

AN INVESTIGATION OF THE EFFECTS OF RACIAL/ETHNIC  
MICROAGGRESSIONS, SOCIOPOLITICAL DEVELOPMENT, AND PROTECTIVE  
FACTORS ON ACADEMIC PERSISTENCE INTENTIONS AMONG LATINA/O  
STUDENTS

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## DISSERTATION ABSTRACT

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Title: An Investigation of the Effects of Racial/Ethnic Microaggressions, Sociopolitical Development, and Protective Factors on Academic Persistence Intentions among Latina/o Students

As the nation's largest and fastest growing marginalized ethnic group, Latina/os play an increasingly crucial role in the economic and social life of the nation, highlighting the need for education systems to re-evaluate and expand their efforts in supporting and retaining this growing population. A number of contextual factors have been identified that influence the college experience and academic persistence of Latina/o students, including campus racial climate, perceptions of university environment, cultural congruity, interpersonal racism, and structural racism. An emerging area of research is racial/ethnic microaggressions (i.e., subtle forms of racism). In the face of these challenges, many Latina/os learn to critically navigate and negotiate the cultural environment of college, drawing on cultural strengths as well as cultural knowledge and skills gained in overcoming previous structural barriers to education. The focus of the present study is on Latina/o students and factors that influence their academic persistence intentions. Structural equation modeling techniques were performed to test a hypothesized structural model of the mechanisms by which racial/ethnic microaggressions, protective factors (i.e., resilience, mentor support, social support from family and friends), and sociopolitical development (i.e., ethnic identity, critical

consciousness) influence Latina/o students' intentions to persist in academia. The hypothesized structural model tested indicated a good fit to the data. Study results were consistent with several study hypotheses: (a) the hypothesized structural model provided a good fit to the data; (b) the proposed set of relationships between resilience, mentor support, social support from family and friends, critical consciousness, ethnic identity, and intentions to persist accounted for significant variance in the model; (c) perceptions of university environment was directly related to intentions to persist; (d) protective factors (resilience, mentor support, social support from friends and family), sociopolitical development (ethnic identity and critical consciousness), and perceptions of university environment fully mediated the relationship between racial/ethnic microaggressions and intentions to persist; (e) protective factors mediated the relationship between perceptions of university environment and intentions to persist. Implications for practice and recommendations for future research are discussed.

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# CHAPTER I

## LITERATURE REVIEW

### Introduction

The nation's Latina/o population continues to grow at considerably faster rates than the United States (U.S.) population as a whole. For the purpose of this study, Latina/o refers to women and men of Latin American origin or descent residing in the United States, regardless of immigrant status. According to the U.S. Census, more than half of the growth in the total U.S. population between 2000 and 2010 was due to the increase in the "Hispanic" or Latina/o population. Between 2000 and 2010, Latina/os grew by 43%, reaching more than 50 million people, or comprising about 16.5% of the total U.S. population (Fry & Lopez, 2012; U.S. Census Bureau, 2010). As the largest and fastest growing ethnic group in the U.S., the Latina/o student population has recently reached a number of educational milestones (Fry & Lopez, 2012).

In 2011, Latina/o college enrollment rates reached new highs, surpassing college enrollment rates of White/European Americans. Latina/os are now, for the first time, the largest racial and ethnic group among the nation's four-year college and university students and make up one-quarter (25.2%) of young adult (18- to 24-year-olds) students enrolled in two-year colleges (Fry & Lopez, 2012). Although Latina/os' college enrollment rates have reached new highs, their college completion rates are not increasing relative to enrollment rates (Castellanos, Gloria, & Kamimura, 2006; Cook & Cordova, 2007; Fry & Lopez, 2012). Latina/os continue to be the least educated U.S. ethnic group in terms of completion of a bachelor's degree (Fry, 2011). For example, Latina/os' college completion rates (13%) are considerably lower than the college



completion rates of Asian Americans (53%), White/European Americans (39%), and Black/African Americans (19%) (Fry, 2011; NCES, 2011).

Educational outcomes, including academic achievement and educational attainment, have crucial consequences for career development and life direction in adulthood. Individuals with low levels of academic achievement are more likely to engage in risky behaviors (such as substance abuse, risky sexual behavior, and delinquency) that interfere with subsequent academic achievement and persistence in school (Arbona, 2000). Moreover, earning potential is directly associated with educational attainment (Ryan & Siebens, 2012). Students who drop out of school experience lower income and greater unemployment, receive fewer employment benefits, are significantly overrepresented in the adult corrections population, and are more likely to require social services during their lifetime (Close & Solberg, 2008; Ream & Rumberger, 2008; Secada, Chavez-Chavez, Garcia, Munoz, Oakes, Santiago-Santiago, & Slavin, 1998). In light of this, factors that constrain high school completion, readiness for postsecondary education, and academic persistence in higher education have long-term social and financial implications. Understanding factors that enhance educational outcomes is relevant to the development of positive career outcomes and general well-being in adulthood (Arbona, 2000).

Identifying and understanding factors that enhance academic outcomes and promote academic persistence is crucial for students who face social and economic barriers. This is particularly relevant to Latina/o students who are more likely to be at-risk because they are disproportionately represented in lower socioeconomic status (SES) brackets (APA Task Force on Socioeconomic Status, 2007). Evidence shows that

students from low-income and ethnic minority backgrounds in general are at-risk for diminished academic outcomes, as such placing Latina/o students at considerably higher risk for poor academic outcomes (i.e., dropping out), in spite of Latina/o positive family values toward pursuing successful education (Hill & Torres, 2010).

As the nation's largest and fastest growing racial and ethnic group, Latina/os play an increasingly crucial role in the economic and social life of the nation (Castellanos et al., 2006). Therefore, it is in the best interest of the nation for education systems to re-evaluate and expand their efforts in supporting and retaining this growing population of students (Oseguera, Locks, & Vega, 2009). As Latina/os become a majority population in many states, failure to examine contextual factors contributing to the academic experience and persistence of Latina/o students, and to improve their educational attainment, may have long-term negative social and economic implications. Increasing Latina/o student access to educational opportunities that lead to successful educational outcomes (e.g., college completion) is important for the welfare of the Latina/o community and nation as a whole (Simon, Lewis, Uro, Uzzell, Palacios, & Casserly, 2011).

The United States education system has struggled with Latina/o drop out for decades now (e.g., Castellanos et al., 2006, NCES, 2003; 2011; Rumberger, 1991), and despite the growing number of successful academic programs throughout the nation (e.g., Gandara, Larson, Mehan, & Rumberger, 1998; Montecel, Cortez, & Cortez, 2004; Rumberger & Larson, 1999), attrition rates continue to be alarmingly high. Historically, the schooling system has individualized Latina/os' collective concerns, placing the responsibility for change on the students themselves, as well as on their families and

communities (Valenzuela, 1999). While it is important to acknowledge the individual factors contributing to Latina/o drop out, it is also important to recognize and address the deep cultural, social, and political factors influencing attitudes toward participation in education of Latina/o students, as well as many other Students of Color, including Black/African American and Indian/Native American students (Note that in this document, “Students of Color” is capitalized to position groups often referred to as minorities in a place of importance, in order to highlight that they do not exist merely in relation to the assumed White/European American majority) (Valenzuela, 1999; Yosso, Smith, Ceja, & Solórzano, 2009).

Extant literature suggests that environmental and social factors may explain the discrepancy between Latina/o student enrollment and graduation rates (Arbona, 1990; Cano & Castillo, 2010). Factors such as national origin, generational status, and social class influence the educational attainment of Latina/o students (Arbona, 1990), and structural factors associated with low socioeconomic status account for more variance in educational attainment than do cultural factors (Constantine, Erickson, Banks, & Timberlake, 1998). Latina/os, compared to other racial and ethnic groups in the U.S., attend the most impoverished and poorly equipped schools and are more likely to have inadequate materials and inexperienced teachers (Hill & Torres, 2010). More than 25 percent of Latina/o children lived in poverty in 2007, compared to 10 percent of White/European American children.

Low socioeconomic status is a risk factor for diminished educational and career outcomes. Students from low-income backgrounds demonstrate lower levels of school engagement (Marks, 2000) and academic achievement (Arbona, 2000), and are more than

four times as likely to drop out of high school than high-income students (Aud, Hussar, Kena, Bianco, Kemp, & Tahan, 2011). About 50 percent of low-income high school graduates enroll in college immediately following high school compared to more than 80 percent of high-income students (Chapman, Laird, & KewalRamani, 2010). This trend also is evidenced among students who are qualified for college (Education Trust, 2000, as cited in Jackson & Nutini, 2002). About 30 percent of high scoring, low-income 8<sup>th</sup> graders go on to graduate from college, the same as the proportion of low-scoring, high-income students that graduate from college. On the other hand, 74 percent of high scoring, high-income students complete college (White House Task Force on Middle Class Families, 2009).

The aforementioned disparity is problematic as higher education is positively associated with earnings and is a reliable pathway out of lower socioeconomic stratus (White House Task Force on Middle Class Families, 2009). As of 2007, college graduates earned an average of 77 percent more than high school graduates (Office of the Vice President of the United States, 2010). Among low-income students, those who do not graduate from college were almost three times as likely to remain in the bottom fifth of the income scale as compared to their low-income counterparts who completed college (Office of the Vice President of the United States, 2010). In addition to financial barriers to accessing higher education, low-income students tend to lack access to information and networks that encourage attending college and help students identify affordable college options (White House Task Force on the Middle Class, 2009, 2010).

Sociopolitical factors account for the indirect relationship between socioeconomic status and educational and career outcomes (Arbona, 2000). Sociopolitical barriers that

affect career trajectories of marginalized populations (e.g., Latina/os) include discrimination, lack of access to resources, lack of positive sources of social support and role models, lower self-efficacy, unrealistic beliefs in equal opportunity, and limited coping strategies (Jackson & Nutini, 2002). Career and academic development can be enhanced in marginalized ethnic groups through positive social support and role models, career intervention programs, skill development, effective coping strategies, and constructive self-efficacy. As such, understanding contextual and psychological barriers is important in enhancing the career development of low-income and Latina/o students (Jackson & Nutini, 2002).

Valenzuela (1999) documents the influence of sociopolitical factors on academic achievement, demonstrating the need to attend to schooling practices that influence Latina/o students' academic experience and career development. Because of inadequate schooling practices that often fail to implement culturally integrative pedagogy (i.e., principles, practices, or methods of teaching that reflect the history, culture, values, and practices of marginalized ethnic students), Latina/o students and other marginalized students (e.g., Black/African American and Indian/Native American) often resist the schooling system (Valenzuela, 1999). According to Valenzuela, Latina/o students do not oppose education (i.e., the learning process); rather, what they resist is schooling (i.e., the content of education and the way it is offered to them) (Castellanos et al., 2006; Giroux, 1992; Valenzuela, 1999).

Valenzuela (1999) introduces the concept of “subtractive schooling,” meaning a process of subtracting students' culture and language, which is consequential to their academic achievement and orientations toward school. Although “No Spanish” rules

have been abolished from the U.S. school system, Valenzuela (1999) argues that Latina/o students continue to be subjected on a daily basis to subtle, negative messages that undermine the worth of their unique culture and history, and that their cultural identities are systematically derogated and diminished (e.g., see McWhirter, Valdez, & Caban, 2013). “Subtractive schooling” also involves the role of *caring* between educators and students in the educational process. Valenzuela contends that educators expect students to care about school in a technical fashion before educators care for students, whereas students expect educators to care for them before students care about school. Among many Latina/os, *educación* (i.e., education) embodies more than the technical process of learning, rather it is a foundational cultural construct that provides instructions on how one should live in the world. With its emphasis on respect, responsibility, and sociability, *educación* provides a benchmark against which all humans are to be judged, formally educated or not (Valenzuela, 1999). The aforementioned sociopolitical factors negatively affect student academic experience and motivation to pursue career options, and ultimately results in lower occupational attainment in adulthood (Constantine et al., 1998; Valenzuela, 1999).

Valenzuela (1999) points out that dismissing Latina/o students’ definition of education (as described in the previous paragraph) often leads U.S.-born Latina/o students, in particular, to display psychic and emotional detachment from the schooling process, namely a schooling process that is organized around “superficial caring” and promotes a narrow definition of success involving a more individualist path to success divorced from the social and economic interests of the broader Latina/o community (Valenzuela, 1999). For immigrant students, the reaction to education may be different.

Although immigrant Latina/o students often share their U.S.-born peers' view that "learning should be premised on a humane and compassionate pedagogy inscribed in reciprocal relationships," their sense of being privileged to receive formal education in the U.S. may undermine any desire they might have to insert their definition of education into the schooling process. Moreover, immigrant students' grounded sense of identity combined with their unfamiliarity with the Latina/o experience of discrimination and oppression in the U.S. enable them to "care about" school without the threat of language or culture loss as they seek to acculturate toward the mainstream. Conversely, many U.S.-born Latina/os typically respond to the schooling process by either withdrawing or rebelling, because "caring about" education threatens their ethnic identity and sense of self (Valenzuela, 1999).

For Latina/o students who persist through high school and enroll in a university, constant exposure to the cultural values, beliefs, and standards of the dominant culture, may lead to pressures to conform to the standards of those in power, contributing to feeling unwelcome and to escalating negative perceptions of the university environment (Gloria, Hird, Navarro, 2001; Gloria & Pope-Davis, 1997; Jones, Castellanos, & Cole, 2002; Sue, 2010). Oseguera and colleagues (2009) suggest that students who perceive prejudice or bias based on their race, class, gender, or sexual identity have difficulty adjusting cognitively, emotionally, and socially, and may experience conscious and unconscious resistance to the university environment that may lead to dropping out of college. Solórzano and Delgado Bernal (2001) add that researchers have focused on the self-defeating resistance (i.e., dropping out) without acknowledging and investigating other forms of resistance that may lead to social transformation, such as transformative

resistance in which students are driven to navigate through the educational system for themselves and others in their community. This student behavior illustrates both a critique of oppression and a desire for social justice, positively contributing to Latina/o student persistence in academia (Solórzano & Delgado Bernal, 2001). Therefore, understanding the complex process of resistance among Latina/o students is important in enhancing the academic experience and persistence intentions of Latina/o students.

A major focus of previous research on Latina/o academic persistence has been on individual academic preparation and achievement. However, researchers such as Castillo, Conoley, Choi-Pearson, Archuleta, Phoummarath, and Van Landingham (2006) and Fuertes and Sedlacek (1994) suggest that academic achievement variables alone, such as SAT scores, fail to predict college persistence of Latina/os. The preceding paragraphs have identified other sociopolitical and contextual factors that influence the educational experiences of Latina/o students.

Researchers exploring models of student retention (e.g., Oseguera et al., 2009) and academic persistence (e.g., Castillo et al., 2006; Gloria, Castellanos, Lopez, & Rosales, 2005) have investigated non-cognitive constructs (e.g., social, environmental, and interpersonal) in an attempt to provide a holistic understanding of the Latina/o student college persistence. Contextual, non-cognitive variables identified as important to include when examining academic persistence of Latina/o students include perceptions of university environment (i.e., a psychological response to a combination of various domains, including environmental, historical, structural, perceptual, and behavioral, that reflect the academic environment and culture), cultural incongruity (i.e., conflict regarding students' cultural orientation as a result of incongruencies between the Latina/o



and the White/European American cultural norms and expectations, reflected in the university environment), ethnic identity (i.e., sense of belonging to and degree of cultural orientation and identification with an ethnic group), resilience (i.e., the ability to cope or bounce back from significant adverse life situations or stresses in such ways that are not only immediately effective, but also result in an increased ability to respond to future adversity), and social support (from family, friends, and mentors) (e.g., Castillo et al., 2006; Gloria, 1997; Gloria et al., 2005; Gloria & Robinson-Kurpius, 1996; Gloria, Castellanos, & Orozco, 2005). An emerging focus of attention is on the construct of “racial microaggressions,” which refer to “brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color” (Sue, 2010). The experience of racial microaggressions has been linked with negative outcomes that may include dropping out of school, but research on this construct is in the nascent stage.

The purpose of the present study is to better understand factors that may contribute to Latina/o persistence in college. The focus of the study is on Latina/o students in higher education and the contextual and protective factors that influence their intentions to persist in academia. In the following sections I review the literature relevant to Latina/o university students and persistence. Review of the literature begins with a discussion of contextual factors associated with the academic persistence intentions of Latina/o students. Next, I discuss protective factors and coping mechanisms highlighted in the literature as particularly important in the academic success and persistence of Latina/o students. Then, I discuss the role that social support from family, friends, and

mentors plays for Latina/o students. Finally, I summarize the review of literature, describe the purpose of this study, and specify how this study extends upon extant research. In each section, I provide definitions and descriptions of terms and constructs central to this study.

### **Factors Associated with Latina/o Persistence in Higher Education**

A number of contextual factors have been identified that influence the college experience of Latina/o students. Findings from a number of studies (e.g., Castillo et al., 2006; Castellanos & Gloria, 2007; Gloria et al., 2005a; Gloria et al., 2005b; Yosso, Smith, Ceja, & Solórzano, 2009) highlight the relationship or potential relationship between the academic persistence of Latina/o students and contextual factors such as campus racial climate, perceptions of the university environment, cultural congruity/match, and racial microaggressions. Protective factors also contribute to persistence. Each is reviewed in turn.

### **Contextual Factors Associated with the University Environment**

The “university environment” consists of a combination of various domains, including environmental, historical, structural, perceptual, and behavioral, that reflect the campus environment and culture. These various domains may influence students’ psychological response to the environment, or perceptions of the university environment (Hurtado, 1994). Green (1989) defines campus racial climate as “the culture, habits, decisions, practices, and policies that make up a campus life. It is the sum total of the daily environment, and central to the comfort factor that minority students, faculty, staff, and administrators experience on campus. Students and other members of the campus community who feel unwelcome or alienated from the mainstream of campus life are

unlikely to remain. If they do remain, they are unlikely to be successful” (p. 113). The campus racial climates of predominantly White institutions of higher education have been identified as settings that reflect White American, male, upper- to middle-class cultural values (Castillo, Conoley, & Brossart, 2004). The concept of cultural congruity refers to students’ perception of fit/match between their culture and the culture of the university (Gloria & Robinson Kurpius, 1996). Gloria and Rodriguez (2000) contend that cultural incongruity (or mismatch) occurs when students’ cultural values, beliefs, and norms are inconsistent with those of the university environment.

