

Exploring Psychosociocultural Processes within Mentoring Relationships that Influence
Academic Persistence Decisions for Latina/o Undergraduates: A Mixed Methods Approach

By

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DEDICATION

To my mentors who saw my potential, thank you for your encouragement to pursue this journey.

To my mentees who fueled my passion, thank you for your unwavering support to finish.

To my *familia* who was my emotional support everyday since I left home at age 18 to pursue my dreams, thank you for your unconditional love, support, and motivation to the very end.

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¡Sí, lo hicimos!
(Yes, we did!)

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ABSTRACT

Latina/os now comprise the largest racial ethnic minority group in the United States and as a result, universities are seeing an increase in Latina/o undergraduate enrollment. However, nearly 1 in 3 Latina/o students do not persist to complete their college education (Radford, Berkner, Wheelless, & Shepherd, 2010). There are Latina/o undergraduates who do succeed, persist, and ultimately graduate and in particular, mentorship has been shown to positively influence their academic persistence (Gloria & Castellanos, 2012; Hernandez, 2000).

This mixed methods study first examined how self-beliefs, comfort in the university environment, and being mentored influenced academic persistence decisions for 153 Latina/o undergraduates attending a predominantly White university in the Midwest through a quantitative survey analyzing data via group mean differences in variables, correlation of variable sets, and predictive statistics. To further explore the construct of mentorship, a subset sample of 19 Latina/o undergraduates provided in-depth qualitative interviews about their mentorship experiences.

Participants were either mentored by peers (i.e., upper-division undergraduates), staff (i.e., graduate students, academic staff, administrators), or faculty mentors on a week, month, or semester basis. For the quantitative portion of the study, the vast majority of participants (96.1%) indicated that their mentor helped them persist in college. Students experienced significant differences by frequency of mentor contact (i.e., very frequently vs. frequently vs. infrequently) in that those students who had contact with their mentor on a semester basis felt less mentor support than those students who had contact with their mentor on a weekly or monthly basis. Furthermore, there was no difference in sense of mentor support between those students who had weekly or monthly contact with their mentor. Across mentor type, university comfort and self-

beliefs variable set had significant relationships in that for participants with peer mentors, higher university comfort and higher cultural congruity were strongly associated with educational self-efficacy. For participants with staff mentors, higher university comfort and higher cultural congruity were strongly associated with both self-efficacy and self-esteem. And for participants with faculty mentors, higher university comfort was strongly associated with self-esteem. Each of the study's variables collectively accounted for 31% of the variance of academic persistence decisions, with university comfort serving as the single strongest predictor.

Using the psychosociocultural framework (Gloria & Rodriguez, 2000) to explore mentorship experiences, emergent themes were identified within the domains of the Undergraduate Mentoring Model (Nora & Crisp, 2007) and academic persistence. First, the psychological/emotional support domain emerged as "I have a someone who gets it...gets me." Second, the goal setting and career paths domain emerged as "Imagining possibilities." Third, the academic subject knowledge support domain emerged as "This is how you work the system." Finally, the role model domain emerged as "I have someone I can relate with and look up to." An additional domain of academic persistence emerged as "I have someone who believes in me, encourages me, and motivates me to not give up."

The study's findings are discussed along with limitations and directions for future research, and concludes with implications for individuals who mentor Latina/o undergraduates and universities wanting to implement mentoring programs.

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CHAPTER I

Introduction

In response to the increasing influence on undergraduates' experiences and outcomes mentorship has had within institutions of higher education, the current study both examines and explores mentorship through a mixed methods design to increase a greater understanding of mentoring, specifically with Latina/o undergraduates. The chapter begins with the statement of the problem, followed by an examination of Latina/os and education in the United States, with an additional section understanding the Latina/o achievement gap in higher education, and concludes with the aims of the current study.

Statement of the Problem

Between 2000 and 2010, Latina/os accounted for over half (56.0%) of the total population growth within the United States (Pew Hispanic Center, 2011) and remain the fastest growing population of any racial group (Marotta & Garcia, 2003). According to a recent 2010 census brief (Humes, Jones, & Ramirez, 2011), Latina/os comprise 16.3% of the total U.S. population; surpassing African Americans (12.6%) as the largest racial ethnic minority (REM) group, yet fall behind the White (63.7%) population. However, it is projected that there will be a drastic shift in racial and ethnic composition by the year 2050, wherein nearly one out of every three (30.2%) persons living in the United States will be of Latina/o heritage (U.S. Census Bureau, 2009).

Recognizing the economic and educational impact expected from a Latina/o population that will likely double in the next four decades, President Barack Obama signed an executive order in October 2010, renewing the dissolved White House Initiative on Educational Excellence for Hispanics (WHIEEH). In particular, the executive order highlighted that approximately half

of all Latina/o students earn their high school diploma on time and of those who do complete high school, only half are likely to be as prepared for college as their White peers (U.S. Department of Education, 2011). The most recently published Current Population Survey (CPS) reported an even bleaker number regarding higher education outcomes, wherein just 15.5% of Latina/os have a bachelor's degree and only 4.7% have completed advanced degrees, compared to their White counterparts who are twice as likely (36.2%) to have a bachelor's degree and nearly three times as likely (13.5%) to have an advanced degree (Ryan & Bauman, 2016). Given these statistics, Young, Lakin, Courtney, and Martiniello (2012) described the current state of education for Latina/o students in the United States at a "crisis point." With national attention on improving education for the Latina/o community as a top priority of the current presidential administration, critical analysis of Latina/o students' educational experience is warranted, specifically examining how strength-based factors such as mentoring influence academic persistence for Latina/o undergraduates.

This chapter provides an overview of Latina/o undergraduates' educational experiences with particular emphasis as to what factors influence academic persistence decisions. Although institutions of higher education are becoming more reflective of the increasingly diverse U.S. population, there remains a substantial achievement gap between REM students, specifically Latina/os and their White counterparts (Aud, Fox, & KewalRamani, 2010). Within the higher education literature, academic persistence decisions along the educational pipeline are often examined using deficit models (Oseguera, Locks, & Vega, 2009), blaming the individual for a lack of academic preparation or aptitude rather than recognizing the environmental barriers and challenging campus climate (Castellanos & Gloria, 2007; Castillo, Conoley, Choi-Pearson, Archuleta, Phoummarath, & Van Landingham, 2006; Gloria et al., 2005a; Hurtado & Carter,

1997; Hurtado & Ponjuan, 2005). In explaining this educational and societal phenomenon, Gloria and Rodriguez (2000) proposed the psychosociocultural (PSC) framework, which considers the complex interdependence of psychological (e.g., self-concept), social (e.g., relationships), and cultural (e.g., values) factors within the context of the university setting that influences Latina/o students' educational experiences. The current study situates Latina/o undergraduates' experiences within the PSC framework and explores strength-based factors, specifically mentoring, that influence their academic persistence decisions.

Latina/os and Education in the United States

When examining the educational pipeline, there appears to be a general concern of Latina/o attrition rates on many levels. With the increase in total Latina/o U.S. population, the number of Latina/o enrollment in secondary education has also increased. According to the U.S. Department of Education, Latina/o enrollment in public secondary schools increased from 12.7% in 1993 to 21.5% in 2008 (Aud et al., 2011), which parallels an increase in the number of Latinas/os ages 19 and younger who comprise over one-third (38.1%) of the total Latina/o population (U.S. Census Bureau, 2009). Despite the increased enrollment, a Current Population Survey (CPS) reported that Latina/o youth had the highest high school dropout rate (15.1%) compared to African Americans (8.0%), Whites (5.1%), and the overall national average (7.4%) in 2010 among persons 16 to 24 years old (Aud et al., 2012). Although the Latina/o high school dropout rate had decreased from 25% in 1997 to 15.1% in 2009 (Aud et al., 2012), the disconcerting fact that Latina/o students are three times as likely to dropout or stop-out of high school than their White counterparts remains an alarming phenomenon (Fuentes, 2006). High attrition rates at the high school level may negatively influence enrollment at the college level

because if Latina/o students are not obtaining a high school diploma or its equivalent, they are less likely to attend post-secondary education (Swail, Cabrera, & Lee, 2004).

Somewhat reflective of the U.S. population, undergraduate enrollment in the fall 2014 semester was highest for White students (55.4%), followed by Latina/o (17.1%), Black (14.0%), Asian (6.2%), and American Indian (0.8%) students (National Center for Education Statistics [NCES], 2016). For retention rates, the national data is even bleaker for REMs and specifically Latina/os. In a national study representing nearly four million undergraduate students who were first-time postsecondary beginners in the 2003-2004 academic school year (Radford, Berkner, Wheelless, & Shepherd, 2010), Black and Latina/o students had just over a one-third retention rate at the end of six years (34.8% and 36.1%, respectively). In contrast, White students' retention rate was 54.8% after six years, while Asian students had the highest retention rate (60.0%) out of any racial group (Radford et al., 2010).

However, when examining degree conferrals, there is a drastic change in representation. According to recent publication reporting degree conferrals during the 2009-2010 academic year, White students were overrepresented with almost three-fourths of degrees conferred (72.9%), while Black, Latina/o, Asians, and American Indian students' degree conferrals were 10.3%, 8.8%, 7.3%, and 0.8%, respectively (Aud et al., 2012). Despite the increased total Latina/o U.S. population and enrollment in both secondary and postsecondary education, both retention and graduation rates for Latina/os in institutions of higher education have not increased at the same explosive rate, thus leading to an achievement gap in higher education.

Understanding the Latina/o Achievement Gap in Higher Education

When understanding the achievement gap between Latina/o and White students, it is important to understand the context of the achievement gap in public education. Following the

Civil Rights Act of 1964, a report known as the “Coleman Report” sought to understand the critical factors relating to the education of REM students at every level of education in public institutions in the United States, its territories, and the District of Columbia (Coleman et al., 1966). In this seminal report, researchers found that the composition of a school (i.e., who attends), the students’ sense of control of the environments and their futures, the teachers’ verbal skills, and their family background (e.g., language and socioeconomic status) all contributed to student achievement, which ultimately brought attention to racial inequalities in student outcomes (Coleman et al., 1966).

Years after the Coleman Report, researchers continue to use a narrow, static definition of the achievement gap relying heavily on standardized test scores to measure changes in the achievement gap between White and REM populations (Campbell, Hombo, & Mazzeo, 2000; Jencks & Phillips, 1998; Jones, 1984; Kober, 2001; Lee, 2002). For example, in one of the most cited but controversial studies examining REM achievement gaps, Lee (2002) measured the achievement gap solely by national average test-score differences between REM groups and their White counterparts based on the National Assessment of Educational Progress (NAEP) and Scholastic Aptitude Test (SAT) results. However, scholars questioned whether these assessments do, or even can, provide an accurate measure of a student’s proficiency. For instance, Rothstein (2004) pointed out the difficulty in defining the concept as he stated, “Proficiency...is not an objective fact but a subjective judgment” and that the federal government’s own studies have labeled the NAEP proficiency levels as “fundamentally flawed” (p. 88). Instead, Rothstein (2004) suggested that noncognitive skills, including pro-social behavior, leadership, and persistence are often as powerful as cognitive skills in shaping adult success, and consequently should be a strong focus in formal schooling.

As such, a broader definition of achievement gap that encompasses academic persistence decisions measured through both cognitive and noncognitive factors will be used for this study. The trend to measure the achievement gap more inclusively was evident even among the largest U.S. association of education research. In her presidential address to the American Education Research Association, Gloria Ladson-Billings cited the National Governors' Association definition of "the achievement gap" as a gap in academic achievement between minority and disadvantaged students and their White counterparts across the U.S. (Ladson-Billings, 2006). Thus, this broader definition allows for examination into both cognitive and noncognitive factors that impact academic persistence of Latina/o students at the collegiate level.

When examining the achievement gap in regard to most current statistics such as college degree enrollment, retention, and ultimate graduation rates, Latina/o undergraduates show mixed results. For example, the Pew Hispanic Center reported that Latina/o students experienced a single-year 24% increase in college enrollment from 2009 to 2010 (Fry, 2011). The surge in enrollment for Latina/o students was largely within the community college population; however, at 4-year institutions the gap between Latina/o students and White students continues to rise (Fry, 2005).

Despite the increase in enrollment, the other two educational gaps (i.e., retention and graduate rates) for Latina/o undergraduates have shown the stagnant growth in recent years. The national 2004/09 Beginning Postsecondary Students Longitudinal Study (BPS:04/09) followed a cohort of first-time postsecondary students to investigate if they earned degrees after starting at 4-year institutions of higher education (Radford et al., 2010). The longitudinal study reported a stark difference in educational outcomes (i.e., earned bachelor's degree attainment after four years) between Latino/a students (41.5%) compared to their White peers (62.6%). Finally, the

data from the national longitudinal study also revealed that nearly 1 in 3 Latina/o students would not persist to complete their college education (Radford et al., 2010). Hernandez and Lopez (2004) described this phenomenon as the “leaking educational pipeline that Latino college students are falling through,” which in turn “is a growing concern for higher education” (p. 54).

