflects a sense of duty to support, respect, and provide assistance to family members (Fuligni et al., 1999; Milan & Wortel, 2015b). Family obligation is salient to the Latinx community and is a protective factor for minoritized youth, particularly Latinx and Asian youth (Fuligni et al., 1999). Latinx and Asian American families are frequently described as having a collectivistic mindset that places a strong emphasis on duties and obligations to one another (Fuligni et al., 1999). Researchers have found that Latinx and Asian youth, in fact, have higher expectations of their responsibility to support, care for, and assist their families compared to their European American counterparts (Fuligni et al., 1999; Hardway & Fuligni, 2006). Fuligni and colleagues (1999) found that first-generation Mexican, Chinese, Filipino, and European adolescents all reported higher levels of family obligation compared to their third-generation peers, indicating that generational differences exist when evaluating levels of family

obligation. A possible explanation for this could be that foreign-born parents raised in Latin American or Asian societies may be more inclined to prioritize traditional family values in their childrearing than Asian and Latinx parents who are born in the U.S. (Suárez-Orozco & Suárez-Orozco, 1995).

It is important to note that both the rate of change and the intensity of family obligation have been shown to change from adolescence to young adulthood (Fuligni & Pedersen, 2002; Suárez-Orozco & Suárez-Orozco, 1995). For example, young adults from low socioeconomic status likely feel an unusually strong need to help out and support their parents and siblings, which results in higher levels of family obligation for these young adults (Fuligni & Pedersen, 2002; Suárez-Orozco & Suárez-Orozco, 1995). Additionally, gender differences are seen in young adulthood, with women placing more importance on assisting their families both currently and in the future (Fuligni & Pedersen, 2002).

Furthermore, a cross-sectional study by Telzer and colleagues (2014) that investigated family obligation as a protective factor against substance use among 9th and 10th-grade Mexican American adolescents indicated that levels of family obligation did not differ based on family composition (one- versus two-parent households), gender, or generational status (1st vs 2nd generation). Adolescents with more siblings reported higher levels of family obligation, as well as assisting their family and siblings more frequently (Telzer et al., 2014). Additionally, lower levels of socioeconomic status were linked to more helping behaviors in adolescents (Telzer et al., 2014). In a cross-sectional study examining attitudes toward family obligation among 10th and 12th graders who identified as Asian American, Latinx, and European American, researchers found that, consistent with the current literature, Asian and Latinx youth placed more importance on family obligation (Fuligni et al., 1999). Interestingly, in this study, family obligation was not

associated with socioeconomic status, the number of siblings, or whether a grandparent resided in the youth's home (Fuligni, 1998). Lastly, family obligation has been associated with prosocial behaviors, fewer internalizing problems in children, positive family and peer relations, and serves as a protective factor against substance use (Fuligni & Pedersen, 2002; Fuligni et al., 1999; Milan & Wortel, 2015a; Telzer et al., 2014).

The role family composition plays has not been systematically examined in studies of family obligation, nor has it been the focus. The previously mentioned studies by Telzer et al. (2014) and Fuligni et al. (1999) stand as the sole contributions addressing family composition in the context of family obligation and academic achievement. Telzer and colleagues (2014) found that family obligation did not differ by family composition, although only 12.0% of the sample was considered to be a one-parent household (Telzer et al., 2014). On the other hand, Fuligni and colleagues (1999) found that Mexican American and Central/ South American adolescents living in one-parent households (29.0%) endorsed higher levels of current assistance than their two-parent counterparts. Therefore, it makes it difficult to draw any conclusions regarding the association between family obligation and family composition, not just because of the inconsistent findings but also because most of the youth in both studies were from two-parent households. Given what is known about family composition and family obligation, we would expect to see that perhaps youth raised in one-parent households would rate family obligation higher as they may be expected to contribute more since there is only one parent. Additionally, if there are siblings in the households, perhaps the expected degree of assistance would be higher. More studies focusing on family composition among Latinx youth are needed to understand the effects of family obligation further.

Family Obligation and Academic Achievement

Research among Latin American and Asian youth has found that higher levels of family obligation are associated with increased academic motivation (Anguiano, 2018; Fuligni, 2001; Kiang et al., 2013). Asian and Latinx youth often see their school achievements as a way to contribute to their families' future, which supports their family obligation values. Latinx youth may also be motivated to be academically successful as a way to make their families' immigration scarifies worthwhile (Suárez-Orozco & Suárez-Orozco, 1995). As previously mentioned, family obligation has been connected with overall positive functioning and has been identified as a protective factor among Latinx youth (Fuligni & Pedersen, 2002). Yet, when examining family obligation and its association with academic achievement, the literature is surprisingly inconsistent. Eight studies connecting family obligation to achievement were identified and are reviewed in Table 1. Of those studies, four found a positive association (Anguiano, 2018; Kiang et al., 2013; Sy, 2006; Yan et al., 2021), one found a curvilinear association (Fuligni et al., 1999), and three found a negative association (Toyokawa & Toyokawa, 2019; Tseng, 2004; Witkow et al., 2015). Furthermore, only four studies utilized the same validated measure in its entirety to assess the value of family obligation (Anguiano, 2018; Fuligni et al., 1999; Tseng, 2004; Yan et al., 2021). Most importantly, only two studies measured academic achievement using official school records. One study conducted by Fuligni et al. 1999, identified a curvilinear relation between family obligation and academic achievement, specifically for the current assistance and respect for family subscales. The second study revealed a negative association between current assistance and academic achievement as measured by university records (Tseng, 2004). The remaining studies measured academic achievement via participant self-report. These studies used the Family Obligation measure created by Fuligni and colleagues (1999), which consists of three subscales, current assistance,

respect for family, and future support. Additionally, two studies utilized the Family Obligation measure but administered only some of the subscales. One administered only the current assistance subscale, and the second study administered current assistance and future support (Kiang et al., 2013; Witkow et al., 2015). Lastly, the remaining two studies used an unvalidated tool to measure family obligation in their samples (Sy, 2006; Toyokawa & Toyokawa, 2019).

Further, three of those eight studies also examined academic motivation and its association with family obligation; although academic motivation does not always equate to academic achievement, it is a predictor of achievement. All three studies found a positive association between high levels of family obligation and higher levels of academic motivation (Fulgini et al., 1999; Kiang et al., 2013; Tseng, 2004). Given the multitude of methodological differences across studies, the lack of consistent findings is unsurprising. A gold standard for measuring family obligation must be established to further understand the complexity of family obligation among Latinx youth and its association with academic achievement. Most importantly, more research is needed to reach a conclusion about how family obligation is associated with academic achievement, particularly with official school records. This study will seek to fill these gaps in the current literature by utilizing the Family Obligation measure, which is a validated tool, and measuring academic achievement through official school records.

School Climate and Academic Achievement

The construct of school climate has been described as the social characteristics of a school. School climate is the psychological experience of the school setting, which stems from an individual's experience of day-to-day school life (Cohen et al., 2009). School climate is a multidimensional concept that differs from the physical attributions of the school, those of a school's physical resources, and focuses on inter-group interactions and school atmosphere that

influence student learning and school functioning (Johnson & Stevens, 2006; Maxwell et al., 2017; Thapa et al., 2013). Empirical evidence suggests that school climate is one of the leading predictors of students' emotional, behavioral, and academic outcomes. It has been shown to affect mental health outcomes, self-esteem, and psychosocial adjustment (Brand et al., 2008; Thapa et al., 2013). Several empirical studies and systematic reviews consistently affirm the well-established relation between positive school climate and academic achievement across various grade levels (Benbenishty et al., 2016; Berkowitz et al., 2017; Crosnoe et al., 2004; Hoy & Hannum, 1997; Jia et al., 2016; Ma & Klinger, 2000; McEvoy & Welker, 2000; Sherblom et al., 2006; Wang et al., 2010). Students' endorsement of a positive school climate has been linked to increases in school achievement, which includes standardized test scores and graduation rates (Benbenishty et al., 2016; Jia et al., 2016). Notably, a recent meta-analysis by Wang and colleagues (2020) revealed a positive association between school climate and academic achievement, irrespective of the student's grade level. Studies focusing on achievement measured through standardized test scores have also shown a relation between school climate and achievement in mathematics, reading, and writing (Reynolds et al., 2017). Students in elementary school, assessed school climate through the construct of the school's order and organization demonstrated a higher likelihood of having higher test scores in both math and reading, along with experiencing greater progress in these abilities over time (Gaskins et al., 2012). Additionally, another study found that youth endorsing higher levels of school climate demonstrated greater gains in their reading achievement but not in math when youth were in elementary school (Ponitz et al., 2009). Furthermore, McCoy et al. (2013) carried out one of the few studies utilizing longitudinal standardized test scores to investigate the direction of the relation between school climate and academic achievement in Chicago elementary schools.

Findings revealed a positive bidirectional relation between these two variables (McCoy et al., 2013). Moreover, among a sample of high schoolers, higher levels of school climate were associated with higher math achievement (Denver et al., 2011). Favorable school climate perceptions have also been linked to improvements in school attendance and academic engagement and a decrease in school disciplinary action (Gage et al., 2016; Wang & Eccles, 2013; Wang et al., 2010). In a study focusing on middle schoolers, results showed that a healthy school climate promoted academic achievement in students (Hoy & Hannum, 1997). Further, empirical evidence suggests that school climate is associated with academic achievement regardless of student's socioeconomic status (Berkowitz et al., 2017; Brand et al., 2008; Hoy & Hannum, 1997). In a comprehensive review of school climate, researchers found that a positive school climate mitigated the negative contributions of low socioeconomic status on academic achievement (Berkowitz et al., 2017). These findings suggest that a positive school climate is consistently linked to academic achievement among students.