The strain that Latina/o students often experience in education settings has been associated with the cultural differences between the university environment, which often reflects White American cultural values such as individualism, autonomy, and competition (Castillo et al., 2004; Gloria & Pope-Davis, 1997; Watson et al., 2002) and traditional Latina/o cultural values, which tend to emphasize collectivism, interdependence, and collaboration (Castillo et al., 2004; Castillo et al., 2006). In light of this, researchers (e.g., Gloria & Robinson Kurpius, 1996; Castellanos et al., 2006) have found that many Latina/o college students attending predominantly White universities are forced to learn to navigate the cultural environment of the university, negotiating cultural identities and conflict between familial/cultural values and those of the university environment. Valenzuela (1999) suggests that U.S.-born Latina/o students may perceive an association between the pursuit of academic success and assimilation to the educational expectations of the dominant culture (i.e., White/European American), resulting in a form of cultural genocide. For instance, Latina college students may have to negotiate between the traditional gender-role expectation of being a family caretaker, and

the pursuit of a college education (Castillo & Hill, 2004), feeling pressure to be academically successful and uphold traditional cultural values such as *familismo* (familialism, or support and mutual obligation and loyalty among family members) (Vásquez, 1982, as cited in Castillo & Hill, 2004). This negotiation may occur more frequently among second generation Latina/o students, as they tend to acculturate at a faster rate than their immigrant parents, thus struggling to balance their own developed values and the opposing values of their less acculturated parents (Miranda, Bilot, Peluso, Berman, & Van Meek, 2006). Differences in expectations, and pursuit of a higher education while fulfilling cultural gender-role expectations, can be taxing on emotional reserves, create family tension (Gloria, Hird, & Navarro, 2001), and lead to distress (Castillo & Hill, 2004).

Hurtado and Ponjuan (2005) point out that college students who preserve strong cultural values are more inclined to perceive an unwelcome campus environment and experience a sense of cultural mismatch (i.e., cultural incongruity). Consequently, negative perceptions of the university environment experienced by Students of Color may stem from the incongruence between their cultural values and that of the university. Literature on college persistence shows that because of this cultural incongruity, many Students of Color are more likely to report low satisfaction with their college experience, and as a result, are less likely to persist in academia (Gloria & Rodriguez, 2000; Hurtado, 1994). These studies demonstrate the influence of campus racial climate on Latina/o students' perceptions of the university environment and experiences of cultural incongruity/mismatch, factors that have been consistently associated with Latina/os' academic persistence (Gloria et al., 2005b).

Studies of campus racial climate find that experiences of discrimination and prejudice are closely linked to Latina/o college students' perceptions of the university environment, sense of academic belonging, and comfort in the environment (Gonzales, Blanton, & Williams, 2002; Valencia & Black, 2002). Gloria and colleagues (2005b) conducted a study to investigate the academic non-persistence decisions (i.e., voluntary decisions to drop out) of 99 Latina/o college students at a predominantly White university. Specifically, they examined interrelationships between (a) university comfort (i.e., perceptions of the university environment and cultural congruity), (b) social support, and (c) self-beliefs, and assessed the degree to which these three constructs predicted academic non-persistence decisions. Findings showed that students were more likely to persist in academia when they also held more positive perceptions of the university environment, endorsed higher cultural congruity, and perceived fewer educational barriers. They also found negative perceptions of the university environment to be one of the strongest predictors of academic non-persistence decisions among their sample of Latina/o college students. Gloria and colleagues (2005b) suggest that Latina/os' constant exposure to the cultural values, beliefs, and standards of the dominant culture (i.e., White/European American), leads to pressures to conform to the standards of those in power (Gloria & Pope-Davis, 1997; Sue, 2010). This can lead to feeling unwelcomed and to escalating negative perceptions of the university environment (Gloria et al., 2001; Jones et al., 2002).

In a related study, Gloria, Castellanos, and Orozco (2005a) investigated the degree to which (a) perceived educational barriers, (b) cultural fit, and (c) coping responses predicted the psychological well-being of 98 Latina college students at a

predominantly White Southwestern university. They found that Latina college students with higher cultural congruity and more positive perceptions of the university environment perceived fewer educational barriers that would prompt them to withdraw from college, and also anticipated fewer educational barriers should they stay in college. Findings also revealed that Latina/o college students who held more positive perceptions of the university environment reported higher cultural congruity. Participants in their study who reported higher cultural congruity and more positive perceptions of the university environment also tended to use the coping response of actively finding out more about a problem and taking a positive, planned action (Gloria et al., 2005a).

Castillo and colleagues (2006) sought to further explore Latina/o college students' perceptions of the university environment among a sample of 175 Latina/o college students. Castillo et al. (2006) found that greater ethnic identification was associated with more negative perceptions of the university environment and lower academic persistence, and that negative perceptions of the university environment were associated with lower academic persistence. Additionally, they found that the relationship between ethnic identity and academic persistence was no longer significant when perceptions of the university environment were considered in the model. These findings are consistent with those of extant research demonstrating that individuals with strong ethnic identity are more likely to attend to interethnic dynamics (Syed & Azmitia, 2008, 2010) and are more likely to report experiences of discrimination (e.g., Sellers & Shelton, 2003) and experience distress because of discrimination (McCoy & Major, 2003). Taken together, studies investigating Latina/o college student perceptions of the university environment demonstrate that a positive perception of the university environment is related to

retention, whereas a negative perception of the university is associated with non-persistence (Castillo et al., 2006).

Additional challenges and barriers (internal and external) commonly experienced by Latina/o high school and college students include perceptions of lower expectations from teachers/faculty (Martinez, DeGarmo, & Eddy, 2004; McWhirter, Torres, Salgado, & Valdez, 2007; Yosso, 2000), lack of preparation (McWhirter, et al. 2007), feeling isolated, unwelcomed, and detached in the university (Castellanos, et al. 2006; Hurtado, 1994; Vasquez, 1982), financial stress and being the first in one's family to attend college (Ginorio & Huston, 2001; Fry, 2002). Additionally, Latina/o college students report feelings of invisibility (Hurtado & Carter, 1997), feelings of exclusion from peers and campus life (Solórzano, 1998), and the desire and motivation to challenge negative perceptions of Latina/os (Yosso, 2000). Constant negotiation of stereotypes, social biases, and prejudice negatively impact the social and academic lives of Latina/o students (Gonzales, et al., 2002; Valencia & Black, 2002). Such experiences often generate dissatisfaction with the university environment, leading to negative attitudes and experiences, and possible attrition (Pizarro, 2005). Oseguera and colleagues (2009) suggest that students who perceive prejudice or bias based on their race, class, gender, or sexual identity have difficulty adjusting cognitively, emotionally, and socially and may experience conscious and unconscious resistance to the university environment that may lead to dropping out of college. Researchers such as Hurtado and Ponjuan (2005) and Nora and Cabrera (1996) have come to similar conclusions. These findings indicate that internal and external challenges and barriers experienced by Latina/o students are linked to their perceptions of the university environment and overall college experience.

## **Racial and Ethnic Microaggressions**

An emerging area of research is on the construct of racial/ethnic microaggressions. Higher education scholars (e.g., Pierce, Carew, Pierce-Gonzalez, & Willis, 1978; Sue, 2010) assert that racism is no longer manifested in the overt forms to which this country is accustomed. While overt racism is still prevalent, it is no longer socially accepted within public arenas and/or institutions of higher education. There is, however, increasing evidence of subtle forms of racism that impact the daily lives of People of Color (e.g., Bonilla-Silva & Foreman, 2000; Bowman & Smith, 2002; Pierce, 1970; Sue, 2010; Yosso, 2005), and an emerging literature on racial and ethnic microaggressions suggests that microaggressions may impact the academic experience and well-being of Students of Color (Sue, 2010; Yosso et al., 2009). The term *racial microaggression* was first coined by psychologist Chester Pierce in the 1970's to describe the everyday subtle, dramatic, often unconscious, and nonverbal exchanges, which are 'put-downs' of People of Color by perpetrators (Pierce, 1970; Pierce et al., 1978, p. 66). Solórzano, Ceja, and Yosso (2000) elaborate on this definition and highlight that while overt forms of racism are no longer socially acceptable, racial microaggressions often manifest in private conversations and other personal interactions creating a contemporary climate of subtle racism. Likewise, Sue and colleagues (Sue, 2010; Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, & Esquilin, 2007) have continued to explore and uncover the subtle, covert, and often inadvertent behavioral, verbal, and environmental slights experienced by People of Color and other marginalized groups. Sue and colleagues (2007) define racial microaggressions as "brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that



communicate hostile, derogatory, or negative racial slights and insults toward people of color.” According to Sue et al. (2007), perpetrators of microaggressions are often unaware that they engage in microaggressions when they interact with People of Color. Sue and colleagues add that although isolated incidents of microaggressions may seem harmless, the cumulative burden of a lifetime of microaggressions may have a negative impact on the lives of People of Color, contributing to mental health issues and lower confidence (Pierce, 1995; Sue, 2010).

Lau and Williams (2010) conducted an extensive review of current microaggression research and the approaches employed, discovering that most studies used qualitative research methods. According to Lau and Williams (2010), use of more quantitative methods is beginning to surface in the microaggression literature. In one of the first and few empirical studies approaching the study of microaggressions from a quantitative perspective, Constantine and Sue (2007) developed a 10-item, 3 point Likert-type Racial Microaggressions in Counseling Scale. She explored, with a sample of Black/African American clients, subjective perceptions of occurrence and impact of racial microaggression experiences in a counseling dyad. Among her findings, Constantine (2007) found that greater perception of racial microaggressions was negatively associated with therapeutic alliance and counseling satisfaction ratings by Black clients of White therapists. In light of the very little research examining the occurrence and effects of racial microaggressions, Lau and Williams (2010) provide a few broad recommendations surrounding microaggressions research. Their recommendations include to: (a) broaden ways to measure microaggressions-related variables; (b) entertain moderating and mediating variables understanding

microaggressions processes; (c) consider mix-methods approaches; and (d) embrace research paradigms that transform the research process into proactive social change. The current study incorporates two of these recommendations.

It is clear that the study of racial microaggressions is in the beginning stages, and there are even fewer studies examining this phenomenon within the context of higher education among Latina/o students. To expand on their previous work on microaggressions, Yosso et al. (2009) used Critical Race Theory to explore and understand incidents of racial microaggressions as experienced by Latina/o students. With a sample of thirty-seven Latina/o college students attending predominantly White institutions, Yosso and colleagues (2009) facilitated focus group discussions to examine how racial microaggressions shape the college experience of Latina/o college students and how these students succeed in spite of negative campus racial climates. Focus groups ranged from three to six students and lasted approximately ninety minutes. Yosso et al. (2009) found that Latina/o college students experience three types of racial microaggressions evident in social and academic spaces on college campuses: interpersonal microaggressions (e.g., verbal and nonverbal racial affronts directed at Latina/os from students, faculty, teaching assistants, and other individuals in academic and social spaces), racial jokes (e.g., offensive verbal remarks with questionably humorous intentions expressed in social contexts in the company of, or directly to, Latina/o students), and institutional microaggressions (e.g., racially marginalizing actions and inertia of the university evidenced in structures, practices, and discourses that endorse a campus racial climate hostile to People of Color). Yosso et al. (2009) argue that institutional microaggressions are assaults that appear to be “collectively approved and

promoted” by the university power structures and comprise what social psychologist Claude Steele (1997) refers to as “threats in the air.”

Consistent with Steele and Aronson’s (1995) research on stereotype threat, Yosso et al. (2009) concluded that experiences of racial microaggressions among Latina/o students induce feelings of rejection and race-related stress, leading to ongoing environmental stereotype threat. According to Yosso and colleagues (2009), in addition to lowering performance on high-stakes tests, stereotype threats posed by negative campus racial climates may diminish the cumulative grade point average for Latina/o students. Yosso et al. (2009) add that the everyday, extreme environmental stress induced by the accumulation of racial microaggressions can manifest as “racial battle fatigue” (i.e., mental, emotional, and physical strain) (p. 661). In response to racial microaggressions, Latina/o students in Yosso et al.’s (2009) study demonstrated engagement in effective coping strategies such as building communities that represented and reflected the cultural values and richness of their home communities. In addition, Latina/o students learned to critically navigate between multiple worlds of home and school, academia, and community, highlighting Latina/os resilience and ability to thrive under adverse conditions.

### **Protective Factors Associated with Academic Persistence**

A central aim of this study is to work from a strength-based framework to examine specific factors that may protect Latina/o students against academic-related concerns that may interfere with academic persistence. Employing a strength-based framework is consistent with recommendations to research resilience-oriented aspects of

culture (Luthar, Cicchetti, & Becker, 2000), and underscores the conditions under which cultural values operate as sources of strength (Cauce & Domenech-Rodriguez, 2002).

In the face of the aforementioned challenges and contextual factors, many marginalized students, including Latina/os, learn to critically navigate and negotiate the cultural environment of college (Gloria et al., 2005a; Villalpando, 2004). In doing so they draw on cultural strengths as well as cultural knowledge and skills gained in overcoming previous structural barriers to education (Yosso, et al. 2009). Protective factors or cultural processes, including psychological, social, and behavioral processes, that foster health and well-being among Latina/os, have been described. Protective factors highlighted in the literature as particularly important in the academic success of Latina/o students include ethnic identity (defined here as a strong sense of ethnic identification with one's ethnic group) (Phinney, 1992), resilience (defined here as the ability to cope or bounce back from significant adverse life situations or stresses in such ways that are not only immediately effective, but also result in an increased ability to respond to future adversity) (Hassinger & Plourde, 2005), sociopolitical development (defined here as "an orientation toward social justice, a motivation to transform sociopolitical inequity in one's environment, and the development of a healthy sense of self and feeling empowered to exercise one's agency in the context of structural oppression") (Diemer, Hsieh, & Pan, 2009, p. 318), and social support (such as from family, friends, and mentors) (Castellanos et al., 2006; Bordes & Arredondo, 2005; Bordes, Sand, Arredondo, Robinson Kurpius, & Rayle, 2006). In the following sections, a review of literature focusing on these protective factors is provided.

**Ethnic identity.** One of the important theoretical tools that practitioners and educators can utilize to help them understand the Latina/o student experience is identity development theory. The personal choices individuals make about how they define themselves and function within a given environment is at the crux of what identity development theories attempt to explain (Castellanos et al. 2006). Identity development is a life-long process, in which individuals continue to refine and understand themselves as life progresses (Alessandria & Nelson, 2005). Identity development during college influences how students adapt to and manage their college experiences.

A strong ethnic identity is positively associated with personal well-being and successful life adjustment for people of color (e.g., Phinney, 1990; Phinney & Kohatsu, 1997; Roberts et al., 1999). Ethnic identity has been identified as an important protective factor among Latina/os and other racial and ethnic groups. Ethnic identity is an integral part of an individual's self-concept, influencing the perceptions, cognitions, affect, and behaviors of an individual due to ethnic group membership (Cuellar & Gonzalez, 2000; Phinney, 1996; Rotheram & Phinney, 1987). Having a strong ethnic identity is associated with psychological adjustment (Phinney, 1990), self-esteem (Cavazos-Regh & DeLucia-Waack, 2009), academic effort (Kim & Chao, 2009), academic achievement (Altschul, Oyserman, & Bybee, 2006), and enhanced intergroup relations (Phinney, Ferguson, & Tate, 1997). Although a large body of literature emphasizes the buffering role of ethnic identity against distress and other adverse outcomes, it also is important to recognize that strong ethnic identity also may exacerbate distress among individuals who experience ethnic discrimination (McCoy & Major, 2003).

***Identity development.*** Erikson (1968) pioneered the concept of identity development by theorizing that the primary developmental task for adolescents is ego identity formation. This formation process involves exploration of and commitment to numerous aspects of life choices, such as occupation (Erickson, 1968). Arnett (2000) contends that this developmental process occurs over the course of a more extended time period – beyond adolescence. He refers to this post-adolescence stage of life as emerging adulthood—the time when an individual engages in identity exploration and works towards becoming a young adult. Emerging adulthood occurs in late teens to early twenties, and is characterized by exploration of social identities (e.g., gender, race, ethnicity, and religious) and role identities (e.g., career) in life. This exploration process involves grappling with intricate and complex questions related to both social and role identities with the goal of gathering information for the self (Arnett, 2000).

The self is conceptualized as a hierarchal ordering of identities, and the probability of invoking a particular identity is contingent upon context and identity salience across situations and social interactions (Serpe, 1987). Identity theory proposed by Serpe (1987) postulates that commitment to a particular identity relates to interactional commitment (i.e., the number of social relationships associated with a given identity) and affective commitment (i.e., the affect associated with the potential loss of social relationships associated with that identity). Moreover, the theory asserts that the self is a product of society and the individual's commitment to the self begins to shape the choices and role options available for the person.

Social identity theory proposes that individuals derive a sense of self-worth and social belonging from their group memberships; in-group membership status also

influences impressions of out-group members (French et al., 2006). As a result of emerging cognitive and introspective capabilities for individuals, varying social identities, including ethnic identity, become particularly salient. For individuals whose identities include membership in minority, oppressed, and/or marginalized populations, such as Latina/os, the identity developmental process can be multifaceted. As Olivia Espín asserted, “this developmental process will most likely mandate periods of conflict and separation as those who are “different” struggle to incorporate their experience of subordination to and rejection of the standards of society” (p. 41). Students of Color must negotiate their ethnic, gender, sexual, and social class identities. Furthermore, linguistic identity—the identification with preferred language(s), language use, and expression—can inform identity development (Anzaldúa, 1999; Espín, 1997). History, regional differences, political climate, generational differences, level of acculturation, and oppression, among other contextual factors, influence how Latina/os negotiate their identity (Anzaldúa, 1999; Espín, 1997).

***Ethnic identity development.*** Erikson’s (1968) concept of the identity formation process has guided several conceptualizations of ethnic identity formation (e.g., Cross, 1978; Phinney, 1989). Ethnic identity has been conceptualized as a multifaceted conception of self that includes a positive affirmation of an individual’s ethnic group affiliation and commitment to the individual’s ethnic affiliation (Phinney, 1990). It refers to one’s sense of belonging to an ethnic group as well as attitudes and feelings about one’s ethnicity (Phinney, 2003; Umaña-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008). Phinney (1992) defined ethnic identity as the “actual ethnic behaviors that individuals practice, along with their attitudes toward their ethnic group” (p. 64). This

definition encompasses both “ethnic performativity” (i.e., engagement in specific traditions, behaviors, and practices) and psychological and affective inputs (i.e., emotional experience associated with group affiliation). How individuals enact their race and ethnicity may be associated with their feelings and perceptions about their ethnic group, as well as access to cultural practices and critical ethnic representations. Access to critical ethnic representation becomes more challenging in social contexts that degrade specific ethnic groups based on phenotypic characteristics, thus constraining how individuals may perceive and enact their identities. Critical race theorists posit that individuals, especially persons of color, have the capacity to challenge traditional race paradigms and enact transformative and liberating solutions to constraining social stigmas based on race (Solórzano & Yosso, 2002). Enacting transformative identities, however, may depend on one’s awareness of social oppression and an active engagement in social justice efforts to address inequities (Freire, 1973).

