

SCHOOL CLIMATE, NEIGHBORHOOD QUALITY,
TEACHER SUPPORT, PEER SUPPORT, AND
EDUCATIONAL RESILIENCE OF LATINO/A
ADOLESCENTS IN IMMIGRANT FAMILIES

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2015

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2017

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
December, 2020

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ACKNOWLEDGEMENTS

It was a difficult journey to earn a doctorate, with many nights contemplating whether it would be worth it in the end. At times, the journey had its moments of loneliness, but friends, family, and mentors always reminded me that I had a support system around me that would always be there if and when I needed it. I want to start by saying thank you to Tia Claybrook, Brooke Tuttle, Jillian Caldwell, and Jeremiah Grissett for always being willing to listen to the good and bad times. Thank you to each of you for always providing support, whether it was school, work, or in life. I will always appreciate those long school days, workdays, and conference presentations.

To my family, thank you for supporting me during this process. I know it was not easy moving away, but this process allowed me to grow as an individual and become the adult I am today. To my niece and nephew, I am sorry for the birthdays, award ceremonies, and recitals I missed while completing my doctorate; hopefully, we can make more memories in the future. To my brother, thank you for all the unconditional support you provided me during this journey. To my sister-in-law thank you for letting my brother come and visit during those difficult times it meant a lot. To my mom and dad, thank you for being willing to support me throughout this process and making sure I did not have to worry about all the little things, and allowing me to focus on completing my degree. To my partner, Elizabeth, thank you for tolerating me on my good and bad days. Through each of my final weeks and dissertation revision, your unconditional support was and is appreciated.

As for my mentors, each has given me great insight into what it means to be a student, researcher, and teacher. Thank you to Dr. Carolyn Henry, my chair and academic grandmother, thank you for mentoring Dr. Scott Plunkett and me. If you had not advised Dr. Plunkett, I might not have been where I am today. Thank you for stepping in and taking on the role of the chair after some last-minute changes. To Dr. Michael Merten, my co-chair, thank you for supporting me throughout my dissertation process and my doctorate journey; you always heard me out and helped guide me on research and teaching my students. To Dr. Isaac Washburn, thank you for always being there to listen; whether it is statistics or research questions, you were always willing to listen. Also, thank you for demonstrating the importance of work and life balance, as it is something that can easily be forgotten. To Dr. Dolores Vazquez Sanroman, thank you for being willing to serve as my outside committee member providing your support and feedback throughout this process. To Dr. Ronald Cox, thank you for teaching me the process of conducting research in the community and providing the knowledge on how to engage with communities.

Lastly, to my grandfather (Pablo Martinez Macias), grandmother (Elena Flores Nolasco) and uncle (Arnulfo Flores Nolasco). I am sorry I was not able to share the news of completing my degree but know I love you all and may you have found peace.

Name: HECTOR MARTINEZ NOLASCO

Date of Degree: DECEMBER, 2020

Title of Study: SCHOOL CLIMATE, NEIGHBORHOOD QUALITY, TEACHER SUPPORT, PEER SUPPORT, AND EDUCATIONAL RESILIENCE OF LATINO/A ADOLESCENTS IN IMMIGRANT FAMILIES

Major Field: HUMAN SCIENCES

Abstract: Adolescents' academic success is a significant indicator of future success in life. Therefore, it is important to identify additional factors that serve to keep adolescents on course to achieving higher academic success. Protective factors such as neighborhood quality, teacher support, peer support, and school climate (school safety, school respect, school participation, and school fairness) and the relationship it has on educational resilience (motivation and achievement) in adolescents were examined. The current project focused on Latino/a adolescents and how their generational status related to their perceptions of their neighborhood quality, teacher support, peer support, and school climate and how this related to their educational resilience.

When accounting for gender and parents' educational status, the results indicated school climate (school mutual respect and school safety) had a significant relationship to adolescents' academic motivation. Additionally, the data showed a significant and positive relationship between parental educational attainment and adolescents' academic success. Adolescents' academic motivation was directly related to their academic success (GPA). Furthermore, adolescents' perception of safety within a school was significantly and negatively related to adolescents' academic success. When the interactions between adolescents' generational status and protective factors on academic motivation and academic success were examined, there was a significant interaction between generational status and neighborhood quality on adolescents' academic motivation. When gender was considered a possible moderator, there was a significant interaction between gender and peer support on adolescents' academic success. A significant three-way interaction was found between generational status, gender, and generational status on adolescents' academic success. Post hoc analyses indicated that the association of peer support and academic motivation was greater for Latina than Latino adolescents. Latino adolescents perceived peer support regardless of it being high or low did not serve to predict Latino adolescents' academic success. However, for Latina adolescents who were considered first generation, the higher the perceived peer support they report, the lower their academic achievement compared to second and third-generation Latina adolescents.

These findings add to the current body of literature by expanding on the influence's generational status and other protective factors on adolescents' educational resilience (academic motivation and academic success). Understanding that their generational status influences Latino/a adolescents' perception of neighborhood qualities and peer support, one can work with the adolescents to identify strategies to help foster resilience when situations pose higher risks to them being academically successful.

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CHAPTER I

INTRODUCTION

In many situations, the onset of puberty is a significant challenge on its own. Yet, some individuals face additional challenges aside from the typical biological, developmental processes along with the process of seeking autonomy in adolescents. For some individuals, this time period may be marked by significant life changes such as leaving one's home country due to various complex situations that may stem from seeking asylum to moving for better opportunities and the hopes of better education and/or life. The focus of this study factors associated with educational resilience in adolescents in immigrant families identifying as Latino/a and whether these associations vary according to generational status or gender.

Based on the complexities of adolescents who come from immigrant families, it is important to understand these individuals' unique experiences and how they may differ from other experiences. Existing literature has taken the approach of accounting for generational status as a possible reason for differences in adolescents' experiences. Yet, the unique interaction of generational status and its role with other protective factors in relation to academic success has not yet been directly examined. Therefore, the current research examines the extent to which generational status is a factor in explaining variation in how protective factors such as teacher support, peer support, neighborhood qualities, and school climate and the relationship these variables explain variations in Latino/a educational resilience (i.e., academic motivation and GPA). Previous research has indicated existing relationships between adolescents' academic motivation and their academic success, which are components/indicators of educational resilience. For those who are facing adverse situations, some may bounce back from these

difficult situations and, in doing so, results in what was defined as resilience or, in the context of academics, educational resilience. Furthermore, a variety of research has indicated relationships existing between each of the variables (e.g., peers support, teacher support, neighborhood qualities, and school climate collectively explain variation in academic motivation or GPA. Yet, there is a lack of research that demonstrates how these variables are associated with each other within the same model.

Due to the group status risk of adolescents in immigrant families identifying as Latino/a, the guiding theoretical framework for this study is an educational resilience perspective. Educational resilience focuses on factors that protect against the potential of negative educational outcomes based on risk such that adolescents demonstrate educational competence. Thus, the focus is on identifying protective factors that help to promote educational resilience as evidenced through academic motivation and academic achievement.

The experiences of adolescents identifying as Latino/a members of immigrant families may vary according to their generational status (e.g., first generation in US, later generations in the US). Thus, this study is designed to explore how generational status may either directly relate to educational resilience or moderator adolescents' perceptions of protection (e.g., neighborhood quality, teacher support, peer support, and school climate) their educational success. The dissertation addresses the following topics:

- An introduction to the key concepts in the study, with an overview of the existing literature.
- The measures of key concepts used in the study, along with an overview of the methodology used to collect the data for this study.
- The first section of the results examined the association between protective factors and aspects of educational resilience.

- The second section of the results reports on the examination of the associations in the first model whether these associations differ based on generational status and gender while accounting for parental educational attainment.
- I will conclude with a section summarizing the research findings, possible implications for practitioners, educators, parents, and future investigators.

Problem Statement

An important challenge schools face is how to best support the academic success of Latino/a adolescents in immigrant families. Adolescents in immigrant families of Latin heritage face heightened academic risk as they navigate two cultures and, often, two educational systems. Further, as part of the largest ethnic minority group in the US, adolescents in immigrant families with Latin heritage may experience marginalization in school systems that have not adapted their educational processes to be compatible with Latino cultures. Because adolescents' perceptions of the overall atmosphere of their schools tend to be important in fostering academic success, more positive reports of school climate are expected to be associated with greater academic success. In addition, adolescents' perceptions of their neighborhood quality and academic support from teachers and peers may afford protection that increases the prospects for academic success in areas such as academic motivation, achievement, and expectations. The significance of academic success for adolescents in Latino immigrant families is particularly salient, given prior research showing that academic success increases the prospects for adolescents to pursue education (Dornbusch et al., 1991). By pursuing higher education, adolescents have increased prospects for occupational success as well as decreased prospects for emotional problems, behavioral problems, delinquency, and a decrease in substance use. (Annunziata, Hogue, Faw, & Liddle, 2006; Jansen & Bruinsma, 2005).

Purpose and Importance

Identifying protective factors with potential to foster adolescents' academic resilience is vital to supporting the academic success, and future successes in the lives of adolescents with academic

risk. Given the potential academic risks associated with living in two cultures, it is critical to empirically examine how adolescents perceive the potential protection in neighborhoods and schools. In addition, because the association between protections and academic success for adolescents in immigrant families may vary based on generational status, this study includes the examination of whether these associations vary according to their degree of exposure to both cultures in terms of whether they lived in two countries or were part of families with members living in two countries. Adolescents' academic motivation and achievement may vary according to their perception of support for that success; this study focuses on adolescents' perceptions. In short, adolescents are conceptualized as responding to perceived protection. Thus, this study is designed to examine the unique contributions of protective factors in terms of neighborhood quality, the school climate, and the individuals they interact with daily in school (e.g., peers and teachers). The goal of the study is to provide educators, practitioners, and administrators with areas to target to assist Latino/a adolescents in immigrant families to experience academic success despite are experiencing difficulty adapting to their new environment.

Theoretical Framework

An educational resilience perspective is used to guide this study of how the academic risk for adolescents in Latino immigrant families has the potential to show educational resilience when adolescents perceive protections (positive school climate, neighborhood quality, teacher support, and peer support). In this study, educational resilience is defined as academic success despite the challenges of being part of immigrant families of Latin heritage. Educational resilience is comprised of two aspects of educational outcomes. The first is academic motivation, followed by academic success (GPA). Academic motivation represents the internal belief of one's drive to pursue academics endeavors whereas academic achievement refers to demonstrating academic outcomes defined by the school or school system as achievement (e.g., GPA).

Adolescent members of immigrant families may be at heightened educational risk compared with adolescent members of native families. One challenge is to navigate the potential differences

between the beliefs and experiences of the heritage culture and the mainstream culture (Bamaca-Colbert et al., 2018). Within their families or neighborhoods, adolescents in immigrant families with Latin heritage may experience variation in social norms and customs between the heritage culture and the mainstream culture in their current context. How adolescents experience this challenge is based upon their perceptions of the world based on their experiences and interactions with others (Thomas & Thomas, 1928).

Latino families are at heightened risk for being low income when they emigrate to the U.S. as they may not have the means to live in an area that has abundant resources. This is often reflected in the communities to which immigrant families move that are often considered low-income areas by the broader culture. Additionally, the neighborhood's perceived quality may serve as a protective factor to adolescents' academic outcomes as previous research has shown the higher the perceived neighborhood quality was related to adolescents' academic success. Furthermore, living in lower-quality neighborhoods often reflects the available resources within the community and, by extension, the school's potential quality within the neighborhood. When individuals and families immigrate to a new country, they may leave situations they see as worse than what they are living in the new country.

Understanding how adolescents from immigrant families experience academic success in the country they emigrate to is important to strengthen educational supports to assist in achieving academic competency compared to individuals who are native to the new country. According to Masten and Coatsworth (1998), resilience is defined as maintaining a level of competence similar to those who have not been exposed to risk. Patterson (2002) added that showing resilience in one aspect of life may improve the prospects for doing well, even after facing adverse situations. Specific stressors of adolescents in immigrant families may impede their academic success beyond challenges common among adolescents who do not encounter these stressors. For example, adolescents who may move to another country requiring a transition into a different educational system as family members seek better opportunities (Perreira, Chapman, & Stein, 2006; Perreira, Harris, & Lee, 2006). Although each adolescent may have unique experiences, one way of distinguishing the level of exposure to

these transitions common to immigrant families is through generational status family members with both parents born in the native country may differ from those where children are born in the new country (Bush, Bohon, & Kim, 2005; Suárez-Orozco, 2001; & Ruiz-de-Velasco, Fix, & Clewell, 2000). Additionally, stressors that occur in immigrant families may include making ends meet (Ruiz-de-Velasco, Fix, & Clewell, 2000) or the potential stress of one or more family members' undocumented status becoming an issue. In turn, adolescents experience not only managing their experience with the culture of origin, but also those in the current country and how different family members may experience this differently. Based on the increased risk to academic success for adolescents in immigrant families, it is important to examine protections that may hold the potential to foster academic success. Latino adolescents that experience academic success in immigrant families experience educational resilience as evidenced by positive academic outcomes despite the increased risk (Plunkett et al. 2008).