Most studies to date have discovered that, on average, Latinx students rate their school climate less favorably than their White peers, with a few exceptions (Anyon et al., 2016; Berkowitz et al., 2017; Bottiani et al., 2014; Fan et al., 2011; Parris et al., 2018; Voight et al., 2015). Recent research has explored the notion that Latinx middle school students' opinion of school climate varies by their sense of equity in the school (Romero & O'Malley, 2020). Furthermore, other studies have utilized path analysis to demonstrate that academic performance and school attendance deteriorate when perceptions of school climate are rated negatively due to discrimination experiences among Latinx adolescents (Benner & Graham, 2011). Additionally, in California middle schools, Voight and colleagues (2015) reported a decrease in the achievement gap between Latinx students and their White counterparts when school climate perceptions gaps

were less extreme among the groups. It is important to note that although Latinx youth may seem to rate school climate less favorably, studies looking at race/ethnicity related variations in school climate perceptions have treated Latinx youth as monolithic groups and have ignored within-group differences (Romero & O'Malley, 2020). Although there is an abundant amount of research on school climate and its association with academic outcomes, social-emotional outcomes, and healthy adolescent trajectory, research on school climate that solely focuses on Latinx youth is scarce. A recent study focusing on within-group differences in Latinx youth found that perceptions of school climate among Latinx middle schoolers were highly heterogeneous with approximately half of the Latinx participants rating school climate as positive (Romero & O'Malley, 2020). This important finding refutes the deficit narrative that is spread when perceptions of school climate among Latinx students are compared to their White counterparts. It also supports the claim that many Latinx children have favorable attitudes of their school climate (Romero & O'Malley, 2020).

A recent systematic review of school climate focused on teacher-student relationships and the academic achievement of Latinx students (Li, 2018). Out of the ten studies exclusively focused on Latinx youth in this review, only one study employed standardized test scores to measure academic achievement (Murray, 2009). This study found a positive association, indicating that Latinx students who rated school climate higher performed better in mathematics and language arts (Murray, 2009). Furthermore, one study utilizing official GPAs reported a positive relation between higher-rated school climate and Latinx youth's GPA (Valiente et al., 2008). Additionally, a study collecting self-report measures of grades in reading and math revealed that a positive school climate significantly predicted self-reported math grades for Latina female students (Mireles-Rios & Romo, 2010).

Despite the abundance of studies on school climate, there is a noticeable gap in research dedicated solely to understanding the experiences of Latinx youth in this context. Additionally, systematic reviews focusing on Latinx students often lack a thorough examination of academic achievement, with only one study utilizing standardized test scores. Therefore, this study aims to fill this gap by exploring the relation between school climate academic achievement among Latinx youth, contributing to a more comprehensive understanding of the factors influencing their educational outcomes.

School Climate and Family Composition

School climate has also been shown to moderate the effects of family composition and students' academic achievement (Huang et al., 2017; O'Malley et al., 2015). O'Malley and colleagues (2015) conducted a cross-sectional study investigating the moderating effects of high school students' perceptions of school climate on the relation between family composition (two-parent, one-parent, foster-care, and homeless households) and student self-reported GPA. This study revealed that the moderation effect of positive school climate perception on self-reported GPA was strongest for youth from one-parent homes and homeless youth (O'Malley et al., 2015). This suggests that a positive school climate may have a protective effect on students living in these family configurations (O'Malley et al., 2015). O'Malley and colleagues (2015) did not report on the racial or ethnic differences in family composition, but the study sample was majority Latinx (45.4%). Furthermore, a recent correlational study, intending to replicate the findings of O'Malley and colleagues (2015), tested whether school climate would be a protective factor among students living with one parent or no parents (Huang et al., 2017; O'Malley et al., 2015). Results from this study revealed that students' who lived with one parent or no parents, and provided rating of school climate, measured through student perceptions of disciplinary

action, academic demandingness, and student assistance, had a positive association with students' self-reported GPA (Huang et al., 2017). This sample included 56,508 middle school students attending public schools. However, it is noteworthy that this study did not delve into the variations in race/ethnicity among students hailing from one-parent households. Addressing this gap, the present research endeavors to offer a comprehensive investigation, concentrating exclusively on Latinx youth, while simultaneously exploring the potential moderating impact of school climate on academic achievement. By undertaking this endeavor, the study aims not only to replicate existing findings that highlight the role of school climate in moderating the relation between family composition and academic achievement but also to expand the existing literature. This expansion will be achieved by broadening the scope of research concerning Latinx one- and two-parent households, ultimately adding depth to the existing body of knowledge in this field.

Theoretical Framework

The proposed study can be situated within two theoretical models. First, the Positive Youth Development Framework (PYD) offers insight into viewing youth as persons with resources and strengths to be nurtured rather than problems to be addressed (Lerner et al., 2005). The PYD model has demonstrated how individual and environmental protective factors can promote healthy youth development among at-risk youth (Edwards et al., 2007; Lerner et al., 2005). From this viewpoint, healthy life trajectories consist of mutually beneficial relationships between youth and their socioecological systems. The PYD has demonstrated how building personal and environmental strengths can promote healthy youth development. Most importantly, the PYD model neither demands nor implies an absence of problems; it merely interprets them within the context of the individual's capabilities and functioning overall (Gaylord-Harden et al., 2018; Pittman et al., 2001). In conjunction with the PYD model, Garcia Coll and colleagues

(1996) Integrative Model of Developmental Competencies in Minority children also encourages studying Latinx youth from a contextual and strength-based perspective (see Figure 1). This model places social stratification constructs and social position at the model's core instead of sidelining these considerations as prior socio-developmental frameworks and models have done (Garcia Coll et al., 1996). This framework considers how social positional, environmental, cultural, and youth factors interact to predict psychosocial and academic outcomes (Garcia Coll et al., 1996). Following the Integrative Model, the proposed study focuses on family constructs (i.e., family structure) and how societal constructs in the form of youth's social position (i.e., ethnicity), their adaptive culture (i.e., family obligation) and promoting environments (school climate) relate to one another to promote positive youth development in this population (See Figure 1). Furthermore, Gaylord-Harden and colleagues (2018) have begun extending the Integrative Model by adding notions of the PYD framework to account for the prosocial development of African American boys and young men. The authors have combined both models to attempt to understand the positive development of African American youth in the face of greater developmental risk and difficulties due to their intersectionality of race, gender, and socioeconomic status (Gaylord-Harden et al., 2018). Aspects of the Integrative Model of Child Development have inspired recent studies on African American boys and young men, that serve as illustrations of how PYD might be monitored within it (Gaylord-Harden et al., 2018). For example, for African American boys and young men, this model promoted awareness and understanding of the protective role of racial socialization and the interaction of racial identity, stress, response, and prejudice (Hughes et al., 2006; Seaton et al., 2009). The authors suggest that by extending Garcia Coll and colleagues' model to incorporate the PYD framework, we can begin to comprehend how youth faced with societal adversity can flourish. Therefore, the

proposed study, like Gaylord- Harden, and colleagues (2018), will extend the Integrative Model to include the PYD framework to examine academic outcomes among Latinx youth by focusing on the nuances of family composition while also acknowledging the cultural significance of family obligation—an integral value within the Latinx community. Moreover, the research will probe the dynamic interplay between family composition, school climate, and academic achievement, with a keen awareness of their potential moderating dynamics.

Rationale

In summary, although family obligation has been linked to promotive factors among Latinx youth, the findings of family obligation and academic achievement are inconsistent, and only two studies could be found linking family obligation to official school grades or achievement reports. Given that there is no gold standard for measuring family obligation, this has led to methodological differences across studies, making it difficult to interpret the association between family obligation and academic achievement across various studies. Furthermore, considering that only three studies have focused on school climate and academic achievement exclusively among Latinx youth, it is imperative to understand how school climate impacts achievement among this population. These major limitations in the literature, along with the lack of consideration for moderating factors that may influence the association between family obligation and academic achievement, such as school climate or family composition type, leave much more for growth in these areas of study. Furthermore, considering that family obligation has been shown to have a positive association with academic motivation, it is crucial to better understand the nuances that may exist between family obligation and academic achievement, as this may be vital in bridging the current academic attainment gap among Latinx youth. Furthermore, limited research exists on the impacts of family composition among Latinx

youth. Consequently, this study aims to address these gaps in the current literature by 1) adopting a strength-based approach to comprehend cultural and environmental factors that may enhance academic achievement among Latinx youth, 2) focusing on the educational achievements of Latinx youth through official school records, 3) investigating the associations between family composition, family obligation, and academic achievement among Latinx youth and 4) exploring the moderating effects of school climate on academic achievement among Latinx youth.

Statement of Aims and Hypotheses

Aim 1a. To explore family obligation across family composition among youth of Latinx backgrounds. Differences between one- and two-parent households will be explored across three domains of family obligation.

Hypothesis 1a. It is expected that youth raised in one-parent households will report significantly higher levels of current assistance, respect for family, and future support than those in two-parent households.

Aim 1b. To explore academic achievement across family composition among youth of Latinx backgrounds. Differences between one- and two-parent households will be explored across academic achievement.

Hypothesis 1b. It is expected that Latinx youth from two-parent households will score significantly higher in their standardized tests than those in one-parent households.

Aim 2. To examine the moderating effects of family composition on the relation between family obligation and academic achievement among Latinx youth. Should significant findings emerge from this aim, subsequent analyses for Aim 3 will be run separately for youth in one-parent and two-parent households.

Hypothesis 2. It is expected that family composition will moderate the relation between current assistance, respect for family, and future support (evaluated separately) and standardized test scores among Latinx youth. Specifically, higher family obligation will be associated with higher achievement, especially among youth in one-parent households.

Aim 3. To examine the moderating effect of school climate on the relation between family obligation and academic achievement. Three models will be evaluated, one for each of the domains of family obligation (current assistance, respect for family, and future support) and independently across the two-family composition groups if the results from Aim 2 are significant.

Hypothesis 3. School climate will moderate the relation between family obligation and academic achievement. Higher family obligation will be associated with higher levels of academic achievement, particularly among those reporting higher levels of positive school climate.