Individuals with a strong sense of ethnic identity endorse positive attitudes about their ethnic background and are more likely to participate in their ethnic group’s cultural practices and incorporate the values and beliefs of their culture. According to Phinney (1996), ethnic identity can influence the manner in which individuals view society as a whole and perceive their environment. Strong ethnic identity and a sense of solidarity have been identified as critical for Latina/os in the face of discrimination and oppression (Phinney, 2003; Sue, 2010). Given that ethnic identity has been shown to be associated positively with psychological well-being and negatively with depression and loneliness (Roberts, et al., 1999), a stronger sense of identification with and resolution about one’s ethnic identity may protect against poor mental health and educational outcomes.



Scholars have found that strong ethnic group ties and higher critical consciousness (i.e., critical sociopolitical awareness combined with advocacy skills) may serve as protective factors, helping to buffer Latina/o students from the adverse effects associated with (social and systemic) oppression and cope with race-related stress and experiences of discrimination in a university environment (Miller, 1999; Richman & Jonassaint, 2008; Prilleltensky, 2000; Sellers & Shelton, 2003; Utsey, Chae, Brown, & Kelly, 2005; Utsey, Gernat, & Hammer, 2005).

Utsey, Chae, Brown, and Kelly (2005) examined the effect of ethnic group membership on ethnic identity, race-related stress, and quality of life among a sample of 160 African American ( $n = 70$ ), Latina/o ( $n = 45$ ), and Asian American ( $n = 45$ ) adults. The authors found that all three variables were related to ethnic group membership. Furthermore, ethnic identity and race-related stress significantly influenced participants' quality of life, with ethnic identity being the strongest predictor of overall quality of life. In terms of ethnic group differences, findings showed that African American participants experienced higher levels of race-related stress, higher levels of ethnic identity, and higher psychological well-being as compared to Latina/o and Asian American participants (Utsey et al., 2005). Higher levels of race-related stress among African Americans as compared to Latina/os and Asian Americans could be explained by the fact that the race-related stress measure was developed to measure race-related stress experienced by African Americans. In spite of the modifications made on the measure, it was unclear if all of the items on the race-related measure were relevant for Latina/o and Asian American participants (Utsey et al., 2005).

Studies investigating the impact of ethnic identity on constructs such as self-esteem and psychological well-being show that a strong ethnic identity is significantly associated with higher self-esteem for Students of Color. Rayle and Myers (2004) explored the role of ethnic identity, acculturation, and mattering on the wellness of Mexican American, African American, Asian American, and White high school students. None of the three predictors had a significant influence on the wellness of White students. For Students of Color, ethnic identity alone significantly predicted five of the six areas of wellness, which included (a) spirituality, (b) schoolwork, (c) leisure, (d) love, and (e) friendship. Taken together, the aforementioned findings on ethnic identity suggest that ethnic identity might play an important role in the well-being and educational outcomes of Latina/o students; however, more research is needed to ascertain the strength of this relationship.

***Acculturation.*** The process of acculturation is intertwined with the ethnic identity development of many Latina/os. Acculturation is a multidimensional construct (Chun, Balls Organista, & Marin, 2003) defined as changes in cultural values, behaviors and attitudes that result from continuous contact between two or more distinct cultures (Berry, 1990). Acculturation is a complex process, and is often described with respect to variables such as an individual's language preference, practiced rituals and traditions, and peer group preferences. How an individual identifies culturally is an aspect of acculturation, but acculturation is not entirely synonymous with ethnic identity. For instance, ethnic identity involves a sense of belonging to one's ethnic group, as well as having positive feelings about one's ethnicity (Phinney, 1992). Acculturation involves the

process by which an individual negotiates both their ethnic identity and their identification with the dominant culture.

Biculturalism represents the potential ending status that results from the choices made by an individual navigating two distinct cultures (Castellanos et al., 2006).

Managing two distinct cultures is a task for Latina/o students who maintain a strong ethnic identity as they enter a primarily “Anglo-oriented world” (Torres, 1999). These individuals need to make choices about the two cultures, and, out of these choices, their cultural orientation emerges (Castellanos et al., 2006; Torres, 1999).

Torres (1999) validated the Bicultural Orientation Model (BOM) using data on the choices Latina/o college students make between the majority “Anglo” culture and their culture of origin. The BOM was created using measures of acculturation (Marin et al., 1987) to represent the majority “Anglo” culture and ethnic identity (Phinney, 1992) to represent the Latina/o culture of origin. There are four categories of bicultural orientation associated with the BOM. The first is a *Bicultural Orientation*, which indicates a relatively high comfort level with both cultures (i.e., a student with both a high level of ethnic identity and acculturation). The second is a *Latina/o Orientation*, which indicates greater comfort with the culture of origin (i.e., a student with a high level of ethnic identity and low level of acculturation). The third is *Anglo Orientation*, which indicates greater comfort with the majority culture (i.e., a student with a low level of ethnic identity and high level of acculturation). Finally, the *Marginal Orientation* indicates discomfort with both cultures (i.e., a student with low levels of both ethnic identity and acculturation) and may indicate conflict within the individual. Although the operational definitions of bicultural models differ, each endorses the notion that individuals from

Latina/o cultures make choices between two different worlds and in turn create their own identity based on those decisions. “A simplistic definition would involve a synthesis of two cultures and languages out of which a third arises that was previously not present” (Torres, 1999, p. 288).

In a longitudinal, qualitative study, Torres (2003) used a constructivist (Lincoln & Guba, 1985; Schwandt, 1994) and grounded theory methodology (Strauss & Corbin, 1998) to investigate the influences on ethnic identity development of 10 Latina/o (3 Mexican, 1 Puerto Rican, 1 Cuban, 1 Venezuelan, 1 Salvadorian, 1 Guatemalan, 1 Nicaraguan, and 1 Columbian) college students in the first two years of college. Two major categories emerged in the first two years of interview data: Situating Identity (the starting point of identity development in college) and Influences on Change in identity development. The conditions in Situating Identity include the environment in which they grew up, family influence and generational status in the U.S., and self-perception of status in society. The conditions in Influences on Change include psychosocial and cognitive development (Torres, 2003).

Torres (2003) found that the makeup of the environment from which the students came influenced both how they ethnically self-identified and their cultural orientation (i.e., level of acculturation). The students who came from diverse environments self-selected the descriptions associated with the Bicultural or Latina/o Orientations. Their selection seemed to depend on how they perceived the campus’ diversity; students who found the college environment to be not accepting of diversity would identify with a Latina/o Orientation. Conversely, students who acknowledged the lack of diversity, but were not as critical of the environment, self-selected the bicultural description in their

orientation. The students who came from majority-White environments tended to identify with an Anglo Orientation or Bicultural Orientation (and tended to define their ethnicity using a geographic identification). Torres (2003) explains that the environment in which these students grew up did not provide extensive exposure to their own culture, or diversity in general, thus prompting them to identify with the majority culture.

In terms of family influence and generation in the U.S., Torres (2003) found that students identified themselves using the same terms and language their parents used, and that all of the participants credited their parents for their views on ethnicity and its role in their life. Findings also demonstrated that students who were first generation in the U.S. struggled with the unknown expectations of the college environment, as well as how to balance the college expectations with those of their parents. Moreover, it was found that these students felt caught between two cultures, not completely fitting in with either, and also sometimes feeling alienated from the mainstream because they did not understand things that were taken for granted by others in the majority culture (Torres, 2003).

The conditions of self-perceived status in Torres' (2003) study highlighted the intra-group differences among the Latina/o population. Students with self-perception of privilege tended to select the Anglo Orientation description, and those who did not perceive privilege were more likely to recognize and discuss how racist behaviors had impacted their sense of identity. Moreover, their cultural orientation tended to be dependent on other issues and therefore no clear conclusions were made. The findings related to Influences on Change in Identity Development showed that while first generation students in the U.S. reported stronger ties to their country of origin, they also experienced more cultural dissonance— in other words, conflict between one's own

sense of culture and what others expect. The dissonance was a result of the acculturation level of their parents and their desire to balance their parents' expectations with their own. Changes in relationships within the environment also influenced Change in Identity Development—the prominent dimension of this condition was the peer group that the individual sought out while in college. The findings showed that changes in personal relationships and involvement in Latina/o student groups influenced personal growth and identity development (Torres, 2003). Finally, Torres (2003) found that regardless of cultural orientation (Bicultural, Latina/o, or Anglo), none of the participants appeared to have negative views about their Latina/o heritage.

**Resilience.** Resilience is defined as the ability to cope or bounce back from significant adverse life situations or stresses in such ways that are not only immediately effective, but also result in an increased ability to respond to future adversity (Hassinger & Plourde, 2005). McMillan and Reed (1994) contend that positive interpersonal relationships and individual factors (e.g., goal setting, intrinsic motivation, internal locus of control, and high self-efficacy) play a role in developing resiliency. Cavazos et al. (2010) investigated the experiences of 11 high-achieving Latina/o college students in order to provide insight into how they developed a sense of resilience. Several important findings emerged in their qualitative study. First, the importance of valuing education in the Latina/o household was strongly supported. In their study, they found that parental support involved high educational goals and encouragement to pursue those goals. Second, the findings indicated that academic achievement could be a non-linear process for some Latina/o students. For example, some of the study's participants were not high academic achievers in high school, yet succeeded in higher education. Third, although

goal setting is important in terms of academic success, the self-belief that one can accomplish those goals is likely more important. As Maddux (2002) asserts, “The timeless message of research on self-efficacy is simple, powerful truth that confidence, effort, and persistence are more potent than innate ability” (p. 285).

In one of the few studies that investigated the relationship between ethnic identity and resilience, Holleran and Waller (2003) found that ethnic identity had a positive effect on resilience. The authors conducted an ethnographic study, consisting of focus groups and semi-structured interviews, to explore the relationship between ethnic identity and perceptions of life challenges of Mexican American adolescents. Findings indicated that a positive ethnic identity, rooted in traditional Mexican culture, served as a protective factor that contributed to participants’ resilience, defined as positive adaption in response to hardship. For example, *familismo*, which refers to strong family ties, connectedness, and loyalty (Marin & Marin, 1991) was consistently identified throughout the interviews as a strong Mexican value. Additionally, many participants talked about the acceptance of suffering as a means of transformation, a Mexican core belief grounded in Catholicism, which suggests that something positive must come from suffering. Holleran and Waller’s (2003) findings are consistent with the social adaptation (Berardo, 1991) and strengths perspective (Saleebey, 1997), suggesting that adhering to traditional values and beliefs is a source of strength that promotes resilience in the face of obstacles and that culture serves as a reservoir of coping and adaption strategies.

**Sociopolitical development.** In addition to the aforementioned protective factors, sociopolitical development may be an important protective factor for preventing dropout (McWhirter et al., 2008; Pizarro, 2005; Stanton-Salazar, 2011). Diemer and colleagues

(2009) define sociopolitical development as “an orientation toward social justice, a motivation to transform sociopolitical inequity in one’s environment, and the development of a healthy sense of self and feeling empowered to exercise one’s agency in the context of structural oppression” (p. 318). The theory of sociopolitical development stems from liberation psychology (Martín-Baró, 1994) and Freire’s (1973, 2008) conceptualization of critical consciousness (Diemer, 2009). Liberation psychology is an approach to psychology that aims to actively understand the psychology of oppressed and impoverished communities by conceptually and practically addressing the oppressive sociopolitical structure in which they exist (Martín-Baró, 1994). Critical consciousness (a combination of critical sociopolitical awareness and advocacy skills) is developed through *concientizacao*, defined as “learning to perceive social, political, and economic contradictions, and to take action against oppressive elements of reality” (Freire, 2008; p. 35). The theory of sociopolitical development postulates that sociopolitical development empowers marginalized individuals to develop self-determination and to practice their agency by critically analyzing and negotiating structural oppression (Diemer et al., 2010).

Sociopolitical development has been associated with positive educational and vocational expectations and outcomes (Pizarro, 2005; Diemer, 2009; Diemer & Blustein, 2006; Diemer & Hsieh, 2008; Diemer, Kauffman, Koenig, Trahan, & Hsieh, 2006). Specifically, it has been linked with greater academic achievement, optimism about the future, and personal competence among students who face structural oppression (O’Connor, 1997). Diemer (2009) conducted a longitudinal study to examine the impact of sociopolitical awareness and critical consciousness on adolescent occupational expectations and on adult occupational attainment (8 years after completing high school)



among poor youth of color. Academic performance was controlled. Findings revealed that high school sociopolitical awareness and critical consciousness had a positive influence on occupational expectations in high school as well as a positive impact on adult occupational attainment. Diemer's (2009) research findings suggest that sociopolitical awareness and critical consciousness may serve to empower youth of color to close the career aspiration-expectation gap (i.e., students expect to attain lower occupation or education levels than they aspire to attain; Lopez, 2009), thereby indirectly influencing adult occupation attainment through the negotiation of sociopolitical barriers to adolescent occupational expectations (Diemer, 2009). Diemer's (2009) findings emphasize the importance of critical consciousness in the empowerment of Students of Color in overcoming sociopolitical barriers that constrain occupational expectations and attainment. His findings are congruent with recommendations by Blustein, McWhirter, and Perry (2005) and Chronister and McWhirter (2006) to foster the critical consciousness of oppressed/marginalized individuals, as well as their motivation to transform sociopolitical inequity. Based on this research, critical consciousness of structural oppression and inequities may influence school engagement and achievement in desired outcomes among Latina/o college students.

**Social support.** Research continues to reinforce the importance of social support for successful students. Social support is emphasized as an important protective factor in the academic success of Latina/o students (Bordes & Arredondo, 2005; Castellanos, et al., 2006; Ginoro & Huston, 2001; McWhirter, et al., 2007; Santos & Reigadas, 2002). Critical sources of social support identified by scholars include family, friends, and mentors (Gandara & Osugi, 1994, Gloria & Rodriguez, 2000; Gloria & Segura-Herrera,

2004; McWhirter, Valdez, & Caban, 2013). In general, Latina/os rely on relationships with close others for support, which is consistent with the interdependent and collectivistic social orientation in the Latina/o community (Cross, Bacon, & Morris, 2000; Holleran & Waller, 2003).

Although there is much diversity within Latina/o families, scholars suggest that a strong orientation and connection to family are one of the key values transmitted across generations among the Latina/o population (Marin & Marin, 1991; Parke & Buriel, 1998). *Familismo* is considered a core value of Latina/o culture (Zinn, 1982) and has been defined as a cultural value that involves an individual's strong identification with and attachment to his or her nuclear and extended families and strong feelings of loyalty, reciprocity, and solidarity among members of the same family (Cauce & Domenech-Rodriguez, 2002; Cortes, 1995). The limited research examining the effects of *familismo* on the psychological functioning among Latina/o populations has found mixed results, with the majority of research suggesting a positive association (Fuligni, Tseng, & Lam, 1999; Suarez-Orozco & Suarez-Orozco, 1995).

Knight and colleagues recently performed an in-depth family values investigation with over 598 Mexican American families (Knight et al., 2010), including participation from adolescents, young adults, and parents. In their study, it was found that *familismo* was comprised of three dimensions: (a) emotional support, (b) obligation, and (c) family as a referent (Knight et al., 2010). Emotional support consisted of family unity, desirability to maintain close relationships, and unconditional support in times of need. Obligation was comprised of the belief that everyone in the family is responsible for each other's well-being, including both tangible caregiving across generations and potentially

sacrificing one's own needs and desires should they interfere with those of the family. Family as a referent represented the reliance on communal interpersonal reflection to define the self. It is the belief that even as adults, one's hard work and behavior will reflect on the identity of the entire family, and therefore family members should make decisions and behave in a way that will honor the family (Knight et al., 2010).

Family support and encouragement may be especially important for Latina/o students who are first in their family to attend college (Rodriguez, d1996; Zalaquett, 2005). In a qualitative study, Zalaquett (2005) analyzed the stories of 12 Latina/o students that entered an academic program at a large urban university despite great challenges. Findings showed that family support was a critical factor in their academic success, in spite of the fact that the parents did not speak English and lacked exposure to the educational system. Support from friends appears to make a considerable contribution to the well-being of Latina/o students as well (Rodriguez, Mira, Myers, Morris, & Cardoza, 2003), predicting higher career aspirations (Flores & O'Brien, 2002), school engagement (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003), and school achievement, (Bullington & Arbona, 2001), and buffering against depressive symptoms (Kenny et al. 2002).

The comparative influence of family and peer support were investigated in a longitudinal study of 100 (84 Latina/o, 16 Asian) first-generation Students of Color at an ethnically diverse, urban commuter university on the west coast (Dennis, Phinney, & Chuateco, 2005). Findings revealed that both family resources needed (i.e., lacking very much needed support/understanding from family) and peer resources needed (i.e., lacking very much needed help/support from friends/classmates) were more highly correlated

with college outcomes than perceptions of family support available (i.e., having family support/help to deal with college-related problems) or peer support available (i.e., having peer/classmate support/help to deal with college-related problems). Dennis et al. (2005) also found that although both family support and peer support were related to college outcomes for Students of Color, particularly Latina/os, peer support (or lack of needed peer support) was a stronger predictor of college grades and adjustment than support from the family, when both family and peer variables were included in the model. These results confirmed the authors' hypothesis that first generation college students would perceive their peers as better able than their family to provide the support they needed in order to do well at college. Dennis et al. (2005) argued that although family members of first-generation college Students of Color can provide emotional support, most family members cannot provide vital instrumental support.

Similarly, Schneider and Ward (2003) examined the effect of various types of support on Latina/os' college adjustment. Relationship between the perception of support from family, general peers, Latina/o peers, faculty, and the institution, and Latina/o students' academic, social, and emotional adjustment, and attachment to the university were explored. Their findings demonstrated that family support was the only form of support to significantly predict emotional, academic, and overall adjustment. Latina/o peer support did not predict any type of adjustment, however, general peer support predicted social adjustment and attachment to the university.