Prior research supports the investigation of adolescents' perceptions of neighborhood qualities and academic outcomes (Henry et al., 2008; Nieuwenhuis, & Hooimeijer, 2016). The current study builds on this work through the examination of possible indirect links from neighborhood quality to aspects of school climate and academic support from teachers and peers to academic outcomes. By extension, doing better academically means adolescents have an increased chance of future success in life as they may have an increase in job security and increase the possibility of living in better neighborhoods. The question that was asked is whether one can help promote the positive relationship between neighborhood quality and educational resilience by promoting a more supportive environment for students through peer and teacher academic support. Furthermore, safe school climates within schools may be beneficial for students' academic success, even as their neighborhood qualities may not provide opportunities for safety.

Furthermore, Masten, and Coatsworth (1998) discussed what situations could arise for one to be considered at risk and, in turn, leaving them open to develop resilience due to the stressors they

encounter. Due to the nature of immigrating to a new country, this process leaves families and their members open to a variety of chronic stressors that, in turn, lead to a high risk for those individuals. For example, being exposed to the constant adaptation of a new country through learning a new language, trying to learn a new education system, to learning to interact with your peers in a school and neighborhood setting each of these experiences can put a significant strain on adolescents development and in turn takes away from their ability to focus on their education. Some of the challenges listed above are aspects an adolescent has to go through just following typical developmental patterns in an adolescent. What is unique about the immigrant experience is the combination of the experience discussed above along with overcoming the adversity and potential trauma of leaving your home country to either seek better opportunities for the family as a whole or due to areas that have conflict.

Members of immigrant families may perceive their new living situations differently than typically viewed in the broader culture. For example, living in a neighborhood with high risk may be less of an issue as these families seek refuge from political turmoil in their heritage culture. Thus, they may thrive in such neighborhoods compared to improvement from experiences in their country of origin that has open conflict. Often when families live in lower quality neighborhoods, schools within the area reflect similar situations. Based on a qualitative study conducted by Villalba, Brunelli, Lewis, and Orfanedes (2007) of Latino parents who had children in elementary school found four factors related to children's success. These were (1) teacher and school characteristics, (2) experiences related to academics, (3) family/cultural traits, and (4) social factors such as the surrounding community, lack of resources to support children, the size of the Latino community and the activity related to gangs in the schools.

For this reason, it is important to understand how adolescents in immigrant families perceive their school climates as well as other forms of protection beyond neighborhood qualities, teacher and peer support that may mitigate the educational risk for adolescents in immigrant families. In turn,

adolescents may have greater prospects for showing educational resilience, as evidenced through academic motivation and academic achievement.

The focus of this study is to explore these potential protective factors for adolescents who are experiencing higher immigration-related risks, whether it is due to emigrating to a new country, learning a new language, or navigating a new education system; the interest is in what factors can serve to mitigate the risks these adolescents may encounter during the process of transitioning. For this reason, protective factors are being considered to help in developing educational resilience in adolescents. The first protective factor is perceived neighborhood qualities and identifying how the perception of one's neighborhood available resources helps to mitigate the potential risk of emigrating to a new country has on adolescents' development. Second, there was an interest in the role school climate plays on adolescents' educational resilience. If a school climate is perceived as fair and safe, how does that in turn influence the possibility of adolescents continuing to achieve in their academics? Within the school context, there was also interest in the individuals they interact with within those settings. What role do teachers and peers play on immigrant adolescents' ability to fare well even when faced with adversity?

Thus, this study uses an educational resilience perspective to guide the investigation of how adolescents perceive their school climate and academic success. Educational resilience perspectives are utilized to provide a lens through which other forms of protection (neighborhood quality, teacher support, peer support) explain variation in the association between school climate and academic success for adolescents in immigrant families. Also, gender and parental educational level are examined as control variables that may explain variation in educational success. Gender may serve as moderators of the school climate and educational success association. Additionally, the generational status may serve as a moderator between protective factors (neighborhood qualities, teacher support, and peer support) and educational success.

Definitions of Key Terms

Academic achievement is defined as how well individuals perform on their course work based on their course grades earned (Choi, 2005; York, Gibson & Rankin, 2015).

Academic motivation refers to the level of effort the adolescent puts forth in their schoolwork, academic grades, and school (Plunkett & Bámaca-Gómez, 2003; Sands & Plunkett, 2005).

Adolescence is the developmental period between the start of puberty to the beginning of adulthood (Rathus, Nevid, & Fichner-Rathus, 2014).

Educational resilience refers to maintaining a level of competence similar to those who have not been exposed to risk (Masten & Coatsworth, 1998), and individuals who have developed resilience continue to do well even after facing adverse situations (Patterson, 2002).

Educational risk refers to exposure to continuous exposure to adverse conditions in an educational setting. These risks may include not knowing the native language spoken in the school or learning to navigate the new education system.

Gender refers to individuals' attitudes, feelings, and behaviors that are associated with a person's culture and biological sex (American Psychological Association, 2015).

Generational status refers to the location of birth for an individual or the location of the birth of their parents. Participants are considered first generation when the adolescent and their biological parents were born outside the United States. Second generation is considered when the adolescent's parents were born outside of the US, and the adolescent was born in the US. When considering third generation, this was indicated when all three individuals were born in the United States (U.S. Census Bureau, 2016).

School climate refers to the school environment and whether adolescents perceive the school to be safe, fair, or feel as though students have a voice/participation, and/or whether there is respect between students, faculty, and administrators.

Teacher support is defined as having a teacher who is the adolescent perceives to be helpful, provides assistance, and the adolescent is comfortable speaking with them.

Latino immigrant families, in this study, are defined as families with at least one parent born in a Latin American country and emigrated to the United States.

Neighborhood quality refers to stressors that one may encounter while living in one's community; this may be a social or financial risk. For example, individuals living in poverty, use of welfare, unemployment, and low levels of education in adulthood (Plunkett, Abarca-Mortensen, Behnke, & Sands, 2007).

Parents' educational attainment refers to the highest level of education the parents' have completed. (United Nations, 2008).

Peer support is defined as having another individual who is close in age or grade that an adolescent is able to confide in times of stress.

Literature Overview

This section is intended to review the theoretical resilience approach and to summarize the existing literature on the relationship between school climate and adolescents' educational resilience. Additionally, a review of the literature on the indirect association protective factors (i.e., neighborhood quality, teacher support, and peer support) and generational status has on the association between school climate and educational resilience.

An important challenge for Latino adolescents in immigrant families is successfully navigating the educational systems in the new culture while living in families that navigate both the current and heritage cultures. Notably, Latino adolescents often experience collectivist family values consistent with the heritage culture at the same time they participate in educational systems largely based on individualistic values (Gudykunst, 1998). The contrast in values, customs, and experiences between the heritage and current cultures may be notable. Immigration occurs for a variety of reasons that may push or pull the families toward the new county (Bush, Abrams-Muruthi, Bohan, & Kim, 2016). Families may experience the "push" to immigrate to leave areas with high violence or conflict or be refugees from wars. Or, families may experience the pull toward immigration to seek or pursue educational or employment opportunities. Regardless of the reason for moving to a new culture,

adolescents in immigrant families face potential risks as they navigate educational experiences based on norms and values of the current culture while living in families seeking to function while trying to both honor their heritage and current cultures.

Educational Resilience in Latino Adolescents

Individuals who are categorized as first-generation, meaning that both their parents and the individual were born outside the United States, face increased challenges when arriving in a new country. These challenges can come in various forms, whether transportation, language barriers, or difficulty navigating the new education system. Each of these situations poses a significant risk to adolescents' ability to adapt to a new environment. Prior research has indicated that academic achievement has been linked to an individuals' future success (Suárez-Orozco, 2001). Therefore, it is important to examine what can assist adolescents in being academically successful and, in turn resulting in the development of educational resilience. Individuals who are encounter challenges while still being successful are considered resilient. For this reason, the relationship between protective factors (e.g., neighborhood qualities, teacher support, peer support, and school climate) has on both academic motivation, and academic success will be examined. Academic motivation and academic achievement are considered indicators of educational resilience as individuals who endure difficult situations and can adapt to the challenges presented to them may perform the same as other individuals who do not face the same circumstances.

Academic Motivation

Academic motivation has been defined as the level of effort an individual place towards their school work and the degree to which they value their education as well as their grades (Plunkett & Bámaca-Gómez, 2003; Sands & Plunkett, 2005). Academic motivation has been shown to be related to adolescents' grades. Prior research has indicated that academic motivation was significantly and positively related to academic success in an adolescent. Additionally, individuals who had better grades would, in turn, have a higher level of focus on their academics, which is related to high levels of academic engagement (Plunkett, Behnke, Sands, & Choi, 2009). Therefore, it is important to

understand how each element of educational resilience, such as academic motivation and academic success (GPA), help to promote resilience in adolescents.

Alfaro, Umaña-Taylor, Gonzales-Backen, Bámaca, and Zeiders' (2009) longitudinal research found that a relationship between academic motivation and future grades. The data suggested a relationship in academic motivation at Time 1 was related to academic success at Time 1. In the second wave, they found that Time 2 academic motivation had been significantly related to adolescents' grades at Time 2. Academic motivation at Time 1 predicted grades at Time 2.

For this reason, the conceptualization of academic motivation is as part of educational resilience as they encounter difficult situations. In turn, it is an indicator of their future success resulting in an adolescent who has demonstrated resilience even through adverse situations.

Academic Achievement

One important indicator of adolescents' future success is the degree to which they are academic achievement. The importance of higher education is especially important for individuals coming from immigrant families. More specifically, academic achievement (grades) is an indicator of Latino adolescents' future opportunities (Suárez-Orozco, 2001). Based on prior research conducted by Dornbusch et al. (1991), they indicated adolescents who are more successful within the area or academics are more likely to pursue higher education. Additionally, by pursuing higher education, adolescents have a higher chance of increased occupational success, lower levels of emotional problems, behavioral problems, delinquency, and substance use (Annunziata, Hogue, Faw, & Liddle, 2006; Jansen & Bruinsma, 2005). Research conducted by Behnke, Gonzalez, and Cox (2010), surveyed Latino students, and results indicated that adolescents might benefit from support from teachers in the form of motivation and support for the students and in turn, it would help to reduce the dropout rate of adolescents and by extension encourage students to be academically successful by staying in school. For this reason, it is important to examine what factors influence adolescent academic success and, more importantly, in minority groups that have a higher risk of not completing high school.

Protective Factors and Educational Resilience

Neighborhood Qualities

Neighborhood qualities are considered factors that influence an individual. These include perceived poverty, rate of unemployment, individuals using assistance, and education level of adults that live in the area (Plunkett, Abarca-Mortensen, Behnke, & Sands, 2007). Those that live in areas that have increased rates of violence and poverty and a lack of sense of community or support are at higher risk of replicating the behaviors they are observing (Aneshensel & Sucoff, 1996; Byrnes, Leventhal & Brooks-Gunn 2000; Moore, Redd, Burkhauser, Mbwana, & Collins, 2009; Murry, Berkel, Gaylord-Harden, Copeland-Linder, & Nation, 2011). Peacock, McClure, and Agars (2003) suggested that adolescents who live in high-risk neighborhoods that are characterized by higher rates of violence and poverty increase the likelihood those individuals will repeat similar behaviors and in doing so increases the likelihood their academic success will decrease.

Based on Byrnes et al. (2007) study suggests that adolescents' perceptions of the issues within a neighborhood (poor schools, drug use, and drugs being dealt with) resulted in a high probability of those adolescents participating in delinquent behaviors and, by extension, potentially lowering their academic success. Furthermore, Aneshensel and Sucoff (1996) study examined neighborhood structure and found that those neighborhoods that showed separation based on socioeconomic status, as well as racial and ethnic segregation, influenced adolescents' overall emotional wellbeing and in turn influenced how they viewed their neighborhoods. Additionally, the same study found that the stability of the housing situation was tied with an individual's perception of hazards and connectedness within the community. Thus, adolescents who live in these environments have also been shown to have fewer or weaker social bonds, and in turn, the constant exposure to various risky situations results in decreased adolescents' academic success.

A study accessing factors that influence adolescents' behaviors found both environmental experiences and exposure to violence within the community to be strong predictors of delinquent behaviors. This would indicate that not only being exposed to violence in the neighborhood but while

at school may result in not only increased delinquent behaviors in adolescents but also a decrease in their overall academic interest (Peacock et al., 2003). In the case of neighborhood qualities influencing adolescent observable behavior and internal behavior, it was hypothesized that individuals living in neighborhoods that they perceive to be high in risk would have a lower academic interest as well as lower levels of reported mental health. However, it was anticipated that peer and teacher support would help to reduce the negative impacts perceived neighborhood qualities have on adolescents.

Teacher and Peer Support

Previous research indicated that social environments play a significant role in adolescents' academic success. The social environment has been considered to include support from students, teachers and was found to be positively related to adolescents' self-regulated learning as well as their behaviors such as classroom engagement (Patrick et al. 2007; Plunkett et al., 2008). In the middle school context (7th and 8th grade), Wang and Holcombe (2010) indicated the social environment in school predicted adolescents' school identification, self-regulation, and the amount they participated in school during their 8th-grade year. To further expand, the relationship between school engagement was also positively related to adolescents' 8th grade GPA. School social environment (autonomy, teacher support, performance goals, mastery goals, and discussion) in 7th grade predicted affective (school identification), behavioral (student participation), and cognitive (self-regulation strategies) engagement in 8th grade and engagement, in turn, was significantly related to 8th grade GPA. Close and Solberg (2008) found that Hispanic students had reported increased levels of motivation to attend school when they had developed stronger connections with their teachers. Research done by Brewster and Bowen (2004) indicated that teachers who provide increased support to the students have related to greater levels of academic success.