Method

Participants

Participants were recruited from 9 Chicago Public Schools (CPS) and were in 5th-7th grade. At the time they enrolled in the study, they were between 10-14 years old ($M_{age} = 11.4$). The total sample includes 268 youth of Latinx backgrounds, 101 living with one-parent and 167 living with two- parents. The majority of the Latinx youth identified as Mexican American (70.5%; $n = 189$), followed by Puerto Rican (10.1%; $n = 27$), Central American or South American (6.3%; $n = 17$), and Mixed Latinx backgrounds (13.1%; $n = 35$). In terms of nativity, youth were mostly second generation (77.7%; $n = 207$), followed by third generation (9.0%; $n = 24$), first generation (7.1%; $n = 19$), and those who were not of immigrant backgrounds (6.3%; $n =$

= 19). Participant demographics are represented in Table 2 for the overall sample and comparing youth living in one-parent and two-parent households.

Preprocessing

Prior to conducting analyses, the dataset was examined for missingness. There were no missing data across the entire 268 participants for age, gender, and family obligation. A total of 9 participants had missing data on standardized test scores and could not be included in the analyses. Two participants had missing data on three or fewer items from the school climate measure. For these participants, missing data for school climate were addressed using within-item mean imputation. All variables were checked to ensure the assumptions for parametric analyses were met. The data were analyzed for outliers, and no outliers were identified as needing removal from analyses.

Measures

Demographic variables. Participants were asked to report on demographic questions during the classroom surveys (students) and individual interviews (child and parents). Since items related to ethnicity, Latinx subgroup, nativity, and family composition were asked of parents and children, families were classified combining data from both parent and child reports. Data from both reporters were utilized to finalize each demographic variable. If there were discrepancies between parent and child reports, the parent response was used to inform the final classification for ethnicity, Latinx subgroup, nativity, and family composition.

Family Obligation. The Family Obligation measure (Fuligni et al., 1999) is a 25-item self-report measure that assesses youth's sense of obligation to support, assist, and respect their family across three subscales. The current assistance subscale ($\alpha = .87$, for this sample), which

includes 12-items, asks youth to assess how often they believe they should assist with household tasks and spend time with family members on a scale from Almost Never (1) to Almost Always (5). Youth rate statements such as “Spend time with your family on the weekends.” The respect for family subscale measures the importance of respecting and following the wishes of parents and other family members. This seven-item subscale ($\alpha = .82$, for this sample) includes statements such as “Treat your parents with great respect,” rated on a scale from Not at all Important (1) to Very Important (5). The third subscale, future support ($\alpha = .81$, for this sample), contains six-items that assess the importance to support and be near family in the future. This measure uses a scale ranging from Not at all Important (1) to Very Important (5), and youth respond to items such as “Help your parents financially in the future.” Student self-report of family obligation was collected during the one-on-one interview conducted during the second semester (December -June) of the academic year.

School Climate. School climate was assessed using the California School Climate and Safety Measure (CSCSS) (Furlong et al., 2005). The CSCSS includes 24-items ($\alpha = .81$ in this sample) asking youth about feelings of safety, respect, support, and interpersonal relationships at their school. Using a five-point Likert scale (ranging from “1=Strongly Disagree” to “5=Strongly Agree”), students respond to questions such as “My teachers respect me.” A high score on this measure indicates that students feel that the school climate has a high level of positive support. This measure was collected from students during the classroom surveys, which were collected during the first semester of the academic year, and prior to the one-on-one interviews.

Academic Achievement. This study used standardized test scores as a measure of academic achievement, focusing on math and reading scores from the Northwestern Evaluation Association’s (NWEA) Measure of Academic Progress (MAP) growth test. Students in

Kindergarten through 12th grade can take the NWEA MAP Growth exam, a computerized assessment, to see how well they are learning the disciplines of arithmetic and reading. This test helps identify achievement levels of learners, demonstrates growth over time, and guides instruction. Within the Chicago Public school systems, the NWEA MAP Growth K-12 is administered in reading and mathematics only. To gauge the student's success, each subtest is graded using a separate Rasch Unit Scale (RIT) that is constructed in equal intervals based on item difficulty. Participants' math and reading scores for the NWEA RIT were combined into an average score. Math and reading test scores were chosen because they were the two academic subjects that were evaluated for all students across grades and schools. These standardized test scores were collected from school records for each student.

Procedure

As part of a larger longitudinal study testing an intervention, students in 5th, 6th, and 7th grade were initially recruited through classroom surveys. Prior to participation, parental consent and student assent were obtained. Parents were told the study's main purpose was to learn about the well-being of boys and girls between the ages of 10 and 15. Students were informed that the purpose of the study was to learn about programs designed to address youth stress and enhance coping and youth well-being. Adolescents who were at risk for depression were oversampled in order to identify students who were more likely to be eligible for the intervention study. The parents of youth who completed the survey were contacted by phone and invited to participate in a two-hour interview, along with their child, to assess eligibility for the intervention.

Parents' consent and students' assent forms, which were completed by participants as an indication of their consent to take part in the study and interviews, were read and reviewed by study staff prior to the interviews. Parent and youth interviews occurred concurrently and in

different rooms by trained interviewers. Paper response scales were supplied for each metric, and questions were read aloud to participants. Student interviews included the administration of the family obligation measure. Students were given a \$25 gift card after finishing each interview, while parents received a cash incentive of \$30 for their participation. Interviews were completed between December and June during the second semester of the academic term. Students' Spring NWEA standardized test scores were obtained directly from their respective schools during the same academic year that the survey and individual interviews were conducted.

Results

Correlations among the Entire Sample

Bivariate Pearson correlations were run to examine associations across study variables and to identify potential covariates for the entire sample (see Table 3). For the entire sample, age was negatively correlated with the current assistance and future supports subscales, suggesting that older youth reported lower family obligation. Age was also negatively correlated with school climate, indicating that older participants tended to endorse lower levels of school climate. On the other hand, age was positively correlated with standardized test scores indicating that older participants tended to have higher standardized test scores. Furthermore, gender was significantly and negatively correlated with current assistance and respect for family subscales. These results indicate that females reported slightly lower levels of family obligation compared to males. The significant correlations found in the overall sample help to identify potential covariates and provide insights into the associations between age, gender, the various subscales, standardized test scores, and school climate. The presence of these correlations suggests that age and gender should be considered as covariates in the subsequent statistical analyses to control for their effects on the relation between other study variables.

Correlations among Youth in One-Parent Households

Correlations among youth in one-parent households (see Table 4) revealed that age was significantly and negatively correlated to the future supports subscale. This indicates that within one-parent households, as the youth's age increased, their reported level of future support decreased. Furthermore, age was significantly and negatively correlated with school climate, indicating that older students tended to report lower levels of positive school climate.

Additionally, current assistance, respect for family, and future supports subscales were all significantly and positively associated with school climate, indicating that students who endorsed high levels of family obligation also rated their school climate highly. Interestingly, among youth residing in one-parent households, standardized test scores were not correlated with school climate, nor were they correlated with any of the family obligation subscales in this sample.

Correlations among Youth in Two-Parent Households

Correlations among youth in two-parent households (see Table 4) revealed several noteworthy findings. First, gender demonstrated significant associations with various measures. Specifically, gender was negatively correlated with the current assistance and respect for family subscales, indicating that within two-parent households, females tended to report slightly lower levels of family obligation compared to males. Furthermore, age demonstrated significant positive correlations with standardized test scores, indicating that within two-parent households, older participants tended to achieve higher scores on standardized tests. Furthermore, age was significantly and negatively correlated with school climate, indicating that older youth tended to report less positive school climate. Unlike the patterns observed among youth residing in one-parent households, when examining the family obligation subscales, current assistance, respect for family, and future supports were all significantly and negatively associated with standardized

test scores. This indicates that youth living in two-parent households who endorsed higher levels of family obligation obtained lower standardized test scores. Similarly, to youth in one-parent households, current assistance, respect for family, and future supports were positively and significantly correlated with school climate among youth in two-parent households. On the other hand, as was the case with youth in one-parent households, standardized test scores were not associated with school climate among youth in two-parent households.

Statistical Analyses

Hypothesis 1

Hypothesis 1a. To test hypothesis 1a, SPSS V.25 was used to conduct a one-way multivariate analysis of variance (MANOVA) to examine variations in youth scores on the three family obligation subscales (current assistance, respect for family, and future support) while controlling for age and gender, across the two-family composition status groups (one-parent and two-parent households). The overall effect of family composition on the family obligation subscales was not significant, ($F(2,421)$, $p = .06$, Pillai's Trace = .02, partial $\eta^2 = .02$). The overall test of mean differences in the three family obligation subtests did not reveal statistically significant differences between the household types. Youth in one-parent households reported lower mean scores in all three family obligation subscales (see Table 4). Due to the lack of statistical significance in the overall test, no further analyses were conducted to explore group differences across the subscales.

Hypothesis 1b. Table 4 shows the mean standardized test scores across household types. An analysis of covariance (ANCOVA) was conducted to examine standardized test scores for youth residing in one- and two-parent households while controlling for age and gender. Contrary

to the hypothesis, the ANCOVA revealed that the differences in the test scores between the two groups were not statistically different, $F(1,258) = .50, p = .48$.

Hypothesis 2

A moderated regression was conducted using Model 1 of the SPSS PROCESS macro v4.0 to determine the effects of family composition on the relation between family obligation and academic achievement among Latinx youth. Three models were run for the three family obligation subscales, current assistance, respect for family, and future support, and were entered as the independent variable (see Table 5). Standardized test scores (NWEA) were entered as the dependent variable, family composition was entered as the moderator, and age and gender were entered as covariates. The number of bootstrap samples was set to 10,000 and the predictor variables were mean centered. The overall model for current assistance as the predictor was significant $F(5, 253) = 6.42, p < .001, R^2 = .12$. First, the interaction between current assistance and standardized test score moderated by family composition type resulted in a significant increase in the variance explained by the model, $\Delta R^2 = .02, F(1, 253) = 6.30, p < .01, b = -5.52, 95\% \text{ CI}[-9.86, -1.19], t(253) = -2.51, p = .01$. The interaction effect revealed a significant variation in the relation depending on family composition type. Simple slopes analyses revealed that a significant negative relation was observed for youth residing in two-parent households ($b = -4.69, 95\% \text{ CI}[-7.52, -1.85], p < .001$), but not for youth in one-parent households ($b = .84, 95\% \text{ CI}[-2.50, 4.14], p = .62$). Contrary to predictions, higher family obligation was not associated with higher achievement among youth in one-parent households, and higher levels of current assistance were associated with lower standardized test scores among youth living in two-parent households (see Figure 2).