Mentorship is a primary source of support for many college students (Bordes & Arredondo, 2005; Gandara & Osugi, 1994; Hernandez, 2000). A mentor in the context of college is an individual who provides guidance, support (e.g., emotional, social, and

academic support) and networking opportunities during the academic journey of students (Brown, 2005; Castellanos, et al., 2007; Tenebaum, Crosby, & Gliner, 2001). The mentoring experiences of Students of Color have been linked with greater self-efficacy (Santos & Reigadas, 2002), positive perceptions of the university environment and cultural congruity (Gloria & Robinson Kurpius, 2001; Gloria & Ho, 2003), sense of belonging in college (Hurtado & Carter, 1997), college and academic adjustment and psychological well-being (Freeman, 1999; Pascarella & Terenzini, 1991), “psychosocial comfort that empowers the student” (e.g., navigation of the university system, degree conferral) (Redmond, 1990, p. 191), and academic persistence decisions (Gloria & Ho, 2003). Latina/o students with strong mentoring relationships are more likely to adjust and persist in college (Gloria & Kurpius, 2001; Gloria, Kurpius, Hamilton, Willson, 1999; Santos & Reigadas, 2002; Solberg, Valdez, Villareal, 1994), promoting greater academic aspirations and a stronger focus on educational goals and potential careers (Santos & Reigadas, 2002). Bordes and Arredondo (2005) investigated correlations between mentoring experiences, cultural congruity, and perceived comfort in the university among a group of 103 Latina/o first-year college students (77 women, 35 men). Findings showed that students who had a mentor endorsed more positive perceptions of the university environment compared to students who did not have a mentor. Additionally, Latina female students reported significantly more positive perceptions of the university environment and greater cultural fit between their culture and the university culture in comparison to their Latino male counterparts. Similar to the results from Bordes and Arredondo’s (2005) study, Dennis et al. (2005) found that first generation Students of Color who are experiencing academic and adjustment problems feel the need for

someone (e.g., a mentor) to provide help, guidance, or emotional support in order to do well in college.

### **Summary of Literature Review**

Findings from the aforementioned studies indicate that there are a host of adverse contextual factors associated with the academic persistence of Latina/o students. Latina/o students are less likely to persist in academia if they face discrimination on campus, experience financial challenges, experience discomfort in the university environment, and experience conflict between home and cultural values and their decision to pursue higher education (Gloria, et al., 2005b, Gonzalez & Padilla, 1997, Vasquez, 1982). An emerging area of research on experiences of racial/ethnic microaggressions suggests that these may also be an important negative influence on Latina/o student college persistence. The research reviewed also highlights a number of protective factors, such as ethnic identity, resilience, and social support that help Latina/o students succeed and persist academically. To date, no studies have combined all of these variables to understand how they might interact together to account for academic persistence. Given its recent introduction into the literature, it may be particularly valuable to understand the contributions of racial/ethnic microaggressions in the context of other adverse and protective factors. Before describing the specific purposes of the present study, two conceptual and theoretical frameworks that serve as a foundation to examine contextual and protective factors impacting the academic persistence intentions of Latina/o students are described. First I describe Bronfenbrenner's Ecological Model (Bronfenbrenner, 1979; 1989) followed by an overview of Critical Race Theory (Delgado, 1995).

## **Frameworks for Study**

Critical to understanding and investigating the Latina/o academic experience in a culturally responsive manner is utilization of a comprehensive and culturally sensitive conceptual model and theoretical framework. Two theoretical frameworks were used in conceptualizing and contextualizing this study. First, Bronfenbrenner's Ecological Model (Bronfenbrenner, 1979; 1989) is useful in identifying individual and contextual risk and protective factors in several levels of the ecology. Second, Critical Race Theory (CRT) (Delgado, 1995) helps to critically analyze individual or group experiences within a cultural, political, and historical context. Each of these frameworks is described next.

### **Conceptual Framework: Ecological Model**

The ecological model was used as a conceptual framework for a holistic view of the educational experiences of Latina/o students. It is a model of human development that focuses on the impact that environment plays on the development of an individual, as well as on the bi-directional influences within and between the systems. An ecological perspective views people and environments within a particular cultural and historical context, recognizes that individuals are embedded in multiple systems or levels of their particular ecology (i.e. microsystem, mesosystem, exosystem, macrosystem), and acknowledges the reciprocal interactions that occur between the individual and her/his multiple environmental settings (Bronfenbrenner, 1979; 1989). A central aim of this study was to work from an ecologically based framework by identifying and including contextual risk and protective factors across multiple levels of Latina/o student ecologies. One goal of this study was to identify factors in several levels of the ecology and explore their relationship to Latina/o students' decisions to persist in academia.

## **Theoretical Framework: Critical Race Theory**

Rooted in critical community and scholarly traditions dating back to W. E. B. DuBois (1903), critical race theory (CRT) evolved out of critical legal studies in the 1980's as a movement seeking to account for the role of race and the persistence of racism in American society (Delgado, 1995). CRT scholars initially critiqued ongoing societal racism in Black/African American and White binary terms and focused on the slow pace and unrealized promise of civil rights legislation. They eventually advanced the framework to examine the multiple ways Black/African Americans, Native Americans, Asian Americans, Pacific Islanders, and Latinas/os continue to experience, respond to, and resist racism and other forms of oppression (e.g., Arriola, 1998; Caldwell, 1995; Wing, 1997, 2000). Villalpando (1994) describes CRT as a framework that emphasizes the importance of viewing educational policies and policy-making within a historical and cultural context, as well as analyzing racial exclusion and other forms of discrimination against college students. Solórzano (1997) identified five critical components shared by CRT scholarship, applying this dynamic framework to education: (a) the centrality of examining race and racism within university structures, practices, and discourse, (b) the challenge to dominant ideology, (c) a commitment to social justice and praxis, (d) a centrality of experiential knowledge from people of color, and (e) an historical context and interdisciplinary perspective (Solórzano et al., 2005; Villalpando, 2004). A key element of CRT is the ability to critically analyze individual or group experiences within a cultural, political, and historical context. As seen from these theoretical components, CRT can effectively be utilized as a foundation to examine contextual factors impacting the academic persistence of Latina/o college students. The



current study was designed with the five critical components shared by CRT scholarship in mind. For example, I (a) empirically analyzed race and racism among a historically oppressed/marginalized group (i.e., Latina/os) within the university structure, (b) challenged dominant ideology surrounding racism by investigating and raising awareness about racial and ethnic microaggressions in academia, (c) reflected a commitment to social justice by examining sociopolitical awareness/critical consciousness and the role it has on the academic experience and persistence of Latina/o students, (d) obtained original data based on self-reports provided by Latina/o students, and (e) examined research questions designed within the context of CRT, considering extant literature, and from an ecological perspective.

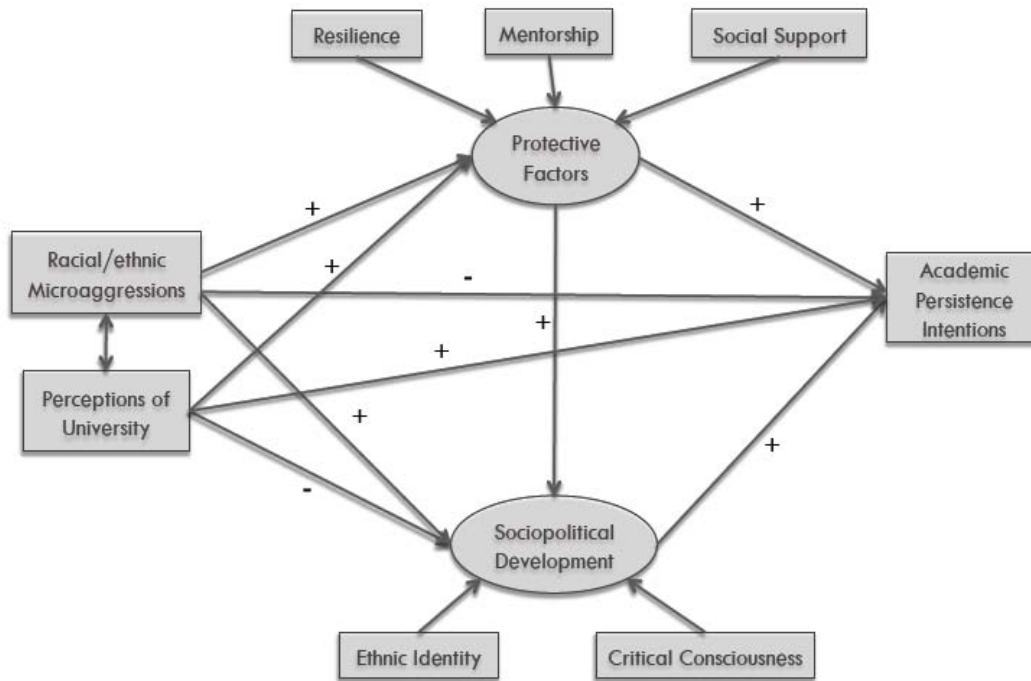
### **Purpose of Study**

The purpose of this study was to explore the mechanisms by which perceptions of the university environment, racial/ethnic microaggressions, protective factors (i.e., resilience, mentor support, social support from family and friends), and sociopolitical development (i.e., ethnic identity, critical consciousness) influence Latina/o students' intentions to persist in academia. The primary goals of this study were to: 1) contribute to the paucity of research on racial/ethnic microaggressions by increasing understanding of the relationship between racial/ethnic microaggressions and Latina/o students' intentions to persist in academia; 2) increase understanding of resiliency/protective factors that potentially mediate the relationships between racial/ethnic microaggressions and Latina/o students' intentions to persist; 3) increase understanding of the extent to which sociopolitical development mediates the relationships between racial/ethnic microaggressions and Latina/o students' intentions to persist; and 4) contribute to the

growing body of literature examining models of academic persistence to strengthen prevention and intervention efforts enhancing Latina/o students' success in higher education.

In light of existing research and with an aim to address the aforementioned gaps in the literature, I developed a mediating structural model that portrays the hypothesized relationships among the study's primary variables (see Figure 1). First, I examined the direct effects of perceptions of university environment and racial/ethnic microaggressions on academic persistence intentions. Next, I examined the mediating effects of protective factors (such as resilience, mentor support, and social support from family and friends) and of sociopolitical development (critical consciousness and ethnic identity) on perceptions of university environment and academic persistence intentions, as well as on racial/ethnic microaggressions and academic persistence intentions. I hypothesized that: (a) the hypothesized model would provide a satisfactory fit to the sample data; (b) perceptions of the university environment would be positively related to academic persistence intentions, with more positive perceptions of the university environment being associated with greater intentions to persist in academia; (c) racial/ethnic microaggression would be inversely related to academic persistence intentions, with more experiences of microaggressions being associated with lower intentions to persist in academia; (d) protective factors would mediate the relationship between perceptions of the university environment and academic persistence intentions, as well as between racial/ethnic microaggressions and academic persistence intentions; and (e) sociopolitical development would mediate the relationship between perceptions of the university environment and academic persistence intentions, as well as between racial/ethnic

microaggressions and academic persistence intentions. This is the first study to combine racial/ethnic microaggressions, perceptions of the university environment, protective factors (resilience, mentorship, social support), sociopolitical development (ethnic identity, critical consciousness) and academic persistence intentions in a single model.



**Figure 1.** Hypothesized model.

## **CHAPTER II**

### **METHODOLOGY**

#### **Procedures**

Participants were recruited to the study using three methods: email advertisements, postings on the internet social networking website Facebook, and snowball sampling. With respect to email advertisements, I targeted approximately 35 university-based, nationally or regionally-based, and/or network-based groups with a focus on multicultural populations (i.e., ethnic minority groups), Latina/o membership, and/or Latina/o student-related issues (i.e., MEChA, Mujeres). I selected these groups based on their focus on Latina/o issues, using keywords in Google and Facebook search engines such as Latina/o organizations. After identification of these groups I sent an email advertisement to the leaders of these student organizations, requesting that the email be distributed to their student members via their group listservs. In addition to campus listservs, I also sent a recruitment email to community leaders and advocates who work with young adult Latina/o populations. These leaders were identified via my professional relationships with local community members, and via my existing social network. I identified approximately ten leaders and advocates, to whom I then sent an email requesting their assistance in disseminating the email advertisement to people who fit the participant demographic, or to other community members with access to a young adult Latina/o population.

The second recruitment method involved internet social networking engines. I advertised the study on the social networking website, Facebook, as a way to reach a diverse range of young adult Latina/o students. The study description and invitation to

participate was posted on the Facebook —walls of family members, friends, colleagues, and interest groups such as MEChA, National Latina/o Psychological Association, and National Association for Multicultural Education (NAME).

The final method of recruitment involved a snowball sampling technique (Gall, Borg, & Gall, 2003). Snowball sampling refers to using participants to identify other participants for the study. I requested that current participants forward the email advertisement and invitation to participate to other eligible participants and to listservs that might reach eligible participants. Upon completion of the survey, all participants were prompted to pass the survey weblink to other individuals and listservs.

Data was collected online, using Qualtrics, which is a secure web-based service used to collect survey data. To facilitate the recruitment process, I provided a gift card drawing. Participants had the opportunity to win one of ten \$40 gift certificates to the store of their choice: Target, iTunes, Forever 21, DSW Shoes, Macy's, or Starbucks Coffee. One raffle prize was drawn for every 30 participants; therefore, each participant had a 1 in 30 chance to win a gift certificate. After completion of the survey, participants were asked if they wished to participate in the gift card drawing, and informed that the information they provided for the drawing would not be linked with their survey responses. If the participant chose to participate, they were directed to a new window requesting their name and mailing address. This page also included an explanation that their identifying information was in no way linked to their survey responses.

The email advertisements for the study included: (1) a brief description of the study, (2) eligibility criteria for participation, (3) the approximate time commitment to complete the survey, (4) information about the raffle drawing and odds of winning, and

(5) an internet link to the web-based survey page. The flyer advertisement included a brief description of the study and eligibility to participate, information about the opportunity to enter a gift card drawing, and the URL address for the online survey.

Qualtrics was used to ensure participant confidentiality. This service provides secure and confidential storage of data. See Appendices for the questionnaire format as presented on the web via Qualtrics.

### **Research Participants**

A total of 348 participants consented to participate in the web survey. Seventy-six participants were excluded on the basis of eligibility because they dropped out of the survey before providing their age and/or race/ethnicity and/or did not self-identify as Latina/o. Participants filled in their ethnic identification and gender. Table 1 provides participant ethnicity, geographic location, migration history, and income. The majority of participants were female ( $n = 220$ ), self-identified as Mexican/Mexican American ( $n = 88$ ), attended a 4-year university ( $n = 226$ ), were first generation college students ( $n = 191$ ), were not transfer students ( $n = 221$ ), and reported a GPA of 3.0 and above ( $n = 196$ ). Participants were from a total of 23 states. The majority of the participants were from California ( $n = 153$ ), Oregon ( $n = 18$ ), and Texas ( $n = 18$ ). Two hundred and ten (77%) participants reported that they were born in the United States. Approximately twenty percent ( $n = 55$ ) reported their mother was born in the U.S. and sixteen percent reported their father was born in the U.S. ( $n = 45$ ). The majority of participants reported an annual income of less than \$39,000 (58%). See table 1 for descriptive statistics.

**Table 1.** *Descriptive Statistics of Participants.*

Demographic Variable	<i>n</i>
Ethnicity	
Mexican/Mexican American	88
Latina/o	79
Hispanic	56
Xicana/Chicana/o	16
Latina/o, Hispanic, Chicana/o	13
Multi-ethnic	10
Salvadorian	2
Guatemalan	2
Colombian	2
Peruvian	1
Puerto Rican	1
Ecuadorian	1
Dominican	1
State of Residence	
California	153
Oregon	18
Texas	18
Washington	9
Utah	8
New York	4
New Jersey	4
District of Columbia (D.C.)	4
Wisconsin	3
Missouri	3
Massachusetts	2
Michigan	2
Connecticut	2
North Carolina	2
Remaining 9 states ( <i>n</i> = 1)	9
Immigration Trajectory	
Born in the U.S.	210
Moved to U.S.:	
6 years or younger	22
Between age 7 and 17	25
After the age of 18	8
Did not report	7
Family Income	
Less than \$19,000	67
Between \$20,000 and \$39,000	89
Between \$40,000 and \$59,000	63
Between \$60,000 and \$79,000	20
Between \$80,000 and \$99,000	12
%100,000 and above	13

## **Instrumentation**

**Description of study constructs and instruments.** All participants completed the same survey packet on-line. The survey packet included measures designed to assess for factors believed to contribute to the college experience of Latina/o college students. The instruments included a demographic sheet, the Racial and Ethnic Microaggressions Scale-45 (REMS-45; Nadal, 2011), the Multigroup Ethnic Identity Measure-Revised (MEIM-R; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999), the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), the Critical Consciousness for Latina/o Students Measure (CCLSM; McWhirter, 2010), the Mentoring Scale (MS; Gloria, 1993), the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988), the University Environment Scale (UES; Gloria & Robinson Kurpius, 1996), and the Student Intention Certainty Scale (SICS; Landry, 2003). See Appendices for survey instruments.

**Demographic questionnaire.** The demographic questionnaire included a total of 19 items. Participants responded to items requesting general information including gender, age, race/ethnicity, grade point average (GPA), relationship status, class standing, living arrangements (on- or off-campus), family income, and generational/immigration status. Demographic questions soliciting cultural identities such as gender, age, and race/ethnicity were open-ended to allow participants to choose their own identities, instead of limiting them to choose a predetermined box. This decision was made because of previous authors (e.g., Johnston & Nadal, 2010) who have noted that forcing people to “choose” a box may be microaggressive in itself. Additional items addressed transfer status, degree program in which they are enrolled, highest academic degree they expect to



earn, college(s) they are enrolled in, sources of financial aid, continuity of enrollment, enrollment status, parent and sibling education, and how confident they are about graduating from the institution they are attending. See Appendix A for the demographic questionnaire.

**Racial and ethnic microaggressions scale (REMS-45; Nadal, 2011).** The REMS-45 consists of 45 items and six subscales that identify various racial microaggressions. It includes seven reverse-coded items: Items #12, 18, 19, 24, 28, 37, 41. Respondents were instructed to indicate the number of times that a microaggression occurred in the past six months, with 0 = “I **did not** experience this event in the past six months,” 1 = “I experienced this event **1 time** in the past six months,” 2 = “I experienced this event **2 times** in the past six months,” 3 = “I experienced this event **3 times** in the past six months,” 4 = “I experienced this event **4 times** in the past six months,” and 5 = “I experienced this event **5 or more times** in the past six months.” Using a mean scale score, higher scores indicate more experiences or perceptions of racial and ethnic microaggressions in their lives. A sample item is “Someone assumed that I would not be intelligent because of my race.” The overall Cronbach’s coefficient alpha reported in Nadal’s (2011) study was .92. Subscale alphas ranged from .82 to .89: Assumptions of Inferiority ( $\alpha = .89$ ), Second-Class Citizen and Assumptions of Criminality ( $\alpha = .88$ ), Microinvalidations ( $\alpha = .86$ ), Exoticization and Assumptions of Similarity ( $\alpha = .82$ ), Environmental Microaggressions ( $\alpha = .87$ ), Workplace and School Microaggressions ( $\alpha = .86$ ). The REMS-45 produced high internal reliabilities for all major racial groups— Black/ African Americans ( $\alpha = .93$ ), Latina/os ( $\alpha = .87$ ), Asian Americans ( $\alpha = .94$ ), White/European Americans ( $\alpha = .81$ ), and Multiracial individuals ( $\alpha = .88$ ). Nadal (2011)

also provides evidence of validity. For example, to test for concurrent validity of the REMS-45, correlations were performed with the Daily Life Experiences-Frequency (DLE-F) Scale; a validated scale measuring perceptions of racism by a person of color and the impact racism has on the individual's personal life (Utsey, 1998). Results revealed that REMS-45 was significantly correlated with DLE-F ( $r = .75, N = 253, p < .001$ ). All subscales yielded significant correlations with the DLE-F: Assumptions of Inferiority ( $r = .70, N = 253, p < .001$ ), Second-Class Citizen/ Assumption of Criminality ( $r = .69, N = 253, p < .001$ ), Microinvalidations ( $r = .56, N = 253, p < .001$ ), Exoticization and Assumptions of Similarity ( $r = .51, N = 253, p < .001$ ), Environmental Microaggressions ( $r = -.24, N = 253, p < .001$ ), and Workplace and School Microaggressions ( $r = .72, N = 253, p < .001$ ). Finally, based on confirmatory factor analysis results, Nadal concludes that REMS has adequate construct validity. See Appendix D for the Racial and Ethnic Microaggressions Scale. Cronbach alpha internal consistency reliability coefficients were computed for REMS with the present study's sample ( $\alpha = .95$ ).