In a qualitative study conducted by Salerno and Reynold (2017) in which they conducted interviews with teachers and analyzed student's essays, Latino/a adolescents benefited from two factors: (a) peers with the same ethnic backgrounds and (b) teachers that are culturally flexible.

Furthermore, groups of similar ethnic backgrounds helped to provide both social support and academic support.

Researchers conducted a semi-structured interview with Latinas on barriers and support that they had experienced in high school. These results were that Latina had found that language, finances, negative peer relationships, and discrimination from teachers and peers had related negatively to their high school experiences. Further investigation brought to light the support systems that these students had felt provided support, and it came in the shape of parents desiring additional opportunities for their daughters and teachers providing advice and making these students feel cared for (McWhirter, Valdez, & Caban, 2013).

Based on interviews with Puerto Rican adolescents, Garrett, Antrop-Gonzalez, and Velez (2010) identified four factors that the participants reported influenced their academic success. These factors were (1) community engagement through extracurricular activities and religiosity, (2) having a strong identity with their own culture, (3) having a connection to their mother and/or sisters related to their academic achievements, (4) teachers and school staff that cared about them.

School Climate

School climate has been shown to relate to adolescents' success in school through their academic performance. One form of stress for adolescents is the perception of school climate. School climate for adolescents relates to feelings of safety while in the school, fairness, respect between students, faculty, and administrators. Murray and Farrington's (2010) research shows that adolescents who do not feel safe within their schools are more likely to take part in delinquent activities, by extension hindering their academic success. Sprott (2004) discussed the importance of school climate as having a significant impact on adolescents' future by avoiding engaging delinquent behaviors.

Belendiuk, Molina, and Donovan's (2010) research suggests considering two aspects of the school environment, first, a sense of connectedness to the school and respect, and second is feelings of safety while in the school. Prior research has indicated that adolescents who identify positively with their school environment are less likely to engage in delinquent behaviors such as bullying,

vandalism, fighting, etc. but rather having a positive school climate results in an increase in prosocial behaviors and increased social bond with their school (Simons-Morton, Crump, Haynie, & Saylor, 1999). Furthermore, if the school environment is not perceived as positive, it has been associated with a variety of negative health outcomes. It is also important to stress problem behaviors tend to increase during adolescence. Therefore, there was a need to consider promoting a positive school climate to reduce the possibility of adolescents engaging in delinquent behaviors.

Research conducted by Spratt (2004) indicates the frequency of delinquent behaviors in a classroom was related to climate within the classroom. Therefore, potentially making the connection between perceived teacher and peer support having a positive influence on lowering the negative effects delinquent behaviors has on adolescents' behaviors and, by extension, their academic success.

Demographic Considerations: Generational Status, Parents' Educational Level, and Gender

Research conducted by Finn and Rock (1997) suggested there are demographic factors that influence student engagement other than their perceptions of the school climate, such as their socioeconomic status, gender, and own minority status. In this study, gender was a control variable since prior research has suggested possible gender differences in perceptions of protection or academic outcomes. Additionally, minority status as a member of a Latino immigrant family is considered a significant risk of presenting potential challenges to educational success. Furthermore, parents' educational attainment will also be considered a control variable as research has indicated parents' educational attainment relates to academic success.

Generational Status

For this study, generational status refers to the country in which the individual was born. Often in research, generational status is used as a control variable, or the focus is on one specific generation (e.g., first-generation). There are several examples of research focusing on individuals whose parents and the participant was born outside of the United States who were considered first-generation individuals and how it influenced their academic outcomes (Dueñas, & Gloria, 2020); Kuperminc, Darnell, & Alvarez-Jimenez, 2008); Trevino, & DeFreitas, 2014). Previous studies

suggested a relationship between generational status and academic achievement (Hurtado-Ortiz & Gauvain, 2007), motivation (Piña-Watson, López, Ojeda, & Rodríguez, 2015; Perreira, Fuligni, & Potochnick, 2010; Portes & Rumbaut, 2001; Suárez-Orozco & Suárez-Orozco, 1995). Lutz (2007) argued that there may be a combined impact of ethnicity and generational status on experiences in the education system and whether individuals complete high school. Therefore, this study includes an examination of the first-generation Latino experience and how it differs from a second-generation Latino adolescent, and how generational status plays a role in adolescents' educational success.

Gender

Prior research has indicated that gender differences exist between males and females in their self-reported levels of academic motivation (Agger, & Meece, 2015; Bugler, 2015; Alfaro, Umaña-Taylor, Gonzales-Backen, Bámaca, & Zeiders, 2009). For these reasons, gender was a control variable to take into account the associations among protective factors, generational status, and educational resilience.

Parents' Educational Level

Research conducted by Plunkett and Bámaca-Gómez (2003) found that parents who reported higher levels of education had more available resources to assist their children. These resources could take the form of being able to provide additional aid in the form of tutoring, the ability to help adolescents with their homework, to have prior knowledge about the education system. Within the same study, these authors found that in a Mexican American sample, adolescent mother's educational attainment was related to adolescent academic success. For these individuals, it was important to understand that parents that had higher levels of educational attainment could serve as a role model for their children.

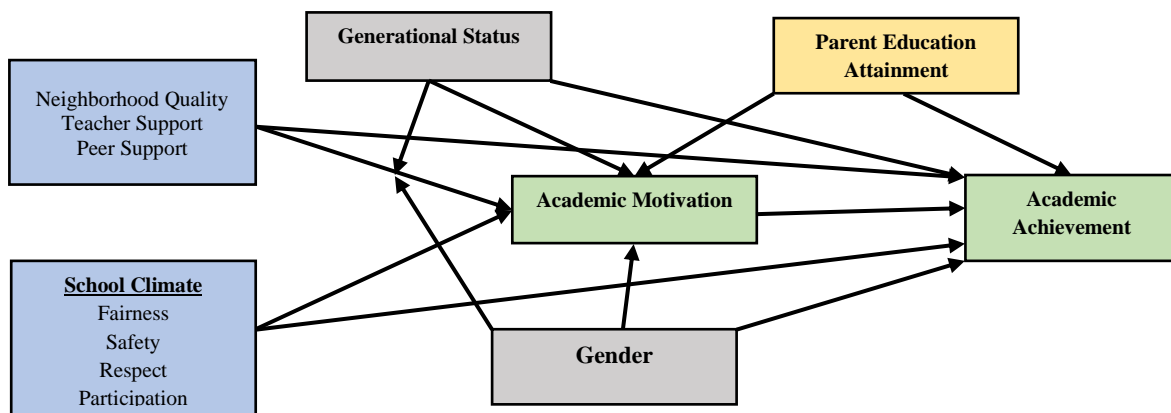
A study conducted by Williams and Dawson (2011) showed students who had parents and or guardians who had not completed their high school education had reported lower test scores in reading and math compared to those adolescents who had parents or guardians who had completed high school. In a longitudinal study of educational outcomes of Mexican American adolescents,

mothers' educational attainment was directly and positively associated with adolescents' exam scores (Altchul, 2012). Since parents' educational attainment can have implications for adolescents' academic success, parental education level was included in the current as a control variable to better understand the unique contribution protective factors (neighborhood qualities, teacher and peer support, and school climate) to educational resilience.

Conceptual Model, Research Questions, Hypotheses, and Assumptions

The following conceptual model was created to help guide the study on the expected relationships between protections, generational status, and demographic variables had on aspects of educational resilience. In doing so the model presented the study's research questions and hypotheses that were tested.

Figure 1. *Conceptual Model of Protective Factors and School Climate in Relation to Educational Resilience* Blue – Protective factors, Grey – Moderators, Yellow – Control &, Green – Outcomes



Research Question 1: How are school climate, neighborhood quality, teacher support, and peer support associated with their educational resilience (academic success and academic motivation) in Latino/a adolescents in immigrant families? Do these associations vary based between first and later generational status?

Hypothesis 1: Adolescents' perceptions of school climate, neighborhood quality, teacher support, and peer support are significantly and positively associated with adolescents' reports of educational resilience (motivation and achievement) (see Figure 1).

Hypothesis 2: Compared with adolescents in first generation immigrant families, adolescents in later generation immigrant families will report greater educational resilience (motivation and achievement) (see Figure 1).

Because existing scholarship is insufficient to hypothesize specific ways that the association between perceptions of school climate educational resilience were moderated by protection (neighborhood quality, teacher support, peer support), specific hypotheses were not established. However, these potential moderators will be examined.

Research Question 2: Are adolescents' self-reports of gender and parents' educational attainment variation between attainment) important control variables to take into account when examining protective factors and educational resilience (motivation and achievement) in adolescents in immigrant countries with Latin heritage?

Hypothesis 3: Adolescents that identify as female report greater educational resilience (motivation and achievement) than adolescents identifying as male (see Figure 1).

Hypothesis 4: Adolescents' reports of parental educational attainment are directly and positively associated with reports of educational resilience (motivation and achievement) (see Figure 1).

Gender as a possible moderator is considered in the second model as previous research has indicated that there are differences in the individual components of educational resilience (e.g., adolescents' academic motivation and academic achievement). Due to limited research investigating the possibility of generational status moderating the association between protection (school climate, neighborhood quality, teacher support, peer support) and educational resilience (motivation and achievement), all possible interactions of generational

status and gender will be examined to identify under what conditions these variables might change the association between protection and educational resilience.

Assumptions

This study was performed with specific assumptions in mind. First, it is assumed that appropriate demographic variables relating to adolescents' educational resilience were used as control variables. This is due to it not being possible to include every possible demographic consideration relating to adolescents' education resilience (Luthar, 1993). Second, participants in this study were assumed to participate in the study willingly and without pressure from outside individuals (e.g., teachers, administrators, or the researchers). Participants were informed that participating in this study was voluntary, and they would be able to leave at any point. Participating adolescents provided assent along with parental consent. Third, participants were assumed to understand English at a level necessary to complete the self-report questionnaire based on enrollment in the school. Fourth, participants were assumed to respond to each of the questions honestly and to the best of their knowledge since responses were anonymous. Furthermore, participants were able to leave the questions blank due to not knowing the answer to a question or the question was not applicable to their situation.

Assumptions about measurement also were present. First, the assumption was made that the questionnaires were culturally relevant for Latino adolescents in immigrant families based on prior work demonstrating validity and reliability for Latino adolescents. Second, during the data entry process, the assumption was made that no errors were made that might result in mistakes in data analysis. This assumption was based on the procedures for data entry and analysis that were put in place. After data were collected, they were taken to the university to be entered by trained research assistants who coded and entered the data. Once the data was coded and entered, the data were verified by another group of research assistants to ensure the accuracy of the data.

CHAPTER II

METHODOLOGY

The following chapter describes the methodological approach that was used to investigate the association between school climate and educational resilience (i.e., academic motivation and achievement of adolescents in Latino immigrant families). Furthermore, the aim was to understand the relationship between protective factors (i.e., neighborhood quality, teacher support, and peer support), school climate, and adolescents' educational resilience. This study will examine the following questions:

1. Is there a relationship between school climate and adolescents' educational resilience?
2. How are selected protective factors associated with educational resilience in adolescents?
3. How are the generational status and gender of the adolescent associated with protective factors and educational resilience?

Procedure

This study is based on data collected as part of a larger study of adolescent adaptation. A cross-sectional design was used, and self-report data were collected from high school students in multiple areas of Los Angeles, California. The project was approved by the Institutional Research Board at the home university for each of the principal investigators on the overall project. At each of the locations in which data were collected, permission was obtained from the school principal. Next, the research team established contact with the teachers who taught 9th and 10th grade about

the process the data collection would follow. Once teachers agreed for their class to participate in the study, trained researchers came into the classroom to distribute parental consent and adolescent assent forms to all of the students in the classroom. The consent forms included explanations of the process participants would undergo when agreeing to participate in the study. All of the students were instructed to present the consent forms to their guardians and, if they wished to participate, have their guardians sign the consent forms when the students returned the signed consent and assent forms to the teachers, who then gave those completed forms to members of the research team.

Two weeks after the initial return of the consent and assent forms, researchers returned to the classrooms. During the second visit, consent and assent forms were collected from the teacher and students. At this point, surveys were distributed to individuals who had parental consent and had given assent. The survey took place during regular class time, and bilingual researchers were present to answer any questions for those who were taking the survey in either English or Spanish. Researchers were instructed to walk around the room to be available to students who had questions. For individuals who did not have parental consent, a crossword puzzle was provided that provided information on the transition period between high school and college settings. Furthermore, those individuals who participated in the study received the same crossword puzzle upon completing the survey. Once the surveys were completed, data was collected from the students and were brought back to a university lab where trained research assistants coded specific items in the survey, followed by entering the data. To ensure a high level of accuracy, all data was verified by another member of the research team.

Participants

A subsample of the larger dataset was used for this study, consisting of 1058 Latino adolescents in immigrant families. Participants were 54.7% male, 45.34% female. The participants' average age was 14.72 and ranged from 13 to 19. Participants' academic levels were: ninth grade (75.9%), tenth grade (23.1%), eleventh grade (0.80%), and twelfth grade (0.30%). The family structure of participants follows: two-parent intact families (67.2%), single-mother families 16.0%),

single-father families (2.6%), birth mother and stepfather (11.2%), birth father and stepmother (1.0%), and other (1.9%).