Although there is no question to the existence of a leaking educational pipeline (i.e., achievement gap) for Latina/o students in higher education, equally important is the exploration of why and how this achievement gap manifests so pervasively for Latina/o undergraduates. There has been a growing literature base exploring the educational experiences of Latina/o students in higher education. Specifically, existing literature on Latina/o educational experiences in higher education has identified academic preparation (Fry, 2004; Longerbeam, Sedlacek, & Alatorre, 2004; Quintana, Vogel, & Ybarra, 1991; Zurita, 2004), self-efficacy (Gloria et al., 2005a; Torres & Solberg, 2001), finances (Cabrera, Nora, & Casteñada, 1992; Phinney, Dennis, & Gutierrez, 2005; Quintana et al., 1991; Torres, 2006), social support (Bordes, Sand, Arredondo, Robinson Kurpius, & Dixon Rayle, 2006; Gloria, 1997; Gloria et al., 2005a; Rodriguez, Mira, Morris, & Cardoza, 2003), campus climate (Hurtado, 1992; Hurtado, 1994; Hurtado & Carter 1997), involvement (Astin, 1984; Delgado-Romero & Hernandez, 2002; Hernandez, 2000; Mayo, Murguia, & Padilla, 1995; Tinto, 1993) and mentorship (Gloria & Castellanos, 2012; Gloria et al., 2005a; Hernandez, 2000) that has all influenced college persistence decisions.

Each element has a role and function within the context of higher education for Latina/o students; however, the process of mentoring is one in particular that warrants examination. In recent years, mentoring has been proven to positively influence Latina/o undergraduates’ persistence decisions and educational experiences (Bordes & Arredondo, 2005; Bordes-Edgar,

Arredondo, Robinson Kurpius, & Rund, 2011; Gloria et al., 2005a; Torres & Hernandez, 2009-2010; Torres Campos et al., 2009). Furthermore, those Latina/o students who are mentored are more likely to succeed academically than those who are not (Gandara, 1995). Therefore, the current study focuses and emphasizes the role and processes of mentoring for Latina/o students. As such, these processes are further explored within the literature review of Chapter II.

Aims of the Research Study

Both the cognitive and noncognitive factors influencing educational experiences led to exploring reasons why and how a “leaking educational pipeline” exists nationally for Latina/o students in higher education. However, rather than using a deficit perspective that blames and places the onus on the individual student (Rendón, Jalomo, & Nora, 2000), the current study sought to explore the narratives and experiences from a holistic and strength-based approach to understand academic persistence processes. Despite daunting undergraduate attrition rates, there are Latina/o students who do succeed, persist, and ultimately graduate from colleges and universities across the country. In particular, a growing literature base of mentorship has been empirically shown to positively influence academic persistence decisions (Gloria & Castellanos, 2012; Hernandez, 2000). However, there remains a gap in the literature as to what specific factors within mentoring relationships, as well as differing types of mentoring relationships, facilitate growth and persistence for Latina/o undergraduates.

Therefore, the aim of the study was both an examination and exploration of specific facilitating variables within the mentoring relationship using a psychosociocultural framework (Gloria & Rodriguez, 2000) that ultimately influences Latina/o undergraduates’ academic persistence decisions. It was anticipated that through a mixed methods approach, the study would yield a greater understanding of mentoring Latina/o undergraduates and would provide specific

directives to university personnel (e.g., faculty and staff) as well as student peers (e.g., upperclassmen) who may mentor undergraduates and additional policy recommendations for universities.

CHAPTER II

Literature Review

This chapter presents an overview of Latina/o undergraduates' educational experiences as they relate to academic persistence. First, an in-depth review of the varying constructs influencing educational experiences is presented. As mentioned in Chapter I, there has been a strong empirical base of literature on the varying constructs influencing academic persistence for Latina/os in higher education, which are explored in-depth in this chapter. After examination of the constructs, the major theories within the academic persistence literature are presented. Next, a discussion of the psychosociocultural (PSC) framework developed by Gloria and Rodriguez (2000) as a means to assess holistically students' educational experiences is presented. Specifically, the construct of mentorship is examined through the PSC lens to explore mentoring relationships as a means to influence academic persistence decisions. Finally, the chapter concludes with an outline of the study's goals, research questions, and hypotheses.

Terminology

To begin, specific terms that will be used throughout the dissertation are reviewed. Specifically, the terms *Hispanic*, *Latino*, *Latina*, *Latina/o*, *retention*, *attrition*, and *persistence* are defined and briefly discussed. Additionally, the rationale of the study's targeted population is presented.

Latina/o and Hispanic group racial identification. Latina/os have been described as one of the most heterogeneous racial groups; therefore, researchers continue to assert the need to avoid generalization of Latina/os as a singular group (Suárez-Orozco & Pérez, 2002). Furthermore, Hernandez and Lopez (2004) emphasized the need to take into account the regional, generational, ethnic, and gender dimension that Latina/os bring to a university context.

Hispanic. Often used interchangeably with *Latino*, the term *Hispanic* was created by the United States Bureau of Census to categorize all people with an ancestral Spanish language origin during the 1970s census (Rodriguez, 2000). However, Comas-Díaz (2001) contends that the term *Hispanic*, which is often referred to all Spanish speakers collectively, is in fact, “an example of identity imperialism...is inaccurate, incorrect, and often offensive as a collective name for all Spanish speakers or Latino” (p. 116). According to Jones and Castellanos (2003), many groups reject the term *Hispanic* and in particular, the college student population often prefers the term *Latino* rather than *Hispanic*.

Latino, Latina, and Latina/o. The term *Latino* refers to persons with ancestry traced back to Latin American countries in the Western hemisphere irrespective of language, culture, or race (Hayes-Bautista & Chapa, 1987). *Latino* can represent either the total population or a singular male. In contrast, *Latina* is used to represent the singular female equivalent. The current study uses *Latina/o* (i.e., both female and male) to represent the studied population.

Differentiation of college student departure. Within the higher education literature base, early theorists have used the terms *student departure*, *retention*, *attrition*, *voluntary withdrawal*, and *dropout* interchangeably to describe a student’s decision to discontinue his or her educational pursuit towards a higher education degree. Recent scholars have recognized the need for a differentiation among these terms as well as the inclusion of the process (i.e., *persistence*) in which both a student’s individual characteristics and background as well as the institutional environment form the basis of a student’s decision to persist or not persist. Specifically, Reason (2009) conducted a comprehensive literature review of the forces impacting undergraduate student persistence that has provided much of the clarification on the terms most commonly used throughout the current study, which are outlined below.

Retention. Described as an organizational phenomenon, *retention* is a college or university's ability to maintain or keep (i.e., retain) students. Institutional *retention rates* are then the percentage of students in a specific cohort who are retained (Reason, 2009).

Attrition. *Attrition* is described as a longitudinal process in which a student makes the decision to withdraw from a college or university (Bean, 1982). Institutional *attrition rates* are the percentage of students in a specific cohort who discontinue enrollment.

Graduation. *Graduation* occurs once a student has completed all requirements to obtain a degree. Therefore, *graduation rates* are the percentage of students in a specific cohort who obtained a conferred institutional degree.

Persistence. Rather than an organizational phenomenon, *persistence* is an individual phenomenon, that is, "students persist to a goal" (Reason, 2009, p. 660). For the purpose of the current study, persistence is primarily used to describe the process by which a undergraduate student strives toward their educational goal to complete their undergraduate degree.

Targeted Population

Based on both racial identification and students' process in obtaining an undergraduate degree, individuals who self-identify as having Latina/o heritage, attend one of four identified public 4-year institutions in the Midwest, and who participate in a mentoring experience will serve as the targeted population for the current study.

Academic Persistence for Latina/os in Higher Education

According to a recent report by the Pew Hispanic Center, Latina/o high school graduates surpassed their White counterparts in college enrollment, with a record seven-in-ten (69%) Latina/o high school graduates enrolling in post-secondary education compared to 67% of their White peers (Fry & Taylor, 2013). Although this is one of the first statistical findings to

demonstrate a narrowing of the long-standing achievement gap between Latina/o and White students, there remain critical gaps in a number of key higher education outcome measures. For example, the same Pew Hispanic Report stated that despite their gain in college enrollment, Latina/o undergraduates are less likely to enroll (56%) in a four-year university than their White peers (72%) and are less likely to complete a bachelor's degree (Fry & Taylor, 2013). Utilizing a noncognitive approach to understand Latina/o students' educational challenges, the following sections will examine personal challenges, environmental factors, and involvement factors that influence the persistence decisions of Latina/o in higher education and will conclude examining two additional noncognitive factors (i.e., financial stress and acculturation stress) that often influences Latina/o undergraduates' educational experiences.

Cognitive vs. Noncognitive Approach to Educational Challenges

Early research in higher education previously focused on a person-centered approach with specific attention given to cognitive skills and academic achievement rather than exploring social or contextual factors influencing academic success and retention of undergraduates. For racial ethnic minority students, particularly Latina/o students, negotiating the academic environment including the potential contextual and institutional barriers might impede their goal of obtaining a college degree. Empirical higher education literature focused on retention often cited that the individual student lacked certain attributes, skills, and motivation, thus prompting them to drop out of college (Tinto, 2006).

By the 1970s, a new wave of understanding retention began to emerge that included a broader perspective by taking into account the role of the environment and institution (Tinto, 2006). Researchers began to find that traditional measures of academic achievement did not fully explain persistence, citing that high school rank, high school GPA, and scholastic aptitude

measurers are more effective in predicting college achievement and less effective in predicting college persistence (Pantages & Creedon, 1978). Furthermore, researchers began to posit that noncognitive dimensions were more relevant to racial ethnic minority students than traditional measures of cognitive ability, such as high school rank, GPA, and college entrance scores (Sedlacek & Brooks, 1976). Sedlacek and colleagues have published a substantial amount of empirical support that noncognitive factors predict persistence for racial ethnic minority students. Specifically, cognitive variables (i.e., SAT/ACT scores, GPAs) failed to predict college persistence for Latina/o undergraduates (Fuentes & Sedlacek, 1994; Longerbeam et al., 2004). Furthermore, Sedlacek (2005) recommends that noncognitive factors (e.g. variables relating to adjustment, motivation, student perceptions) be added to current measures of student persistence. Therefore, the current study utilizes a noncognitive meta-theory approach to examine and explore Latina/o undergraduates' persistence through psychological, social, and cultural domains. The following section reviews three noncognitive areas (i.e., personal challenges, environmental factors, and involvement factors) that may influence Latina/o undergraduates' educational experiences with an additional examination of two additional noncognitive areas—financial stress and acculturation stress—at the conclusion of this section.

Personal challenges. Within personal challenges, some Latina/o students are faced with perceptions of lack of academic preparation, lack of self-confidence with college-rated tasks, and financial hardships. According to a Pew Hispanic Center report, even when comparing the best academically prepared Latina/o and White students, White students continued to complete a bachelor's degree at higher rates than their Latina/o counterparts (Fry, 2004; Fry & Taylor, 2013). Past research on this achievement gap has focused on academic preparedness utilizing achievement or cognitive variables such as SAT scores; however, these cognitive variables fail to

predict college persistence of Latina/o students (Fuentes & Sedlacek, 1994). Rather than cognitive factors of specific academic ability, perception of lack of academic preparedness may influence persistence decisions for Latina/o students. For example, in a study surveying 175 Latina/os, Longerbeam and colleagues (2004) found that Latina/os were more likely to believe that they would leave school due to a perceived lack of academic ability compared to their non-Latina/o peers. Additionally, in a qualitative study exploring stopping out and persisting for Latina/o undergraduates, Zurita (2004) highlighted the feeling of being academically unprepared in comparison to peers from one testimonial of a Latina who stopped out of college:

Once I came here and all these [White students] were like, “Oh, I got a 35 on my ACT,” and I’m like, “Oh, my God!” I’m thinking, “Oh, I was all happy about my grade.” It intimidated me a lot. They were saying, “I already had, like, 24 hours earned through AP and all that.” And I’m thinking, “What are you talking about?” (p. 313).

Underscoring the pressure associated with performing well academically, Quintana and colleagues (1991) conducted a meta-analysis comparing academic stress between Latina/o and their White counterparts. Not only did Latina/o undergraduates experience greater amounts of academic stress than their White peers, academic stressors identified in the meta-analysis included “stress associated with approaching teachers, taking tests, writing papers, producing the quality of scholarship required by teachers, and failing to meet academic expectations” (Quintana, et al., 1991, p. 161).

Related to stress associated with academic preparation, low self-efficacy has also been linked to academic non-persistence decisions. For example, Torres and Solberg (2001) found that college self-efficacy was associated directly with stronger persistence decisions. Similarly, Gloria and colleagues (2005a) found that for 99 Latina/o undergraduates, “an increased sense of confidence in one’s college and educational degree-related behaviors were associated with fewer academic nonpersistence decisions” (p. 215). In a qualitative study exploring retention,

Hernandez (2000) reported that each Latina/o student in his study's sample expressed a belief in and realization that they possessed the potential to succeed in college. This finding demonstrates a higher sense of self-efficacy may facilitate academic persistence decisions.