**University environment scale** (UES; Gloria & Robinson Kurpius, 1996). The UES was developed to measure perceptions of the university environment. The scale is composed of 14 items, including five reverse-coded items (Items #1, 4, 5, 11, and 13). Responses are based on a 4-point Likert-type format, ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). A sample item is "The university seems like a cold, uncaring place to me." Higher scores indicate a more positive perception of the university environment. A UES score is derived by averaging across all items. Internal consistencies ranging from .80 to .84 have been reported on samples of Latina/o college students (Castillo et al.,

2006; Gloria & Robinson Kurpius, 1996; Gloria et al., 2005; Orozco, 2007). Gloria and Robinson Kurpius (1996) also provide validity evidence. For example, in a validation study with Latina/o college students, the UES accounted for 25% of the variance in attitude toward academic persistence as measured by the Persistence/Voluntary Dropout Decisions (P/VDD) scale (Gloria & Robinson Kurpius, 1996). See Appendix J for the University Environment Scale. Cronbach alpha internal consistency reliability coefficients were computed for UES with the present study's sample ( $\alpha = .78$ ).

**Connor-Davidson resilience scale (CD-RISC; Connor & Davidson, 2003).** The CD-RISC was designed to measure resilience, defined as the ability to cope with stress. The CD-RISC is comprised of 25 items, all of which carry a 5-point range of responses, from 0 (*Not at all true*) to 4 (*True nearly all of the time*). No items are reverse scored and the scale contains no subscales. The total score ranges from 0-100, with higher scores reflecting greater resilience. The CD-RISC demonstrates good internal consistency, with  $\alpha = .89$  (Connor & Davidson, 2003). Convergent validity was assessed by correlating the CD-RISC with measures of hardiness, perceived stress, and stress vulnerability, as well as measures of disability and social support. CD-RISC scores were positively correlated with the hardiness measure. Compared to the perceived stress scale, the CD-RISC showed a significant negative correlation, indicating that higher levels of resilience corresponded with less perceived stress. The stress vulnerability scale was similarly negatively correlated with the CD-RISC, indicating that higher levels of resilience correspond to lower levels of perceived stress vulnerability. As a measure of disability, the CD-RISC demonstrated a significant negative correlation with the disability scale. Lastly, the social support scale correlated significantly with the CD-RISC, suggesting

that greater resilience is associated with less disability and greater social support (Connor & Davidson, 2003). The Cronbach alpha value in Orozco's study examining Latina/o college students was .93. See Appendix F for the Connor-Davidson Resilience Scale. Cronbach alpha internal consistency reliability coefficients were computed for CD\_RISC with the present study's sample ( $\alpha = .92$ ).

**Mentoring scale.** This five-item scale, based on the work of Gloria (1993), assesses the extent to which students perceived being mentored. Participants were asked to identify the extent to which they agreed with the scales statements of having someone who (a) they identify as their mentor, (b) cares about their educational success, (c) they can identify with as a role model, (d) has been encouraging of them, and (e) has taken them "under their wing." Respondents used a Likert-type scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree) where higher scores reflect an increased perception of being mentored. In a study examining academic non-persistence decisions (i.e., voluntary decisions to drop out) of Latina/o undergraduates, the internal consistency of the MS was .83 (Gloria, et al., 2005). Bordes, Sand, Arredondo, Robinson Kurpius, and Rayle (2006) investigated the psychometric properties of the Mentoring Scale with Latina/o college students. Reliability results showed a Cronbach's alpha value of .70. Bordes et al. (2006) also provide evidence of validity. For example, multiple regression procedures were used to test the concurrent validity of four social support measures with respect to academic persistence decisions of Latina/o students. Results showed that the social support construct accounted for 32.5% of the variance in academic persistence decisions. Examination of the beta weights indicated that social support from friends and perceived mentoring were two primary predictors. Evidence for concurrent validity was supported

by the significant relationship between perceived mentoring, social support from friends, and persistence decisions. In addition to testing the concurrent validity of perceived mentoring with persistence decisions, the ability of perceived mentoring to predict GPA was also tested. Results showed that perceived mentoring was a significant predictor of GPA, indicating that higher GPAs were related to more mentoring (Bordes et al., 2006). See Appendix H for the Mentoring Scale. Cronbach alpha internal consistency reliability coefficients were computed for MS with the present study's sample ( $\alpha = .84$ ).

**Multidimensional scale of perceived social support** (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12-item scale developed to assess perceived social support from three different sources: family, friends, and a significant other. The MSPSS is rated on a 7-point Likert-type scale (1 = *Strongly disagree* to 7 = *Strongly agree*). No items are reverse scored. Sample items include “There is a special person with whom I can share my joys and sorrows,” “My family really tries to help me,” and “I can talk about my problems with my friends.” The Cronbach's coefficient alpha values in Zimet et al. (1988) were .91, .87, and .85 for Significant Other, Family, and Friends subscales respectively. Edwards (2004) investigated the psychometric properties and utility of the MSPSS within a sample of Mexican American youth. Results confirmed the three-subscale structure (Family, Friends, and Significant Other) of the MSPSS, and adequate internal reliability for the three scales was demonstrated as well. The total scale and the Family and Friends subscales had high internal consistencies ( $\alpha = .86, .88,$  and  $.90,$  respectively), whereas the Significant Other subscale was low ( $\alpha = .61$ ). The low internal consistency for the Significant Other subscale could be due to the age of participants since Zimet et al. obtained an alpha of .91. Evidence of concurrent and

construct validity is provided by Edwards (2004). In Orozco's (2007) study with Latina/o college students, Cronbach alpha values were .95, .86, and .93 for the Significant Other, Family, and Friends subscales, respectively; the full scale Cronbach alpha value was .92. For the purposes of the current study, only the Family and Friends subscales were utilized. See Appendix I for the Multidimensional Scale of Perceived Social Support. Cronbach alpha internal consistency reliability coefficients were computed for MSPSS with the present study's sample ( $\alpha = .91$ ).

**Multigroup ethnic identity measure-revised** (MEIM-R; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999). The revised version of the MEIM was used to assess level of ethnic identity. The MEIM-R consists of 12 items and assesses two aspects of ethnic identity: (a) affirmation, belonging, and commitment, 5 items; and (b) ethnic identity search, 7 items. No items are reverse coded and the MEIM-R is scored on a 4-point range of responses, from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*). Sample items include "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs" and "I have a clear sense of my ethnic background and what it means to me." Higher scores on the MEIM-R scale indicate a more developed sense of ethnic identity. The construct validity of the MEIM-R was established by Roberts et al. (1999). Principal axis factor analysis indicated that the "affirmation, belonging, and commitment" factor and "ethnic identity search" factor explained 41.6% and 9.6% of the total variance, respectively. Results from confirmatory analysis also provided support for the MEIM-R's two-factor structure model of ethnic identity (Pegg & Plybon, 2005). The MEIM-R is significantly correlated with self-esteem ( $r = .14; p < .01$ ) and ethnic salience ( $r = .40; p < .01$ ) for Latina/o adolescents. The coefficient alpha was

.84 in a study investigating ethnic identity among Latina/o college students (Castillo et al., 2006). See Appendix E for the Multigroup Ethnic Identity Measure-Revised.

Cronbach alpha internal consistency reliability coefficients were computed for MEIM-R with the present study's sample ( $\alpha = .91$ ).

**Critical consciousness for Latina/o students measure (CCLSM;** McWhirter & McWhirter, 2010). The CCLSM is a 10-item measure developed for the purpose of a pilot study designed to test an after-school intervention program aiming to reduce dropout among Latina/o high school students. Based on the work of Diemer et al. (2009), McWhirter and McWhirter (2010) designed the CCLSM to assess Latina/o students' critical consciousness of racism and discrimination. Item responses consist of 4 options, ranging from 1 (*Strongly Agree*) to 4 (*Strongly Disagree*). No items are reverse coded. A sample item is "Racism and discrimination affect Latina/os today." Higher scores indicate lower levels of critical consciousness. See Appendix G for the Critical Consciousness for Latina/o Students Measure. Cronbach alpha internal consistency reliability coefficients were computed for CCLSM with the present study's sample ( $\alpha = .91$ ).

**Student intention certainty scale (SICS;** Landry, 2003). The SICS was designed to measure the level of intention to remain enrolled in college and the degree of contentment with and commitment to the decision to complete the degree. The scale is composed of 9 items, including five reverse-coded items (Items #5, 6, and 7). Responses are based on a 4-point Likert-type format, ranging from 1 = (*Strongly Disagree*) to 5 = (*Strongly Agree*). Sample items include, "I intent to obtain my undergraduate degree and I am certain I will obtain my degree no matter what obstacles I face." Cronbach alpha

internal consistency reliability coefficients were computed for SICS with the present study's sample ( $\alpha = .69$ ).



## CHAPTER III

### RESULTS

This chapter describes the study findings. Contents are presented in the following order: data screening and missing data, descriptive information and statistical assumptions, bivariate correlations, analysis of variance results, and test results of the hypothesized model.

#### Preliminary Analyses

All preliminary analyses were conducted using IBM SPSS Software 19.0 (SPSS Inc., 2009). First, the data was screened to assess for missing values, significant outliers, and violations of test assumptions. Next, descriptive statistics and correlation analyses were then conducted for all study variables. Bivariate correlations for all study variables are presented in Table 1. Mean scale scores were computed for all participants that answered at least 80 percent of the items in each measure.

#### Data Screening and Missing Data

Missing data were examined using the Missing Values analysis in IBM SPSS Software 19.0 (SPSS Inc., 2009). The greatest amounts of missing data are associated with the racial and ethnic microaggression variable (20%). Data can be assumed to be missing at random (MAR) if the pattern of missingness is not related to the variables of interest (Enders & Bandalos, 2001). Results of Little's missing completely at random test (MCAR) yielded a non-significant chi-square statistic,  $\chi^2(10445) = 10672.66, p = .06$ . This result indicates that the missing data were missing completely at random. Missing data were imputed performing the expectation-maximization (EM) algorithm procedure using SPSS Software 19.0 (SPSS Inc., 2009). Mean scale scores were computed for all

participants for each measure; variable means for imputed data did not differ significantly when compared to those from the original data.

### **Descriptive Statistics and Statistical Assumptions**

Multivariate normality and linearity are the primary statistical assumptions that underlie SEM and are important for making accurate statistical inferences when using maximum likelihood estimation (Kline, 2005). Skewness and kurtosis statistics were examined using the following cutoffs:  $\pm 3.0$  (skew) and  $\pm .10$  (kurtosis) (Kline, 2005). Examination of skew and kurtosis, as well as visual inspection of histograms, indicated that data distributions were normal and within expected range and skewedness and kurtosis values were within Kline's (2005) suggested cutoff value.

### **Bivariate Correlations**

Results of a Pearson Product moment correlation (see Table 2) revealed significant relationships between many of the study variables. Correlations were all in the expected direction, though some were of small magnitude or non-significant. As expected, indicator variables for the protective factor and sociopolitical development latent constructs were significantly correlated with one another in the expected directions. Relationships between resilience, mentor support, and social support (from family and friends) resulted in significant positive correlations; high levels of resilience were related to high mentor support and high social support from friends and family. Also, high levels of ethnic identity were significantly related to high levels of critical consciousness. Unexpectedly, racial/ethnic microaggressions was not significantly correlated with intentions to persist, mentor support, or social support. It was, however, significantly related to ethnic identity, critical consciousness, and perceptions of the university

environment. As expected, more positive perceptions of the university environment was significantly related to greater resilience, lower racial/ethnic microaggressions, greater mentor support, and greater support from family and friends. Unexpectedly, perceptions of the university environment was not significantly related to ethnic identity and critical consciousness.

**Table 2.** *Bivariate Correlation Matrix Between Primary Study Variables (n = 272).*

Variable	1	2	3	4	5	6	7	8
1. CD-RISC	-							
2. REMS	-.00	-						
3. MEIM-R	.33*	.27*	-					
4. CCLSM	.26*	.36*	.56*	-				
5. MS	.31*	.10	.32*	.33*	-			
6. MSPSS	.50*	-.01	.37*	.23*	.53*	-		
7. UES	.27*	-.26*	.01	-.01	.21*	.25*	-	
8. SICS	.42*	-.07	.26*	.30*	.33*	.38*	.45*	-

*Note.* \*  $p < .01$ . REMS = racial/ethnic microaggressions; UES = perceptions of university environment; CD-RISC = resilience; MS = mentor support; MSPSS = social support from family and friends; MEIM = ethnic identity; CCLSM = critical consciousness; SICS = academic persistence intentions

### **Analysis of Variance**

To determine whether there were group differences between Latina/o undergraduate and graduate students in the different variables, a one-way, between-subjects analysis of variance was performed. The criterion variables for the analysis were self-reported resilience, racial/ethnic microaggressions, ethnic identity, sociopolitical awareness/critical consciousness, mentor support, social support, perceptions of university environment, and intentions to persist in academia. The predictor variable was

self-identified class standing with two levels: a) Undergraduate b) Graduate. Data screening analyses were conducted to detect any violations to assumptions of ANOVA. Histogram plots and descriptive statistics were examined, and no violations in distribution assumptions, independence, and homoscedasticity were detected. The analysis of variance results revealed non-significant mean differences between undergraduate and graduate students on each of the study's variables (see Table 3).

**Table 3.** *Between Group Mean Comparison.*

	Class Standing	M	SE	95% Confidence Interval	
				Lower Bound	Upper Bound
REMS	1	1.49	0.060	1.37	1.61
	2	1.37	0.091	1.19	1.55
UES	1	2.92	0.036	2.85	2.99
	2	2.88	0.070	2.74	3.02
CD-RISC	1	3.99	0.044	3.90	4.08
	2	4.03	0.078	3.89	4.19
MS	1	3.38	0.045	3.29	3.46
	2	3.45	0.077	3.30	3.61
MSPSS	1	5.45	0.086	5.28	5.61
	2	5.64	0.123	5.40	5.89
MEIM	1	3.30	0.045	3.21	3.39
	2	3.36	0.076	3.21	3.51
CCLSM	1	3.26	0.045	3.17	3.35
	2	3.41	0.067	2.27	3.54
SICS	1	3.44	0.036	3.37	3.51
	2	3.53	0.051	3.43	3.64

*Note.* \*  $p < 0.05$ . 1 = Undergraduate; 2 = Graduate; REMS = racial/ethnic microaggressions; UES = perceptions of university environment; CD-RISC = resilience; MS = mentor support; MSPSS = social support from family and friends; MEIM = ethnic identity; CCLSM = critical consciousness; SICS = academic persistence intentions

## Main Analyses

### Structural Equation Modeling

In structural equation modeling, multiple guidelines are found in the literature for estimating the necessary sample size to assure adequate power. Mitchell's (1993) commonly used recommendation suggests that there should be 10 to 20 times as many cases as observed variables. It is also suggested that researchers go beyond the minimum sample size recommendations when data are non-normal or incomplete. Based on the upper limit of Mitchell's (1993) rule, a total sample size of 160 is needed to achieve a power of .95.

The maximum likelihood (ML) method in the AMOS 5.0 program (Arbuckle & Wothke, 2003) was used to calculate path coefficients and model fit indices. The measurement model had acceptable fit to the data as indicated by exploratory factor analyses results on each variable. Given that the measurement model reflected an acceptable fit to the data, the proposed structural model was evaluated. As recommended, various model fit criteria were used in combination to assess model fit as global fit measures (Hair, Anderson, Tatham, & Black, 1992; Kline, 2010). Model fit determines the degree to which the sample variance-covariance data fit the structural equation model. The following fit index values were calculated to assess model fit: chi-square, the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR) (Hu & Bentler, 1999).

The model is considered a poor fit for the data if the chi-square ( $\chi^2$ ) value is statistically significant ( $p < .05$ ) and the ratio of  $\chi^2$  to degrees of freedom ( $df$ ) is greater than 3 (Mertler & Vannatta, 2002). Although the  $\chi^2$  model criterion is the original fit

index for structural models, its validity has been questioned as it can lead to erroneous conclusions regarding analysis outcomes; the  $\chi^2$  is sensitive to sample size because as sample sizes increases (generally above 200), the  $\chi^2$  statistic has a tendency to indicate a significant probability level. It is also sensitive to models with numerous variables and paths. Because the sample size in the present study is above 200 and the model proposed consists of numerous variables and paths, the  $\chi^2$  statistic was used as a descriptive goodness-of-fit index rather than as a formal test statistic (Schermelleh-Engel, Moosbrugger, & Müller, 2003). The CFI index assesses how much better the hypothesized model fits compared to an equivalent baseline model. A CFI of at least .95 represents very good model fit, and a CFI of .90 to <.95 represents adequate model fit (Hu & Bentler, 1999). The RMSEA provides an expression of fit that does not assume that the researcher's model is perfect, providing an estimate of error due to the approximate fit of the model. An RMSEA value below .06 is considered an indication of good model fit, between .08 to > .06 suggests adequate fit, and between .08 and .10 is considered mediocre fit (Hu & Bentler, 1999; Kaplan, 2000). Lastly, for the SRMR, values below .08 are considered indicative of good model fit. Hau and Marsh (2004) have cautioned against overgeneralizing stringent cutoff threshold values for the purpose of accepting or rejecting models, however. Instead, especially when conducting counseling psychology research, Quintana and Maxwell (1999) recommend that fit indices be used as descriptive information regarding how well as model fits data.