Measurement

The demographic items and self-report scales used in the present study are described below. The self-report scales include three categories of variables: school climate (school fairness, school participation, school mutual respect, and safety at school), protective factors (neighborhood quality. All survey items used in this study were part of a larger study and had already been used in prior studies. Modifications had been made to the perceived support of both teacher and peers from their original scales; both of the support scales were reduced to the 3-items from a 6-item scale.

Demographic Variables

Demographic variables were assessed using items asking adolescents their age, gender (gender was coded as 0 = *male*; 1 = *female*), ethnicity, grade classification, school, parents' educational attainment, family structure (e.g., two-parent household, single parent, stepfamily), birth country, and parents' birth country. Generational status was established by asking adolescents where they were born as well as their parents. By identifying where their parents were born, the participant's generational status was identified between first or later generations. If both parents were born outside of the United States, and the adolescent was born in the US, they were considered first generation. If either of the parents were born in the US, the child was considered second generation. If all three individuals were born in the US, they were identified as third generation. For the purposes of this study first generation was compared to second and third generation. For the purpose of this study generational status was coded as follows: 1st generation = 0, 2nd generation = 1, and 3rd generation = 2.

Protective Factors

The following measures were used to assess selected protective factors that hold the potential to protect adolescents against difficult or risky situations that increase the challenges to adolescent

academic success. These measures were used to assess neighborhood quality, teachers' support, peer support, aspects of school climate, academic motivation, and academic achievement.

Neighborhood Quality

Adolescents' perceptions of neighborhood quality were assessed using an existing 15-item Likert scale that assessed adolescents' perceptions of the education level, rate of poverty, unemployment, substance use, illegal acts, and the rates of violence present in the adolescents' current neighborhood (Bámaca, Umaña-Taylor, Shin, & Alfaro, 2005; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006). A sample question of neighborhood quality is as follows, "Education is not valued." Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent's responses on the items on the scale. Prior studies found Cronbach's alphas ranging from .84 to .86 using data from Latino immigrant families (Supple et al.) and predominantly immigrant Latino samples (Bámaca et al., 2005). Based on current data, a Cronbach's alphas of .82 was found for neighborhood quality.

Teacher Support

Perceived teacher support was measured using an existing 3-item Likert scale (Sands & Plunkett, 2005). A sample item for perceived teacher support is "This person encourages me to continue my education beyond high school." Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent's responses on the items on the scale. Previous research has indicated Cronbach's alphas ranged from .80 to .87 for maternal and paternal support for individuals identifying as Latino/a (Sands & Plunkett, 2005). These same questions were used to assess adolescent's perception of teacher support, and the data indicated a Cronbach's alpha of .84 was found for perceived teacher support.

Peer Support

Peer support was measured using a 3-item Likert scale that is used to examine perceived support from peers (Sands & Plunkett, 2005). A sample item for perceived peer support is "This person encourages me to do well in school." Response choices ranged from 1 = *strongly disagree* to 4

= *strongly agree*. A composite score was established based on an average of each adolescent's responses on the items on the scale. Prior research has indicated Cronbach's alphas ranging from .80 to .87 for maternal and paternal support for individuals identifying as Latino/a (Sands & Plunkett, 2005). The same questions were utilized to report perceived peer support for Latino/a adolescents, and a Cronbach's alpha of .84 was found for perceived peer support using this data.

School Climate

School climate was assessed using an existing measure that consisted of school fairness, school participation, school mutual respect, and school safety. These subscales have been used in previous studies with Latino adolescents.

School Fairness. School fairness was assessed using a 6-item Likert subscale that consisted of an as part of an existing school climate survey Aber, Meinrath, Johnston, Rasmussen, and Gonzalez's (2000). These items asked adolescents about their perceptions of treatment by other students, teachers, and staff. A sample item for perceived school fairness is "Different students receive the same punishments for breaking the same rules." Responses range from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent's responses on the items on the scale. Based on the current data, a Cronbach's alphas of .70 was found for perceived school fairness.

School Participation. The measure of adolescents' school participation was measured using a 5-item Likert subscale in which adolescents' responded about the extent to which they felt they had a voice relating to the school environment. As with the previous scale, a modified version of Aber, Meinrath, Johnston, Rasmussen, and Gonzalez's (2000) school climate survey was used. A sample item for school participation is "Students get involved in sports, clubs, and other school activities." Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent's responses on the items on the scale. Based on the current data, a Cronbach's alphas of .74 was found for school participation.

School Mutual Respect. School mutual respect relates to the level of respect adolescents experience within the school. This construct was measured using a 6-item subscale Likert scale. Adolescents reported their perceptions of other students as well as adults and teachers on whether they care about and respect each other, regardless of race or ethnicity. A sample item for school mutual respect is “Students of all racial and ethnic groups are respected at my school.” Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent’s responses on the items on the scale. Based on the current data, a Cronbach's alphas of .83 was found for school mutual respect.

Safety at School. Lack of safety within the school was based on adolescents’ own perceptions of feeling safe both in the school as well as around the school. This construct was assessed using a 5-item subscale Likert scale. An example of a question adolescents were asked is, “I feel unsafe between classes.” Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent’s responses on the items on the scale. Based on the current data, a Cronbach's alphas of .88 was found for safety at school.

Educational Resilience

The two indicators of educational resilience (academic motivation and academic achievement) were assessed with measures used in previous studies with Latino adolescents.

Academic Motivation

Academic motivation was assessed using an existing 5-item Likert scale. The scale asked about the amount of effort the adolescent applies to school, how important grades are to them, whether they like school, and the final question asked about the extent to which they complete their homework on time (Plunkett & Bámaca-Gómez, 2003). A sample item for academic motivation is “Grades are very important to me.” Response choices ranged from 1 = *strongly disagree* to 4 = *strongly agree*. A composite score was established based on an average of each adolescent’s responses on the items on the scale. Prior research yielded a Cronbach's coefficient alpha of .71 when

used with adolescents who identified as Mexican (Plunkett & Bámaca-Gómez, 2003). Furthermore, data provided by adolescents who identified as Mexican or Central American showed Cronbach's alphas of .77 (Mexican participants) and .78 (Central American participants) (Sands & Plunkett, 2005). Using the current data, a Cronbach's alphas of .80 was found for academic motivation.

Academic Achievement

Adolescents' academic achievement was assessed using the self-reported GPA. The data was provided by the students' self-assessment of the grades they had at the time of data collection. The question that was asked to participants for their GPA was, "Which of the following best describes the grades you are getting in school?" These reported grades were based on a 9-point scale ranging from 1 = *mostly F's*, 2 = *D's & F's*, 3 = *mostly D's*, 4 = *C's & D's*, 5 = *mostly C's*, 6 = *B's & C's*, 7 = *mostly B's*, 8 = *A's & B's*, and 9 = *mostly A's*.

Analytic Approach

Preliminary Analyses

The process before conducting the path analysis consisted of screening the data before analysis could be conducted. Due to the data missing less than five percent for each of the variables included in the path analysis, a Little's MCAR test was conducted. Data met the criteria for missing completely at random, and for this reason, the process for checking for violation in the assumptions was complete, and the process of the path analysis continued.

Before conducting the two path analyses, a variety of tests were conducted to ensure the data did not violate any assumptions within the criterion of utilizing a path analysis. Therefore, the following test was conducted assure our data did not violate any assumptions; descriptive statistics (i.e., mean, standard deviations, and variance) on each of the variables of interest followed by screening the data to check for univariate and multivariate normality—the criteria used for whether the data is normally distributed was through the use Mahalanobis distance which measures the distances between the reported score and how far away the score is from the mean. Based on Fox (1991) and Tabachnick and Fidell (2013), cases that have scores larger than 1.00 are considered

outliers. Therefore, when examining normality, variables were examined to see if they have a value of less than 1.00. Data were within acceptable ranges, the assumptions of normality were met, and it was assumed that normality was not violated.

Furthermore, the data were examined for skewness and kurtosis to determine whether the data were normally distributed. When checking the data for skewness, the examined were examined to determine whether the data fell below the mean or above the mean. If data were to have leaned below the mean or above the mean, the data would have indicated this by having a skewness value above three. Based on Kline (2016), the data did not meet the criteria for being skewed. Thus, no, there were no reports of skewness above three for any of the variables. For this reason, it was concluded that our data was not skewed. Next, the data were examined to determine if they were kurtotic or had larger peaks in specific areas indicating that the data were not normally distributed. Using Kline's (2016) criteria of kurtosis values requiring higher than seven, our data was under the cutoff value. Therefore, based on Kline's (2016) criteria of both skewness and kurtosis that the data are normally distributed.

Next, Cronbach's alpha internal consistency reliability coefficients were reported for each scale used in the study based on the current data. After performing these data checks and establishing reliabilities on the scales, the process for hypothesis testing continued.

For the purpose of examining the interactions in each proposed path model the interaction terms were created by multiplying the moderating variable effect by the protective factor effect. The following interactions were created by multiplying the individual effects of each variable by the other variables individual effect: generational status x neighborhood quality, generational status x teacher support, generational status x peer support, generational status x gender, gender x neighborhood qualities, gender x teacher support, and gender x peer support. When creating the three-way interaction, the effects of each individual variable was multiplied with the other two variable individuals' effects: generational status x gender x neighborhood qualities, generational status x

gender x teacher support, and the same was done for the three-way interaction of generational status, gender, and teacher support.

Structural Equation Modeling (Path Analyses)

In this section, the results of two path analyses used to test the two research questions are reported. The first path analysis tested Research Question 1, which addressed the association between protective factors (school climate, neighborhood quality, teacher support, and peer support) and educational resilience (motivation and achievement) among Latino/a adolescents. Furthermore, the first path analysis would also examine how generational status would moderate the relationships between these protective factors and adolescents' educational resilience. The second path analysis tested Research Question 2, which addressed how gender and parental educational attainment were associated with educational resilience along with the protective factors examined in Research Question 1. Additionally, it was examined how gender and parental educational attainment moderated the existing relationships between protective factors, generational status, and educational resilience.

Analysis for Research Question 1

A path analysis was conducted to address Research Question 1, examining how Latino adolescents in immigrant families' perceptions of school climate and protective factors (neighborhood quality, teacher support, and peer support) were directly associated with their academic achievement (GPA) and whether academic motivation mediated these associations. The path analysis was used to examine the (a) direct relationships between school climate, neighborhood quality, teacher support, peer support, and generational status on academic achievement; (b) indirect associations between school climate, neighborhood quality, teacher support, and peer support on academic achievement through academic motivation. The path analyses were conducted using *Mplus 7.1* while utilizing maximum likelihood as an estimation (Muthén & Muthén, 2013).

Analysis for Research Question 2

To examine Research Question 2, a second path analysis was conducted to examine how Latino adolescents in immigrant families' perceptions of school climate and protective factors

(neighborhood quality, teacher support, and peer support) were associated with adolescents' academic achievement. Within this same model, control variables were included to identify if the associations between the predictors and outcome variable changed with the inclusion of gender and parental educational attainment. The process of performing the second path analysis was identical to the path analysis testing Research Question 1 through the use of *Mplus* to perform the analysis. For the second model, the model examined the (a) direct associations between the primary variables of school climate, neighborhood quality, teacher support, peer support, and generational status on academic achievement; (b) the direct associations of the control variables (gender and parental educational attainment) on academic motivation and the partial mediation on GPA through adolescents' academic motivation (c) and the direct associations of the control variables (gender and parental educational attainment) with adolescents' GPA.

The criterion used to examine both of the path models were based on model fit indices based on recommendations by Kline (2016). The path analysis model fit was examined using, chi-square goodness-of-fit test (χ^2), Root Mean Squared Error of Approximation (*RMSEA*), Standardized Root Mean-Square Residual (*SRMR*), and Comparative Fit Index (*CFI*). Using Kline (2016) as a reference, the results show a reasonable fit for the model, with the expectation of finding a nonsignificant chi-square value, *RMSEA* < .06, *SRMR* < .08, and *CFI* > .95.

CHAPTER III

RESULTS

This chapter reviews the process of data screening in which data was examined for missingness, tested assumptions of both normality and multicollinearity. Additionally, I will report the results of this study investigating the conceptual model (see Figure 1), including the preliminary results, the results of two path analyses (one for Research Question 1 and one for Research Question (see Figure 2), and the post hoc analyses.

Preliminary Results

Before conducting our path analysis, data were examined for any missing data. After conducting a Little's MCAR test, the data were missing completely at random, and each of the variables was missing less than five percent of the data per questionnaire. After identifying that the data were missing completely at random, we conducted a test to identify any violations of path analysis assumptions. We started by examining multivariate normality. The data met the Fox (1991) and Tabachnick and Fidell (2013) criteria of having scores less than 1.00. Within the dataset, there were no participants that had values above 1.00. Based on Mahalanobis distance, the data were normally distributed, but additional tests were conducted to continue examining skewness and kurtosis. The data did not indicate that any of the variables had skewness values above three, and when considering kurtosis, the variables had not exceeded values of seven. Based on Kline (2016), it was concluded that the data met the necessary criteria for being normally distributed. Based on examining Mahalanobis distance, skewness, and kurtosis, it was safe to assume the data was normally

distributed. Therefore, the data screening process moved onto examining the reliability of the scales. The alphas for our scales ranged from a value of .70 to .88, with the average reliability of the scales being .81. The reliability of each measure is listed at the end of each measurement.