When including the respect for family subscale as the predictor variable, the overall model was significant, $R^2 = .10$, $F(5, 253) = 5.90$, $p < .001$, and family composition was not a significant moderator, $b = -1.18$, 95% CI[-6.89, 4.53], $t(253) = -.40$, $p = .68$. Likewise, when the future supports subscale was the predictor variable, the overall model was significant $R^2 = .10$, $F(5, 253) = 5.89$, $p < .001$, and family composition was not a significant moderator, $b = -2.30$, 95% CI[-6.78, 2.18], $t(253) = -1.01$, $p = .31$. Given that results revealed household composition to be a significant moderator for current assistance, the subsequent analyses for hypothesis 3 were run separately for one- and two-parent households.

Hypothesis 3

Two-Parent Households. A moderated regression was conducted using Model 1 of the SPSS PROCESS macro v4.0 to determine if school climate moderated the relation between the family obligation subscales and standardized test scores among youth living in two-parent households. Three models were run for the three family obligation subscales, current assistance, respect for family, and future support (see Table 6), with age and gender entered as covariates. The number of bootstrap samples was set to 10,000 and predictor variables were mean centered. The overall model for current assistance as the predictor was significant, $R^2 = .27$, $F(5, 152) = 11.40$, $p < .001$. The interaction between current assistance and school climate accounted for a significant portion of the variance in standardized test scores, $\Delta R^2 = .02$, $F(1, 152) = 5.12$, $p = .02$, $b = 5.78$, 95% CI[0.73, 10.80], $t(152) = 2.26$, $p < .02$. Simple slopes analyses (see Figure 3) revealed that the conditional effect of the predictor, current assistance, was significant at low levels of school climate, $b = -8.14$, 95% CI[-11.52, -4.77], $p < .01$, and at moderate levels of school climate, $b = -5.50$, 95% CI[-8.20, -2.80], $p < .01$. The conditional effect of the predictor at high levels of school climate was negative but not significant, $b = -2.83$, 95% CI[-6.57, 0.90], p

= .13. Higher current assistance was associated with lower test scores among youth reporting moderate and low levels of school climate, which was contrary to predictions.

When the respect for family subscale was included as the predictor variable, the overall model was significant, $R^2 = .23$, $F(5, 152) = 9.25$, $p < .001$. The interaction between the respect for family subscale and school climate accounted for a significant portion of the variance in standardized test scores, $\Delta R^2 = .02$, $F(1,152) = 4.18$, $p = .04$, $b = 6.70$, 95% CI[0.22, 13.1], $t(152) = 2.04$, $p < .04$. Simple slopes analyses (See Figure 4) revealed that the conditional effect of the predictor, respect for family, was significant at low levels of school climate, $b = -7.84$, 95% CI[-12.0, -3.7], $p < .02$, and at moderate levels of school climate, $b = -4.78$, 95% CI[-7.91, -1.64], $p = .03$. The conditional effect of the predictor, respect for family, at high levels of school climate was negative but not significant, $b = -1.71$, 95% CI[-6.20, 2.80], $p = .45$. Contrary to predictions, higher respect for family was associated with lower test scores among youth reporting moderate and low levels of school climate.

When including future supports subscale as the predictor variable, the overall model was significant $R^2 = .22$, $F(5, 152) = 8.78$, $p < .001$. However, the interaction between future supports and school climate did not demonstrate a significant contribution to explaining the variance in standardized test scores, indicating that the interaction effect was not statistically significant, $b = -.98$, 95% CI[-6.17, 4.21], $t(152) = -.37$, $p = .71$. The lack of a significant interaction suggests that the combined effect of future supports and school climate on standardized test scores is not different from what would be expected based on the individual effects of these predictors.

One-Parent Households. A moderated regression was conducted using Model 1 of the SPSS PROCESS macro v4.0 to determine if school climate moderated the relation between the family obligation subscales and standardized test scores among youth raised in one-parent

households. Three models were run for the three family obligation subscales, current assistance, respect for family, and future support, Table 7 shows the results of each moderated regression, respectively, which were entered as X. Standardized test scores (NWEA) were entered as Y, school climate was entered as W, and age and gender were entered as covariates. The number of bootstrap samples was set to 10,000 and predictor variables were mean centered. The overall model for current assistance as the predictor was not significant, $R^2 = .04$, $F(4, 94) = 1.08$, $p = .36$. The interaction between current assistance and school climate did not account for a significant portion of the variance in standardized test scores, $b = 4.27$, 95% CI[-3.6, 12.1], $t(94) = 1.07$, $p = .28$. When respect for family was entered as the predictor variable, the overall model, $R^2 = .07$, $F(4, 94) = 1.95$, $p = .10$, and interaction were not significant, $b = 3.17$, 95% CI[-7.61, 13.97], $t(94) = .58$, $p = .56$. Similarly, when future supports was entered as the predictor variable, the overall model, $R^2 = .05$, $F(4, 94) = 1.33$, $p = .26$, and interaction were not significant, $b = 1.35$, 95% CI[-7.28, 9.99], $t(94) = .31$, $p = .75$. Contrary to predictions, school climate did not moderate the relation between family obligation and academic achievement among youth living in one parent households. Figure 5 demonstrates the interaction observed among the three levels of school climate, although nonsignificant the patterns indicate that as youth living in one-parent households endorse higher levels of family obligation, they tend to have higher standardized test scores when they endorse positive levels of school climate.

Discussion

This study examined the relation between family obligation and academic achievement among Latinx youth while considering the potential moderating effects of family composition and school climate. While prior research has explored the impact of family obligation on academic outcomes, limited attention has been given to its interaction with family composition

and school climate among Latinx youth. Although mixed, the majority of existing literature emphasizes the positive influence of family obligation on academic achievement (Anguiano, 2018; Fuligni, 2001; Kiang et al., 2013); however, its interaction with family composition and external school environments remains less understood. This study addressed this gap by investigating how family composition and school climate moderated the relation between family obligation and academic achievement among Latinx youth residing in one- and two-parent households. By exploring these interactions, we can better understand how family obligation operates within diverse family structures and educational contexts, contributing to a broader comprehension of the factors influencing Latinx youths' academic success.

This study uncovered a surprising finding regarding gender dynamics. In contrast to the existing literature (Fuligni & Pedersen, 2002; Telzer et al., 2014), findings in this study revealed that females living in two-parent households reported comparatively lower levels of current assistance and respect for family than their male counterparts. Whereas Telzer and colleagues (2014) documented no gender differences in their sample of Mexican American adolescents, Fuligni and Pederson (2002) found that in their sample of adolescents, females endorsed higher levels of current assistance. These discrepancies may be attributed to two differences among these studies. The first are the differences among age groups examined; our study focused on early adolescents, whereas the other research centered on older adolescents. The divergence in gender differences seen among the endorsement of family obligation, particularly among current assistance, seems to emerge later in youth development. Secondly, our sample focused on youth from multiple Latinx backgrounds, whereas Telzer and colleagues (2014) solely focused on Mexican American youth, which could have contributed to the differences observed among this

sample. These gender differences open avenues for future exploration into how gender dynamics evolve throughout an individual's life, encompassing early, mid, and late childhood.

Contrary to the initial hypothesis, youth residing in one-parent households did not endorse higher levels of current assistance, respect for family, or future support when compared to youth living in two-parent households. Even though the group means for all three family obligation subscales tended to be higher among youth in two-parent households compared to those in one-parent households, this discrepancy did not reach statistical significance, and within this sample, both youth living in one- and two-parent households endorsed overall high levels of family obligation. This absence of a significant distinction between the two-family composition groups further reinforces the notion that Latinx youth consistently maintain a high level of endorsement for family obligation, regardless of familial structure. Utilizing the PYD framework, these findings illustrate the importance of viewing youth as individuals with resources and strengths to be nurtured. The PYD framework focuses on the positive development of at-risk youth emphasizing individual and environmental protective factors (Gaylord-Harden et al., 2018). Despite the perception of youth living in one-parent households as at-risk due to having fewer caregivers, the findings reflect the PYD framework by demonstrating that in this sample, youth residing in one-parent households did not endorse higher levels of current or future assistance compared to those in two-parent households. This challenges common assumptions as one might anticipate that a smaller support network in one-parent households could lead to increased endorsement of familial responsibilities. However, the data suggests a more nuanced relation between family composition and family obligation values. The data reflects the PYD principles by emphasizing that positive youth development is not solely dependent on the quantity of caregivers but rather on broader socioecological contexts such as

cultural values. This finding underscores the adaptability and robustness of the PYD framework in understanding diverse family compositions and provides valuable insights for future research exploring family composition and positive youth development.

Moreover, the second hypothesis in this study posited that Latinx youth from two-parent households would have significantly higher standardized test scores compared to their counterparts in one-parent households. Surprisingly, this study found that standardized test scores were the same across the two household composition types. This challenges the prevailing narrative that youth in two-parent households academically outperform their counterparts living in one-parent households (Barajas, 2011; Battle, 1997; Murry et al., 2001; Richards & Schmiege, 1993). In the context of the Latinx population in this study, however, this prevailing narrative was not demonstrated. This finding serves to challenge the narrative that youth from one-parent households inherently fare worse in terms of academic achievement. Similarly, to the findings from the first hypothesis, these findings resonate with the core tenets of the PYD Model and the Integrative Model of Child Development in Minority Children. Despite residing in one-parent households, Latinx youth did not fare worse on standardized test scores, challenging the common negative assumptions these youth face. This resilience and parity in outcomes suggest the presence of strong personal and environmental factors that contribute to positive youth development, in line with the PYD principles as well as the Integrative Model, which centers on contextual and strength-based perspectives for positive youth development (Garcia Coll et al., 1996).