**Hypothesized structural model.** To maximize on one of the strengths of SEM, two latent factors were constructed. The latent constructs were estimated from two or more indicator variables each and labeled *Protective Factors* and *Sociopolitical*

*Development*. The *Protective Factors* latent construct included social support from friends and family (MSPSS), mentor support (MS), and resilience (CD\_RISC). The *Sociopolitical Development* latent factor included ethnic identity (MEIM-R) and critical consciousness (CCLSM). Correlations among the indicator variables were significant and supported construction of the latent factors (see Table 1). The use of latent factors allowed for a more parsimonious model, as well as increased interpretability (Kline, 2005). Rather than create a composite of the indicators and use them as a single variable in the model (i.e., by averaging or summing them), a more conservative approach was implemented by testing the constructs directly in the context of the model (Kline, 2005). Thus, in one modeling step, the latent constructs (*Protective Factors* and *Sociopolitical Development*) were specified as being made up of the observed indicator variables and the hypothesized relationships between the variables in the model were tested. As indicated by model fit indices, the indicators appeared to load onto the expected *Protective Factors* and *Sociopolitical Development* latent factors.

The endogenous (*Protective Factors*) latent construct consisted of the following indicator variables and factor loadings: resilience (.62), mentor support (.64), and social support (.76). The endogenous (*Sociopolitical Development*) latent construct consisted of the following indicator variables: ethnic identity (.74) and critical consciousness (.76).

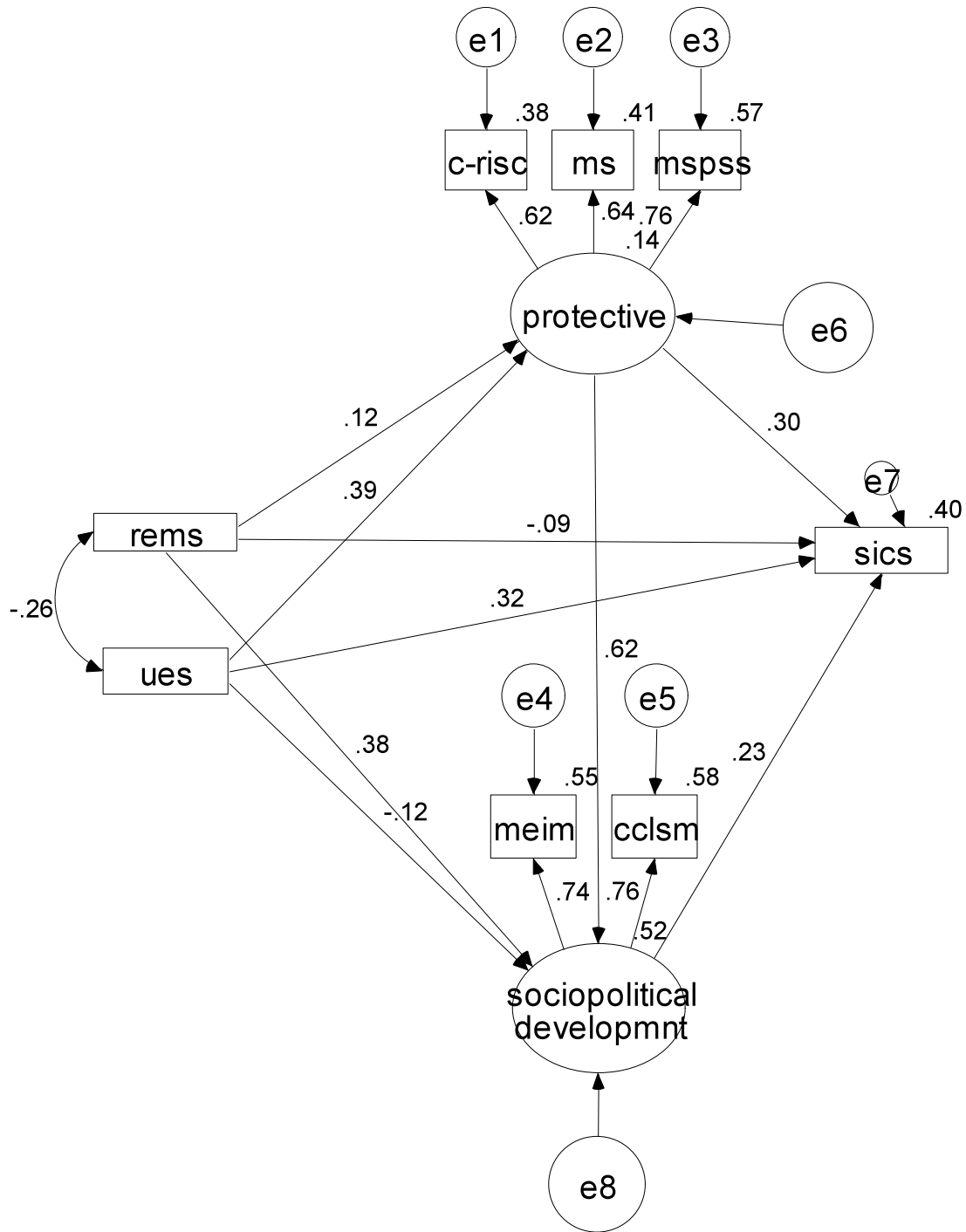
Given that the measurement models results appeared to represent adequately the underlying latent constructs (i.e., *Sociopolitical Development* and *Sociopolitical Development*), I utilized these latent constructs in the full structural model. The hypothesized model is presented in Figure 2 with standardized parameter estimates included for each path. The observed, exogenous variables include: perceptions of

university environment (UES) and racial/ethnic microaggressions (REMS). The endogenous variables include the observed variable intentions to persist in academia (SICS) and the two unobserved, latent constructs: *Protective Factors* (resilience, mentor support, social support) and *Sociopolitical Development* (ethnic identity, critical consciousness).

The structural model produced a good fit to the data as evidenced by the following goodness-of-fit indices: CFI = .96, RMSEA = .07, SRMR = .02, and  $\chi^2$  [13,  $N = 272$ ] = 32.561,  $p = .02$  (see Table 4). The squared multiple correlation coefficients ( $r^2$ ) for all the endogenous variables ranged from small (.14) to large (.58). The  $r^2$  values indicated that the structural model accounts for 14% of the variance in *Protective Factors* (38% in resilience, 41% in mentor support, 57% in social support), 52% of the variance in *Sociopolitical Development* (55% in ethnic identity, 58% in critical consciousness), and 40% of the variance in academic persistence. Table 2 includes the variable intercorrelations, and Table 5 includes standardized parameter estimates and  $p$ -values for the data.

As expected, the standardized regression weights suggested that racial/ethnic microaggressions and perceptions of university environment had a significant direct and positive effect on *Protective Factors* ( $\beta = .12$ ,  $\beta = .39$ , respectively). Also, as expected, protective factors had a significant direct positive effect on *Sociopolitical Development* and intentions to persist in academia ( $\beta = .62$ ,  $\beta = .30$ , respectively). Furthermore, racial/ethnic microaggressions had a significant direct positive effect on *Sociopolitical Development* ( $\beta = .38$ ), and *Sociopolitical Development* had a significant direct positive





**Figure 2.** Hypothesized model with standardized parameter estimates.

effect on intentions to persist in academia ( $\beta = .23$ ). Perceptions of university environment had a significant direct positive effect on intentions to persist in academia ( $\beta = .32$ ). There were non-significant weight coefficients on the paths between racial/ethnic microaggressions and intentions to persist in academia ( $\beta = -.09$ ), and between perceptions of university environment and *Sociopolitical Development* ( $\beta = -.12$ ). A post-hoc model was tested to explore whether model fit would improve if the aforementioned non-significant paths were dropped from the model. Results did not yield improved model-fit indices; therefore, based on theoretical justification (Ardelt & Eccles, 2001; Jarrett, 1994; O'Neil, Wilson, Shaw, Dishion, 2009) and evaluation of model-fit indices, non-significant paths were retained in the model.

***Indirect/mediated effects.*** Indirect or mediated effects of the variables of interest were also assessed in the model. These analyses examined the potential mediating role of *Protective Factors* and *Sociopolitical Development* on racial/ethnic identity and intentions to persist in academia and on perceptions of university environment and academic persistence. Consistent with a priori hypotheses, the results revealed that *Protective Factors* and *Sociopolitical Development* mediated the effect of racial/ethnic microaggressions on academic persistence. Racial/ethnic microaggressions was indirectly (through *Protective Factors* and through *Sociopolitical Development*) related to academic persistence. The standardized total effect of racial/ethnic microaggressions on intentions to persist in academia was estimated at  $\beta = .05$ , yielding a negative and non-significant direct effect ( $\beta = -.09$ ). The majority of the standardized total effect was transmitted through the indirect effect of *Protective Factors* and *Sociopolitical Development*. In addition, results revealed that *Protective Factors* partially mediated the effect of

perceptions of university environment on academic persistence. *Sociopolitical Development* did not, however, mediate the effect of perceptions of university environment on academic persistence. Perceptions of university environment was directly and indirectly (through *Protective Factors*) related to academic persistence. The standardized total effect of perceptions of university environment on intentions to persist in academia was estimated at  $\beta = .46$ . These results indicate that perceptions of university environment had a positive and direct effect on academic persistence, and a portion of the standardized total effect was transmitted through *Protective Factors* ( $\beta = .15$ ). To test whether indirect effects were significant, Bootstrap analysis and Solbel test were used to assess a bias-corrected 95% confidence interval for indirect relations (Mallinckrodt, Abraham, Wei, & Russell, 2006); results indicated significant indirect effects ( $p < .05$ ) (see Table 5).

**Table 4.** *Goodness-of-Fit Indicators for the Hypothesized Model.*

Model	$\chi^2$	<i>df</i>	CFI	TLI	SRMR	RMSEA
1	32.56	13	0.96	0.92	0.019	0.075
2	28.73	13	0.96	0.92	0.026	0.079

*Note.* 1 = complete sample; 2 = undergraduates only; CFI = comparative fit index; TLI = Tucker-Lewis index; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation

**Table 5.** Standardized Estimates of the Direct and Indirect Effects of the Exogenous (Predictor) Variables on the Endogenous (Outcome) Variables in the Hypothesized Model of the Study.

Exogenous Variables	Endogenous Variables	Direct Effect	Indirect Effect
REMS	PF	0.124*	
	SPD	0.376***	0.077*
	SICS	-0.091	0.141*
UES	PF	0.386***	
	SPD	-0.117	0.238*
	SICS	0.316***	0.145*
PF	SPD	0.616***	
	SICS	0.304**	0.141*
SPD	SICS	0.229*	

Note. \*p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. PF = protective factors; SPD = Sociopolitical Development; REMS = racial/ethnic microaggressions; UES = perceptions of university environment; CD-RISC = resilience; MS = mentor support; MSPSS = social support from family and friends; MEIM = ethnic identity; CCLSM = critical consciousness; SICS = academic persistence intentions

**Hypothesized model: undergraduates only.** Due to the fact that undergraduate students were the target population of this study, the hypothesized model was re-tested using the undergraduate sample only. Results suggested that the structural model produced a good fit to the data: CFI = .96, RMSEA = .08, SRMR = .03, and  $\chi^2$  [13, N = 195] = 28.732,  $p = .007$  (see Table 4). The squared multiple correlation coefficients ( $r^2$ ) for all the endogenous variables ranged from small (.20) to large (.65). The  $r^2$  values indicated that the structural model accounts for 20% of the variance in *Protective Factors* (49% in resilience, 40% in mentor support, 65% in social support), 57% of the variance in *Sociopolitical Development* (49% in ethnic identity, 55% in critical consciousness), and 40% of the variance in academic persistence. A post-hoc model was tested to explore whether model fit would improve if non-significant paths were dropped from the model.

Overall, slight improvement in model-fit indices was not significant. The chi-square statistics remained significant ( $\chi^2 [14, N = 195] = 28.737, p = .011$ ). The CFI (.97), RMSEA (.07), and SRMR (.03) indices were still consistent with a good fit.

***Indirect/mediated effects.*** Indirect or mediated effects of the variables of interest were also assessed in the model with undergraduates only. These analyses examined the potential mediating role of *Protective Factors* and *Sociopolitical Development* on racial/ethnic identity and intentions to persist in academia and on perceptions of university environment and intentions to persist in academia. Consistent with a priori hypotheses, the results revealed that *Sociopolitical Development* mediated the effect of racial/ethnic microaggressions on intentions to persist in academia. Unexpectedly, *Protective Factors* did not mediate the effect of racial/ethnic microaggressions on intentions to persist in academia. Racial/ethnic microaggressions was indirectly (through *Sociopolitical Development*) related to intentions to persist in academia. The standardized total effect of racial/ethnic microaggressions on intentions to persist in academia was estimated at  $\beta = .06$ , yielding a negative and non-significant direct effect ( $\beta = -.12$ ). The majority of the standardized total effect was transmitted through the indirect effect of *Sociopolitical Development*. In addition, results revealed that *Protective Factors* partially mediated the effect of perceptions of university environment on intentions to persist in academia. *Sociopolitical Development* did not, however, mediate the effect of perceptions of university environment on intentions to persist in academia. Perceptions of university environment was directly and indirectly (through *Protective Factors*) related to intentions to persist in academia. The standardized total effect of perceptions of university environment on intentions to persist in academia was estimated

at  $\beta = .48$ . These results indicate that perceptions of university environment had a positive and direct effect on intentions to persist in academia, and a portion of the standardized total effect was transmitted through *Protective Factors* ( $\beta = .20$ ). To test whether indirect effects were significant, I used a bootstrap analysis to create 10,000 bootstrap samples and assess a bias-corrected 95% confidence interval for indirect relations (Mallinckrodt, Abraham, Wei, & Russell, 2006). Bootstrap analysis results indicated a significant indirect effect ( $p < .05$ ).

## **CHAPTER IV**

### **DISCUSSION**

#### **Overview**

In this chapter, results of the present study are discussed in the context of current literature. Study conclusions and limitations are explored, and implications for research and practice are provided. Analysis of variance was utilized to test class standing (graduate vs. undergraduate) differences and structural equation modeling techniques were performed to test a hypothesized model of the mechanisms by which racial/ethnic microaggressions, protective factors (i.e., resilience, mentor support, social support from family and friends), and sociopolitical development (i.e., ethnic identity, critical consciousness) influence Latina/o students' intentions to persist in academia. The hypothesized structural model tested indicated a good fit to the data.

The primary goals of this study were to: 1) contribute to the paucity of research on racial/ethnic microaggressions by increasing understanding of the relationships between racial/ethnic microaggressions and Latina/o students' intentions to persist in academia; 2) increase understanding of resiliency/protective factors that may mediate relationships between racial/ethnic microaggressions and Latina/o students' intentions to persist; 3) increase understanding of the extent to which sociopolitical development mediates the relationships between racial/ethnic microaggressions and Latina/o students' intentions to persist; and 4) contribute to the growing body of literature examining models of academic persistence to strengthen prevention and intervention efforts enhancing Latina/o students' success in higher education.

## Findings

Study results were consistent with several study hypotheses: (a) the hypothesized structural model provided a good fit to the data; (b) the proposed set of relationships between resilience, mentor support, social support from family and friends, critical consciousness, ethnic identity, and intentions to persist accounted for significant variance in the model; c) perceptions of university environment was directly related to intentions to persist; d) protective factors (resilience, mentor support, social support from friends and family), sociopolitical development (ethnic identity and critical consciousness), and perceptions of university environment fully mediated the relationship between racial/ethnic microaggressions and intentions to persist; c) protective factors mediated the relationship between perceptions of university environment and intentions to persist.

Consistent with existing theory and research (Gloria et al., 2005a; Gloria et al., 2005b), perceptions of the university environment emerged as a significant predictor of Latina/o students' intentions to persist in academia. Findings indicated that more positive perceptions of the university environment influenced greater intentions to persist among Latina/o students. Furthermore, findings showed that protective factors, such as resilience, mentor support, and social support (from family and friends) significantly mediated the relationship between perceptions of university environment and intentions to persist. This suggests that the link between positive perceptions of the university environment and intentions to persist is significantly stronger for resilient Latina/o students who reported receiving mentorship and social support from family and friends.

The positive and salient role of mentorship and social support in the present study is in line with extant research that emphasizes social support as an important protective



factor in the academic success of Latina/o students (Bordes & Arredondo, 2005; Castellanos et al., 2006; Ginoro & Huston, 2001; McWhirter et al., 2007; Santos & Reigadas, 2002), and as predictors of higher career aspirations (Flores & O'Brien, 2002), school engagement (Kenny et al., 2003), and school achievement (Bullington & Arbona, 2001). Findings from the current study also contribute to the cross-sectional and longitudinal research on Latina/o students with respect to mentorship, indicating that Latina/o students with strong mentoring relationships are more likely to adjust and persist in higher education (Bordes & Arredondo, 2005; Gloria & Kurpius, 2001; Gloria et al., 1999; Santos & Reigadas, 2002; Solberg et al., 1994). Specifically, mentorship has been linked with higher self-efficacy (Santos & Reigadas, 2002), more positive perceptions of the university and cultural congruity (Bordes & Arredondo, 2005; Gloria & Robinson Kurpius, 2001; Gloria & Ho, 2003), greater sense of belonging in a university setting (Hurtado & Carter, 1997), positive academic adjustment and psychological well-being (Freeman, 1999; Pascarella & Terenzini, 1991), “psychosocial comfort that empowers the student” (e.g., navigation of the university system, degree conferral) (Redmond, 1990, p. 191), and increased academic persistence decisions (Gloria & Ho, 2003). The aforementioned findings also highlight important recommendations made by scholars about the value of acknowledging and promoting interdependence and collectivism in academic settings serving Latina/o students, as these are important values within the Latina/o community (Cross, Bacon, & Morris, 2000; Holleran & Waller, 2003).

Guided by the ecological model (Bronfenbrenner, 1989) and the five critical components (discussed in chapter I) shared by critical race theory (CRT) scholarship (Delgado, 1995; DuBois, 1903; Solórzano et al., 2005; Villalpardo, 1994), we expected

that ethnic identity and critical consciousness would positively correlate with each other (forming sociopolitical development as a latent construct), directly predict intentions to persist, and mediate relationships between microaggressions and intentions to persist, as well as between protective factors and intentions to persist. Protective factors had a direct positive association with sociopolitical development; resilient Latina/o students who reported greater mentorship and social support from family and friends also had higher ethnic identity and critical consciousness scores. This is consistent with the ecological theory indicating that proximal and distal contextual factors interact with one another and with individual characteristics to inform developmental processes (Bronfenbrenner, 1989). Because family is a critical context of development (Maccoby, 1992), and among Latin/o families, parents' support and ethnic socialization (i.e., attempts to teach their children about their ethnicity) is positively associated with Latina/o youth's ethnic identity formation (Umaña-Taylor, Alfaro, Bamaca, & Guimond, 2009; Umaña-Taylor & Fine, 2004; Umaña-Taylor & Guimond, 2012), it is not surprising that Latina/o students who reported supportive parents also reported greater levels of ethnic identity, critical consciousness, and intentions to persist. Although there is much diversity within Latina/o families, scholars suggest that a strong orientation and connection to family are one of the key values transmitted across generations (Parke & Buriel, 1998).