Even with high self-efficacy, defined as a student's belief in her or his ability to successfully complete educational tasks, many Latina/o students face financial barriers that also influence their academic persistence decisions. Financial hardships such as high tuition cost contribute to dropout rates of Latina/o students. For example, Cabrera and colleagues (1992) found that retention rates were higher for Latina/o students who were exempt from paying tuition than those who were not. Finding a means to generate income while attending school may become challenging for those students having to pay multiple expenses. Phinney and colleagues (2005) ascertained that most Mexican American undergraduates hold part-time or full-time jobs, which forces them to balance the competing demands of a job and schoolwork. In addition to making money to pay their own expenses, some Latina/o students continue to support their families financially from afar and feel a sense of guilt and obligation to continue to do so while in college (Torres, 2006). In one of the most recent and comprehensive longitudinal studies with entering undergraduates, Hurtado, Sáenz, Santos, and Cabrera (2008) found that 77.1% of Latina/os reported some concerns about their ability to finance their college education while their White peers reported less financial concern (60.2%). Quintana et al. (1991) further underscored that Latina/o students experienced greater levels of financial stress than their White counterparts, which included concern about the uncertainty of financial aid, obligations to repay student loans, and parents' contributions to financial support.

Environmental factors. To understand fully Latina/o students' educational experiences and persistence, the institutional context must be considered. Specifically, the racial campus

climate (Hurtado & Carter 1997; Hurtado & Ponjuan, 2005; Hurtado et al., 2008), degree to which students feel connected to the university environment (Castillo et al., 2006; Delgado-Guerrero & Gloria, 2013; Gloria, 1997; Gloria & Robinson Kurpius, 1996), and feel culturally congruent with the campus values (Delgado-Guerrero & Gloria 2013; Gloria & Robinson Kurpius, 1996; Gloria et al., 2005a) have influenced both directly and indirectly Latina/o students' persistence decisions. In one of the most cited campus climate studies, Hurtado and Carter (1997) found that perceptions of a hostile racial climate have negative effects on Latino students' sense of belonging on campus, which in turn scholars have found to influence indirectly decisions to stay at a particular college. Subsequent researchers (Museus, Nichols, & Lambert, 2008; Nora & Cabrera, 1996) have confirmed this finding. It is important to note that higher education researchers have not found direct empirical support of a relationship between the racial campus climate and college student persistence, although Pascarella and Terenzini (2005) contend that the effects of campus racial climate on student persistence is likely indirect.

Unlike the racial campus climate, broader perception of the university environment has been empirically supported to directly influence academic persistence decisions. Gloria (1993) conducted her dissertation research and found that perceptions of the university environment predicted Chicano/a academic persistence decisions (20% of the variance) and subsequently Gloria and Robinson Kurpius (1996) found that the university environment accounted for 25% of the variance in academic persistence for Latina/o students in the validation study of two measures related to persistence. Current researchers have consistently confirmed these findings that a positive perception of the university environment predicted college persistence attitudes for Latina/o undergraduates (Castillo et al., 2006; Fry, 2004; Gloria, et al., 2005a). Most recently, Delgado-Guerrero and Gloria (2013) found that for their sample of 115 Latina undergraduates,

perception of the university environment was the single best predictor of academic persistence decisions, accounting for 23% of the variance.

Related to comfort in the university environment, Latina/o students' sense of cultural congruity, or the degree to which students' values are reflected culturally in the university environment, has been related to academic persistence decisions. Early literature suggested that Latina/o students contended with feelings of cultural incongruity in university environments where they faced "the problem of how to balance participation in two cultures" (Fiske, 1988, p. 30). Gloria and Robinson Kurpius (1996) created a scale to measure cultural congruity and in their validation study, found that the more Latina/o students held positive perceptions of a cultural fit on campus, the more positive persistence decisions they made. Despite a moderate increased Latina/o student enrollment rate over the years, empirical evidence continues to confirm Latina/o students' perceptions of cultural incongruity with college campuses. For example, Gloria and colleagues (2005a) examined the extent to which self-beliefs, social support, and comfort the university environment, in particular cultural congruity, were related to academic nonpersistence decisions for 99 Latina/o undergraduates. They found a significant positive correlation in that increased cultural congruity was associated with fewer nonpersistence decisions. In one of the most recent studies examining the relationship between cultural congruity and academic persistence decisions with Latina undergraduates, Delgado-Guerrero and Gloria (2013) found that higher cultural congruity was related to increased levels of academic persistence decisions.

Involvement factors. As much as both an individual's characteristics and environmental context influences Latina/o students' academic persistence decisions, higher education and psychology literature consistently contends that students' relationships with peers, faculty, and

staff also substantially influences students' decisions to stay or leave the university. Furthermore, researchers have supported the contention that involvement has a positive relationship with student retention (Astin, 1984; Tinto, 1993). The following section examines involvement with student organizations, faculty-student interactions, and mentorship and persistence.

In a qualitative study addressing the retention of Latina/o undergraduates, Hernandez (2000) found that co-curricular involvement (e.g., student clubs and organizations) positively impacted students' persistence decisions. Similarly, examining 115 Latina undergraduates involved in a historically Latina-based sorority, Delgado-Guerrero and Gloria (2013) reported that perceived social support from sorority sisters was positively related to persistence decisions. Moreover, the study found that the relationship to persistence decisions was stronger for upper-division/alumnae than lower-division Latinas. Orozco (2003) highlighted a similar finding in a qualitative account of her involvement with her historically Latina-based sorority by stating, "The sorority members, whom I considered my family away from home, were the single most important system in the university that provided me emotional support" (p. 134).

Another important relationship that the literature identifies as critical to student persistence decisions is the interaction with faculty and/or staff on campus. Students who had contact with faculty outside of the classroom were more likely to persist towards graduation than students who had no contact with faculty (Schuh & Kuh, 1984; Tinto, 1993). Specifically, with Latina/o undergraduates, having a quality relationship with a faculty or staff positively influenced their retention (Hernandez, 2000). However, finding a faculty or staff member with whom Latina/o students can see themselves personally and culturally reflected is a challenging consideration given the paucity of Latina/o faculty, staff, and administrators in higher education institutions (Delgado-Romero, Flores, Gloria, Arredondo, & Castellanos, 2003).

When Latina/o students do find faculty, staff, and/or administrators to assist and guide their academic pursuits, the relationship may become one of mentorship. Tinto (1993) identified mentoring as a valuable asset for student persistence. For Latina/o students, mentoring is one resource endorsed as valuable and influential in promoting their educational attainment and success (Arellano & Padilla, 1996). In addition to providing educational support, Latina/o faculty and staff members serving as mentors also models for Latina/o students that they can also succeed academically (Gloria & Rodriguez, 2000). Furthermore, mentorship has been empirically supported with persistence decisions and continued enrollment for Latina/o college populations (Bordes & Arredondo, 2005; Gloria, 1997; Torres & Hernandez, 2009-2010). For example, Gloria et al. (2005a) found that for those Latino/a students who received faculty/staff mentorship reported a decrease in academic nonpersistence decisions. Similarly, a longitudinal study of 71 Latina/o students revealed “those students who graduated perceived that they had received more mentoring than did those who dropped out” (Bordes-Edgar, Arredondo, Robinson Kurpius, & Rund, 2011). Furthermore, Bordes-Edgar and colleagues (2011) found that those Latina/o students who dropped out made fewer positive persistence decisions initially than did those still enrolled and those who had graduated. With strong empirical evidence to support the positive relationship between mentorship and academic persistence, the question as to what are the specific elements of the mentoring relationship that facilitate academic persistence emerges.

Financial stress and acculturation stress. Although the three areas of personal challenges, environmental factors, and involvement factors have been found to influence persistence decisions, there are a host of additional contextual variables to consider for students. Two additional variables (i.e., financial stress and acculturation stress) in particular have been identified in the literature as potentially influencing academic persistence. Conceptually, Latina/o

students enter into the university with varying degrees of both financial support and level of acculturation.

First, Latina/o undergraduates contend with financial stress throughout their college experience. Financial stress has been conceptualized as a psychological condition or state in which an individual 1) has difficulty paying bills, 2) cannot make ends meet, and 3) worries about money (Morrison Gutman, McLoyd, & Tokoyawa, 2005). For Latina/o undergraduates, financial stress may be operationalized by difficulty paying for tuition, books, rent, or other bills related to being in college (Cabrera et al., 1992). Although Latina/o students may receive some financial aid to help offset the cost of college (Cabrera, Burkman, & La Nasa, 2005); however, they may still find it challenging to make ends meet with the limited income they do receive. For instance, some students may receive scholarships that pay their tuition; however, students may begin to feel strained because they are focused to work one or two jobs in order to pay for the remaining college expenses (Phinney et al., 2005). Additionally, Latina/o students often provide financial support to their families back home so when they at college, they may feel guilty or worried that their families back home are struggling financially (Torres, 2006). Finally, Latina/o undergraduates may experience a general sense of worry related to money (Hurtado et al., 2008).

There has been a substantial literature base describing this phenomenon for Latina/o undergraduates. For example, Quintana and colleagues (1991) conducted a meta-analysis of Latino college student adjustment and found that Latino students experienced greater amount of financial stress than their Anglo counterparts. These financial issues included concern about the uncertainty of financial aid, obligations to repay student loan, and parents' contributions to financial support (Quintana, et al., 1991). Although Gloria and colleagues (2005a) did not find a significant relationship of financial stress and academic nonpersistence decisions for a sample of

99 Latina/o undergraduates, a recent study with a sample of 115 Latina undergraduates found that a decrease of college stress (including financial stress) was related to increase academic persistence decisions (Delgado-Guerrero & Gloria, 2013). Finally, researchers have generally found that when Latina/o students are free from financial stress, they have enhanced educational outcomes (Cabrera et al., 1992; Chang, Oseguera, & Saenz, 2003; Murdock, 1987, Oseguera, 2005).

In addition to financial stress, Latina/o undergraduates contend with varying levels of acculturation (i.e., acculturation stress) that affect their experience within higher education (Aguinaga & Gloria, 2015; Gloria, Castellanos, Segura-Herrera, & Mayorga, 2010). The current study adopts the interdisciplinary field of cross-cultural psychology's definition of acculturation as "the process of cultural and psychological change that results following meeting between cultures" (Sam & Berry, 2010, p. 472) and subsequent strain that may result from this acculturation process. For Latina/o undergraduates, these changes may include exploring individualistic versus collectivist orientation, English versus Spanish language acquisition, level of ethnic identity identification, level of separation with familial ties, or level of competitiveness (e.g., individual achievement vs. group achievement) to name a few. Latina/o students enter college with varying degrees of these acculturation processes. For example, some Latina/o students may have grown up in collectivist culture; however, when they arrive to campus, they may be forced to adopt individualist ideals, which then may influence their acculturation process (Castillo, Conoley, & Brossart, 2004).

Research with acculturation and Latina/o undergraduate populations has yielded mixed results. Castillo and Hill (2004) found that when demographic variables were controlled, acculturation did not significantly account for variance in distress. Similarly, acculturation, as

calculated by a behavioral measure of acculturation, was not found to be a statistically significant source of perceived distress (Castillo et al., 2004). Contrary to these findings in which acculturation was not significant, other studies have found statistical significance of acculturation. For example, Crockett and colleagues (2007) found that for a sample of 148 Mexican American undergraduates, acculturation stress was associated with higher levels of anxiety and depressive symptoms. Furthermore, this same study found that peer support moderated the relation between acculturation stress and anxiety symptoms. An early study examining acculturation stress found that acculturation stress was related to an increase risk of psychological maladjustment with a sample of 338 Latino undergraduates (Rodriguez, Myers, Morris, & Cardoza, 2000).

Literature on both financial stress and acculturation stress has been shown to influence the educational experiences of Latina/o in higher education. Therefore, depending on how much financial stress Latina/o students experience as well as their acculturation stress, may affect their decisions to stay or withdraw from the university. Financial stress and acculturation stress may not be directly related to mentorship; however, it is still critical to control for these two conceptual elements to assess more accurately Latina/o students' academic persistence decisions.

Theories of Persistence in Higher Education

Although individual campuses had begun to monitor student enrollment in the 1950s, there had been few attempts to assess systematically patterns of student persistence. Any attempt to explore more than numerical reports or demographic characteristics of departure came from psychological approaches. Early research on college student departure was conducted through a psychological lens (Summerskill, 1962), which focused on students' personality attributes as contributing factors for persistence or non-persistence. By the 1970s, retention had become an

increasingly common topic among college and university campuses. However, concerns about how to identify causes of and solution systematically to persistence arose. During the subsequent four decades, numerous theories of student departure began to emerge. The most widely cited theories and models of persistence in the higher education literature to date are next presented in order of most utilized theory in the persistence literature.

Tinto's Student Departure Model

Currently the most-widely tested theoretical model of student persistence is Tinto's (1987, 1993) Student Departure Model. Tinto extended Spady's (1971) sociological model of student departure that drew on earlier works of Van Gennep's (1960) rites of passage and Durkheim's (1951) theory of suicide to incorporate both psychological and organizational theoretical models. Van Gennep posited that there are three stages of the rite of passage: separation, transition, and incorporation. Using Van Gennep's (1960) theory, Tinto (1987, 1993) hypothesized that students needed to progress through these three stages in order to integrate into the college community. In the first stage, students needed to separate from communities of the past (Tinto, 1987, 1993). According to Tinto, students who did not successfully separate themselves from family or past peers who devalue the purpose of higher education would have more difficulty integrating and would, thus, be less likely to persist. The second stage (transition) was the period between the full integration with new communities and the separation from the old communities (Tinto, 1987, 1993). In particular, Tinto posited that students who came from past communities similar to those of a college would have a shorter transition period than those who did not, which would invariably influence their persistence decisions. Finally, the last stage of Tinto's (1987, 1993) model was a student's incorporation into the college communities both formally and informally. Formal integration referred to the congruence between the student's

abilities and skills, and the academic demands from the college as well as involvement in campus organizations, student government, or other student groups. Informal integration referred to the congruence between common values held by the members of the college and the student as well as peer-group interaction with college friends (Tinto, 1987, 1993). If a student was not integrated both academically and socially, Tinto suggested that they were less likely to persist in college.