Pearson correlations were conducted examined to identify whether the predictor and outcome variables were highly correlated (see Table 2). When examining correlations between academic motivation and other predictor variables the data indicated that all predictors except for generational status was significant correlated to adolescents' academic motivation (see Table 2). Furthermore, the results indicated that there were significant correlations between GPA and the other predictors apart from perceived neighborhood qualities (see Table 2).

After conducting tests to ensure the assumptions were not violated in the data, there were 1058 participants. The gender breakdown was as follows 45.3% females and 54.7% males, with the majority of participants identifying as 9th graders (75.9%), 10th graders (23.1%), 11th graders (.80%), and 3(.30%). Participants' generational status was as follows: first-generation 15.5%, second-generation 70.1%, and third-generation 14.4%.

Path Analyses

The program that was utilized to perform the path analyses was *Mplus* version 7.1. When performing the path analysis, maximum likelihood estimation was used. Path analyses were conducted to establish the relationships between protective factors and educational resilience (motivation and achievement; see Figures 1 and 2). The specific model was used to identify the contributions of protective factors, neighborhood quality, teacher support, peer support, school climate (school safety, school respect, school participation, and school fairness) on educational resilience (motivation and achievement) in adolescents. To further examine multicollinearity, the variance inflation factor (VFI) was examined between the independent variables and the outcome variables. This test suggests VFI values higher than 10 suggests multicollinearity issues based on Hair, Anderson, Tatham, and Black (1995). After conducting the test for VFI values, the test indicated that they were all under the threshold recommended by Hair et al. (1995). Additionally,

after identifying the variables that were not highly correlated in the preliminary analyses, it was determined that there was no need to be concerned about multicollinearity, resulting in analysis to move forward.

Results of the Path Analysis for Research Question 1

The path analysis for Research Question 1 was conducted to examine the relationships between protective factors, neighborhood quality, teachers' support, peers' support, and school climate (school safety, school respect, school participation, and school fairness), on educational resilience (motivation and achievement) as shown in Figure 1. Based on Kline's (2016) criteria model fit was good, $\chi^2(1) = 6.587, p = .01$, comparative fit index (CFI) = .988, root mean square error of approximation ($RMSEA$) = .07, Standardized Root Mean Square Residual ($SRMR$) = .005.

School Climate, Protective Factors, and Academic Motivation

The results for Research Question 1 showed partial support for the expectations that school climate and protective factors would be positively associated with academic motivation. Results of the path analysis (see Figure 2) showed that one of the three protective factors were significantly and directly associated with adolescents' academic motivation. Adolescents' perceptions of peer support showed a direct positive association with academic motivation ($\beta = .147, p = .029$). Adolescents' perceptions of both neighborhood quality ($\beta = .063, p = .304$) and teachers' support ($\beta = .114, p = .080$) showed positive directions of association with academic motivation but did not show significance.

Two of the four school climate variables were significantly associated with academic motivation. As expected, school mutual respect was positively and directly associated with academic motivation ($\beta = .185, p = .000$). It was identified that the lack of school safety was negatively and directly associated with academic motivation ($\beta = -.065, p = .042$). Non-significant direct positive associations were found for both school fairness ($\beta = .069, p = .064$) and school participation ($\beta = 0.054, p = .173$) with academic motivation.

Adolescents' generation status was not significantly associated with academic motivation ($\beta = .115, p = .467$). Individuals who identified as first generation did not differ in academic motivation compared to second and third generation status adolescents. Further, no significant interactions terms were found for either the associations of generational status x teachers' support ($\beta = .021, p = .893$) or generational status of x peer support ($\beta = -.025, p = .825$) and academic motivation. Yet, the association of generational status x neighborhood quality and academic motivation approached a significance ($\beta = -.176, p = .056$).

School Climate, Protective Factors, Academic Motivation, and Academic Achievement

In the path analysis testing Research Question 1, although each of the three protective factors was positively associated with academic achievement, these associations did not reach significance. Specifically, neighborhood qualities ($\beta = .047, p = .455$), teacher support ($\beta = .013, p = .855$) and peer support ($\beta = -.009, p = .891$) were not significantly associated academic achievement.

One of the four forms of school climate was significantly associated with academic achievement. School safety showed a significant negative association with academic achievement ($\beta = -.097, p = .003$) as perceptions of school safety were rated to be more negative adolescents reported academic achievement was also lower. School fairness ($\beta = .033, p = .369$) and school mutual respect ($\beta = -.046, p = .253$) did not show significant associations with academic achievement.

Latino adolescents' generation status ($\beta = -.043, p = .800$) was not significantly associated with their academic achievement. Significant associations were not found between generational status x neighborhood qualities ($\beta = -.009, p = .926$), generational status x teacher support ($\beta = -.060, p = .730$), and generational status x peer support ($\beta = -.030, p = .803$) academic achievement.

Results of the Path Analysis for Research Question 2

The path analysis is examining research question two, which explores the relationships between protective factors and educational resilience (motivation and achievement) while also considering generational status, and gender as possible moderators for the relationships between protective factors and educational resilience. Additionally, parental educational attainment was

considered as a control variable in this model. The path analysis for research questions two were conducted to the relationships between protective factors and educational resilience (motivation and achievement) are as follows (see Figure 2). Based on Kline's (2016) criteria model fit was good, $\chi^2(1) = 5.291$ $p = .02$, comparative fit index (CFI) = 0.99, root mean square error of approximation ($RMSEA$) = .07, Standardized Root Mean Square Residual ($SRMR$) = .00.

Academic Motivation

The path analysis indicated neighborhood qualities was not significantly related to Latino adolescents' academic motivation ($\beta = .10$, $p = .22$). Additionally, both forms of support (teacher support ($\beta = .04$, $p = .61$) and peer support ($\beta = .15$, $p = .09$)) were not associated with Latino adolescents' academic motivation. Latino adolescents' generation status ($\beta = .13$, $p = .57$) was not associated with their academic motivation. When it came to school climate variables neither perceived school fairness ($\beta = .06$, $p = .13$) and school participation ($\beta = .03$, $p = .48$) were associated with Latino adolescents' academic motivation. School mutual respect was positively associated with adolescents' academic motivation ($\beta = .19$, $p = .00$). School safety was negatively associated with adolescents' academic motivation ($\beta = -.07$, $p = .04$). The results did not indicate a significant relationship between gender ($\beta = -.02$, $p = .98$) academic motivation. Upon examining the relationship between parental educational attainment and Latino/a adolescents GPA was not found to have a significant difference ($\beta = .11$, $p = .00$) indicating adolescents reporting higher parental educational attainment also reported higher GPA.

While examining the indirect effects of generation status and gender on adolescents' academic motivation an indirect effect of generational status on perception of neighborhood quality ($\beta = -.27$, $p = .04$) was found. Generational status did not have significant indirect effects with perceived teacher support ($\beta = .01$, $p = .95$) and perceived peer support ($\beta = .02$, $p = .89$). Additionally, no significant interactions were found between generational status and gender ($\beta = -.23$, $p = .57$) on academic motivation.

When the indirect effects of gender on the relationship between protective factors and academic motivation were considered, the results suggested no significant indirect effect between gender and perception of neighborhood quality on academic motivation ($\beta = -.08, p = .63$). The analysis indicated that there was no significant indirect effect between gender and perception of teacher support on academic motivation ($\beta = .25, p = .48$). There was no significant indirect effect between gender and perception of peer support on academic motivation ($\beta = -.07, p = .79$). When three-way interactions between gender, generational status, and protective factors on adolescents' academic motivation were examined, there was no significant interaction between generational status, gender, and perceived neighborhood quality ($\beta = .15, p = .642$) on adolescents' academic motivation. When considering the three-way interaction between gender, generational status, and perceived teacher support on adolescents' academic motivation, there was no significant interaction ($\beta = .21, p = .59$). Lastly, there was no significant interaction three-way interaction between gender, generational status, and perceived peer support on adolescents' academic motivation ($\beta = -.14, p = .65$).

Academic Achievement

After conducting the path analysis, a significant association between adolescents' academic motivation and their self-report survey ($\beta = .45, p = .00$) was found. When examining neighborhood qualities, the results indicated that perceived neighborhood qualities were not significantly related to Latino adolescents' academic achievement ($\beta = .16, p = .07$). Furthermore, both forms of support teacher support ($\beta = -.05, p = .59$) and peer support ($\beta = .09, p = .35$) were not significantly associated with Latino academic achievement. Latino adolescents' generation status ($\beta = .11, p = .63$) was not associated with their academic achievement. When it came to school climate variables, school fairness ($\beta = .03, p = .48$) was not associated with Latino adolescents' academic achievement. School mutual respect was not associated with adolescents' academic achievement ($\beta = -.05, p = .25$). School safety was negatively associated with adolescents' academic achievement ($\beta = -.10, p = .00$). When examining the association between gender and academic achievement, there was no significant

association with adolescents' academic achievement ($\beta = .53, p = .14$). There were no association between parents' educational attainment and adolescents self-report grades ($\beta = .05, p = .09$).

When examining the indirect effects of generation status and the association between neighborhood qualities ($\beta = -.13, p = .33$), teacher support ($\beta = .26, p = .28$), peer support ($\beta = -.29, p = .07$), and gender ($\beta = -.51, p = .21$) on adolescents' academic achievement no significant indirect effects were found.

Testing the indirect effects of gender and neighborhood qualities was not significant ($\beta = -.24, p = .15$). There was no significant interactions between perceived teacher support ($\beta = .41, p = .25$). However, our analyses indicated a significant interaction between peer support and academic achievement ($\beta = -.60, p = .01$). When considering the three-way interaction between gender, generational status, and perceived neighborhood qualities ($\beta = .22, p = .23$) on self-report grades, there was no significant interaction. No significant three-way interaction was found between generational status, gender, and perceived teacher support ($\beta = -.60, p = .13$) on *academic achievement* (GPA). Additionally, a significant three-way interaction between gender, generational status, and perceived peer support ($\beta = .85, p = .00$) on adolescents' academic achievement was found.

Post hoc Test

After identifying a significant interaction between generational status, gender, and perceived peer support post hoc tests were conducted to examine where the significant differences were between the groups. Post hoc analyses revealed that among youth in Latin heritage immigrant families, the association of peer support and academic motivation is greater for Latina than Latino adolescents (see Table 3). In the proposed model it is indicated that regardless of the level of support for Latino adolescents whether high or low it does not serve to predict Latino adolescents' academic success. On the other hand, for Latina adolescents who are considered first generation the higher the perceived peer support they report the lower their academic achievement is. However, for second and

third generation Latina adolescents' higher level of peer support predicted higher levels of academic achievement (see Table 3).

Table 1
Sample Descriptive

Characteristic	Mean	SD	<i>n</i>	%
Age	14.719	.785		
Gender				
Female			579	45.3
Male			479	54.7
Grade level				
9 th Grade			803	75.9
10 th Grade			244	23.1
11 th Grade			8	.80
12 th Grade			3	.30
Generational Status				
First Generation (All foreign-born)			164	15.5
Second Generation (Participant born in US, Parents born outside of the US)			741	70.1
Third Generation (all member born in the US)			153	14.4
Parent Relationship Status				
Birth Parents			711	67.2
Stepparent Household			130	12.2
Single Parent Household			197	18.6
Other			20	1.9

Note. *N* = 1058.

Table 2*Zero-order Correlations*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	-											
2. Gen Status	.07*	-										
3. Neigh Qual	-.08**	-.02	-									
4. Teacher Support	.04	-.06	-.09**	-								
5. Peer Support	.20**	.00	-.13**	.42**	-							
6. School Fairness	.07*	-.05	-.18**	.30**	.19**	-						
7. School Part	.07*	.02	-.22**	.35**	.27**	.58**	-					
8. School Respect	.07*	-.03	-.19**	.37**	.26**	.62**	.66**	-				
9. School Safety	-.09**	.00	.27**	-.21**	-.15**	-	.29**	.43**	-			
10. Academic Motivation	.15**	-.04	-.14**	.31**	.27**	.30**	.32**	.37**	-.23**	-		
11. GPA	.14**	-.04**	-.05	.17**	.12**	.18**	.11**	.20**	-.18**	.48**	-	
12. Parent Education	-.12**	.13**	-.04	.09**	.04**	.04	.08**	.05	-.02	.11**	.09**	-

Note. * $p < .05$, ** $p < .01$. Gender was coded as follows, 0= males and 1 = boys. Generational status was coded as 0 = 1st generation 1 = 2nd generation and 2 = 3rd generation.

Table 3*Interaction Equations*

Values		Parameter Estimates								Results
Sex	Generation	Intercept (Academic Achievement)	Peer support	sex	gen	gen X peer	sex X peer	gen X sex	gen X sex X peer	
0	0	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	0	0.26
0	1	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	0.847	1.107
0	2	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	1.694	1.954
1	0	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	0	0.26
1	1	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	0.847	1.107
1	2	0.929	0.085	0.533	0.109	-0.29	-0.599	-0.507	1.694	1.954

Note. Gender was coded as follows, 0= males and 1 = boys. Generational status was coded as 0 = 1st generation 1 = 2nd generation and 2 = 3rd

generation. The table demonstrates the expected value of perceived peer support based on gender and generational status.

Figure 2. Analytic Model of School Climate, Protective Factors, and Adolescent Educational Resilience. Blue – Protective factors, Grey – Moderators &, Green – Outcomes. Solid black lines indicate significant relationships.