In addition to espousing an ecological approach for understanding developmental processes and outcomes among people of color, scholars (e.g., Solórzano, 1997) have identified critical components shared by Critical Race Theory (CRT) and recommend the application of this dynamic framework to education. The current study contributes to the literature on Latina/o students by using CRT to shed light on their experiences with

racial/ethnic microaggressions. As a dynamic framework in education, CRT challenges scholars to “name racist injuries” and address how the social construct of race shapes university structures, practices, and discourses from the perspective of those impacted by and fighting against institutional racism. Consistent with CRT, the present study demonstrated that Latina/o students’ sociopolitical development directly influenced their intentions to persist in academia, and also fully mediated the relationship between their experiences of racial/ethnic microaggressions and intentions to persist. The unique findings in the present study is a way to challenge dominant ideology and continue to fuel conscious and empowering research on Latina/os in higher education.

Although previous researchers have utilized qualitative methodologies to explore experiences of racial/ethnic microaggressions among Latina/o students (Yosso et al., 2009), this is the first study utilizing quantitative methods to examine relationships between racial/ethnic microaggressions and Latina/o students’ intentions to persist. It is also the first study to test a structural model of academic persistence intentions that includes variables such as racial/ethnic microaggressions and critical consciousness.

Findings revealed that experiences of racial/ethnic microaggressions had a non-significant inverse direct effect on academic persistence intentions as well as a positive indirect effect (via protective factors and sociopolitical development). These findings suggest that the effect of microaggressions on intentions to persist is completely mediated by each latent construct, (protective factors consisting of resilience, mentor support, social support, and sociopolitical development consisting of ethnic identity and critical consciousness) (Shrout & Bolger, 2002). Further, the non-significant direct effect as well as the significant indirect effects of racial/ethnic microaggressions on intentions

to persist, suggests that the mechanisms by which racial/ethnic microaggressions influence persistence intentions is complex. Specifically, the non-significant direct effect was unexpected, because previous research and theory suggests the important role of contextual factors such as campus racial climate and discrimination on the academic experience of Latina/o students (Ladson-Billings & Tate, 1995; Solórzano, 1997; Martinez et al., 2004; Yosso et al., 2009). From a mathematical perspective, it is suggested by some researchers (Baron & Kenny, 1986) that a significant direct effect should be present before assessing mediated, indirect effects. Conversely, Shrout and Bolger (2002) recommend that the mediation analysis should proceed on the basis of the strength of the theoretical arguments rather than on the basis of the statistical test of the predictor on the outcome. These researchers suggest that “relaxing” the requirement that a direct effect be statistically significant before assessing mediations is likely to be especially important for developmental and other researchers interested in understanding processes. In light of this, they recommend consideration of causal mediation processes (proximal versus distal) and suppressor variable processes when interpreting results of non-significant direct effects and indirect effects, such as the results found in the present study. According to Shrout and Bolger (2002), as the causal process becomes more distal (less proximal), the size of the effect typically gets smaller because the more distal an effect becomes, the more likely it is (a) transmitted through additional links in a causal chain, (b) affected by competing variables, and/or (c) affected by random factors. Considering the subtle, cumulative effect that racial/ethnic microaggressions are assumed to have over time (Pierce, 1995; Sue, 2010), it could be that the non-significant direct effect of microaggressions is a reflection of more distal effects as opposed to proximal

causal components. Thus, although findings suggest that the relation of microaggressions to sociopolitical development and intentions to persist is likely to be subtle, it is likely to be of theoretical interest as an exemplar of one of many contextual predictors that contribute to Latina/o students' academic persistence intentions. With this in mind, if the study's findings are a reflection of the subtle nature (Sue, 2010) of microaggressions, they may suggest that an individual's sociopolitical development (Carter, 2008 & O'Connor, 1997) and other identity processes may play a critical role in their ability to recognize racial/ethnic microaggressions. This, and the bidirectional impact between social contexts and identity development (Bronfenbrenner, 1979), may explain the fully mediated effect of sociopolitical development and protective factors on microaggressions and intentions to persist (Shrout & Bolger (2002).

In terms of possible suppression effects, Shrout & Bolger (2002), point out that suppression occurs when the indirect effect has the opposite sign of the direct effect, which was the case in the present study between microaggressions and intentions to persist. Such patterns of correlations can occur when the measures of the predictor (microaggressions) and the outcome (intentions to persist) reflect trajectory processes, whereby some Latina/o students' experiences of microaggressions may be steadily increasing while others' are reducing. Considering Shrout and Bolger's assertions around suppression processes, these findings suggest that when the mediating variable such as sociopolitical development is held constant at its mean value, then Latina/o students with unusually low experiences of microaggressions will tend to have a trajectory of increasing intentions to persist, whereas those with unusually high experiences of microaggressions will tend to have a trajectory of decreasing intentions to persist. Shrout

and Bolger (2002) note that some unexpected suppression results can reflect the need for an alternative theoretical model.

Another unexpected finding was the non-significant direct effect between perceptions of university environment and sociopolitical development. Results revealed that protective factors (resilience, social support, mentor support) mediated the relationship between Latina/o students' perceptions of university environment and sociopolitical development. A possible explanation for this could be distal processes, as previously suggested with variables that may be more developmental in nature (Shrout & Bolger, 2002). Given the developmental nature of ethnic identity and critical consciousness and that relevant social contexts impact development (Bronfenbrenner, 1979), it is not surprising that the majority of the total effect of perceptions of the university environment on sociopolitical development works through protective factors. Latina/o students' may be at different developmental levels with regard to sociopolitical development based on interpersonal relationships (e.g., social support, mentorship) and opportunities to explore their sociopolitical identity development. As fundamental aspect of young adulthood and being in higher education is identity development. As Latina/o students continue to explore and re-create meaning associated with their sociopolitical identity, while also integrating life experiences, they have a greater opportunity to develop this identity. The aforementioned non-significant direct effects as well as the significant indirect effects of the present study reveal the importance of distal and trajectory processes, and the exploration of possible suppressing and moderating effects in future research (Shrout & Bolger, 2002). It also reinforces the importance of examining multiple mediating variables, as statisticians recommend that researchers

entertain the possibility of multiple mediating variables, as in most situations, it is unlikely that the effects of an independent variable on an outcome is transmitted by only one means (Preacher & Hayes, 2008).

### **Limitations of the Study**

There are several limitations to the present study that warrant discussion and consideration when interpreting results. First I describe issues associated with external validity, followed by measurement and design limitations.

The study sample consisted of young adult Latina/o students attending institutions of higher education. Due to the mode of data collection and language in which the survey was offered, the opportunity to participate in the study was limited to Latina/o students who spoke English, and who had access to computers and the Internet. This means that participants in this sample may have greater access to information about support resources (e.g., university/college resources, online web resources) than other Latina/o university students, given the many forums on which the survey study was advertised (e.g., National Association for Multicultural Education (NAME), Latina/o interest pages, Latina/o student groups). In addition, although most Latina/o students in U.S. college/universities are able to communicate in English and have access to computers, those willing to complete this survey may differ from those who did not complete the survey. For example, participation in the study may be a reflection of greater cyberactivism (McCaughey & Ayers, 2003), being more politicized, having more “free” time, and/or greater social capital. The majority of participants identified as Mexican/Mexican American, and it is possible that results would have differed if participants were, for example, predominantly of South American or Puerto Rican origin.

Another factor influencing external validity is the participant attrition rate; those who completed the survey may be systematically different from those who did not complete the full survey. The online survey took participants 15-30 minutes to complete. There are many potential reasons why students did not complete the entire survey, including fatigue, boredom, lack of privacy at some point in their participation, interruption or distraction from the survey, and/or the content of the survey was triggering in some way to the participant. Each of these factors limits the generalizability of the findings.

Another limitation is the reliance on self-report measures. Although measuring Latina/o student experience in higher education through self-report is consistent with existing literature, it is recommended that future studies improve measurement by including information provided by alternative informants, such as by trained research interviewers, and use multi-method forms of data collection.

It is also important to acknowledge that diverse and heterogeneous ethnic groups within the Latina/o population were treated as a homogenous group. This is another limitation of this study as participants included members of various Latina/o origin groups (e.g., Mexican, Salvadorian, Cuban). Although a majority of the sample was of Mexican origin, sample sizes for the other groups were too small to allow multi-group analyses by national origin group.

Finally, this study employed a cross-sectional design, which precludes making causal inferences and determining how outcomes may change over time. Furthermore, the achieved fit between the hypothesized model and the observed data in the present study does not rule out the possibility that other models might better explain variance in persistence intentions. This study also explored hypothesized relationships through latent



construct design with SEM. Though powerful as a method to test hypotheses at a higher level of abstraction (Kline, 2005), nuanced information about individual indicators is not available.

### **Strengths and Implications for Practice**

The current study has a number of strengths and implications for practice. First, a strength-based paradigm was utilized to explore resilience and other protective factors among Latina/os. With the growing body of literature examining factors influencing Latina/o students' intentions to persist in their educational pursuits, it is important to move towards incorporating cultural strengths that may be encouraged, promoted, and supported when working with this population. Second, the study contributes to the body of literature on Latina/o students by incorporating relevant contextual factors and protective factors in one model of academic persistence intentions. Experiences of discrimination are pervasive and common for Latina/o students; research attending to the effects of such experiences on Latina/o students' higher education outcomes is sparse. Third, this study is the first to examine racial/ethnic microaggressions and sociopolitical development in a model of academic persistence among Latina/o students. Furthermore, mediating effects using these variables were examined. Fourth, original data were collected using community and social media networks to expand recruitment. This recruitment strategy allowed for recruitment of Latina/o students from across the country, expanding the scope of demographics in this study. The model tested in the current study may help shed light on the ways that both adverse and protective factors influence Latina/o students' college experience.

Findings from this study provide several implications for practice, including in the

arenas of education, outreach, and clinical intervention. The study highlights the potential importance of sociopolitical development in facilitating retention. Sociopolitical development may be reinforced and affirmed in such programs as Ethnic Studies and in pedagogy that reflects the history and lived experience of many Latina/os – a vehicle toward critical consciousness. The National Education Association (NEA) argues that Ethnic Studies programs are valuable and serve to improve student achievement and narrow achievement gaps. Ethnic Studies curricula – rooted in intellectual scholarship of culture-specific of often marginalized groups – provides an education that is relevant and meaningful, that affirms ethnic identities and selfhoods, and that works toward human liberation (Hu-DeHart 2004; Rangel, 2007). Greater academic engagement, academic achievement, self-efficacy, sense of community, and personal empowerment are also associated with participation in Ethnic Studies programs (Altschul, Oyserman, & Bybee, 2008; Altschul, Oyserman, & Bybee, 2006; Bean, Valero, Senior, & White, 1999; Brozo & Valero, 1996; Halaga, 2004, 2010; Carter, 2008; Chavous et al., 2003; Copenhaver, 2001; O'Connor, 1997; Vasquez, 2005). Consistent with the study's findings specific to sociopolitical development, Carter (2008) and O'Connor (1997) found that students' critical consciousness of race and racism helped them develop an achievement ideology to navigate a racially hostile environment, and that a strong ethnic identity contributed to their sense of agency and facilitated academic motivation. In light of this, preservation of and Latina/o students' participation in coursework within Ethnic Studies programs may benefit the fostering of sociopolitical development and increase Latina/o students' intentions to persist in academia.

Increasing the multicultural awareness, knowledge, and skills (i.e., multicultural

competence) of faculty and staff (e.g., professors, clinicians) in order to identify and address racial/ethnic microaggressions and their impact on Latina/o students is recommended. This can be accomplished through knowing oneself cognitively and emotionally, and through understanding privilege, oppression, and the sociopolitical influences that affect individuals and groups (Arredondo & Arciniega, 2001; Gallardo, Yeh, Trimble, & Parham, 2012; Goodman, Liang, Helms, Latta, Sparks, Weintraub, 2004; Sue, 2001; Sue, Arredondo, & McDavis, 1992; Vera & Speight, 2003; White & Henderson, 2008). It is important to note that individual factors such as readiness and cultural identity development will influence the effects of multicultural trainings on multicultural competence (Atkinson, Morten, & Sue, 1989; Helms, 1995; Sue & Sue, 1999). Multicultural trainings (e.g., workshops, experiential institutes) can be instrumental to develop greater cultural awareness of self and others, foster ongoing self-examination, raise consciousness, enhance awareness of power dynamics in relationships and systems of ecology, broaden knowledge about sociopolitical factors impacting marginalized groups, cultivate cultural empathy (take perspective of the “other”), and develop cross cultural/intercultural communication skills (Goodman et al., 2004; Sue, 2010; Sue & Sue, 2003). In addition to the traditional multicultural trainings (e.g., workshops), Sue (2010) recommends ongoing active engagement in the process of becoming aware of one’s cultural identities beyond the intellectual exercise, allowing one to tap into and change unconscious and unintentional biases. Faculty and staff would benefit from engaging such processes, as it would enhance their knowledge, awareness, and understanding of racial/ethnic microaggressions, and increase their ability to provide validation to and advocate for Latina/o students. In addition to acquiring knowledge and

awareness, it is valuable for faculty to receive skill-building training on how to respond to students when issues around racial/ethnic microaggressions emerge one-on-one and/or in group settings (e.g., classrooms, seminars) (Gallardo, et al., 2012; Sue, 2010; Sue, et al., 1992; White & Henderson, 2008).

Vera and Speight (2003) argue that multicultural competence cannot be achieved without a commitment to social justice. Over the years, an increasing number of scholars have demonstrated interest in and commitment to social justice, emphasizing the importance of engaging in more systematically social justice work (Blustein et al., 2001; Fouad, 2001; Ivey & Collins, 2003; McWhirter, 1998; Sue, 2001; Vera & Speight, 2003), and articulating ways in which research, training, practice, and professional identities can be transformed through the lens of social justice (Blustein, McWhirter, & Perry, 2005; Goodman et al., 2004; Hage et al., 2007; Speight & Vera, 2004). With this in mind and based on the mentorship findings in the present study, faculty and staff working with Latina/o students should consider the potential usefulness of participating in ongoing multicultural competence trainings and in developing a social justice orientation. Working from a feminist and/or multicultural framework when mentoring Latina/o students would facilitate ways to help their mentees directly address various oppressive conditions in their lives, including racial/ethnic microaggressions (Brabeck, 2000; Brown, 2000). Attention to context, for example, is a cornerstone of feminist and multicultural approaches, which provides an opportunity to conceptualize Latina/os' experiences from a social constructivist perspective (American Psychological Association, 2003; Vasquez, 1994) and assist Latina/o students identify internalized racism and develop positive ethnic group identification and critical consciousness –

protective factors underscored in the present study. In addition, collaborating with students to understand academic-related concerns in the context of their sociopolitical environments may provide opportunities for empowerment (McWhirter, 1998), which may further fuel their intentions to persist in academia.

In addition to faculty and staff executing individual efforts, the present findings also indicate the need for change on a systemic and institutional level. Although Latina/os students' racial/ethnic microaggressions did not directly predict academic persistence intentions, their microaggression experiences indirectly predicted intentions to persist via university environment perceptions. Increasing diversity of faculty and staff across programs/departments is associated with improved campus racial climate and a more culturally inclusive and welcoming university environment (Castellanos & Gloria, 2007; Henderson & White, 2008). Critical to such efforts is recruitment and retention of multiculturally competent and critically conscious faculty and staff, particularly of color (who can also serve as positive role models for Latina/o students). As found in the current study, Latina/o students with strong mentoring relationships are more likely to report more positive perceptions of the university environment (Bordes & Arredondo, 2005) and adjust and persist in academia (Gloria & Kurpius, 2001; Gloria, Kurpius, Hamilton, Willson, 1999; Santos & Reigadas, 2002; Solberg, Valdez, Villareal, 1994). Specifically, mentees of color with mentors of color tend to report more satisfaction and interpersonal comfort than those who do not have mentors sharing their race or ethnicity (Ortiz-Walters & Gilson, 2005; White & Henderson, 2008). Strategically positioning multiculturally competent faculty of color in positions of power may help to begin shifting existing power structures and practices that may serve to reinforce the status quo (Martín-Baró,

1994; Prilleltensky & Nelson, 2002; Speight & Vera, 2004).

Findings also suggest that direct service providers should help Latina/o students increase protective factors. Counselors can help Latina/o students foster social support networks on campus, learn and practice self-care techniques and advocacy skills, and implement healthy coping mechanisms. Providing students with encouragement, skill-modeling, and opportunities to practice skills for responding to microaggressions remains a promising avenue for improving resiliency skills that can help cope with distress associated with racial/ethnic microaggressions. Furthermore, university counseling centers are encouraged to develop outreach programming to promote resilience and provide a safe and empowering space for students to receive validation and affirmation, and process experiences of racial/ethnic microaggressions. Outreach can serve as a preventative intervention by identifying and emphasizing implementation of healthy coping strategies to ameliorate the adverse effects of racial/ethnic microaggressions on mental health and academic and social functioning of Latina/o students.

### **Recommendations for Future Research**

Results of this study have several implications for future research. Future studies should test this model with larger subsamples, and focus on understanding racial/ethnic microaggressions and sociopolitical development for different Latina/o groups (e.g., Cuban, Puerto Rican, Guatemalan, etc.) given the vast heterogeneity of values, practices, and migration patterns among these groups. A longitudinal investigation, using mixed methods research examining racial/ethnic microaggressions and academic persistence among Latina/o students, would provide deeper insight into the kinds of interventions that might be most successful in optimizing the sociopolitical development of Latina/o

students, improving protective factors, and ultimately increasing academic persistence.

Another important avenue for future research includes investigating additional contextual factors that may influence Latina/o students' academic persistence. Level of acculturation, bicultural identity, and immigration status, for example, are salient factors impacting the academic experience of Latina/o students. Also, it would be interesting to measure internalized racism in conjunction with sociopolitical development in order to fully understand the protective nature and mediating effect of sociopolitical development between racial/ethnic microaggressions and academic persistence.