In light of these findings, several avenues for future research and exploration emerge. First, a more in-depth investigation into community support systems identified by youth and parents is warranted to provide additional understanding of how these elements interact with

family composition and positively influence academic outcomes for Latinx youth. The literature has documented that youth residing in one-parent households often seek out additional community support (Sangeet & Singh, 2022). Additionally, future studies might delve into the role of individual strengths and coping mechanisms within the Latinx population. Understanding how Latinx youth navigate challenges, particularly those associated with one-parent households, could unveil valuable insights for fostering positive youth development. Exploring the dynamics of family relationships and communication patterns in both one- and two-parent households could offer a nuanced perspective on how these factors contribute to the observed outcome. Lastly, evaluating the effectiveness of programs that promote family engagement, cultural awareness, and academic support within diverse family structures may uncover strategies to enhance positive outcomes for Latinx youth.

Furthermore, when examining family composition as a moderator between family obligation and academic achievement, contrary to expectations, the analysis revealed that higher levels of family obligation, specifically in terms of current assistance, were associated with lower standardized test scores among youth in two-parent households. This unexpected outcome challenges the current literature regarding the positive influence of family obligation on academic achievement (Anguiano, 2018; Kiang et al., 2013; Sy, 2006; Yan et al., 2021). Notably, existing findings on the association between family obligation and academic achievement have been inconsistent, with only two studies using official school records of students' GPAs to measure academic achievement (Fuligni et al., 1999; Tseng, 2004). Moreover, this study stands out as the first to establish a connection between family obligation and official standardized test scores. Interestingly, this similar pattern was not observed among youth residing in one-parent households. The absence of significant moderation for one-parent households suggests that the

relation between family obligation and achievement differs between one- and two-parent households. These results underscore the importance of considering family composition when examining the impact of family obligation on academic outcomes. A potential explanation may be found in Tseng's (2004) study, which explored family obligation and academic achievement among Mexican American adolescents. Tseng (2004) revealed that parents' English proficiency explained variations in the time youth devoted to meeting their family's current needs. While this study did not account for parental English proficiency and found no correlation between family generation and family obligation, it still prompts speculations that youth living with two parents, both with low English proficiency, may endorse higher levels of current assistance. This increased involvement could potentially result in academic challenges due to the additional time dedicated to fulfilling family needs. Conversely, a youth residing with one parent may not need to dedicate the same amount of time assisting a parent with low English proficiency, as there is only one parent requiring support.

Moreover, the literature has documented that Asian and Latinx youth often see their school achievements as a way to contribute to their families' future, which supports their family obligation values. Latinx youth may also be motivated to be academically successful as a way to make their families' immigration sacrifices worthwhile (Suárez-Orozco & Suárez-Orozco, 1995), which may be even more pronounced among youth residing in one-parent households as they may be more acutely aware of the sacrifices their parent has made resulting in better academic performance among this population. Additionally, studies exploring the role of resilience and coping mechanisms within the context of family composition may shed light on this finding. Studies have demonstrated that youth residing in one-parent households have been credited for exhibiting high levels of responsibility, having high problem-solving skills, and emotional

resilience (Dowd, 1999; Sangeet & Singh, 2022). Early exposure to responsibility, often through household chores and assisting parents, contributes to the development of a mature and resilient mindset in children living with one-parent (Dornbusch et al., 1985; Sangeet & Singh, 2022).

Youth residing in one-parent households not only understand and empathize with their parents' struggles but also take on parental responsibilities, participate in family decision-making, and exhibit advanced emotional regulation and problem-solving abilities (Sangeet & Singh, 2022).

This early cultivation of maturity and resilience can act as a protective mechanism against the potential negative impact higher family obligation can have on academic achievement.

Contrary to the initial hypotheses, the findings revealed unexpected patterns in the relation between family obligation, and academic achievement among Latinx youth. Although past research has often suggested that higher family obligation may positively influence academic outcomes (Anguiano, 2018; Kiang et al., 2013; Sy, 2006; Yan et al., 2021; Fuligni, 2001), the current study demonstrated a more complex scenario. Specifically, while family obligation, as measured by the current assistance subscale, appeared to have a significant impact on academic achievement within the context of two-parent households, this association was notably absent among one-parent households. Moreover, it is important to note that the means between current assistance reported by youth living in one-and-two-parents were not statistically different; only the effects on achievement were statistically significant for youth living in two-parent households. This suggests that the presence of both parents in a household may lead to a dynamic wherein youth who exhibit greater engagement in current assistance activities experience lower academic achievement. Similarly, to Tseng (2004) and Witkow et al. (2015), the findings suggest higher levels of family obligation among youth lead to lower academic achievement, specifically among youth living in two-parent households. This relation may be

attributed to acculturative stress, particularly when there is incongruency between the cultural values parents are trying to teach their children whilst the youth may be attempting to embrace the mainstream or American culture they are residing in. Particularly for Latinx youth, acculturative stress in terms of incongruent cultural values and practices has been linked to elevated levels of anxiety and depression which may impact youth's academic functioning (Masten & Curtis, 2000; Zychinski & Polo, 2012). Moreover, in a study examining Latinx middle schoolers, Mexican cultural values more broadly were measured within this population, including familial obligation. The authors found that youth who identified more with mainstream American values fared worse academically than their counterparts (Santiago et al., 2014). Thus, acculturative stress may have more of an impact among youth living with two parents since there may be double the pressure to conform to cultural values. Whereas youth residing in one-parent households may experience acculturative stress as well, but to a lesser extent.

The findings indicate that family structure plays a crucial role in shaping the impact of family obligation on academic achievement, suggesting that the interplay between family members might be more influential than the simple presence of family obligation itself. The results regarding family composition's moderating role warrant a deeper examination of the underlying mechanisms at play. One plausible explanation is that the dynamics within two-parent households differ substantially from those within one-parent households. In two-parent households, various factors could influence academic achievement, including the distribution of roles and responsibilities among family members. The presence of two parents might lead to heightened expectations for engagement in family assistance activities, which could potentially divert focus from academic pursuits. Although not specifically documented among different household composition types, Tseng (2014) found that an increase in daily current assistance

resulted in lower academic achievement among Mexican American adolescents. Alternatively, it is possible that youth from one-parent households experience distinct pressures and expectations compared to their counterparts living in dual-parent households (Sangeet & Singh, 2022), which might overshadow the impact of family obligation given that youth residing in one-parent household may be used to providing additional support and thus the impact of family obligation may not be as much of a burden. These findings also point to the significance of cultural and contextual factors in understanding the relation between family obligation and academic achievement within the Latinx community. The lack of consistent patterns across different family obligation subscales and family compositions emphasizes the intricate nature of these interactions.

Furthermore, the broader socio-economic context and the nature of support systems available to Latinx youth might contribute to the observed patterns. The Latinx community often places a strong emphasis on family cohesion and support (Suárez-Orozco & Suárez-Orozco, 1995), which could influence how family obligation manifests and interacts with academic achievement. This study reinforces the need for nuanced research that considers the multifaceted intersection of culture, environment, and family factors in shaping educational outcomes. Moreover, considering the limited research on variations in family composition within the Latinx community, this study serves as an initial exploration of these dynamics. The research possesses notable strengths, particularly in its extensive sample size encompassing youth residing in both one-parent and two-parent households. This relatively large sample size facilitated the execution of distinct analyses within each group, which unveiled significant differences between them that had not been documented in the literature prior to this study. Furthermore, it is plausible that an even larger sample size solely comprising one-parent households could reveal even more

compelling insights. Specifically, it might reveal that youth in one-parent households endorsing both high family obligation and a positive school climate could potentially exhibit higher academic achievement than their counterparts, aligning with the observed pattern in Figure 5. This speculation underscores the potential for a more comprehensive understanding of the intricate interplay between family obligation, school climate, and academic outcomes.

In this study, contrary to the existing literature, school climate was not associated with academic achievement (Berkowitz et al., 2017; Jia et al., 2016; Wang & Eccles, 2013; Wang et al., 2010). This lack of relation persisted for youth in one- and two-parent households. Furthermore, when examining the moderating effects of school climate on the relation between family obligation and academic achievement among youth raised in one- and two-parent households, the results demonstrated varying degrees of association with academic achievement depending on the presence of two parents. In two-parent households, the interaction of family obligation with school climate significantly influenced the association with standardized test scores. Both the current assistance and respect for family subscales demonstrated a similar pattern of negative associations with academic achievement when youth rated their school climate as low and moderate and endorsed the highest levels of family obligation leading to low test scores. These findings are consistent with the literature that has demonstrated that high levels of family obligation may sometimes divert attention from academic pursuits (Tseng, 2004). In this study, this relation was especially pronounced when youth endorsed low levels of school climate. This underscores the idea that external factors can offset the positive aspects of family obligation, suggesting the need for a balanced approach in fostering family connections while maintaining focus on education. Furthermore, when focusing on school climate as a moderator, these findings deviate from the prevailing literature that generally links positive school climate

with positive academic outcomes across all grade levels for youth (Benbenishty et al., 2016; Berkowitz et al., 2017; Crosnoe et al., 2004; Hoy & Hannum, 1997; Jia et al., 2016; Ma & Klinger, 2000; McEvoy & Welker, 2000; Sherblom et al., 2006; Wang et al., 2010). Although research on this association is limited for Latinx youth, with only three dedicated studies, all three reveal a positive association between students' academic performance and a positive school climate (Mireles-Rios & Romo, 2010; Murray, 2009; Valiente et al., 2008), which did not hold true for this study. However, a potential factor influencing these results could be related to the well-documented racial gap in school climate that exists, particularly noted among middle schoolers. Voight and colleagues (2015) found that Black and Latinx middle schoolers rated components of school climate such as safety, connectedness, relationships with adults, and opportunities for participation lower than their White counterparts. Notably, variations in the magnitude of this racial school climate gaps across middle schools were observed, and where these gaps were more significant, there were also larger racial achievement gaps (Voight et al., 2015). These findings, in conjunction with the discovery that perceived multiculturalism which was evaluated as part of school climate, positively correlated with ethnocultural empathy, which served as a significant predictor of academic achievement for Latinx adolescents (Chang & Le, 2010), suggest that racial components may hinder the moderating effects of school climate within this sample.