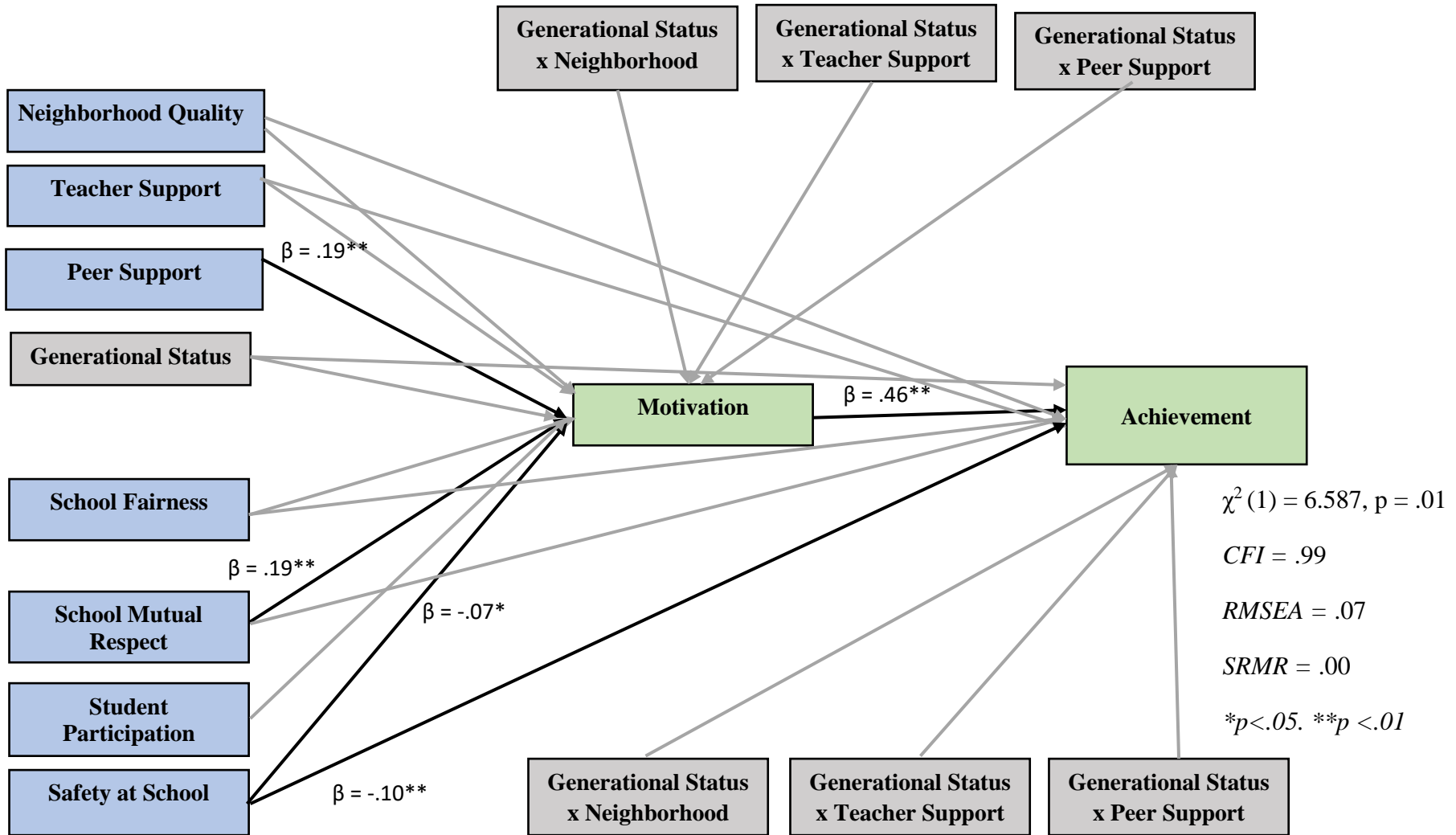
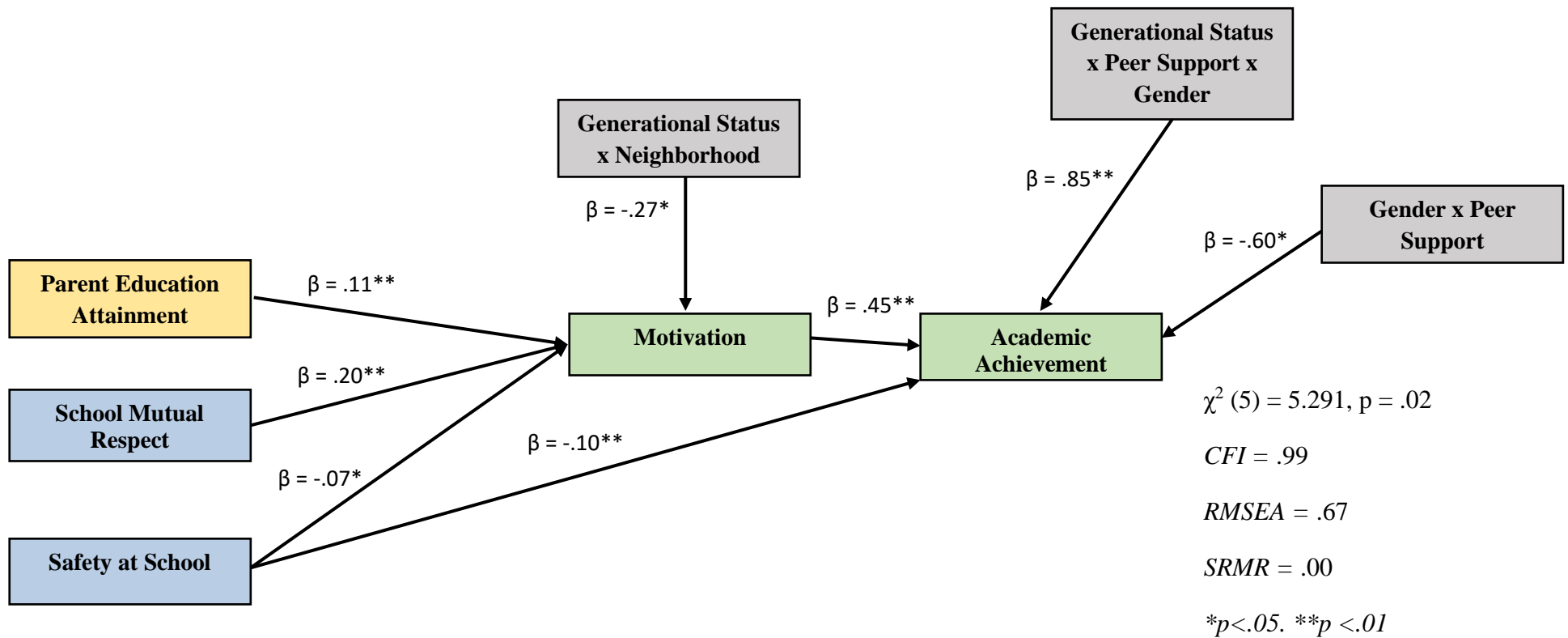


Figure 3. Analytic Model School Climate, Protective Factors and Adolescent Educational Resilience. Blue – Protective factors, Grey – Moderators, Yellow – Control &, Green – Outcomes. Solid black lines indicate significant relationships.



CHAPTER IV

DISCUSSION

When examining the first model's findings that did not include gender or parental educational attainment, the data indicated several significant paths. In alignment with Alfaro, Umaña-Taylor, Gonzales-Backen, Bámaca, and Zeiders' (2009) and Plunkett, Behnke, Sands, & Choi (2009), our data indicated a significant association between Latino/a academic motivation and their *academic achievement* (self-report GPA). The findings further demonstrate the importance of keeping students engaged in their academics while also maintaining a higher level of motivation to complete their course work.

The data did not indicate a direct or indirect relationship between the perception of neighborhood quality and Latino/a adolescents' educational resilience in the initial model. Although the findings differ from previous work conducted by Peacock, McClure, and Agars (2003) it is important to note that there was a significant correlation between neighborhood qualities and adolescent academic motivation. These findings may suggest that although neighborhood quality may impact other areas of development for adolescents, it did not have a direct relationship with *academic achievement* in adolescents. This provides insight into the fact that adolescents' perception of their environment may not be as significant as other factors such as support from others or school climate. The findings for perceived neighborhood quality demonstrate that individuals who may come from neighborhoods that are perceived to have lower amounts of resources can still thrive and that it may not have as large of an impact compared to other variables considered in our initial model. For instance, when considering adolescents' perceptions of support from outside sources may have a

stronger indication of beneficial impacts on the relationship with Latino/a adolescents' educational resilience.

In the current study Latino/a adolescents, the results differed from Close and Solberg's (2008) previous research that shows a direct positive association between teacher support and academic motivation and an indirect association with achievement in a Latino/a sample. The current study of Latino/a adolescents showed a correlation between teacher support but when testing the research model the results did not support an association of teacher support and *academic achievement* (GPA) either directly or through academic motivation. Due to these relationships not being significant, one can consider other variables that may carry more weight on adolescents' academic motivation and/or academic achievement. For instance, the relationship of perceived peer support may carry more weight for these adolescents to either report higher levels of academic support or academic achievement rather than from the perceived support from teachers. A possible explanation may be due to the transition of seeking more autonomy in adolescents. Adolescents may attempt to rely less on other adults to complete tasks and focus on looking to themselves or others sharing similar experiences to appear more autonomous.

Similar to earlier research (Garrett, Antrop-Gonzalez, & Velez, 2010; Salerno & Reynold, 2017), our findings suggested a significant and positive indirect relationship between perceived peer support and academic achievement through academic motivation. As adolescents perceived higher levels of peer support, those individuals also reported higher levels of academic motivation along with higher levels of academic achievement. It is important to appreciate the role peers play with Latino/a adolescents and their academic achievement as it provides additional insight as to additional avenues to assist these students in improving their performance in an academic setting. Therefore, the relationship between perceived peer support and Latino/a adolescents' educational resilience indicates an area in which individuals working with adolescents in an academic setting may benefit from encouraging students to work with one another to increase overall academic motivation. Through the

process of encouraging others to work with one another may result in an increase in students' academic achievement.

Furthermore, similar to previous research (Perreira et al., 2010; Piña-Watson et al., 2015; Portes & Rumbaut, 2001; Suárez-Orozco & Suárez-Orozco, 1995), the results suggested generational status had a significant and positive correlation with adolescent academic success. Yet, when examined as part of the research models, generational status did not have a significant association with academic achievement, nor did it indirectly affect academic achievement through academic motivation. These findings may suggest that although adjusting to a new environment it may not have as high of an impact on educational resilience as once hypothesized. This does not mean that there is no relationship between generational status and educational resilience, as the data indicates that generational status and academic achievement are significantly correlated to one another. Rather this has possible implications as to the importance school climate to educational resilience. This means one may be able to adjust to an environment to be more supportive or inclusive of counteracting the possible negative relationship generation status has on educational resilience.

When examining the role school climate had on educational resilience, the model indicated a significant relationship between the school climate variables and educational resilience. While the perception of fairness in school settings did not directly or indirectly relate to educational resilience, it is important to note that perceptions of school fairness were significantly and positively correlated with adolescents' educational resilience. The correlation is important to note for administrators and teachers to ensure that students feel as though everyone is being treated fairly. When adolescents do not feel they are being treated fairly or equally, it may serve as an indication that students may not perform as well if they had perceived the environment to be unfair.

Based on Belendiuk, Molina, and Donovan's (2010) suggestion to examine school respect, the current results indicate a positive and direct relationship between adolescents' perceptions of the school being respectful of its students on their academic motivation. Respect was shown to have a direct relationship with Latino/a adolescents' academic motivation. Perceptions of the school

environment being respectful towards students may be impactful as promoting a healthy environment may encourage students to want to participate at a higher rate and, in doing so, may promote higher levels of academic motivation and indirectly impacting their overall academic achievement.

The findings indicate that there was no significant relationship between participating in school settings and students' academic motivation. In alignment with Murray and Farrington's (2010), the results indicated a direct relationship between school safety and adolescents' academic motivation. The path analysis also indicated a direct relationship between perceptions of school safety and Latino/a adolescents' academic achievement. Furthermore, there was also partial mediation between feeling safe at school on adolescent academic achievement through the adolescents' academic motivation. This indicates that feeling safe is important not only for students to perform academically but also for them to keep higher levels of academic motivation.

Overall, conducting the path analysis for research question one, support was found for different sections of each hypothesis. Results indicated support for hypothesis one in that protective factors, mainly adolescents' perception of peer support, are significantly and positively related to academic motivation. When it came to the second hypothesis, support was found for both perceived school mutual respect and perceived school safety to be directly related to Latino adolescents' academic motivation and indirectly related to adolescents' academic achievement through their academic motivation. While these findings are important, an additional step was taken, and so our second research and third questions helped to expand on what other qualities are related to adolescents' educational resilience.

For the second proposed model (see Figure 3), it was designed to test research questions two and three. With the second model, additional descriptive variables such as gender, parental educational attainment, and generational status were included, the results showed differences across the groups. Based on the second model, one was able to develop a deeper understanding of variables that can relate to adolescents' academic resilience. One key difference between models one and two was that there was no longer a significant direct relationship between adolescents' perceived peer

support and their academic motivation. Instead, the path that became significant was that of parental educational attainment. This marks an interesting change in behaviors for adolescents as they typically seeking more autonomy as they get older and therefore attempt to break away from their parents. Yet, the research suggests that the level of education a parent has completed appears to be a better predictor of Latino/a academic motivation than that of peer support as shown in the previous model. A key area that did not change was the relationship of the school climate variables, which maintained a significant relationship to academic motivation and school safety, maintaining a direct relationship to adolescents' academic achievement.