Tinto's last stage of integration was based on the work of Durkheim (1951) who argued that the rates of egotistical suicide (i.e., suicide which occurs when individuals are unable to become integrated members of a community) could be reduced by individual's enhanced integration into society. Similarly, Tinto (1987, 1993) argues that student departure can be reduced if institutions can provide students with mechanisms to help with campus integration. Furthermore, Tinto's (1987, 1993) theory claimed that the more integrated a student was to the academic and social communities of the college, the more likely that they would persist toward their academic goals. Despite the focus on the individual student in relation to their integration; Tinto's model does not take into account the cultural variables that may prevent students from fully integrating (or rather an assumption to assimilate) into the campus community. Higher education scholars have called attention to Tinto's (1987, 1993) lack of addressing cultural variables, particularly with racial ethnic minority students (Guiffreda, 2006; Rendón et al., 2000; Tierney, 1999). Since the current study is examining mentoring relationship and persistence with Latina/o undergraduates, Tinto's (1987, 1993) model does not allow for potential cultural variables that influence persistence in mentoring relationships.

Astin's Theory of Student Involvement

A basic premise of Astin's (1984) theory of student involvement was the contention that the more directly students are involved with academic and social college life, the more likely

they would persist. Astin (1984) defined involvement through a behavioral component more than internal motivation. That is, “It is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines and identifies involvement” (Astin, 1984, p. 519). The theory assumes that the student learning and development will be enhanced when the institution concerns itself more with students’ motivation rather than the resources or techniques typically used by educators. The strength of this theory is the focus on the person-environment interaction. However, a shortcoming of Astin’s (1984) theory is the onus placed on the student’s willingness and motivation to engage versus recognition of the institution’s responsibility to provide a welcoming university context to which the student can fully engage. The current study aims to examine the degree to which mentors (i.e., faculty and staff) engage with students that ultimately influence persistence from students’ perspectives; therefore, Astin’s (1984) theory of student involvement does not fit with the current study’s research questions.

Bean and Eaton’s Psychological Model of College Student Retention

Like Astin’s (1984) theory of student involvement, Bean and Eaton’s (2000) model of student retention focuses on a student’s motivation to persistence. However, the purpose of Bean and Eaton’s theory is to describe the factors associated with leaving (content of model) and the psychological activities associated with leaving (process that explains why a student leaves). The model is considered a psychological model because it is intended to explain behavior. The underlying assumption of this model posits that behavior is a choice and that people are motivated to make choices that lead to or away from any given behavior. In the case of student retention, the model proposes that students are motivated to either persist or not persist based on their individual psychological processes (Bean & Eaton, 2000). Similar to Astin’s (1984) model of student involvement, Bean and Eaton’s psychological model of student retention focuses

primarily on the student rather than examining external environmental factors influencing their persistence; thus, the reason to not implement this theoretical framework for the current study.

Nora's Student Engagement Model

One of the few models of student persistence that has been conceptualized with racial ethnic minority populations is Nora's (2004) student engagement model. This comprehensive model takes into consideration: 1) precollege factors (e.g., precollege ability, psychosocial factors, financial assistance/need, encouragement and support from family) and pull factors (e.g., family responsibility, work responsibilities, commuting to college); 2) initial commitments (e.g., educational aspirations and commitment to attend a specific institution); 3) academic and social experiences (e.g., faculty interactions, learning community involvement, social experiences, campus climate, mentoring experiences); 4) cognitive (e.g., academic performance, academic and intellectual development) and noncognitive (e.g., self-esteem, self-efficacy, valuing diversity, acceptance of other) outcomes; 5) final commitments (e.g., educational goal, institutional commitment); and 6) persistence (e.g., re-enrollment in higher education institution). The model posits that "students' college choices and their subsequent satisfaction with their college experiences are the result of a complex interplay among personal and institutional factors...[and] verified a central role played by psychosocial factors in students' matriculation decisions" (Nora, 2004, p. 198). Of all the four persistence models presented, Nora's (2004) student engagement model appears to be most comprehensive, considering both internal (student) and external (environmental) factors as well as cultural considerations. However, there has not been examination of the link between the person, environment, and culture interactions and only a few empirical studies utilizing this framework to predict academic persistence. Therefore, I will utilize the psychosociocultural (PSC) framework (Gloria & Rodriguez, 2000)

due to its extensive utility with racial ethnic student populations and academic persistence. The next section describes in depth the PSC model and its application to the current study.

A Psychosociocultural (PSC) Approach to Academic Persistence

As the understanding of academic persistence in higher education develops, researchers continue to refute past notion of placing the responsibility for educational disparities between racial ethnic minority (i.e., Latina/o) students and White students on the individual student rather than placing responsibility on the institution (Rendón et al., 2000). Often taken from a deficit perspective, nonpersistence decisions are perceived as a student's inability to perform academically, lack of motivation, as well as their individual characteristics. Although some persistence models (Astin, 1984; Tinto, 1993) do recognize the person-environment interaction, these models continue to place the responsibility of adaptation and integration into the cultural norms and values of the institution on the student rather than calling for institutional change (Castillo et al., 2006). From this approach, Latina/o students often contend with an unwelcoming campus climate (Hurtado, 1992; Hurtado & Carter, 1997), discrimination (Sáenz & Ponjuan, 2009), and invalidation of their cultural norms (Hurtado & Ponjuan, 2005) that negatively influences their academic success. More recent literature has instead focused on a strength-based approach to examine facilitating factors for Latina/o students' academic persistence (Bordes-Edgar et al., 2011; Castillo et al., 2006; Delgado-Guerrero & Gloria, 2013; Gloria et al., 2005a).

Despite this considerable amount of evidence validating the importance of noncognitive factors influencing the academic outcome of Latina/o students, research also suggests the importance of the interdependence of noncognitive factors within the student experience. A recent meta-analysis found that three psychosocial and study skill constructs (academic-related skills, academic self-efficacy, and academic goals) not only predicted college performance and

persistence, but were also interrelated with each other (Robbins et al., 2004). Additionally, after controlling for academic preparation, social connectedness constructs also predicted persistence. As institutions of higher education have used traditional assessments of cognitive ability as admissions criteria to predict academic performance and persistence, an emerging body of literature provides confirmatory analysis that social and contextual influences do relate to student success. Therefore, future research on Latina/o students' experiences must integrate the role of social and contextual influences of both the individual student and the environment as they interact and provide an explanation for academic persistence decision.

Gloria and Rodriguez's Psychosociocultural Framework

The subsequent summary describes an overview of Gloria and Rodriguez's (2000) psychosociocultural (PSC) framework. Next, the three dimensions (i.e., psychological, social, and cultural) are each defined and further elaborated upon with a description of constructs used to operationalize the dimension. Finally the author will provide rationale why each of the chosen constructs within a given domain is to be utilized in the current study.

One of the most widely utilized theoretical frameworks to examine noncognitive influences on persistence decision processes; Gloria and Rodriguez (2000) developed the psychosociocultural (PSC) framework to understand holistically a student's educational experience by emphasizing the dynamic and interdependent relationships of student dimensions (i.e., self-beliefs, connectedness to others, and comfort within the university environment). The PSC model is one of few the theoretical approaches that incorporate a multidimensional context that was specifically conceptualized with Latina/o student populations. The model has also been applied to African American (Gloria, Robinson Kurpius, Hamilton, & Wilson, 1999), American Indian (Gloria & Robinson Kurpius, 2001; Thompson, Johnson-Jennings, & Nitzarim, 2013),

Asian American (Gloria & Ho, 2003) and a combined sample of Latina/o and African American (Gloria & Castellanos, 2003) undergraduates, with the dimensions individually and collectively predicting persistence decisions.

The author chose to utilize the PSC framework given the study's sample of Latina/o undergraduates and the extensive empirical support using the PSC framework with Latina/o college samples (Castillo et al., 2004; Delgado-Guerrero & Gloria, 2013; Gloria et al., 2005a; Gloria et al., 2010; Gloria, Castellanos & Orozco, 2005b; Gloria, Castellanos, Scull, & Villegas, 2009; Gloria & Segura-Herrera, 2004). Conceptually, the current study examines academic persistence through the PSC framework; while simultaneously explores mentoring as part of the PSC process for Latina/o students' academic persistence. Below each dimension of the PSC framework is further examined.

Psychological dimension (self-beliefs). The psychological "P" dimension of the PSC model is defined as internal self-perceptions in skills and abilities that influence students' ability to succeed in higher education. These self-perceptions, or "self-beliefs," are a critical element of understanding how students perceive and view themselves within the context of higher education. Literature with Latina/o undergraduates have operationalized the self-beliefs dimension such that increased college stress levels were negatively associated with college adjustment (Solberg, Valdez, & Villarreal, 1994) and negatively related to academic persistence decisions (Delgado-Guerrero & Gloria, 2013). Gloria and colleagues (2005a) found that increased educational degree behaviors were associated with fewer academic nonpersistence decisions. Additionally, increase emotion-focused coping (Gloria et al., 2009) and increase problem-focused (Gloria et al., 2005b) predicted psychological well-being. Finally, increased self-efficacy was positively related to academic persistence decisions (Delgado-Guerrero &

Gloria, 2013; Gloria et al., 2005a) as well as an increase sense of cultural self-esteem was positively related to psychological well-being (Gloria et al., 2009). The author chose the latter two constructs of self-efficacy and self-esteem to operational the self-belief dimension in the current study.

Educational self-efficacy is defined as the confidence students have in their ability to complete academic tasks (Gloria et al., 1999; Solberg, O'Brien, Villarreal, Kennel, & Davis, 1993b). When Latina/o students possess positive self-beliefs, specifically educational self-efficacy, they are more likely to persist. Gloria and colleagues (2005a) found that with an increased sense of confidence in one's college and educational degree related behaviors, Latina/os students made fewer academic nonpersistence decisions. In a longitudinal study of 71 Latina/o undergraduates, Bordes-Edgar and colleagues (2011) found that more positive persistence decisions were related to greater educational self-efficacy. Most recently, Delgado-Guerrero and Gloria (2013) found that increased college self-efficacy was related to increased levels of academic persistence decisions.

Self-esteem is defined as students' general feelings of self-worth (Rosenberg, 1965) and to date, there have been few empirical studies examining how self-esteem and academic persistence are related for Latina/o undergraduates. Though examining Asian American undergraduates, Gloria and Ho (2003) found that self-concept (i.e., self-esteem) was a significant predictor of academic persistence decisions. Similar with another racial ethnic population, Gloria and Robinson Kurpius (2001) found that for 83 Native American students, higher self-esteem was significantly correlated with fewer nonpersistence decisions. Specific to a Latina/o college student sample, Gloria and colleges (2005a) did not find a significant relationship between self-esteem and academic persistence decisions. However, self-esteem was validated as a reliable

construct with Latina/o undergraduates as well as positively related to academic persistence decision for Latina/o students (Robinson Kurpius, Payakkakom, Dixon Ralye, Chee, & Arredondo, 2008); therefore, it was included in the self-beliefs dimension.

Related to the mentoring, Nora and Crisp (2007) identified that a mentor should express confidence in their mentee's ability to succeed academically and should recognize their mentee's academic accomplishments. Doing so would increase both the mentee's educational self-efficacy and self-esteem that could ultimately influence academic persistence decisions. Currently, no literature examines these two constructs within mentoring relationship with Latina/o undergraduates, hence the study's rationale to extend this literature.

Social dimension (relationship connections). The social "S" dimension of the PSC model focuses on relationships and social support systems that foster interconnections and relationships within the campus community, which has been central to Latina/o students' educational experiences. Though family may not physically be on campus, research shows that perceptions of familial social support still significantly affects the educational experiences of many Latina/o undergraduates (Gandara, 1995; Gloria & Rodriguez, 2000). Latina/o students identify *familia* as a central source of educational support and encouragement that then influences persistence decisions (Hernandez, 2000; Hurtado, Carter & Spuler, 1996). Similarly, perceived social support from peers, many whom are siblings or other family members (e.g., cousins), serve a central support group for Latina/o undergraduates (Gloria & Segura-Herrera, 2004). There have been few empirical studies examining peer support for Latina/os; however, the literature does consistently identify peer support as important to Latina/o students' academic persistence decisions (Cardoza, 1991; Hernandez, 2000). Related to peer support, student groups such as Latina/o student organizations (Delgado-Romero, Hernandez, & Montero, 2004) and

Latino fraternities (Guardia & Evans, 2008) and Latina sororities (Delgado-Guerrero & Gloria, 2013) have also positively influenced Latina/o undergraduates' educational experiences. An increasingly central construct of relational support for Latina/o students has been the presence of a faculty or staff mentor (Gandara & Osugi, 1994; Hernandez, 2000). Gandara (1995) argues that when Latina/o students are mentored, they are more likely to succeed academically than those who are not. Overall, there has been an increase of empirical research has shown mentoring to be related to persistence decisions and continued enrollment for Latina/o undergraduates (Bordes & Arredondo, 2005; Bordes et al., 2006; Gloria et al., 2005a; Torres & Hernandez, 2009-2010; Torres Campos et al., 2009).