Furthermore, the absence of significant interactions between family obligation and school climate in one-parent households warrants attention. The findings imply that, within this family structure, family obligation's impact on standardized test scores remains relatively consistent across various school climates. This may suggest that the inherent challenges faced by youth in one-parent households, such as potentially increased responsibilities and limited resources,

override the moderating influence of school climate on the relation between family obligation and academic achievement.

Limitations and Future Directions

Despite its significant contributions, this study has several limitations that warrant consideration. First, considering the study sample primarily consisted of Mexican and Puerto Rican populations, this may limit the study's generalizability to other Latinx groups. Additionally, in this study, youth with symptoms of depression were oversampled and future studies should examine these hypotheses with both community and clinical samples to better evaluate the impact of internalizing problems in the relations between the key study variables. Furthermore, this study utilized the most validated and best available measure of family obligation. However, the family obligation scale that was utilized phrases questions that assume the respondent lives in a two-parent household (e.g. "Live at home with your *parents* until you are married," "Treat your *parents* with greater respect"), this could be misleading and may have influenced the response by youth living in one-parent households. Therefore, the family obligation scale may not accurately capture the family obligation value among this population. Furthermore, school climate was not measured simultaneously with the baseline assessment of family obligation values and both school climate and family obligation were only measured once. Future research should investigate changes in both school climate and family obligation values and how they relate to changes in academic achievement. Moreover, recognizing school climate as a multidimensional construct, this study was limited in its exploration since it focused solely on measuring safety, respect, support, and interpersonal relationships. This constrained the study's ability to comprehensively explore other dimensions of school climate, including aspects

such as the overall openness and welcoming atmosphere of the school that may be particularly important for Latinx youth.

Considering these limitations, future direction for research in this area should consider incorporating qualitative methods to provide a deeper understanding of the lived experiences of Latinx youth in different family compositions and school environments. This approach would shed light on how youth in one- and two-parent households interpret their roles and responsibilities at home and could tap into the reasons behind the expectations and encouragement to assist parents and family from the perspective of both youth and parents. Furthermore, future studies could explore other aspects of school climate most relevant to Latinx populations, such as assessing the welcoming environment for parents of Latinx backgrounds and examining school efforts to embrace students with bilingual or non-English speaking backgrounds. This consideration could provide a more comprehensive understanding of the nuanced factors influencing academic outcomes in Latinx youth and the role various dimensions of school climate play in this relation. Additionally, investigating the potential mediating mechanisms between family obligation, family composition, school climate, and academic achievement could uncover underlying factors driving the observed associations. Exploring the role of socioeconomic factors, community support networks, and cultural values could deepen the understanding of how family obligation interacts with various contexts to shape academic outcomes. Ultimately, a comprehensive approach that considers individual, familial, cultural, and environmental factors will provide a more holistic understanding of the dynamics influencing the academic success of Latinx youth.

Conclusion

In summary, this study examined the complex relation between family obligation, school climate, and academic achievement among Latinx youth in diverse family compositions. The study has challenged conventional assumptions, revealing unexpected patterns in the relation between family obligation and standardized test scores. Gender differences within two-parent households, contrary to existing literature, add an additional layer of complexity to the understanding of family dynamics among Latinx youth. The study's findings challenge stereotypical narratives surrounding academic performance, emphasizing the need to consider cultural and environmental factors specific to the Latinx community. Moreover, the study highlights the nuanced interactions between family structure and family obligation, emphasizing that the presence of two-parents may influence academic outcomes differently than in one-parent households in an unexpected manner. This insight calls for a reevaluation of existing paradigms and underscores the importance of considering family composition in studies exploring the impact of family-related factors on academic achievement among Latinx youth.

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Table 1*Studies Examining Family Obligation and Academic Achievement*

Study	Age	Household Composition	Family obligation measure	Educational component	Measure of Academic Achievement	Findings
Sy (2006)	$M_{age} = 18.7$	Not reported	Adapted 6 of 11 items from the current assistance subscale by Fuligni et al., (1999) to capture time spent with family	Academic achievement	Self-report GPA	Family obligation had a positive association with academic achievement
Kiang et al., (2013)	$M_{age} = 15.0$	Not reported	Current assistance subscale (Fuligni et al.,1999)	Academic achievement & Educational aspirations	Self-reported GPA	Family obligation was positively associated with academic outcomes and educational aspirations
Anguiano (2018)	$M_{age}=13.6$	Not reported	Family obligation full measure (Fuligni et al. 1999)	Academic achievement	Self-report GPA	Family obligation had a positive association with academic achievement
Yan et al., (2021)	$M_{age} = 12.4$	Not reported	Family obligation full scale (Fuligni et al. 1999)	Academic achievement	Self-report GPA	Family obligation had a positive association with academic achievement mediated by supportive parenting

Fuligni et al., (1999)	10 th graders $M_{age} = 15.7$ 12 th graders $M_{age} = 17.7$	29% of youth living with one-parent. 71% living with two-parents.	Family obligation full measure (Fuligni et al. 1999)	Academic achievement & academic motivation	91% official school records; 9% self-reported	Family obligation was positively associated with academic motivation; family obligation had a curvilinear relationship with academic achievement on the current assistance and familial respect subscale
Tseng (2004)	$M_{age} = 20.0$	Not reported	Family obligation full measure (Fuligni et al. 1999). Family Behavioral demands: Researchers created measures to assess hours youth spent in a week assisting family	Academic achievement, educational expectations, and aspirations	University records	Family obligation was positively associated with greater academic motivation; family behavioral demands (current assistance) was negatively associated with academic achievement
Toyokawa & Toyokawa (2019)	$M_{age} = 14.1$ years	Not reported	Authors created a measure consisting of three questions to assess family obligation	Academic achievement, & educational expectation & aspirations	Self-reported GPA	Family obligation was negatively associated on academic achievement and motivation
Witkow et al., (2015)	$M_{age} = 22.1$	Not reported	Current family assistance and future family assistance subscales (Fuligni et al., 1999)	Academic persistence	Self-report of current college attendance	Family obligation had a negative association after with academic persistence after high school

Table 2*Participant Demographics and Demographic Differences Across Household Type*

Variable	Level	Overall <i>N</i> = 268	One-Parent <i>n</i> = 101	Two-Parents <i>n</i> = 167	<i>t</i>-test	<i>p</i>-value
Age (years)- <i>M</i> (<i>SD</i>)		11.4 (0.94)	11.4 (0.87)	11.5 (0.98)	0.96	0.09
Gender					0.18	0.71
	Female	152 (56.7%)	58 (57.4%)	94 (56.3%)		
	Male	116 (43.3%)	43 (42.6%)	73 (42.7%)		
Latinx Subgroup					3.96	< .001
	Mexican American	189 (70.5%)	64 (53.8%)	132 (79.0%)		
	Puerto Rican	27 (10.1%)	24 (20.2%)	7 (4.2%)		
	Central/South American	17 (6.3%)	6 (5.0%)	13 (7.8%)		
	Mixed Latinx background	35 (13.1%)	24 (20.2%)	15 (8.9%)		
Family Generation					3.37	<.001
	First Generation	19 (7.1%)	7 (5.9%)	11(6.6%)		
	Second Generation	207 (77.2%)	75 (63.0%)	145 (86.8%)		
	Third Generation	24 (9.0%)	26 (21.8%)	5 (3.0%)		
	Non-immigrant backgrounds	19 (6.3%)	11 (9.2%)	5 (3.0%)		

Table 3*Bivariate Correlations between Variables in the Entire Sample*

Measures	1	2	3	4	5	6	7	8
1. Current Assistance	-	.61**	.54**	.28*	-.15*	-.20*	-.16*	.04
2. Respect for Family		-	.58**	.27**	-.19**	-.10	-.13*	-.14*
3. Future Supports			-	.25**	-.19**	-.17**	-.02	-.07
4. School Climate				-	.07	-.22**	.01	.03
5. NWEA					-	.26**	.06	.01
6. Age						-	.08	.01
7. Gender							-	-.09
8. Family Generation								-

Note. * $p < .05$, ** $p < .01$. Gender was dummy coded 1 = male, 2 = female.

NWEA represents the Northwestern Evaluation Association.

Table 4*Bivariate Correlations of Key Variables Across One-Parent and Two-Parent Households*

Measures	1	2	3	4	5	6	7	8	<i>M</i>	<i>SD</i>
1. Current Assistance	-	.57**	.56**	.24*	.01	-.13	-.03	.04	3.7	0.72
2. Respect for Family	.64**	-	.59**	.36*	-.16	-.17	-.04	-.17	4.2	0.51
3. Future Support	.51**	.57**	-	.26*	-.13	-.24*	-.06	-.06	3.9	0.68
4. School Climate	.31**	.22**	.26**	-	.10	-.28**	.02	-.01	3.0	0.48
5. NWEA	-.28**	-.23**	-.25*	.06	-	.11	-.03	.03	219.5	13.30
6. Age	-.10	-.06	-.15	-.20*	.36**	-	.09	-.00	11.4	0.87
7. Gender	-.25**	-.18*	.01	.02	.13	.08	-	-.18	1.5	0.50
8. Family Generation	-.06	-.09	-.03	.10	.02	-.03	-.03	-	2.3	0.79
<i>M</i>	3.9	4.3	4.1	3.1	220.5	11.4	1.5	2.0	-	-
<i>SD</i>	0.67	0.55	0.67	0.45	12.0	1.50	0.50	0.49	-	-

Note. Correlations above the bolded line correspond to one-parent households. Those below the bolded line correspond to two-parent households. * $p < .05$, ** $p < .01$. Gender was dummy coded 1 = male, 2 = female. NWEA represents Northwestern Evaluation Association. *M*=Mean, *SD*= standard deviation.