With the inclusion of gender and generational status as moderators to the relationships between the protective factors and school climate on educational resilience, the model indicated two different two-way interactions and one three-way interaction. For the first interaction, there was a significant interaction between gender and perceived peer support on academic achievement. Compared to boys, girls' perceptions of peer support showed greater importance to academic achievement. This is in alignment with existing literature as peers tend to rate higher in importance for girls compared to boys (Moilanen & Raffaelli, 2010). Another significant interaction was between generational status and perception of neighborhood quality on adolescents' academic motivation. For this interaction, the association was negative, meaning first generation adolescents had a weaker relationship with perceptions of neighborhood quality and academic motivation compared to second and third-generation adolescents. Understanding that perceived neighborhood quality may be more closely association with academic motivation in Latina compared to Latino first-generation adolescents is beneficial to guide individuals working with Latino/a adolescents in identifying key strategies on how to best engage with their students. This may translate into having less emphasis on neighborhood qualities for first-generation adolescents while helping to increase the positive perception of neighborhood qualities for second and third-generation adolescents.

When it came to the three-way interactions between generational status, perceived peer support, and gender on adolescents' academic achievement, the model indicated that individuals who

identified as female and first-generation reported lower academic achievement levels than first generation males. These findings present a change in how to approach interacting with individuals who are considered the first generation. Individuals who are first-generation and identify as females do not benefit from peer support like second and third generations. For this reason, one needs to consider how to best approach supporting Latina adolescents as interventions that may focus on increasing peer support may result in the opposite effect of what was desired for these adolescents to perform better in their academics.

Implications

This research presents implications for individuals working with adolescents in a couple of different contexts. One area is this information can be beneficial for educators working in schools with higher levels of immigrant students. Understanding that there are differences between individuals based on gender allows for teachers to adapt their way of demonstrating support to their students. In our case, it may be more adaptive for teachers to attempt to engage with first generation Latino students on an individual approach, and when working with first generation Latina students, it may be more important to work with them one on one as their academic achievement is lower when having an increase in peer support. For second and third-generation Latina adolescents, peer support has a positive association with academic achievement. For this reason, it is important to continue to understand the differences between these two groups. Additionally, when considering generational status, it is important to understand that although generation status is correlated with academic achievement, there are other areas in which one can provide assistance to those students struggling to adapt to the new education system.

For the context of researchers interested in the relationship generation status has on academic outcomes, this study provides insight into possible methods of data collection. For example, being a new arrival has its own set of challenges. These changes can be quite difficult to navigate without the proper forms of support, and as the data has indicated, when parents have higher educational attainment, the direct relationship of perceived peer support is replaced by parents' education level.

Therefore, researchers should also consider combining multiple contexts as this study primarily focused on protective factors (e.g., neighborhood quality, teacher, and peer support). It is possible that there needs to be consideration of a more inclusive model and examine the home context in combination with the school environment. This process can be taxing on researchers as it can often be difficult to connect with immigrant families outside of the school setting. Having difficulty connecting with families can often be a challenge when working with an immigrant population as it is not uncommon for these individuals to work multiple jobs, have limited transportation, or experience a language barrier. In these situations, researchers need to consider these possible obstacles when designing research when working with these populations.

When considering implications for communities this study, helps to support the importance of creating environments that support new arrivals. Individuals working within the community should consider approaching with first generation Latina adolescents differently from second and third generation adolescents. Encouraging support from second and third generation peers is not necessarily an issue but encouraging or helping these adolescents develop relationships with other first-generation adolescents may allow them to share some similarities in experiences with others and may help to foster resilience in the first-generation Latinas and, in turn, may help them thrive in the school context. In regard to informing policy this study helps to guide policy by providing additional context on how individuals who are a part of immigrant families differ from one another. Due to these groups differing within their own group it would be important for policy makers to consider providing additional resources or resources tailored to individuals who are new arrivals or considered first generation.

Study Limitations

A limitation in this study is that the response choices included self-identifying as Latino, and analyses were conducted using responses from participants who chose this response. The result of the question being asked in this form is that all members within the group, regardless of the area they were born in, were treated as one pan-ethnic group (Latino) rather than recognizing the considerable

variation by nationality (e.g., Mexico, Guatemala, El Salvador) and immigration history (e.g., refugees, seeking an improved job or educational prospects; Umaña-Taylor & Fine, 2001).

There is the possibility of a limitation of generational status relating to protective factors and educational resilience. This is due to the way generational status was measured. By having generational status as a categorical variable, it may not accurately reflect how individuals are adapting to the new country they have immigrated to. For this reason, it may be beneficial for others to examine variables such as acculturation. By doing so it may provide a deeper understanding of the immigrant experience.

The data were collected using self-report surveys, which may have resulted in participants responding in the way they felt was socially desirable. In turn, the responses provided by participants may not have been honest and/or accurate responses. However, based on the expectation that adolescents respond to their perceptions of phenomena rather than objective reality, the strengths of using self-report data outweigh these limitations. Additionally, the data that was utilized for this study was collected at one specific time point. For this reason, it was not possible to detect whether there were differences over a period of time. While a cross-sectional design may be limited in detecting differences, it is often a good start in identifying the initial difference between individuals, which can support the need for continued exploration.

Directions for Future Research

It is recommended that individuals who wish to further expand on how generational status relates to adolescents' academic outcomes consider utilizing a longitudinal approach and examines student's development over time by examining how the generational status influences individual's perspective over time who will be able to examine whether individuals who are experiencing adverse situations are able to perform as well or better compared to those not experiencing the challenges one faces when immigrating to a new country and having to adapt to a new culture. Furthermore, it is recommended to examine multiple aspects of adolescents' lives, which may include but are not limited to their school environment, peers, teachers, neighborhood, and family (e.g., siblings and

parents); doing so will help to develop a deeper understanding of what contextual factors influence and individuals' development.

Conclusion

In conclusion, the results provide support for external factors such as perceived neighborhood quality, peer support, and school climate (e.g., feelings of being respected at school and perceiving to feel safe at school) influencing adolescents academic motivation and, in certain cases, adolescents' academic achievement. It was found that when examining the external protections relating to educational resilience that parts significantly related to adolescents' academic motivation. In regard to school climate, the data suggested support to promote safe and respectful school climates as both forms of secure environments relate to adolescent educational resilience. These findings have implications for both educators in which it is recommended they continue to work towards and maintain healthy and safe school environments in which students feel safe to come to learn and know that they will be supported when they need some assistance. When it comes to research, it is important to continue to develop a deeper understanding of what influences an individual's development as individuals are complex and do not only belong to one system but rather interact between multiple environments.

The importance of this study comes from identifying differences in experiences within adolescents coming from immigrant families. This study provides contributions in examining and identifying the differences between immigrant experiences based on gender and generational status. The findings help to move the literature forward by identifying the importance generational status plays as a modifier to immigrant adolescents experiences. This is shown by the three-way interaction that indicates that in the specific situation of Latina adolescent who are considered first generation have a different experience from that of their second and third generation counterparts. For this reason, it is important for future research to continue to examine how generational status interacts with other variables of interest whether it be protective factors or risks these individuals may encounter.

REFERENCES

- Aber, M. S., Meinrath, S. D., Johnston, J., Rasmussen, A. E., & Gonzalez, A. (2000). *School climate survey: High school version*. Champaign, IL: University of Illinois at Urbana-Champaign School Climate Research Team.
- Agger, Charlotte & Meece, Judith. (2015). Gender and Academic Motivation. *International Encyclopedia of the Social & Behavioral Sciences*. 10.1016/B978-0-08-097086-8.26081-9.
- Alfaro, E. C., Umaña-Taylor, A. J., Gonzales-Backen, M. A., Bámaca, M. Y., & Zeiders, K. H. (2009). Latino adolescents' academic success: The role of discrimination, academic motivation, and gender. *Journal of Adolescence*, 32(4), 941-962.
doi:10.1016/j.adolescence.2008.08.007
- Altschul, I. (2012). Linking socioeconomic status to the academic achievement of Mexican American youth through parent involvement in education. *Journal of the Society for Social Work and Research*, 3(1), 13-30. doi:10.5243/jsswr.2012.2
- Aneshensel, C. S., & Sucoff, C. A. (1996). The neighborhood context of adolescent mental health. *Journal of Health and Social Behavior*, 37(4), 293-310.
<https://doi.org/10.2307/2137258>

Annunziata, D., Hogue, A., Faw, L., & Liddle, H. A. (2006). Family functioning and school success in at-risk, inner-city adolescents. *Journal of Youth and Adolescence*, 35(1), 100-108. doi:10.1007/s10964-005-9016-3

American Psychological Association. (2015). Key terms and concepts in understanding gender diversity and sexual orientation among students [PDF File]. *American Psychological Association*. Retrieved from <https://www.apa.org/pi/lgbt/programs/safe-supportive/lgbt/key-terms.pdf>

Bámaca-Colbert, M. Y., Gonzales-Backen, M., Henry, C. S., Kim, P. S., Roblyer, M. Z., Plunkett, S. W., & Sands, T. (2018). Family profiles of cohesion and parenting practices and Latino youth adjustment. *Family Process*, 57(3), 719-736. doi:10.1111/famp.12314

Bámaca, M. Y., Umaña-Taylor, A. J., Shin, N., & Alfaro, E. C. (2005). Latino adolescents' perceptions of parenting behaviors and self-esteem: Examining the role of neighborhood risk. *Family Relations*, 54, 621-632. doi:10.1111/j.1741-3729.2005.00346.x

Belendiuk, K. A., Molina, B. S., & Donovan, J. E. (2010). Concordance of adolescent reports of friend alcohol use, smoking, and deviant behavior as predicted by quality of relationship and demographic variables. *Journal of Studies on Alcohol and Drugs*, 71(2), 253-257. <https://doi.org/10.15288/jsad.2010.71.253>

Behnke, A. O., Gonzalez, L. M., & Cox, R. B. (2010). Latino students in new arrival states: Factors and services to prevent youth from dropping out. *Hispanic Journal of Behavioral Sciences*, 32(3), 385-409. doi:10.1177/0739986310374025

- Bentler, P. M. (1998) Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246. <https://doi.org/10.1037//0033-2909.107.2.238>
- Brewster, A. B., & Bowen, G. L. (2004). Teacher support and the school engagement of Latino middle and high school students at risk of school failure. *Child and Adolescent Social Work Journal*, 21, 47-67. doi:10.1023/B:CASW.0000012348.83939.6b
- Browne, M.W., & Cudeck, R. (2016). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230–258. <https://doi.org/10.1177/0049124192021002005>
- Bugler, M. (2015). Gender differences in adolescents' academic motivation and classroom behaviour. *Educational Psychology (Dorchester-on-Thames)*, 35(5), 541–556. <https://doi.org/10.1080/01443410.2013.849325>
- Bush, K. R., Bohon, S. A., & Kim, H. K. (2005). Adaptation among immigrant families: Resources and barriers. In P. C. McKenry & S. J. Price (Eds.), *Families and change: Coping with stressful events and transitions* (3rd ed., pp. 307–332). Thousand Oaks, CA: Sage.
- Bush, K. R., Abrams-Muruthi, B. A., Bohon, S. A., & Kim, H. K. (2016). Adaptation among immigrant families: Resources and barriers. In C. A. Price, K. R. Bush, & S. J. Price (Eds.), *Families and change: Coping with stressful events and transitions* (5th ed., pp. 179-202). Thousand Oaks, CA: Sage.
- Byrnes, H. F, Chen, M., Miller, B. A, & Maguin, E. (2007). The relative importance of mothers' and youths' neighborhood perceptions for youth alcohol use and delinquency. *Journal of Youth and Adolescence*, 36(5), 649-659. <https://doi.org/10.1007/s10964-006-9154-2>

- Choi, N. (2005). Self-efficacy and self-concept as predictors of college students' academic performance. *Psychology in the Schools, 42*(2), 197-205. doi:10.1002/pits.20048
- Close, W., & Solberg, S. (2008). Predicting achievement, distress, and retention among lower income Latino youth. *Journal of Vocational Behavior, 72*, 31-42.
doi:10.1016/j.jvb.2007.08.007
- Dornbusch, S. M., Ritter, P. L., & Steinberg, L. (1991). Community influences on the relation of family statuses to adolescent school performance: Differences between African Americans and non-Hispanic whites. *American Journal of Education, 99*, 543–567. doi:10.1086/443997
- Dueñas, M., & Gloria, A. M. (2020). ¡ Pertenece y tenemos importancia aquí! Exploring sense of belonging and mattering for first-generation and continuing-generation Latinx undergraduates. *Hispanic Journal of Behavioral Sciences, 42*(1), 95-116.
<https://doi.org/10.1177/0739986319899734>
- Fox, J. (1991). *Regression diagnostics*. Newbury Park, CA: Sage.
- Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology, 82*(2), 221–234.
<https://doi.org/10.1037/00219010.82.2.221>
- Garrett, T., Antrop-Gonzalez, R., & Velez, W. (2010). Examining the success factors of high achieving Puerto Rican male high-school students. *Roeper Review, 32*, 106-115.
doi:10.1080/02783191003587892
- Gudykunst, W. B. (1998). *Bridging differences: Effective intergroup communication*. Newbury Park, CA: Sage.

- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L. & Black, W. C. (1995). *Multivariate Data Analysis* (3rd ed). New York: Macmillan.
- Henry, C., Merten, M., Plunkett, S., & Sands, T. (2008). Neighborhood, parenting, and adolescent factors and academic achievement in Latino adolescents from immigrant families. *Family Relations*, 57(5), 579-590. doi:10.1111/j.1741- 3729.2008.00524.x
- Hurtado-Ortiz, M. T., & Gauvain, M. (2007). Postsecondary education among Mexican American youth: Contributions of parents, siblings, acculturation, and generational status. *Hispanic Journal of Behavioral Sciences*, 29, 181–191.
doi:10.1177/0739986307299584
- Jansen, E. P., & Bruinsma, M. (2005). Explaining achievement in higher education. *Educational Research and Evaluation*, 11(3), 235-252.
<https://doi.org/10.1080/13803610500101173>
- Kline, R. (2016). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: Guilford Press.
- Kuperminc, G. P., Darnell, A. J., & Alvarez-Jimenez, A. (2008). Parent involvement in the academic adjustment of Latino middle and high school youth: Teacher expectations and school belonging as mediators. *Journal of Adolescence*, 31(4), 469-483.
<https://doi.org/10.1016/j.adolescence.2007.09.003>
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in. *Psychological Bulletin*, 126(2), 309-337.
- Luthar, S. S. (1993). Annotation: Methodological and conceptual issues in research on childhood resilience. *Journal of Child Psychology and Psychiatry*, 34, 441-453.

- Lutz, A. (2007). Barriers to high-school completion among immigrant and later-generation Latinos in the USA: Language, ethnicity and socioeconomic status. *Ethnicities*, 7(3), 323–342. <https://doi.org/10.1177/1468796807080232>
- Masten, A., & Coatsworth, J. (1998). The development of competence in favorable and unfavorable environments. *American Psychologist*, 53(2), 205–220. <https://doi.org/10.1037/0003-066X.53.2.205>
- McWhirter, E. H., Valdez, M., & Caban, A. R. (2013). Latina adolescents' plans, barriers, and supports: A focus group study. *Journal of Latina/o Psychology*, 1(1), 35–52. <https://doi.org/10.1037/a0031304>
- Moilanen, K. L., & Raffaelli, M. (2010). Support and conflict in ethnically diverse young adults' relationships with parents and friends. *International Journal of Behavioral Development*, 34(1), 46–52. <https://doi.org/10.1177/0165025409348553>
- Moore, K. A, Redd, Z, Burkhauser, M., Mbwana, K., & Collins, A. (2009). *Children in poverty: trends, consequences, and policy options*. Available at: <https://www.childtrends.org/wp-content/uploads/2013/11/2009-11ChildreninPoverty.pdf>. Accessed October 5, 2020.
- Murray, J., & Farrington, D. P. (2010). Risk factors for conduct disorder and delinquency: key findings from longitudinal studies. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, 55(10), 633–642. <https://doi.org/10.1177/070674371005501003>
- Murry, V. M., Berkel, C., Gaylord-Harden, N., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. *Journal of Research on Adolescence*, 21(1), 114-128. <https://doi.org/10.1111/j.1532-7795.2010.00718.x>

Muthén, L. K., & Muthén, B. O. (2013). *Mplus 7.1*. [Computer software]. Eighth Edition.
<https://www.statmodel.com/>

Nieuwenhuis, J., & Hooimeijer, P. (2016). The association between neighbourhoods and educational achievement, a systematic review and meta-analysis. *Journal of Housing and the Built Environment*, 31(2), 321-347. <https://doi.org/10.1007/s10901-015-9460-7>

Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, 99(1), 83–98. <https://doi.org/10.1037/0022-0663.99.1.83>

Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family*, 64, 349–360. doi:10.1111/j.1741-3737.2002.00349.x

Peacock, M. J., McClure, F., & Agars, M. D. (2003). Predictors of delinquent behaviors among Latino youth. *The Urban Review*, 35(1), 59-72.
<https://doi.org/10.1023/A:1022545623426>

Perreira, K. M., Chapman, M. V., & Stein, G. L. (2006). Becoming an American parent: Overcoming challenges and finding strength in a new immigrant Latino community. *Journal of Family Issues*, 27(10), 1383-1414. doi:10.1177/0192513X06290041

Perreira, K. M., Fuligni, A., & Potochnick, S. (2010). Fitting in: The roles of social acceptance and discrimination in shaping the academic motivations of Latino youth in the U.S. Southeast. *Journal of Social Issues*, 66, 131– 153. doi:10.1111/j.1540-4560.2009.01637.x

Perreira, K., Harris, K., & Lee, D. (2006). Making it in America: High school completion by immigrant and native youth. *Demography*, 43(3), 511-536.
doi:10.1353/dem.2006.0026

- Piña-Watson, B., López, B., Ojeda, L., & Rodriguez, K. M. (2015). Cultural and cognitive predictors of academic motivation among Mexican American adolescents: Caution against discounting the impact of cultural processes. *Journal of Multicultural Counseling and Development, 43*(2), 109-121. <https://doi.org/10.1002/j.2161-1912.2015.00068.x>
- Plunkett, S. W., Abarca-Mortensen, S., Behnke, A. O., & Sands, T. (2007). Neighborhood structural qualities, adolescents' perceptions of neighborhoods, and Latino youth development. *Hispanic Journal of Behavioral Sciences, 29*(1), 19-34. <https://doi.org/10.1177/0739986306295038>
- Plunkett, S. W., & Bámaca-Gómez, M. Y. (2003). The relationship between parenting and adolescent academic outcomes in Mexican-origin immigrant families in Los Angeles. *Hispanic Journal of Behavioral Sciences, 25*, 222-239. [doi:10.1177/0739986303025002005](https://doi.org/10.1177/0739986303025002005)
- Plunkett, S., Behnke, A., Sands, T., & Choi, B. (2009). Adolescents' reports of parental engagement and academic achievement in immigrant families. *Journal of Youth and Adolescence, 38*(2), 257-268. [doi:10.1007/s10964-008-9325-4](https://doi.org/10.1007/s10964-008-9325-4)
- Plunkett, S. W., Henry, C. S., Houlberg, B. J., Sands, T., & Abarca-Mortensen, S. (2008). Academic support by significant others and educational resilience in Mexican-origin ninth grade students from intact families. *The Journal of Early Adolescence, 28*(3), 333–355. <https://doi.org/10.1177/0272431608314660>
- Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of the immigrant second generation*. Los Angeles, CA: University of California Press.

- Rathus, S. A., Nevid, J. S., & Fichner-Rathus, L. (2014). *Human sexuality in a world of diversity* (9th ed.). Boston, MA: Pearson.
- Ruiz-de-Velasco, J., Fix, M. E., & Clewell, B. C. (2000). *Overlooked and underserved: Immigrant students in us secondary schools*. Washington, DC: The Urban Institute.
Available at: <https://www.urban.org/sites/default/files/publication/62316/310022-Overlooked-and-Underserved-Immigrant-Students-in-U-S-Secondary-Schools.PDF>
- Salerno, S., & Reynolds, J. R. (2017). Latina/o students in majority white schools: How school ethnic enclaves link ethnicity with success. *Sociology of Race and Ethnicity*, 3(1), 113–125. <https://doi.org/10.1177/2332649216663002>
- Sands, T., & Plunkett, S. W. (2005). A new scale to measure adolescent reports of academic support by mothers, fathers, teachers, and friends in Latino immigrant families. *Hispanic Journal of Behavioral Sciences*, 27, 244-253.
doi:10.1177/0739986304273968
- Simons-Morton, B. G., Crump, A. D., Haynie, D. L., & Saylor, K. E. (1999). Student–school bonding and adolescent problem behavior. *Health Education Research*, 14(1), 99-107. <https://doi.org/10.1093/her/14.1.99>
- Sprott, J. B. (2004). The development of early delinquency: can classroom and school climates make a difference? *Canadian Journal of Criminology & Criminal Justice*, 46(5), 553–572. <https://doi.org/10.3138/cjccj.46.5.553>
- Suárez-Orozco, C. (2001). Afterword: Understanding and serving the children of immigrants. *Harvard Educational Review*, 71(3), 579–589.
doi:10.17763/haer.71.3.x40q180654123382

- Suárez-Orozco, M. (2001). Globalization, immigration, and education: The research agenda. *Harvard Educational Review, 71*(3), 345-366.
<https://doi.org/10.17763/haer.71.3.7521rl25282t3637>
- Suárez-Orozco, C., & Suárez-Orozco, M. (1995). *Transformations: Immigration, family life, and achievement motivation among Latino adolescents*. Stanford, CA: Stanford University Press.
- Supple, A. J., Ghazarian, S. R., Frabutt, J. M., Plunkett, S. W., & Sands, T. (2006). Contextual influences on Latino adolescent ethnic identity and academic outcomes. *Child Development, 77*, 1427-1433. doi:10.1111/j.1467-8624.2006.00945.x
- Tabachnick, B. G., & Fidell, L. S. (2013). *Cleaning Up Your Act. In Using multivariate statistics* (pp. 60-116). Boston, MA: Pearson.
- Thomas. W. I., & Thomas, D. S (1928). *The child in America: Behavior problems and programs*. New York, NY: Knopf.
- Trevino, N. N., & DeFreitas, S. C. (2014). The relationship between intrinsic motivation and academic achievement for first generation Latino college students. *Social Psychology of Education, 17*(2), 293-306. <https://doi.org/10.1007/s11218-013-9245-3>
- Umaña-Taylor, A. J., & Fine, M. A. (2001). Methodological implications of grouping Latino adolescents into one collective ethnic group. *Hispanic Journal of Behavioral Sciences, 23*, 347-362. doi:10.1177/0739986301234001
- United Nations (2008, July 23). *Principles and recommendations for population and housing censuses*. New York, NY: Author. doi:10.18356/be1ae14b-en

- U.S. Census Bureau. (2016, October 13). *FFF: Hispanic heritage month 2016*. Washington, DC: Author. Retrieved on July 23, 2017, from <https://www.census.gov/newsroom/facts-for-features/2016/cb16-ff16.html>
- Villalba, J. A., Brunelli, M., Lewis, L., & Orfanedes, D. (2007). Experiences of Latino children attending rural elementary schools in the southeastern U.S.: Perspectives from Latino parents in burgeoning Latino communities. *Professional School Counseling, 10*, 506-509. <https://doi.org/10.5330/prsc.10.5.t727642203354538>
- Wang, M. C., & Holcombe, R. (2010). Adolescents' perceptions of school environment, engagement, and academic achievement in middle school. *American Educational Research Journal, 47*(3), 633–662. doi: 3102/0002831209361209.
- Williams, S. A., & Dawson, B. A. (2011). The effects of familial capital on the academic achievement of elementary Latino/a students. *Families in Society, 92*(1), 91-98. doi:10.1606/1044-3894.4066
- York, T. T., Gibson, C., & Rankin, S. (2015). Defining and measuring academic success. *Practical Assessment, Research & Evaluation, 20*(5), 1-21.

APPENDICES

APPENDIX A

Data Acknowledgment

This research uses data from the Fathers Count Project, collected by Dr. Scott Plunkett (PI) and Dr. Tovah Sands. Data was collected after approval by the IRB of California State University Northridge. No direct support was received for this analysis.

APPENDIX B

Institutional Review Board Approval

Oklahoma State University Institutional Review Board



Date: 01/15/2021

Application Number: IRB-21-28

Proposal Title: Educational Resilience in Latino/a Adolescents in Immigrant Families

Principal Investigator: Hector Nolasco

Co-Investigator(s): Carolyn S Henry

Faculty Adviser: Carolyn S Henry

Project Coordinator: Hector Nolasco

Research Assistant(s):

Processed as: Not Human Subjects Research

Status Recommended by Reviewer(s): Closed

Based on the information provided in this application, the OSU-Stillwater IRB has determined that your project does not qualify as human subject research as defined in 45 CFR 46.102 (d) and (f) and is not subject to oversight by the OSU IRB. Should you have any questions or concerns, please do not hesitate to contact the IRB office at 405-744-3377 or irb@okstate.edu.

Sincerely,
Oklahoma State University IRB

VITA

Hector Martinez Nolasco

Candidate for the Degree of

Doctor of Philosophy

Dissertation: SCHOOL CLIMATE, NEIGHBORHOOD QUALITY, TEACHER SUPPORT, PEER SUPPORT, AND EDUCATIONAL RESILIENCE OF LATINO/A ADOLESCENTS IN IMMIGRANT FAMILIES

Major Field: Human Sciences

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Human Sciences at Oklahoma State University, Stillwater, Oklahoma in December, 2020.

Completed the requirements for the Master of Arts in Psychology at the California State University Northridge, Northridge, California in 2017.

Completed the requirements for the Bachelor of Arts in Psychology at the California State University Northridge, Northridge, California in 2015.

Selected Publications:

Nolasco, H. M., Plunkett, S. W., & Merten, M. (2020, March). *Significant others' academic encouragement and Latino adolescents' academic success*. Poster session to be presented at the biennial meeting of the Society for Research on Adolescence. San Diego, CA.

Nolasco, H. M., Cox, R., & Washburn, I. (2018, November). *Recruiting Latino immigrant youth into a family-based intervention: A test of best practice*. Poster session presented at the annual conference of the National Council on Family Relations, San Diego, CA.

Professional Memberships: Society for Research on Adolescence, National Council on Family Relations