Both the Mentoring Scale (Tenenbaum, Crosby, & Gliner, 2001) and the College Student Mentoring Scale (Crisp, 2009) have yet to be empirically tested for academic persistence with Latina/o undergraduates at 4-year predominantly White institutions. However, both scales encompass elements of personal and professional facets that appear to be relevant for the undergraduate population. Castellanos and Gloria (2007) further contend that "specific to Latina/o students, effective mentorship encompasses the personal and professional of academic progress while integrating *cultura* (e.g., *familia*, values, practices, beliefs" (p. 390).

Nora and Crisp (2007) recommended that a mentor help their mentee make meaningful connections with faculty, staff, and university personnel related to academic and personal concerns. For example, if a mentee is struggling academically, he or she can turn to the appropriate campus resources and services that could help prevent them from dropping a class that would otherwise be detrimental to their GPA. The current study aims to be one of the first studies to validate both the Mentoring Scale and College Student Mentoring Scale with Latina/o undergraduates' attending 4-year public predominately White institutions.

Cultural dimension (comfort in the environment). The cultural “C” dimension of the PSC model describes the perception of the campus climate and its significance to create an inclusive and welcoming environment for all students regardless of their cultural backgrounds. Constructs within this dimension that have been examined with Latina/o populations include ethnic identity related to college academic achievement (Cerezo & Chang, 2013) and the mediating role ethnic identity plays between comfort in the university environment and academic persistence decision (Castillo et al., 2006). Additional constructs within this dimension that have been linked to college stress include acculturation (Rodriguez, Mira, Myers, Morris, & Cardoza, 2003), minority status (Smedley, Myers, & Harrell, 1993), and gender/cultural role adherence (Niemann, Romero, & Arbona, 2000). At predominantly White institutions, the university environment is influenced by the university culture, which is often comprised of values, beliefs, and behaviors based in the majority (i.e., White dominant) culture. The current study will be conducted at four PWIs in the Midwest; therefore, the author will examine the university environment scale (UES) and cultural congruity scale (CCS) within the cultural dimension.

The perception of the university environment has consistently been important in predicting Latina/o undergraduates’ academic persistence decisions (Delgado-Guerrero & Gloria, 2013; Gloria, 1997; Gloria et al., 2005a; Gloria & Robinson Kurpius, 1996). In the validation study of the UES, Gloria and Robinson Kurpius (1996) confirmed that the UES was a reliable measure of university comfort with a sample 443 Latina/o undergraduates. Furthermore, they found that “the more positively students viewed the university environment the more likely they were to make positive decisions regarding academic persistence” (p. 541). Since the validation study, numerous studies (Bordes & Arredondo, 2005; Bordes et al., 2006; Castillo et al., 2006; Delgado-Guerrero & Gloria, 2013; Gloria et al., 2005a) have confirmed the latter

finding of a positive relationship between the university environment and persistence decisions for Latina/o undergraduates.

The second cultural variable used in the current study is cultural congruity, in other words, the degree to which students see their cultural values reflected in the campus community. Gloria and Robinson Kurpius (1996) validated the reliability of the CCS simultaneously with the UES. In the validation study, they found that cultural congruity predicted 11% of the variance in academic persistence and that ultimately “as student perceived a more positive cultural fit they made more positive persistence decisions” (p. 541). Similar to the university environment scale, the cultural congruity scale has been widely used scale with examining Latina/o students’ persistence (Bordes & Arredondo, 2005; Delgado-Guerrero & Gloria, 2013; Gloria et al., 2005a). For example, Gloria and colleagues (2005a) found that an increase in cultural congruity was related to fewer nonpersistence decisions for 99 Latina/o undergraduates. Most recently, Delgado-Guerrero and Gloria (2013) found that the higher cultural congruity was related to increased levels of academic persistence decisions for 115 Latina undergraduates.

Related to comfort in the university environment, Nora and Crisp (2007) assert that a mentor should provide an emotionally supportive relationship in which the mentee can feel culturally validated. For example, if a Latina/o student experiences isolation in class due to their culture, a mentor’s role could be one of expressing empathy and validation of their experience that might help them feel more valued in the campus community. Additionally, mentors should engage in discussions related to educational opportunities beyond college with their mentee (Nora & Crisp, 2007). Since many Latina/o students identify as first-generation undergraduates, they many not have anyone to talk to about pursuing graduate school. No study to date explores

the ways by which mentoring relationships can facilitate cultural fit and comfort in the university environment that ultimately can influence persistence decisions for Latina/o undergraduates.

Mentorship in Higher Education

The following sections will focus on the study's core concept of mentorship. First, the origins of mentorship/mentoring will be explained, followed by an examination of the varying degrees to which mentorship/mentoring has been defined in the literature. Next, a review of different mentoring types within the context of higher education (i.e., peer, staff-student, faculty-student) is provided. Finally, the section will conclude with an examination of theories of mentorship with college student populations.

Origins of Mentorship/Mentoring, Mentor, and Mentee

The concept of mentorship can be traced back to the Greek myth of *Odysseus* in which the main character, Odysseus turns to his friend, Mentor, for help in preparation to fight in the Trojan War. Mentor functions as a wise, dependable, and trusted advisor who guides Odysseus's son's development (Miller, 2002). According to Jacobi (1991) who conducted a literature review of mentoring and undergraduate student success, the concept of mentoring is problematic due to the "absence of a widely accepted operational definition of mentoring" (p. 505). Nearly two decades later, Crisp and Cruz (2009) set out to reexamine the lack of consensus of mentorship as a concept. They confirmed Jacobi's (1991) finding of the perceived ambiguity of "mentoring" as a concept within the literature, identifying over 50 definitions of varying in scope and breath.

Although there has been a significant amount of disagreement about the scope, process, elements, and relationship of mentoring, Jacobi's (1991) review distinguished three ways in which researchers agree about mentoring, which continues to be reinforced by present-day literature. First, researchers have agreed that mentoring relationships are focused on the growth

and accomplishment of an individual and include several forms of assistance (Chao, Walz, & Gardner, 1992; Cullen & Luna, 1993; Ehrich, Hansford, & Tennent, 2004; Haring, 1999).

Second, there is a general consensus that a mentoring experience may include broad forms of support including role modeling (Brown, Davis, & McClendon, 1999, Crisp & Cruz, 2010; Nora & Crisp, 2007), assistance with professional and career development (Brown et al., 1999; Campbell & Campbell, 1997; Chao et al. 1992; Crisp & Cruz, 2010; Kram, 1988; Nora & Crisp, 2007), and psychological support through planned activities (Chao et al., 1992; Cullen & Luna, 1993; Crisp & Cruz, 2010; Kram & Isabella, 1985; Levinson, Carrow, Klein, Levinson, & McKee, 1978; Nora & Crisp, 2007). Yet, disagreement still arises about what specific activities are needed in mentoring relationships. Third, there continues to be consensus that mentoring relationships are personal and reciprocal (Crisp & Cruz, 2010; Healy & Welchert, 1990; Kram & Isabella, 1985; Nora & Crisp, 2007).

For the concepts of “mentor” and “mentee/protégé” there has been more consensus for each role. Campbell and Campbell (1997) described mentorship from specific set of activities when, “a more experienced member (i.e., *mentor*) of an organization maintains a relationships with a less-experienced (i.e., *mentee* or *protégé*), often new member to the organization and provides information, support, and guidance so as to enhance the less-experienced member’s chances of success in the organization and beyond” (p. 727). The next section will further explore definitions mentorship.

Defining Mentorship

As mentioned in the previous section, defining mentorship has been challenging due to the lack of consensus of what mentorship is and how it should be directed. Below are two

sections providing the differing perspectives on defining mentorship both operationally and functionally.

Operationally defining mentorship. One of the major challenges of reaching a consensual operational definition of mentorship has been that various disciplines have defined mentorship based on literature in their field. The three most relevant fields to the current study include psychology, business, and education. However, Merriam (1983) argued “Mentoring appears to mean one thing to developmental psychologists, another thing to business people, and a third thing to those in academic settings” (p. 169). Both Jacobi (1991) and Crisp and Cruz (2009) found similar results in their literature reviews of mentorship that the fields of psychology, business, and education have produced the most comprehensive theories of mentoring and the mentoring relationship.

Within the psychology field, psychologists Levinson and colleagues (1978) focused their definition of mentorship on supporting the psychosocial development of an individual (mentee) through another person (mentor) who provides moral and emotional support. Similar to the psychology field, Speizer (1981) defined mentorship (and sponsorship) as “older people in an organization or profession who take younger colleagues under their wings and encourage and support their progress until they reach mid-life” (p. 708). Psychologists Schockett and Haring-Hidore (1985) were the only other researchers to use a mentoring model from a psychological perspective in which they found two reliable factors (psychological and vocational) supporting their proposed mentoring model.

In contrast, Roberts (2000) approaches mentorship from a business perspective defined as “a formalized process whereby a more knowledgeable and experienced person actuates a supportive role of overseeing and encouraging reflection and learning within a less experienced

and knowledgeable person, so as to facilitate that person's career and personal development" (p. 162). Similarly, Kram (1983) defined mentorship as a developmental relationship in which a mentor supports, guides, and counsels a young adult in her or his early occupational identity. Additionally, the business perspective may "consider mentoring to be a dynamic, reciprocal relationship in a work environment between an advanced career incumbent (mentor) and a beginner (protégé) aimed at promoting the career development of both" (Healy & Welchert, 1990, p.17).

Within the higher education literature, the absence of a consistent definition of mentoring has been repeatedly recognized (Johnson, 1989; Miller, 2002; Rodriguez, 1995) with the definitions of mentoring having been extremely broad or overly narrow. For example, Murray (2001) broadly defined mentoring as a one-on-one relationship between an experienced and less experienced person for the purpose of learning or developing specific competencies. In contrast, Blackwell (1989) offered a very specific definition by stating mentoring "is a process by which persons of superior rank, special achievements, and prestige instruct, counsel, guide, and facilitate the intellectual and/or career development of persons identified as protégés (p. 9). Other educational studies have not explicitly provided participants with an operational definition of mentoring, often citing the intentional reflective process for participants to define mentorship representative of her or his academic experience (Boice, 1992; Mangold, Bean, Adams, Schwab, & Lynch, 2003; Ross-Thomas & Bryant, 1994).

Functionally defining mentorship. Beyond the operational definition of mentorship, researchers have also discussed functional definitions of mentorship that includes activities, processes, and characteristics. However, there has been little agreement on which specific activities should be included in mentoring relationships. For example, research has called for

mentoring activities that provide strategies for navigating the university, viewing peer mentoring videos, reading weekly tip sheets, structured support networks, and interacting with program staff through on-line discussion boards or in-person meetings (Collier, Morgan, & Fellows, 2007). Ishiyama (2007) argued that mentoring should provide support to students in the form of undergraduate research activities, while Pagan and Edwards-Wilson (2003) call for mentoring activities limited to two or more meetings and a telephone conversation with a faculty member. Additionally, with the availability of technology, researchers have begun to examine mentoring relationships utilizing the internet or video component as part of the students' mentoring activities (Collier et al., 2007; Ensher, Heun, & Blanchard, 2003; Sinclair, 2003).

Although specific mentoring activities can provide the "what to do" in mentoring relationships, another functional definition of mentorship is the "how to do" mentoring, which will be described as the process of mentorship. Santos and Reigadas (2002) posited that mentoring relationships may be formal or informal in nature. Informal mentoring relationships are not managed, structured, nor formally recognized by a program or institution. Traditionally, they are spontaneous relationships that occur without external involvement. In contrast, formal mentoring relationships are program or institution managed for the purpose of helping the mentee succeed in their academic endeavors. Both formal and informal mentoring relationships have produced positive outcomes. For example, Pagan and Edwards-Wilson (2003) showed that students characterized as "at-risk" increased their GPAs and increased retention when they were paired with a college peer mentor in a formalized program. However, Terrell and Hassell (1994) found benefits to both formal and informal mentoring for racial ethnic minority undergraduates. "While formal mentoring does not have the self-selecting quality of informal relations, it does establish a basis for matching students and mentors on such selection criteria as shared values,

interests, goals, and attitudes in order to promote appropriate association. Further, it appears that informal relationships enhance the formal mentoring process in developing the individual students” (Terrell & Hassell, 1994, p. 43).