Table 5

Simple Moderated Regression Analysis of Family Composition on Academic Achievement by Family Obligation Subscales

Model	Predictors	β	<i>SE</i>	<i>t</i>	<i>p</i>	LLCI	ULCI
Current Assistance	Constant	178.70	9.6	18.5	.001	159.74	197.63
	Current Assistance	6.36	3.64	1.74	.08	-.81	13.53
	Household Composition	1.56	1.54	1.01	.30	-1.46	4.60
	Current Assistance x Household Composition	-5.52	2.20	-2.51	.01	-9.86	-1.19
Respect for Family	Constant	178.95	9.67	18.50	.001	159.90	198.00
	Respect for Family	-2.05	5.01	-0.40	.68	-11.94	7.83
	Household Composition	1.60	1.53	1.04	.29	-1.42	4.62
	Respect for Family x Household Composition	-1.18	2.90	-0.40	.68	-6.89	4.50
Future Supports	Constant	178.57	9.70	18.50	.001	160.46	198.68
	Future Supports	0.65	3.87	0.17	.86	-6.91	8.23
	Household Composition	1.78	1.54	1.16	.24	-1.25	4.85
	Future Supports x Household Composition	-2.30	2.27	-1.01	.31	-6.78	2.18

Note. Gender and age are included as covariates in all three models.

Table 6

Simple Moderated Regression Analysis of School Climate on Academic Achievement by Family Obligation Subscales Among Youth in Two-Parent Households

Model	Predictor	β	<i>SE</i>	<i>t</i>	<i>p</i>	LLCI	ULCI
Current Assistance	Constant	166.50	10.10	16.47	.001	146.50	186.42
	Current Assistance	-5.50	1.36	-4.01	.01	-8.20	-2.80
	School Climate	0.24	0.08	3.04	.02	0.08	0.40
	Current Assistance x School Climate	0.24	0.20	2.30	.02	0.03	0.45
Respect for Family	Constant	165.88	10.38	16.00	.001	145.38	186.40
	Respect for Family	-4.80	1.60	-3.01	.03	-7.91	-1.65
	School Climate	5.00	2.00	2.54	.01	1.12	8.86
	Respect for Family x School Climate	6.70	3.30	2.04	.04	0.22	13.11
Future Supports	Constant	166.26	10.50	15.82	.001	145.51	187.02
	Future Supports	-4.80	1.36	-3.50	.006	-7.50	-2.08
	School Climate	5.12	1.97	2.60	.01	1.22	9.02
	Future Supports x School Climate	-0.10	2.63	-0.40	.71	-6.20	4.21

Note. Gender and age are included as covariates in all three models.

Table 7

Simple Moderated Regression Analysis of School Climate on Academic Achievement by Family Obligation Subscales Among Youth in One-Parent Households

Model	Predictor	β	<i>SE</i>	<i>t</i>	<i>p</i>	LLCI	ULCI
Current Assistance	Constant	193.85	18.61	10.41	.001	156.89	230.80
	Current Assistance	.05	1.93	0.02	.97	-3.80	3.90
	School Climate	3.78	3.00	1.25	.21	-2.19	9.75
	Current Assistance x School Climate	-4.12	3.99	1.03	.30	-3.81	12.05
Respect for Family	Constant	196.10	18.06	10.85	.001	160.23	231.95
	Respect for Family	-5.27	2.82	-1.86	.06	-10.88	0.34
	School Climate	5.89	3.2	1.94	.05	-0.12	11.90
	Respect for Family x School Climate	3.17	5.4	0.58	.56	-7.61	13.97
Future Supports	Constant	197.00	18.45	10.67	.001	160.36	233.64
	Future Supports	-2.86	2.10	-1.38	.17	-6.97	1.25
	School Climate	4.80	3.00	1.60	.11	-1.15	10.75
	Future Supports x School Climate	1.35	4.35	0.31	.75	-7.30	10.00

Note. Gender and age are included as covariates in all three models.

Figure 1

An Integrative Model of Child Development and aspects of the societal and family constructs are the focal points of the theoretical framework for the proposed study

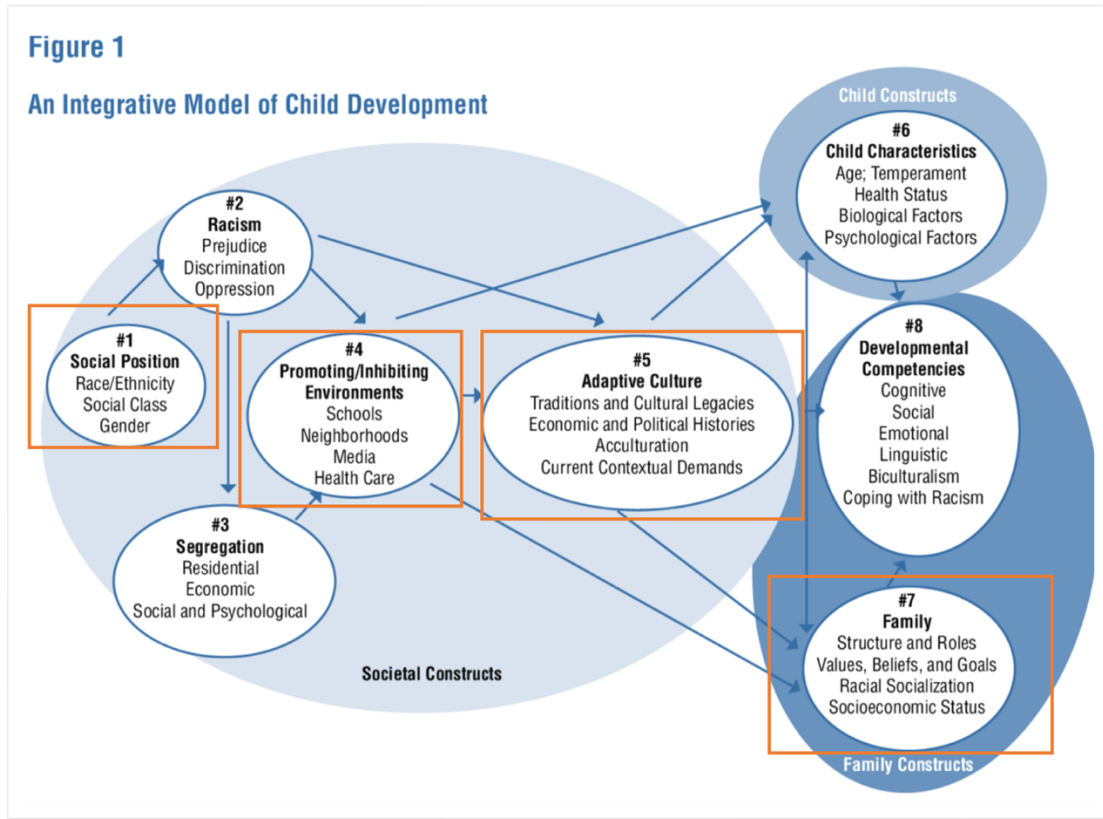
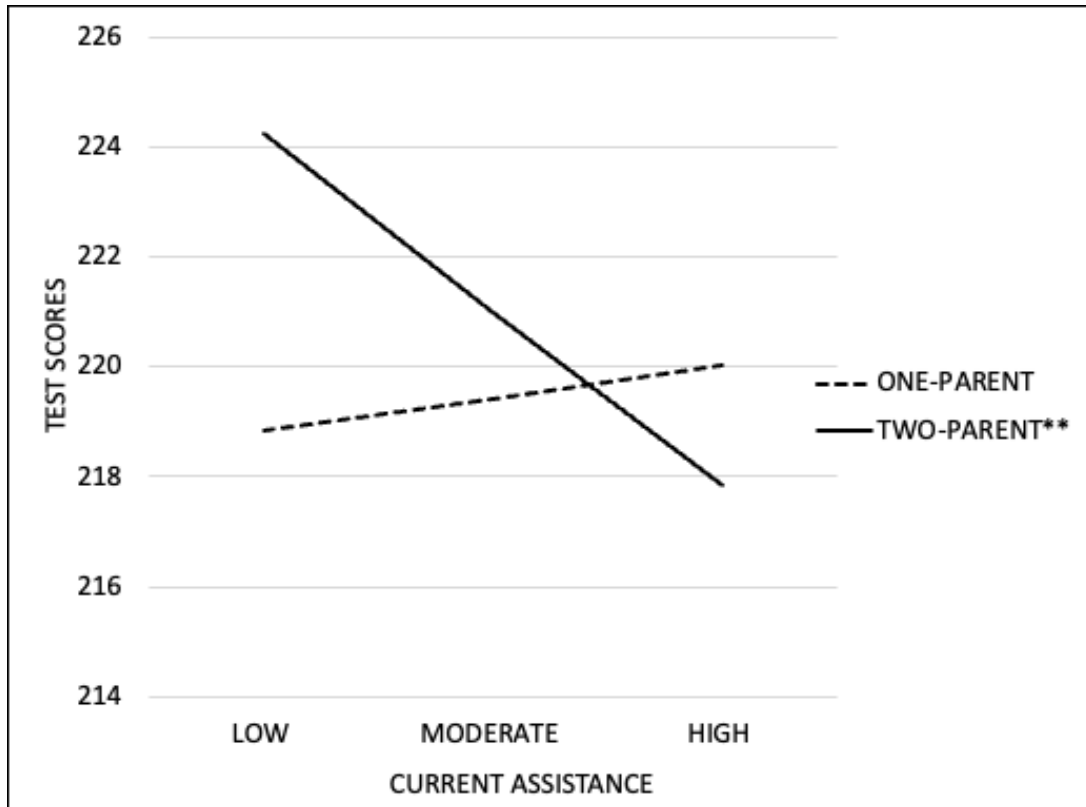


Figure 2

Simple Slopes Analyses Examining the Interaction Effects of Current Assistance on Standardized Test Scores Moderated by Family Composition, n=267