Extant literature on race-related stress and racial discrimination shows that race-related stressors (such as racial/ethnic microaggressions) are associated with psychological distress and lower health outcomes (Fisher, Wallace, & Fenton, 2000; Krieger, 1999; Krieger, 2003; Pierce, 1995; Schur, Bernstein, & Berk, 1987; Snowden, 2005; Sue, 2010; Williams, Neighbors, & Jackson, 2003; Williams & Williams-Morris, 2000), leading to lower academic performance among Students of Color. In light of this research, psychological variables such as depression and anxiety should be included in models of academic persistence. This would provide a more holistic understanding of the effects racial/ethnic microaggressions on the well-being and educational experiences of Latina/o students, facilitating the development of culturally specific counseling interventions for Latina/o students. Similarly, inclusion of other aspects of social support from family such as the concept of *familismo* – support and mutual obligation and loyalty among family members – would add potentially valuable insights into academic persistence models. Current research shows that *familismo* is a salient protective factor, demonstrating that families coped with post-immigration changes by maintaining high

levels of *familismo* and cultural traditions (Bacallao & Smokowski, 2007). Finally, replication of this study with separate samples of undergraduates and graduate students could help shed light on whether those who already persisted through undergraduate degrees differ with respect to relationships among variables.

### **Conclusion**

The present study is the first quantitative examination of racial/ethnic microaggressions among Latina/o students, as well as the first study to test a structural model of academic persistence that includes new contextual variables such as racial/ethnic microaggressions and critical consciousness. Findings revealed that the relationship between racial/ethnic microaggressions and intentions to persist is mediated by protective factors (resilience, mentorship, social support from family and friends); high resiliency, mentorship, and social support from family and friends plays a critical role in the influence of microaggressions on academic persistence. These findings indicate that high levels of resiliency, greater mentorship, and greater social support from family and friends may buffer against the negative effects of racial/ethnic microaggressions on Latina/o students' intentions to persist in academia. In addition, findings demonstrated that sociopolitical development (ethnic identity, critical consciousness) mediates the relationship between racial/ethnic microaggressions and academic persistence, suggesting that Latina/o students' high sociopolitical development may reduce the negative effect of microaggressions on Latina/o students' academic persistence. Findings also provided further evidence to support extant research on the significant influence of perceptions of university environment, social support, mentorship, and ethnic identity on Latina/o students' intentions to persist.



Findings suggest directions for future research aimed at identifying ways to enhance Latina/o students' intentions to persist in academia. By testing this model in additional samples and incorporating additional variables, we may continue to identify points of prevention and intervention in university settings. While the understanding of racial/ethnic microaggressions and sociopolitical development in the context of the academic persistence intentions model is an important part of the move to a more equitable and inclusive educational system, it still remains a *project*. Many of our efforts to address the negative effects of racism (interpersonal and institutional) on the Latina/o community (and population as a whole) revolve around the assumption that if made visible, it will cease to operate. The unique contributions offered by the current study call for a shift to a new level of consciousness and transformation that cannot be created by goodwill alone; it will require structural and institutional support. In the words of Powell (2012) "this is a call to intentionally support the creation of structures informed by and informing our sense of social justice and spirituality. This is a call to become responsible for the institutional structures we inhabit and that inhabit us."

## APPENDIX A

### INFORMED CONSENT

#### **Introduction**

You are invited to participate in a research study conducted by Cynthia Medina, a doctoral candidate in Counseling Psychology at the University of Oregon. The study aims to further understand the influence of various environmental and social experiences on the academic persistence of Latina/o college students. Participation consists of completing an online survey questionnaire that should take approximately 20-25 minutes to complete.

#### **Participation**

Participation in this research study is completely voluntary; you can choose to participate in this study or not. You have the right to discontinue participation at anytime or refuse to participate entirely without penalty. Some of the survey questions are about personal experiences; you do not have to answer any questions that make you uncomfortable.

#### **Confidentiality**

The answers you provide will be strictly confidential and anonymous. Your name will not be listed on the survey. Your survey will be given a number code and your responses will be sent directly to a password-protected database, accessible only to the primary researchers.

Results from this study may be published in a professional journal or government grant application, but you will not be identified as an individual. Instead, results will be reported in an aggregate format (by reporting only combined results and never reporting individual ones).

#### **Risks/Discomforts**

Participation is not expected to cause any harm outside of what is normally encountered in daily life. In the rare event that you become upset or offended by a question, you may choose to skip it.

#### **Benefits**

There are no direct benefits for participants. However, you may enjoy knowing that you will be contributing to knowledge that can help improve programs that help promote the well-being, educational experiences, and academic retention of Latina/o college students.

#### **Compensation**

There is no direct compensation, however, as a token of appreciation for completing the survey, you will be given an opportunity to enter a raffle to win 1 of 10 \$40 gift cards to a store of your choice (iTunes, Target, Forever 21, DSW Shoes, Macy's, or Starbucks). To enter the raffle, you will provide your name and contact information so that you can be mailed the gift card (if you win the raffle). Your name and contact information will be provided on a separate page and will not be linked to your survey responses. The gift card awards will be selected after data collection is complete and the winners will be notified by email.

#### **Questions about the Research**

If you have any questions regarding this study, you may contact me, Cynthia Medina at [cmedina@uoregon.edu](mailto:cmedina@uoregon.edu), or my faculty advisor, Dr. Ellen H. McWhirter at [ellenmcw@uoregon.edu](mailto:ellenmcw@uoregon.edu).

**Questions about your Rights as Research Participants**

If you have any questions/concerns regarding your rights as a research participant, you can contact the Office for Protection of Human Subjects, University of Oregon, Eugene, OR 97403, (541) 346-2510. This office oversees the review of research to protect your rights and is not involved with this study.

You may print this page to retain for your records.

## APPENDIX B

### DEMOGRAPHIC QUESTIONNAIRE

Thank you for filling out this survey that examines your thoughts about your educational experiences. Do not spend a lot of time on each question. Please base your responses on your opinion at the present time.

**Gender:** \_\_\_\_\_ **Age:** \_\_\_\_\_ **Ethnicity:** \_\_\_\_\_

**Cumulative GPA:** \_\_\_\_\_ **Are you a transfer student? YES / NO**

**Name of Current institution:** \_\_\_\_\_ **Current State of Residence:** \_\_\_\_\_

**Country of origin (where were you born?):** \_\_\_\_\_

**How old were you when you began living in the U.S.?**

- I was born in the U.S.
- Six years of age or younger
- Between age 7 and 17
- After the age of 18

**Relationship Status: Currently, I am (please check all that apply):**

- Single and NOT dating anymore
- Single and dating one person
- Single and dating more than one person
- In a relationship (6 months or less)
- In a relationship (long-term; 6 months or more)
- Co-habiting with my partner/boyfriend/girlfriend
- Married
- Separated
- Divorced
- Widowed

**Class Standing:**

- Freshman
- Sophomore
- Junior
- Senior
- Graduate student
- Law student
- Professional student
- other \_\_\_\_\_

**Where do you live?**

- on-campus housing
- off-campus housing with friends
- off-campus housing with family
- other \_\_\_\_\_

**What degree are you currently working toward?**

- Associate of Arts
- Bachelor of Arts or Science
- Master of Arts, Master of Science, or other master's
- MBA
- J.D (Law)
- M.D. (Medicine)
- Ph.D. or Ed.D.
- Other: \_\_\_\_\_

**Have you been continuously enrolled since you began the degree you are currently working toward? YES / NO**

If no, how many terms did you stop out of school? \_\_\_\_\_

**I am confident that I will complete the degree that I am currently working toward:**

- |  |   |
|--|---|
| <input type="checkbox"/> Strongly Disagree | <input type="checkbox"/> Strongly Agree |
| <input type="checkbox"/> Disagree          | <input type="checkbox"/> Agree          |
| <input type="checkbox"/> Slightly Disagree | <input type="checkbox"/> Slightly Agree |

**How likely is it that you will drop out of college before you complete your degree?**

- |  |  |
|--|--|
| <input type="checkbox"/> Very Unlikely     | <input type="checkbox"/> Somewhat Unlikely |
| <input type="checkbox"/> Unlikely          | <input type="checkbox"/> Likely            |
| <input type="checkbox"/> Somewhat Unlikely | <input type="checkbox"/> Very Likely       |
| <input type="checkbox"/> Undecided         |  |

**What is the highest academic degree you expect to earn?**

- Associate of Arts
- Bachelor of Arts or Science
- Master of Arts, Master of Science, or other master's
- MBA
- J.D (Law)
- M.D. (Medicine)
- Ph.D. or Ed.D.
- Other: \_\_\_\_\_

**Which College are you affiliated with?**

- College of the Arts
- College of Biological Sciences
- College of Business
- College of Education
- College of Engineering
- College of Human Ecology
- College of Humanities
- College of Mathematical & Physical Sciences
- College of Social Work
- College of Social and Behavioral Sciences
- Undeclared
- Other: \_\_\_\_\_

**Which of the following attended college:**

- |  |  |
|--|--|
| <input type="checkbox"/> Both parents/Guardians attended college | <input type="checkbox"/> Other Guardian attended college |
| <input type="checkbox"/> Mother/Female Guardian attended college | <input type="checkbox"/> None of the above               |
| <input type="checkbox"/> Father/Male Guardian attended college   | <input type="checkbox"/> Other, please specify:          |

**Have any of your siblings attended college? \_\_\_\_\_**

**How do you finance your education? (check all that apply)**

- Work part-time                       Family                       Scholarship  
 Work full-time                       Student loans                       Personal savings  
 Other \_\_\_\_\_

**What is your family income?**

- Less than \$10,000  
 \$10,000-\$19,000  
 \$20,000-\$29,000  
 \$30,000-\$39,000  
 \$40,000-\$49,000  
 \$50,000-\$59,000  
 \$60,000-\$69,000  
 \$70,000-\$79,000  
 \$80,000-\$89,000  
 \$90,000-\$99,000  
 \$100,000 & Above  
 Other \_\_\_\_\_

**Which of the following were born in the U.S.?**

- Self  
 Mother  
 Father  
 Maternal grandparents  
 Paternal grandparents  
 Maternal great-grandparents  
 Paternal great-grandparents  
 None of the above were born in the U.S.

## APPENDIX C

### RACIAL AND ETHNIC MICROAGGRESSIONS SCALE-45 (REMS-45)

Instructions: Think about your experiences with race. Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

- 0 = I did not experience this event.  
1 = I experienced this event 1 time in the past six months.  
2 = I experienced this event 2 times in the past six months.  
3 = I experienced this event 3 times in the past six months.  
4 = I experienced this event 4 times in the past six months.  
5 = I experienced this event 5 or more times.

1. I was ignored at school or at work because of my race.
2. Someone's body language showed they were scared of me, because of my race.
3. Someone assumed that I spoke a language other than English.
4. I was told that I should not complain about race.
5. Someone assumed that I grew up in a particular neighborhood because of my race.
6. Someone avoided walking near me on the street because of my race.
7. Someone told me that she or he was colorblind.
8. Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways, buses) because of my race.
9. Someone assumed that I would not be intelligent because of my race.
10. I was told that I complain about race too much.
11. I received substandard service in stores compared to customers of other racial groups.
12. I observed people of my race in prominent positions at my workplace or school.
13. Someone wanted to date me only because of my race.
14. I was told that people of all racial groups experience the same obstacles.
15. My opinion was overlooked in a group discussion because of my race.
16. Someone assumed that my work would be inferior to people of other racial groups.
17. Someone acted surprised at my scholastic or professional success because of my race.
18. I observed that people of my race were the CEOs of major corporations.
19. I observed people of my race portrayed positively on television.
20. Someone did not believe me when I told them I was born in the US.
21. Someone assumed that I would not be educated because of my race.
22. Someone told me that I was "articulate" after she/he assumed I wouldn't be.

23. Someone told me that all people in my racial group are all the same.
24. I observed people of my race portrayed positively in magazines.
25. An employer or co-worker was unfriendly or unwelcoming toward me because of my race.
26. I was told that people of color do not experience racism anymore.
27. Someone told me that they “don’t see color.”
28. I read popular books or magazines in which a majority of contributions featured people from my racial group.
29. Someone asked me to teach them words in my “native language.”
30. Someone told me that they do not see race.
31. Someone clenched her/his purse or wallet upon seeing me because of my race.
32. Someone assumed that I would have a lower education because of my race.
33. Someone of a different racial group has stated that there is no difference between the two of us.
34. Someone assumed that I would physically hurt them because of my race.
35. Someone assumed that I ate foods associated with my race/culture every day.
36. Someone assumed that I held a lower paying job because of my race.
37. I observed people of my race portrayed positively in movies.
38. Someone assumed that I was poor because of my race.
39. Someone told me that people should not think about race anymore.
40. Someone avoided eye contact with me because of my race.
41. I observed that someone of my race is a government official in my state
42. Someone told me that all people in my racial group look alike.
43. Someone objectified one of my physical features because of my race.
44. An employer or co-worker treated me differently than White co-workers.
45. Someone assumed that I speak similar languages to other people in my race.



## APPENDIX D

### UNIVERSITY ENVIRONMENT SCALE (UES)

Indicate the extent to which you have experienced the feeling or situation at school. Use the following ratings:

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. \*Class sizes are so large that I feel like a number.
2. The library staff is willing to help me find materials/books.
3. University staff have been warm and friendly.
4. \*I do not feel valued as a student on campus.
5. \*Faculty have not been available to discuss my academic concerns.
6. Financial aid staff have been willing to help me with financial concerns.
7. The university encourages/sponsors ethnic groups on campus.
8. There are tutoring services available for me on campus.
9. The university seems to value minority students.
10. Faculty have been available for help outside of class.
11. \*The university seems like a cold, uncaring place to be.
12. Faculty have been available to help me make course choices.
13. \*I feel as if no one cares about me personally on this campus.
14. I feel comfortable in the university environment.

*\*Items are reverse coded.*

## APPENDIX E

### CONNOR-DAVIDSON RESILIENCE SCALE (CD-RISC)

Please indicate how much you agree or disagree with the following statements as they apply to you over the last **month**. If a particular situation has not occurred recently, answer according to how you think you would have felt. Use the following ratings:

---

Not True at All	Rarely True	Sometimes True	Often True	True Nearly All the Time
0	1	2	3	4

---

- 
1. I am able to adapt when changes occur.
  2. I have at least one close and secure friendship, which helps me when I am stressed.
  3. When there are no clear solutions to my problems, sometime fate or God can help.
  4. I can deal with whatever comes my way.
  5. Past successes give me confidence in dealing with new challenges and difficulties.
  6. I try to see the humorous side of things when I am faced with problems.
  7. Having to cope with stress can make me stronger.
  8. I tend to bounce back after illness, injury, or other hardships.
  9. Good or bad, I believe that most things happen for a reason.
  10. I give my best effort no matter what the outcome may be.
  11. I believe I can achieve my goals, even if there are obstacles.
  12. Even when things look hopeless, I don't give up.
  13. During times of stress/crisis, I know where to turn for help.
  14. Under pressure, I stay focused and think clearly.
  15. I prefer to take the lead in solving problems, rather than letting others make all the decisions.
  16. I am not easily discouraged by failure.
  17. I think of myself as a strong person when dealing with life's challenges and difficulties.
  18. I can make unpopular or difficult decisions that affect other people, if it is necessary.
  19. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.
  20. In dealing with life's problems, sometimes you have to act on a hunch, without knowing why.
  21. I have a strong sense of purpose in life.
  22. I feel in control of my life.
  23. I like challenges.
  24. I work to attain my goals, no matter what roadblocks I encounter along the way.
  25. I take pride in my achievements.

## APPENDIX F

### MENTORING SCALE (MS)

Indicate the extent to which you agree or disagree with each statement. Use the following ratings:

---

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

---

**There is someone in my life who...**

1. ... I can identify as my mentor.
2. ... cares about my educational success.
3. ... I can identify with as a role model.
4. ... has been encouraging of me.
5. ... has taken me "under their wing."

## APPENDIX G

### MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS)

Use the ratings below to indicate how you feel about each statement.

---

Very Strongly Strongly Disagree 1	Strongly Disagree 2	Mildly Disagree 3	Neutral 4	Mildly Agree 5	Strongly Agree 6	Very Agree 7
--	---------------------------	-------------------------	--------------	----------------------	------------------------	--------------------

---

1. There is a special person who is around when I am in need.
2. There is a special person with whom I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort to me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

## APPENDIX H

### MULTIGROUP ETHNIC IDENTITY MEASURE-REVISED (MEIM-R)

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latina/o, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Please fill in: In terms of ethnic group, I consider myself to be \_\_\_\_\_

My ethnicity is

- (1) Asian or Asian American, including Chinese, Japanese, and others
- (2) Black or African American
- (3) Hispanic or Latino, including Mexican American, Central American, and others
- (4) White, Caucasian, Anglo, European American; not Hispanic
- (5) American Indian/Native American
- (6) Mixed; Parents are from two different groups
- (7) Other (write in): \_\_\_\_\_

My father's ethnicity is (use numbers above)

My mother's ethnicity is (use numbers above)

Use the numbers below to indicate how much you agree or disagree with each statement.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.

2. I am active in organizations or social groups that include mostly members of my own ethnic group.

3. I have a clear sense of my ethnic background and what it means for me.

4. I think a lot about how my life will be affected by my ethnic group membership.

5. I am happy that I am a member of the group I belong to.

6. I have a strong sense of belonging to my own ethnic group.

7. I understand pretty well what my ethnic group membership means to me.

8. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.

9. I have a lot of pride in my ethnic group.

10. I participate in cultural practices of my own group, such as special food, music, or customs.

11. I feel a strong attachment towards my own ethnic group.

12. I feel good about my cultural or ethnic background.

## APPENDIX I

### CRITICAL CONSCIOUSNESS FOR LATINA/O STUDENTS MEASURE

#### (CCLSM)

Indicate the extent to which you agree or disagree with each statement. Use the following ratings:

---

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

---

1. Racism and discrimination affect Latina/os today.
2. Racism and discrimination affect my own life today.
3. It is important to work to change social and economic unfairness.
4. It is important to help people in my [the Latina/o] community.
5. It is important to work to end racism and discrimination.
6. I am motivated to try to help the Latina/o community.
7. I am motivated to try to end racism and discrimination.
8. I discuss current economic and political events with my parents or other family.
  
9. I currently am involved in community or school groups that promote equality and fairness.
10. I currently am involved in community or school groups that promote an end to racism and discrimination.

## APPENDIX J

### STUDENT INTENTION CERTAINTY SCALE (SICS)

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

1. It is likely I will re-enroll at this college next semester.
2. I intend to obtain my college degree.
3. I am satisfied with the decision to obtain my college degree.
4. I am committed to obtain my college degree despite the many obstacles I am likely to face.
5. \*I frequently think about dropping out of college.
6. \*If I won the lottery today, I would quit college.
7. \*If I was offered a high-paying job today, I would quit college.
8. I am certain I will obtain my degree no matter what obstacles I may face.
9. I intend to complete my college degree at this college.
10. \*My family and school values often conflict.
11. Given my ethnic background, I feel accepted at school.
12. Given my ethnic background, I feel as if I belong at school.
13. I can talk to my family about my struggles and concerns at school.

*\*Items are reverse coded*

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