Functional definitions of mentoring relationship also highlight important mentor characteristics. Some characteristics that facilitate positive mentoring relationships include mentor’s availability (Allen, Poteet, & Russell, 2000; Allen, Russell, & Maetzke, 1997; Ehrich et al., 2004), academic credibility (Johnson, 2002; Ragins & Cotton, 1999), communication skills (Good, Halpin, & Halpin, 2000), listening skills (Allen & Poteet, 1999), supportiveness (Awayaa et al., 2003; Ehrich et al., 2004; Johnson-Bailey & Cervero, 2004), trustworthiness (Beebe, Beebe, & Redmond, 2010; Bouquillon, Sosik, & Lee, 2005; Johnson-Bailey & Cervero, 2004), empathy (Allen, 2003; Awayaa et al., 2003), and flexibility (Johnson, 2002; Young, Alvermann, Kaste, Henderson, & Many, 2004). Campbell and Campbell (2007) found matching students with mentors of the same ethnicity showed a higher cumulative GPA, higher graduation rates, and entered graduate study at a higher rate. However, empirical evidence shows mixed results specifically matching Latino/a undergraduates with Latina/o mentors (Bordes & Arredondo, 2005; Bordes-Edgar et al., 2011; Haring, 1999; Santos & Reigadas, 2002). Based on the current mentorship literature, the most important characteristics of an effective mentoring relationship include having a supportive, trusting mentor who is readily accessible and available. However, since one of the inclusion criteria for the study’s sample is identifying as Latina/o, race and ethnicity would potentially be another salient characteristic to examine.

Working Models/Tier Systems of Mentorship

As the current study explores differences between types of mentorship (i.e., faculty-student, staff-student, and peer-mentoring), the following three sections address each working

models/tier systems of mentoring in higher education. Each section first explores the broader context of each mentoring type and second examines the specific mentor model within the context of Latina/o populations in higher education.

Faculty mentors. To date, most the literature on mentoring relationships in higher education have focused on the faculty-student mentoring relationship. The persistence literature consistently asserts the importance of having racial ethnic faculty mentoring students of color. In an early study examining ethnicity of faculty and racial ethnic minority undergraduates' sense of alienation at a PWI, Loo and Rolison (1986) contended that an increased number of ethnic minority faculty to whom minority students can comfortable relate can counter academic and sociocultural alienation and promote academic success. Landry (2002) conducted a literature review on racial ethnic minority students' unique challenges in college and found that when faculty mentors are representative of racial ethnic minority populations, the outcome is a positive effect on retention. Faculty-student interactions enhance racial ethnic minority students' cultural adjustment and overall educational satisfaction (Cole, 2008), and specifically it is faculty mentorship that fosters a sense of validation for students' professional development and growth, which in part facilitates academic adjustment and retention (Kim & Sax, 2009; Pascarella & Terenzini, 2005). Despite the proven of benefits of having faculty mentors of color, the limited number of racial ethnic minority faculty creates barriers for students of color who desire faculty mentors of color.

Specific with Latina/o faculty-student mentoring, there has been a growing body of literature calling for the need of more Latina/o faculty mentors for Latino/a undergraduates (Santos & Reigadas, 2002). Jones and Castellanos (2003) reported that Latina/o faculty accounted for 2.2% of all full-time faculty members in 1991. Over two decades later, the

National Center for Education Statistics (2012) reports that the number of full-time Latina/o has increased slightly fewer than two percent to 4.1% of all full-time faculty. Despite the limited Latina/o faculty mentors available, research has shown the benefit of matching Latina/o undergraduates with Latina/o faculty mentors. For example, Santos and Reigadas (2002) found three significant findings with a sample of 32 Latina/os students participating in a Faculty Mentor Program (FMP):

[Latina/o] students who had same-ethnic mentors perceived their mentors to be more helpful in furthering their career and personal development than did students who had ethnic-other mentors. Furthermore, there was a significant trend for student with matched ethnic mentors to perceive themselves as being more self-efficacious academically than did the nonmatched students. Finally, students with matched ethnic mentors reported greater satisfaction with the FMP than did their nonmatched counterparts (p. 46).

These findings support the contention that Latina/o faculty mentors may serve as role models for Latina/o mentees; wherein similarities in cultural values, expectations, and background may enhance perceived support and benefits of the relationship. Castellanos and Gloria (2007) further stressed that effective faculty mentors incorporate the personal and professional of academic progress while integrating *cultura* (e.g., *familia*, values, practices, beliefs) into the faculty-student relationship with Latina/o students.

Professional staff mentors. Between the three mentoring models (i.e., faculty-student, staff-student, peer-mentoring) that the current study will examine, staff-student and faculty-student mentoring relationships appear to be most similar. To date there are no published articles that examine academic staff or administrators serving as mentors to undergraduates. However, there is a growing body of literature that does make subtle distinction between faculty mentors and graduates students who are employed through a university to serve as program staff mentors to undergraduates. Crawford, Suarez-Balcazar, Reich, Figert, and Nyden (1996) posited that graduate students can serve as effective, if not more effective, mentors for undergraduates than

faculty members because they are generally closer in age and generational status and may be more sensitive to the challenges facing current undergraduate students. Graduate students also may be experiencing a parallel process in which they themselves may be in a mentoring relationship with their faculty advisor. Pagalis, Green, and Bauer (2006) contended that graduate students highly value the interactions with undergraduates because mentoring them affords benefits associated with professional practice such as providing role modeling, guidance, support, as well as helping to develop their teaching and advising skills in ways a traditional graduate program may not offer. In many ways, graduate student mentors may benefit from career enhancement and personal satisfaction (Ensher & Murhpy, 1997).

Currently there are no published studies exploring the relationships between Latina/o graduate students serving as staff mentors to Latina/o undergraduates. However, Gloria, Salazar, Flores, Rodriguez, Slivensky, & Castellanos (2010) have begun exploring the role in which Latina/o graduate students function as academic *comadres* and *compadres* (i.e., revered friends) serving as mentors to undergraduate within academic research teams. The only study to date that explores a similar relationship (Latina/o undergraduates mentored by non-Latina/o graduate students), found that participants reported that their graduate mentor played a considerable role in demystifying graduate studies and create a bridge toward graduate education (Luna & Prieto, 2009). One Latina participant in Luna and Prieto's (2009) study explained she became more knowledgeable about the graduate school process, "I was able to witness how my mentor's hard work and efforts paid off. It was motivating to me and my fears about grad school were lessened" (p. 222).

Peer undergraduate mentors. The final working model the current study explores is the peer-mentoring model. For example, Gloria, Castellanos, and Delgado (2010) referred to this

peer-mentoring model as a *peer-tier system* in which peers in upper-division educational levels serve as mentors to lower-division peers. This could be graduate students mentoring undergraduate students; however, in the context of the current study, peer-mentoring refers to upperclassmen (i.e., seniors and juniors) mentoring lowerclassmen (i.e., sophomores and freshmen). Peer mentoring provides many of the same benefits and functions as both faculty-student and staff-student mentoring. Similarly, peer mentoring relationships can provide mentees with psychosocial support, information, opportunities for career strategizing, feedback, and friendship (Kram & Isabella, 1985). Peer mentoring relationships are important in that they provide mentees with greater access to mentoring, given peers are more numerous than faculty or staff mentors. The mutuality of peer mentoring relationships provides mentees with additional advantages not delivered by faculty or staff mentors such as developing a sense of expertise, equality, and empathy (Kram & Isabella, 1985). These relationships also tend to last much longer than faculty or staff mentoring relationships, thus providing the opportunity for continued mentoring functions across stages of one's life and career. Finally, peer mentoring relationships hold an advantage over faculty or staff mentoring relationships in that there is a greater diversity of peers who can serve as mentors as compared to the level of diversity typically found within the pool of faculty or staff mentors. Therefore, peer mentoring may provide greater opportunity for diversified mentors as compared to faculty or staff mentoring relationships.

With Latina/o undergraduate populations, there is a slowly growing body of literature examining peer mentoring within Latina/o student populations. Hurtado and colleagues (1996) suggested that Latina/o students may need the guidance and support of upper-division students or peer mentors for successful academic adjustment. Most recently, Delgado-Guerrero and Gloria (2013) found that for Latina undergraduates involved in historically Latina-based sororities,

relationships with peers (often sorority sisters serving as mentors) met the Latino cultural value of *familismo*, or family-like connections, through these student organizations. As such, scholars have called for implementing formalized peer-mentoring programs by collaborating with student organization that are Latina/o specific which would then enhance stronger connections to the university environment (Gloria et al., 2005a; Zalaquett & Lopez, 2006).

Theories of Mentorship in Higher Education

Past studies attempting to establish theories of college student mentorship (Aagaard & Hauer, 2003; Atkins & Williams, 1995; Cohen, 1995; Miller, 2002) were often flawed due to lack of reliability of theoretical components as well as lack external validity to broader student populations in higher education (Crisp & Cruz, 2009; Jacobi, 1991). Therefore, research on mentoring in higher education has been limited without a reliable and valid theoretical foundation. The following section assesses a recently proposed and comprehensive theoretical framework (Nora & Crisp, 2007) in conceptualizing mentoring that was found both reliable and valid with Latina/o college populations (Crisp, 2009; Crisp & Cruz, 2010).

Nora and Crisp's Undergraduate Mentoring Model. Nora and Crisp (2007) reviewed the mentoring literature and through a combination of educational, psychological, and business theories (Cohen, 1995; Kram, 1988; Levinson et al., 1978; Miller, 2002; Roberts, 2000; Schockett & Haring-Hidore, 1985) identified four major domains, each possessing sub-constructs (i.e., latent variables). These latent variables separated by domain include: 1) psychological and emotional support; 2) goal setting and career support; 3) academic subject knowledge support; and 4) the existence of a role model. Each of the four domains and subsequent latent variables are discussed below.

Psychological and emotional support. This first domain includes two latent variables (*psychological support* and *emotional support*). The first construct, psychological support, encompasses a sense of listening, providing moral support, identifying problems, and providing encouragement while the second construct, emotional support, focuses on the establishment of a supportive relationship in which there is a mutual understanding and connection between the student and mentor. Several theoretical conceptions can be seen in this first domain including Kram's (1988) view that mentoring must incorporate feedback from the mentor regarding certain fears and other issues from the mentee. Similarly, Schockett and Haring-Hidore (1985) recommend that, through a safe environment, mentors discuss mentee's fears and uncertainties in order to build their self-confidence. Other aspects of this domain include Levinson's et al. (1978) provision that mentoring incorporates moral support and Miller's (2002) specification that listening, identification of problems, and encouragement all be part of the mentoring process. Furthermore, this first domain encompasses active, empathetic listening on the part of the mentor and sincere understanding and acceptance of the mentee's feelings (Cohen, 1995), the development of a positive regard conveyed by another (Kram, 1988), and a strong and supportive relationship (Roberts, 2000).

Goal setting and career support. In the second domain of mentoring relationships, two latent variables (*goal setting* and *career support*) support the idea that mentoring relationships should include an assessment of the mentee's strengths, areas for growth, and abilities as well as assistance with setting academic and career goals. Six perspectives provide the main focus on this domain including Cohen's (1995) suggestion for first, an in-depth review and exploration of interest, abilities, ideas, and beliefs as well as second, his identification for stimulation of critical thinking with regard to envisioning the future and developing personal and professional

potential. The third perspective includes Robert's (2000) idea that mentoring is a reflective process. Cohen (1995) proposes the fourth perspective of this domain to request detailed information from and offering specific suggestions to mentees with regards to their current plans and progress in achieving personal, educational, and career goals as well as the fifth perspective that mentors offer a respectful challenge of explanations for specific decisions or avoidance of decisions and actions relevant to the mentee developing as an adult learning. Levinson et al. (1978) provides the sixth and final perspective of this domain that charges the mentor to facilitate the realization of the mentee's dream.

Academic subject knowledge support. The third domain of *academic subject knowledge support* focuses on the acquisition of necessary skills and knowledge (Kram, 1988), and on educating, evaluating, and challenging the mentee academically (Schockett & Haring-Hidore, 1985). Furthermore, Miller (2002) suggested mentors assist mentees to employ tutoring skills and focus on subject matter in contrast to mentoring that focuses on life learning, which Roberts (2000) described as establishing a teaching-learning process.

The existence of a role model. Finally, the fourth domain that posits *the existence of a role model* centers on the mentee's ability to learn from the mentor's past and present actions and achievements as well as their failures. The emphasis within this domain is the mentor's willingness to share, or self-disclose, life experiences and feelings to the mentee in order to personalize and enrich the mentoring relationship (Cohen, 1995; Kram, 1988). Additionally, Levinson and colleagues (1978) incorporated the perspective that the mentor serves as an exemplar and guide to the new social world. A final focus of the fourth domain includes Schockett and Haring-Hidore's (1985) reorganization that the mentee has the opportunity to

observe his or her mentor with other leaders or managers, handle conflict, and balance personal and professional demands.

The current study used Nora and Crisp's (2007) conceptualization of the Undergraduate Mentoring Model to explore mentoring relationship and academic persistence decisions from a psychosociocultural perspective. Chapter III explains the methods by which mentoring relationships with Latina/o undergraduates were explored for the current study.

Study Goals, Research Questions, and Hypotheses

As the current study utilized a mixed-method approach to explore in-depth mentoring relationships of Latina/o undergraduate students, the study's goals, research questions, and hypotheses were presented from both a quantitative and qualitative perspective.