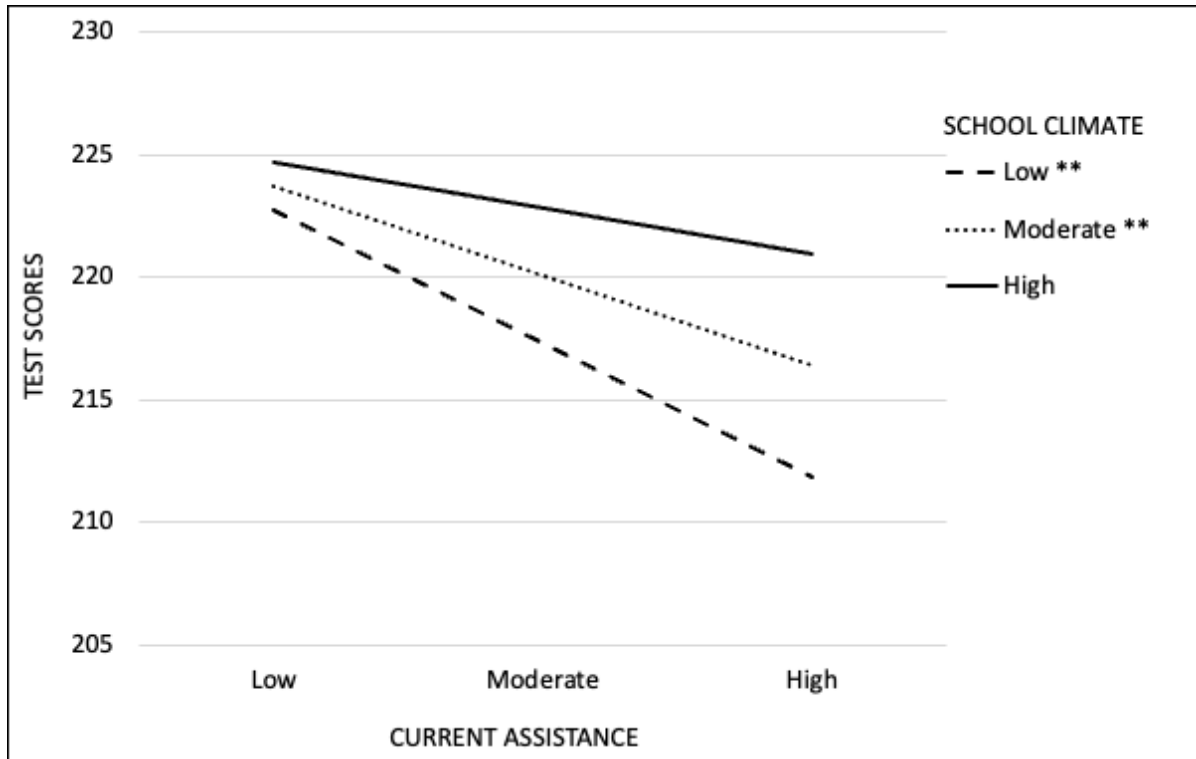


Note. Conditional effects of current assistance on standardized test scores at different family composition types when the covariates (gender and age) are held constant at the mean.

**= $p < .01$.

Figure 3

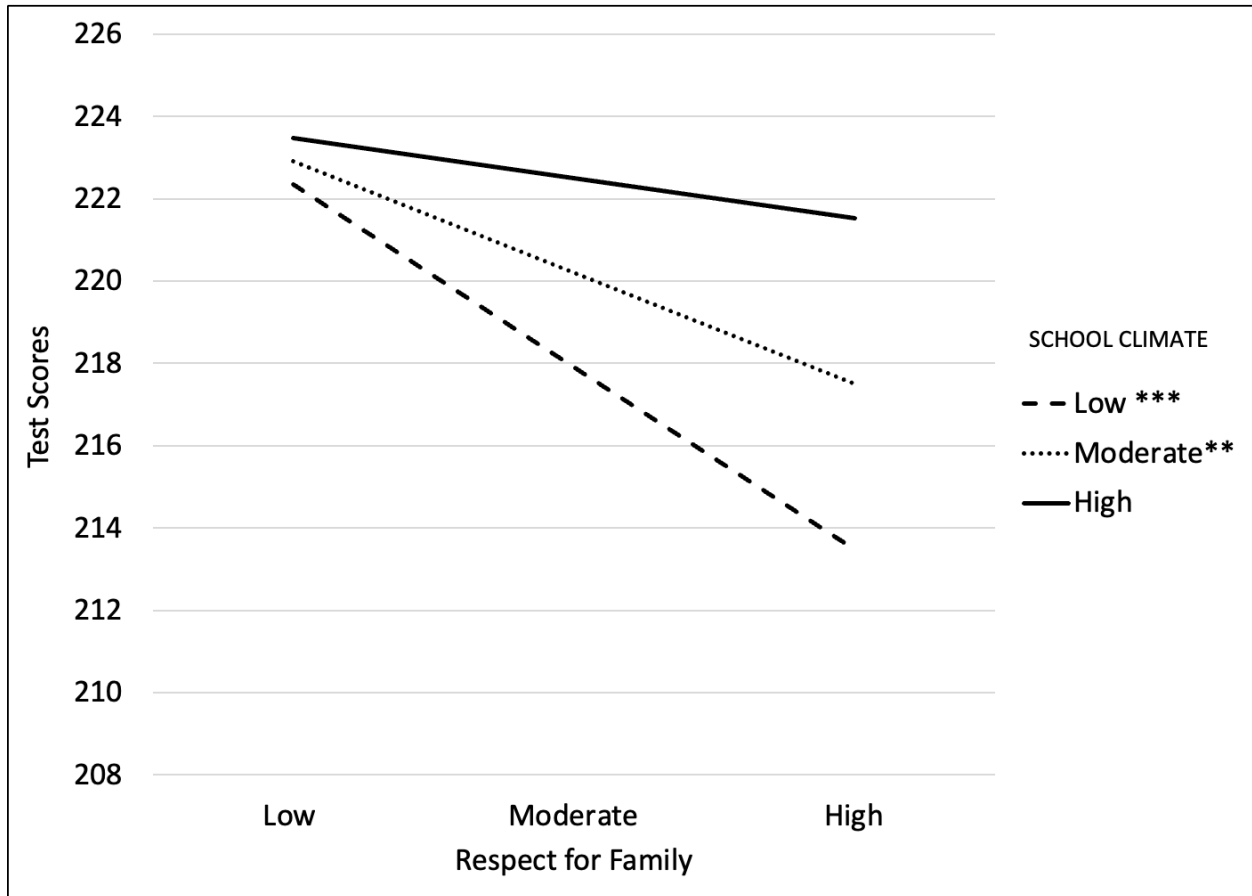
Simple Slopes Analyses Examining the Interaction Effects of Current Assistance on Standardized Test Scores for Youth in Two-Parent Households, n=167



Note. Conditional effects of the current assistance subscale on standardized test scores at different levels of school climate when the covariates (age and gender) are held constant at the mean. **= $p < .01$.

Figure 4

Simple Slopes Analyses Examining the Interaction Effect of Respect for Family on Standardized Test Scores for Youth in Two-Parent Households, n=167

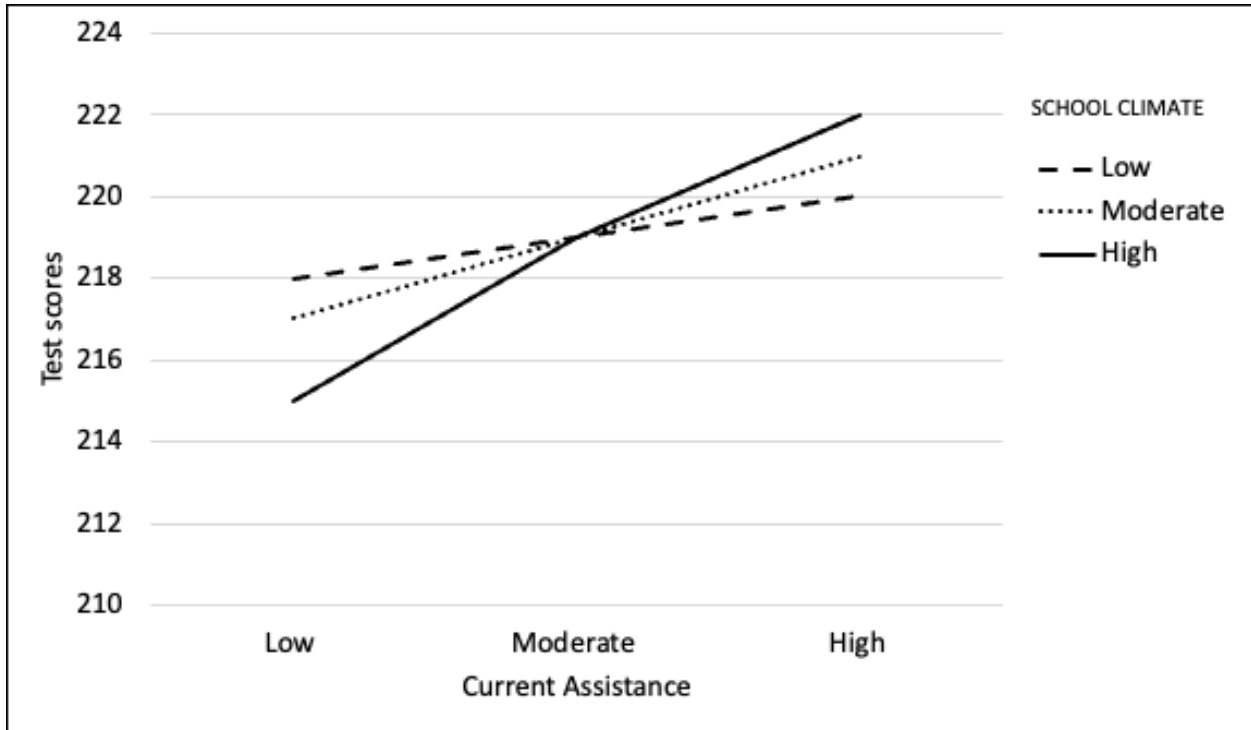


Note. Conditional effects of the respect for family subscale on standardized test scores at different levels of school climate when the covariates (age and gender) are held constant at the mean. ** $p=.03$ and ***= $p<.02$.

Figure 5

Interaction of Current Assistance on Standardized Test Scores for Youth in One-Parent

Households, n=101



Note. Conditional effects of the respect for current assistance on standardized test scores at different levels of school climate when the covariates (age and gender) are held constant at the mean.