Study Goals

The first study goal was to examine constructs using Gloria and Rodriguez's (2000) PSC framework. Specifically, the study examined differences in and relationships of psychological (i.e., educational self-efficacy, self-esteem), social (i.e., mentorship support), and cultural (i.e., cultural congruity, university comfort) dimensions of the mentoring relationship that may influence academic persistence decisions for Latina/o undergraduates. The second goal of the study was to explore specifically the construct of mentorship and its role in the academic persistence process. In particular, narratives of Latina/o undergraduates who utilized mentors in their educational pursuits were explored to further understand the specific factors within the mentorship relationship that ultimately influenced their persistence decisions. It was anticipated that through a mixed-method approach, the study would yield a greater understanding of mentoring Latina/o undergraduates and would provide specific directives to university personnel

(e.g., faculty and staff) as well as student peers (e.g., upperclassmen) who may mentor undergraduates.

Research Questions and Hypotheses

The first research question examined group mean differences of the study's PSC variables (i.e., how mentoring relationships differed by how frequent a mentee met with their mentor). The second research question examined the interrelationship (i.e., associations) of the study's emergent PSC variable sets (i.e., self-beliefs, mentor support, and university environment) by mentor type (i.e., peer, staff, and faculty). The third research question examined how the study's variables predicted academic persistence. Finally, the fourth research question further explored mentorship as a construct and whether the PSC framework (Gloria & Rodriguez, 2000) would hold for responses elicited via the four domains of the Undergraduate Mentoring Model (Nora & Crisp, 2007) and a fifth academic persistence domain.

Research question one. How do mentoring relationships (i.e., main effects) differ by mentor type and frequency of mentor contact in relation to PSC variables and academic persistence? Since the current study examined group mean differences for the study's variables (i.e., PSC variables and academic persistence) by two contextual variables of mentor type (Faculty, Staff, or Peer) and frequency of mentor contact (Infrequently, Frequently, or Very Frequently), a 3x3 MANCOVA was chosen to most accurately assess these group mean differences. A MANCOVA analysis allowed for the control of the two covariates (i.e., financial stress and acculturation stress) that may influence academic persistence. Additionally, frequency of mentor contact was measured on a 5-point Likert-type scale but then divided into 3 groups (i.e., Infrequently=1 and 2; Frequently=3 and 4, or Very Frequently=5) that would allow for larger groupings than the original groupings with regards to total number of participants per

group which could provide greater power to detect group mean differences by frequency of mentor contact. Thus the analysis of a 3x3 MANCOVA was used to examine group mean differences by mentor type and frequency of mentor contact.

Set 1: Main Effect by Mentor Type

H1₀: There are no differences by mentor type and educational self-efficacy, self-esteem, perceived mentor support, perceived college mentor, comfort in the university environment, and cultural congruity.

H1₁: The differences lie wherein:

- a) Faculty Mentor provides greater educational self-efficacy, self-esteem, perceived mentor support, perceived college mentor, comfort in the university environment, and cultural congruity than Peer Mentor
- b) Staff Mentor provides greater educational self-efficacy, self-esteem, perceived mentor support, perceived college mentor, comfort in the university environment, and cultural congruity than Peer Mentor
- c) Faculty Mentor provides equal educational self-efficacy, self-esteem, perceived mentor support, perceived college mentor, comfort in the university environment, and cultural congruity as Staff Mentor

H2₀: There are no differences by mentor type and academic nonpersistence decisions.

H2₁: The differences lie wherein:

- a) Faculty Mentor helps mentee make fewer academic nonpersistence decisions than Peer Mentor

- b) Staff Mentor helps mentee make fewer academic nonpersistence decisions than Peer Mentor
- c) Faculty Mentor helps mentee make equal academic nonpersistence decisions than Staff Mentor

Set 2: Main Effect by Frequency of Mentor Contact

H3₀: There is no difference by frequency of mentor contact and educational self-efficacy, self-esteem, perceived mentorship, perceived college mentorship, perceived fit with the university environment, and cultural congruity.

H3₁: The more frequent a mentee meets with their mentor, the more they increase their educational self-efficacy, self-esteem, perceived mentorship, perceived college mentorship, perceived fit with the university environment, and cultural congruity.

H4₀: There is no difference by frequency of mentor contact and academic nonpersistence decisions.

H4₁: The more frequent a mentee meets with their mentor, they make fewer academic nonpersistence decisions

Research question two. How are the PSC variables sets (i.e., self-beliefs, mentor support, and university comfort) related to each other by mentor type for Latina/o undergraduates? The study seeks to examine the association between the PSC variable sets (i.e., self-beliefs, mentor support, and university comfort) within each mentor type (i.e., peer, staff, and faculty); therefore, canonical correlations were conducted to assess the interrelationships between the PSC variables by mentor type. Additionally, Quintana and Kerr (1993) suggested that canonical correlation analysis (CCA) would allow for examination of the linear combination

of emergent factor variable sets. Also, structural equation modeling (SEM) can be used to predict whether an overall model provides a reasonable fit to the data and the contribution of each of the independent variables to the dependent variables (Tabachnick & Fidell, 2007). Although CCA and SEM both belong to the general linear model, the study's research question was exploratory; therefore, CCA was more appropriate than SEM because SEM is used in confirmatory research questions. Thompson (1984) further confirms that the primary goal of CCA is to maximize the relationship between the latent variables not to model the individual variables. Since this research question was not predicting whether the PSC model holds nor examining a causal relationship between individual variables, a path analysis would not be an appropriate statistical analysis because the question is exploring the relationships between variable sets (i.e., PSC dimensions) by each mentor type.

Set 1: Canonical Correlations by Peer Mentor Type

H5₀: The root of the self-belief variable set and mentor support variable set is no different across peer mentor type.

H5₁: There are significant relationships between the self-beliefs variable set and the mentor support variable set by peer mentor type.

H6₀: The root of the mentor support variable set and the university comfort variable set is no different across peer mentor type.

H6₁: There are significant relationships between the mentor support variable set and the university comfort variable set by peer mentor type.

H7₀: The root of the university comfort variable set and the self-belief variable set is no different across peer mentor type.

H7₁: There are significant relationships between the university comfort variable set and the self-belief variable set by peer mentor type.

Set 2: Canonical Correlations by Staff Mentor Type

H8₀: The root of the self-beliefs variable set and the mentor support variable set is no different across staff mentor type.

H8₁: There are significant relationships between the self-beliefs variable set and the mentor support variable set by peer staff type.

H9₀: The root of the mentor support variable set and the university comfort variable set is no different across staff mentor type.

H9₁: There are significant relationships between the mentor support variable set and the university comfort variable set by staff mentor type.

H10₀: The root of the university comfort variable set and the self-beliefs variable set is no different across staff mentor type.

H10₁: There are significant relationships between the university comfort variable set and the self-beliefs variable set by staff mentor type.

Set 3: Canonical Correlations by Faculty Mentor Type

H11₀: The root of the self-beliefs variable set and the mentor support variable set is no different across faculty mentor type.

H11₁: There are significant relationships between the self-beliefs variable set and the mentor support variable set by faculty mentor type.

H12₀: The root of the mentor support variable set and the university comfort variable set is no different across faculty mentor type.

H12₁: There are significant relationships between the mentor support variable set and the university comfort variable set by peer faculty type.

H13₀: The root of the university comfort variable set and the self-beliefs variable set is no different across faculty mentor type.

H13₁: There are significant relationships between the university comfort variable set and the self-beliefs variable set by faculty mentor type.

Research question three. How do the covariates (i.e., financial stress and acculturation stress) and PSC dimensions individually and collectively predict academic nonpersistence decisions for Latina/o undergraduates? The current study examined the extent to which the two covariates (i.e., financial stress and acculturation stress), the contextual variables (mentor type and frequency of mentor contact), and the PSC dimensions (i.e., self-beliefs, mentor support, and university comfort) predicted academic nonpersistence decisions; therefore, a five-step hierarchical regression was used to most accurately predict academic persistence decisions. Specifically, a hierarchical regression was chosen as the most appropriate analysis since the criterion variable (i.e., academic persistence) was explained by predictor variables (i.e., financial stress, acculturation stress, mentor type, frequency of mentor contact, and the PSC variables) that were correlated with each other (Pedhazur, 1997). Furthermore, hierarchical regression was chosen over SEM and path analysis because hierarchical regression could analyze the effect of academic nonpersistence after controlling for the two covariates, contextual variables, and the PSC variables by assessing the incremental variance after each group of variables were entered into the regression model (Pedhazur, 1997). Neither SEM or path analysis allows for this step-by-step analysis, thus the rational to utilize a hierarchical regression.

H14₀: The covariates and contextual variables in combination with the PSC dimensions neither individually nor collectively predict academic nonpersistence for Latina/o undergraduates.

H14₁: The covariates and contextual variables in combination with the PSC dimensions both individually and collectively predict academic nonpersistence for Latina/o undergraduates, with the “C” dimension most predictive of fewer academic nonpersistence decisions and the university environment would be the single strongest predictor.

Research question four. What specific elements within your mentoring relationship influenced your educational experience? It was anticipated that participants would provide in-depth responses to an interview protocol. Based on the most comprehensive theory of college student mentoring (Nora & Crisp, 2007) to date, the fourth research question explored participants mentoring experiences via Gloria and Rodriguez’s (2000) PSC framework (i.e., self-beliefs, mentor support, and university comfort) within the four domains of Nora and Crisp’s (2007) Undergraduate Mentoring Model and a fifth domain of academic persistence decisions for Latina/o undergraduates. Using Nora and Crisp’s (2007) four latent domains and the fifth academic persistence domain, 15 open-ended questions explored 1) psychological and emotional support (sample “C” question includes: *How does your mentor validate who you are culturally?*); 2) degree and career support (sample “P” question included: *How does your mentor influence your academic strengths and weaknesses?*); 3) academic subject knowledge support (sample “S” question included: *How does your mentor connect you to other campus resources and services to assist you in your academic performance?*); 4) existence of a role model (sample “C” question included: *What does it mean to have a mentor similar to your (e.g., shared values,*

racial or gender match, etc.?); and 5) academic persistence (sample “P” question included: *How as your mentor influenced your decision to stay in college?*). Through these four research questions, the current study explored the psychosociocultural processes within mentoring relationship that influenced academic persistence decisions for Latina/o undergraduates.

CHAPTER III

Methods

This chapter provides a thorough description of the mixed methodology for the current study. First, the study setting, recruitment/data collection, and participant inclusion criteria are described. Next, the quantitative procedures are explained including survey participants, survey instruments, and quantitative analyses used. The chapter concludes with the qualitative procedures including descriptions of the participants who participated in the in-depth interviews, the interview protocol, and qualitative procedures.

Study Setting

The study was conducted at four public four-year universities of comparable size and student composition in the Midwest. The average student population was approximately 43,000 students, in which undergraduates comprised just under three-fourths ($n = 30,339$; 70.2%) of the total student population within the four respective campuses. At these four predominately White institutions, White undergraduate students on average accounted for 69.2% ($n = 20,980$) of the total student population, while Latina/o undergraduate students on average accounted for only 5.0% ($n = 1,524$) of the total student population. Given that Latina/os currently represent 16.3% of the total U.S. population (Humes, Jones, & Ramirez, 2011), it is clear that Latina/os undergraduates are highly underrepresented within these four particular college campuses.

Recruitment and Data Collection

Outlined below is a comprehensive plan that was used to recruit participants, an explanation of methods utilized to gather both quantitative and qualitative data from student participants, and a description of incentives offered to study participants.

Recruitment plan. After obtaining approval from the Education and Social & Behavioral Sciences Human Subjects Institutional Review Board (IRB), participants were recruited from various academic support programs, scholarship-based programs, student organizations, and various classes on each respective campus. A web-based method for participant recruitment was utilized for the study. One of the earliest studies comparing paper-based and web-surveys responses from the National Survey of Student Engagement ($n = 58,288$) found that mode effects were generally small; however, college students responded more favorably on web-based survey than the paper-based survey (Carini, Hayek, Kuh, Kennedy, & Ouimet, 2003). More recently, Greenlaw and Brown-Welty (2009) conducted a comparison study of web-based, paper-based, and mixed-mode methodology and found that the mixed-mode had the highest response rate, though it should be noted that mixed-mode was also shown to be most costly in regards to expenses. Wright (2005) highlighted the benefits of online survey research that included cost advantages, ability to reach a broader audience of potential participants, and time efficiency and accuracy of data entry. Based on the current literature on mode of gathering quantitative data and need for a large sample across different universities, the current study utilized a web-based research design for data collection.

For the quantitative (i.e., survey) portion of the study, the primary researcher outreached via email (Appendix A) to directors, program coordinators, and leaders of diverse academic support, scholarship programs, and student organizations to request they then forward the invitation for participation email (Appendix B) to their respective student listserves. Additionally, the primary researcher attended meetings from the above offices to advertise and explain the study to potential participants. Finally, flyers (Appendix C) were posted in a variety of locations (e.g., libraries, cultural centers/offices, commons areas) across campuses to solicit

participants. Some social media sites were utilized to recruit and announce the study such as Facebook and other student-centered web sites and listserves with an electronic announcement (Appendix D).

For the qualitative portion of the study, those students who completed the online survey were prompted, at the end of the demographic section, if they wanted to participate in a follow-up interview of their experiences. Specifically, they were asked the following question: “Would you be willing to participate in a 1-hour follow-up interview to explain in more depth your mentorship experience?” Participants were required to answer “Yes” or “No” to this question. If answered yes, the student was then prompted for their name, email address, and best contact phone number to be reached.

Data collection. Emails (Appendix A) were sent to directors, program coordinators, and leaders of diverse academic support, scholarship programs, and student organizations within four universities in the Midwest to ask if they would forward the request for participation in an online study examining mentoring relationships. The content of the forwarded email (Appendix B) was a thorough description of the study, an explanation of all known risks and benefits of the study, and contact information of the primary researcher and principal investigator, followed by an informed consent to participate in the study. Students were then directed that by clicking on the link to participate, they would be giving their consent. It was made clear that the survey was completely voluntary and that they may stop the survey at any time for any reason. The web-based survey took approximately 20-40 minutes to complete. Data was collected and stored on a secure web server in which access was permitted only to the primary researcher and principle investigator. It was anticipated that approximately 500 surveys would be distributed with a goal to receive 200 surveys completed that met the study’s criteria (i.e., Latina/o undergraduates with

mentors) based on a priori power analysis to achieve a medium effect size with a power of .80 given a 95% probability of statistical significance. For the qualitative portion of the study, Guest, Bunce and Johnson (2006) found that basic elements for meta-themes were present as early as six interviews to reach saturation. Since the study aimed to explore three different types of mentoring relationships (i.e., peer mentoring, staff-student mentoring, and faculty-student mentoring) the primary researcher anticipated conducting 18 interviews (6 peer, 6 staff, 6 faculty) with Latina/o undergraduates whom would provide their name and contact information to participate in the follow-up interview portion of the study.

Participant incentives. Participants of the online survey had the opportunity to be entered into a raffle drawing that contains up to \$500 worth of gift certificates and small prizes. At the conclusion of data collection, the primary researcher drew winners from the entered participants. The primary researcher then contacted each winner individually notifying them they had won and inquired best method to obtain their prize. There was also a \$20 Amazon gift card provided to each participant for the qualitative portion of the study.

Participant Inclusion Criteria. To meet the study's criteria, participants must have 1) self-identified with Latina/o heritage, 2) been an undergraduate or within one semester past graduation, 3) have been mentored by someone within their university, and 4) attended one of four identified four-year public universities in the Midwest.

Quantitative Procedure

Participants completed a demographic survey (i.e., 33 questions) (Appendix E) and seven standardized scales (i.e., 139 questions) (Appendix F) to assess the degree that PSC variables within mentoring relationships were related to academic persistence decision.

Student Participants. A total of 781 individuals opened the survey link, of which 483 provided consent. Of those that provided consent, 429 participants enrolled in the study (i.e., provided at minimum one answer to a question) and therefore yielded a 54.9% response rate. Of those that provided responses, 330 participants fully completed the study (i.e., demographic survey and all seven standardized scales). A total of 282 of the 330 participants who completed the survey identified having been mentored by someone on campus (i.e., peer, staff, or faculty). Of these 282 participants, the majority self-identified as having some Latina/o heritage ($n = 157$, 55.7%), followed by Asian American ($n = 53$, 18.8%), African American/Black ($n = 41$, 14.5%), Biracial/Multiracial that did not have any Latina/o heritage ($n = 16$, 5.7%), White ($n = 8$, 2.8%), Native American/American Indian ($n = 3$, 1.1%), International students ($n = 2$, 0.7%), and two additional participants self-identified as Middle Eastern and Caribbean, respectively. Of the 157 participants who met criteria for the study, four participants were excluded since 97.5% of the sample identified as attending one single institution, thus bringing the sample size to 153 participants. Further description of the 153 survey participants is reported in Chapter IV.

Survey Instruments. The demographic questions were asked first, followed by the seven standardized instruments, which were counterbalanced to control for order effect.

Demographic survey. A total of 33 items addressed personal characteristics (5 items), educational-focused questions (20 items), and mentorship received (7 items) (See Appendix E). The final question on the demographic survey asked if participants would like to participate in a follow-up interview. The personal characteristic questions assessed items such as gender, age, race/ethnicity, family income, and family generational status (i.e., U.S-born). Educational-focused questions assessed items such as self-reported grade point average, class standing, major, transfer status, degree aspiration, continuity of enrollment, parental and sibling education,

parental occupations, financing of education, likelihood of degree completion, value of ones education, and affiliation to academic support programs or scholarship programs while in college. Assessment of mentorship included questions focused on type of mentorship received, frequency of mentorship contact, length of mentorship, degree to which their mentor helped them persist towards their college degree, and the value of their mentorship relationship. The last question asked participants if they would like to be contacted to participate in a 1-hour interview to discuss their experience with their mentoring relationship. If they agreed, participants provided their name and contact information.

Psychological scales: Self-beliefs construct set. The psychological (i.e., self-beliefs) construct set included two instruments (Educational Self-Efficacy Scale and Rosenberg Self-Esteem Scale) that operationalized the psychological dimension of Gloria and Rodriguez (2000) psychosociocultural (PSC) framework within mentoring relationships.

Educational Self-Efficacy Scale. A modified version of the combined Educational Degree Behaviors Self-Efficacy Scale (EDBSES; Gloria et al., 1999) and the social and course self-efficacy subscales of the College Self-Efficacy Inventory (CSEI; Solberg et al., 1993b) measured students' overall educational self-efficacy.

The Educational Degree Behaviors Self-Efficacy Scale (EDBSES; Gloria et al., 1999) was originally based on the work Lent, Brown, and Larkin (1986) and assessed a student's confidence in their ability to complete education-related tasks. The 14-item scale was scored on a 5-point Likert-type scale, ranging from 1 (*not confident*) to 5 (*extremely confident*), remaining consistent with the other scales in the current study's questionnaire where higher scores reflected high levels of confidence in completing education-related tasks. Sample items included how

confident a student could “complete the social science general studies requirements with a B or better” or “complete your undergraduate degree with a GPA of a B or better.”

The College Self-Efficacy Inventory (CSEI; Solberg et al., 1993b) was developed and validated for Latina/o undergraduates and measured confidence level in performing various academic tasks connected to college success. The original 20-item scale was modified for the current study to include 14-items assessing two of the three subscales (i.e., *course efficacy* and *social efficacy*). Questions began with “How confident are you that you could successfully complete the following task...” Sample items included “research a term paper” or “make new friends at college.” In order to stay consistent with the remaining instruments, the current study utilized a 5-point Likert-type scale, ranging from 1 (*not confident*) to 5 (*extremely confident*). Higher scores reflected increased confidence to complete college-related tasks.

First utilized as a combined scale in a pilot study with 57 undergraduates, Gloria (1993) reported a Cronbach’s alpha of .94 and then again with a larger sample of 339 Chicana/o students that yielded a similar internal consistency coefficient of .92. In a recent psychometric study with 112 Latina/o undergraduates, Robinson Kurpius and colleagues (2008) found strong internal consistency ($\alpha = .96$) using the combined 28-item educational self-efficacy scale. Also using a combined educational self-efficacy scale, the current study yielded an internal consistency of .94.

Rosenberg Self-Esteem Scale. As one of the most widely known and utilized psychological and educational scales, the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) assessed general feelings of self-worth. The 10-item scale used a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) and contained five items that were

reverse-coded with higher scores indicating a more positive perception of self. Sample items included “I feel that I’m a person of worth” and “I feel that I have a number of good qualities.”

Originally developed to assess self-esteem in high school students, the RSES showed strong internal consistency of .92 in the original study (Rosenberg, 1965). Surveying 99 Latina/o undergraduate students, Gloria et al. (2005a) also yielded a strong internal consistency coefficient of .94. Robinson Kurpius and colleagues (2008) recently investigated the psychometric appropriateness of the RSES with 112 Latina/o undergraduates and found that RSES scale indeed appeared to be a reliable instrument yielding a Cronbach’s alpha of .83. For this study, a Cronbach’s alpha of .88 was yielded.

Social scales: Relationship support construct set. The social (i.e., mentorship support) construct set included two instruments (Mentorship Scale and College Student Mentoring Scale) that operationalized the social dimension of Gloria and Rodriguez (2000) psychosociocultural (PSC) framework within mentoring relationships.

Mentorship Scale. Based on a survey to assess business school graduates experiences with a global mentoring relationship (Dreher & Ash, 1990), the modified Mentorship Scale (MS; Tenenbaum et al., 2001) was developed to assess the mentoring experiences of graduate students pursuing managerial, technical, and professional positions (Tenenbaum et al., 2001). The 19-item scale consisted of three subscales (i.e., *psychosocial support*, *instrumental*, and *networking*) and was scored on a 4-point Likert-type scale, with higher scores reflecting a mentee’s perception of a more positive mentoring relationship. The first subscale (i.e., *psychsocial support*) assessed the degree to which mentors provided psychological and socioemotional support for their mentees (e.g. “My mentor has encouraged me to talk openly about anxiety and fears that have distracted me from my work”). The second subscale (i.e., *insturmental*) assessed the extent of academic

support received from the mentor (e.g. “My mentor has explored career options with me”). The third subscale (i.e., networking) assessed the extent to which mentees felt their mentor helped connect them to their field of interest (e.g. “My mentor has helped me meet other people in my field at the University”).

Though the original study sampled 129 graduate students, Tenenbaum et al., (2001) still found adequate internal coefficients of .80, .93, and .83 for the psychosocial support, instrumental, and networking subscales, respectively. To date, the Mentorship Scale had not been validated and no other published study has utilized this instrument. However, since the Mentorship Scale appeared to best assess an undergraduate student’s perception of the mentoring relationship, the primary researcher used the Mentorship Scale for the current study, which yielded an internal consistency coefficient of .91.

College Student Mentoring Scale. The College Student Mentoring Scale (CSMS; Crisp, 2009) was a recently developed scale to assess four interrelated variables theorized by Nora and Crisp (2007) that operationalized latent constructs within mentoring relationships. The 25-item scale was comprised of four subscales that included *psychological and emotional support*, *degree and career support*, *academic subject knowledge support* and *existence of a role model*. Participants were asked the degree to which they have a mentor while in college that: “helps me work toward achieving my academic aspirations” or “makes me feel that I belong in college.” Crisp (2009) originally utilized a 5-point Likert-type scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). However, for the current study, the response categories were reversed to be consistent with other scales where the higher scores represented the respective variable. A higher score on the CSMS represented an increased perception of being mentored.

Validating the scale with a fairly diverse community college sample ($n = 351$), Crisp (2009) reported strong reliability and validity for the CSMS with specific Cronbach's alphas reported for the subscales psychological and emotional support (.91), degree and career support (.90), academic subject knowledge support (.88), and existence of a role model (.85). Due to its recent development, the CSMS has had limited empirical validation. However, Crisp (2011) sampled 278 Latina/o and White at a large, Hispanic Serving Institution (HSI) and found adequate internal consistencies for each of the four latent subscales (i.e., psychological and emotional support, .82; degree and career support, .88; academic subject knowledge support, .78); and existence of a role model, .80). Recently, Holt and Berewise (2012) modified the CSMS to assess 484 first-year undergraduates and yielded high Cronbach's alphas (.93, .95, .91, respectively) for the three subscales (psychological and emotional support, academic subject knowledge support, existence of a role model) used in their study. The current study used a total scale score (i.e., all four subscales) that yielded a Cronbach's alpha of .96.

Cultural scales: University comfort construct set. The cultural (i.e., comfort in the university environment) construct set included two instruments (University Environment Scale and Cultural Congruity Scale) that operationalized the cultural dimension of Gloria and Rodriguez (2000) psychosociocultural (PSC) framework within mentoring relationships.

University Environment Scale. Originally developed to measure racial and ethnic minority students' perceptions of the university environment, the University Environment Scale (UES; Gloria & Robinson Kurpius, 1996) had been described as one of the few scales that measured campus climate (Worthington, 2008). Modified from the original scale that used a 7-point Likert-type scale, the present study utilized a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Five items were reversed-scored with higher scores

representing more positive perceptions of the university environment. Sample items included “The university seems to value minority students” and “I feel comfortable in the university environment.”

Sampling 464 Chicana/o undergraduates, Gloria and Robinson Kurpius’s (1996) validation study of the UES yielded a Cronbach’s alpha of .84. Finding the university environment mediated effect between Latino ethnic identity and persistence attitudes, Castillo and colleagues (2006) found adequate internal consistency of .84 with 175 Latina/o undergraduates. Additional studies assessing Latina/o undergraduates’ perception of the university yielded similar adequate Cronbach’s alphas of .79 (Bordes et al., 2006) and .80 (Gloria et al., 2005a) and .80 for Latina undergraduates (Gloria et al., 2005b). Most recently, Delgado-Guerrero and Gloria (2013) sampled 115 Latina undergraduates and yielded an internal consistency coefficient of .82. For this study, a Cronbach’s alpha of .84 emerged.

Cultural Congruity Scale. Similar to the UES, the Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius, 1996) was designed to assess racial ethnic minority students’ sense of cultural fit with different cultural values of the university. Since the UES and CCS were developed, piloted, and validated simultaneously, the originally scale also utilized a 7-point Likert-type scale; however, the present study again modified the Likert-type scale to range from 1 (*strongly disagree*) to 4 (*strongly agree*) to remain consistent with the remainder of instruments. Eight items were reversed-scored with higher scores denoting increased cultural congruity. Sample items included “I feel that my ethnicity is incompatible with other students” and “As an ethnic minority, I feel as if I belong on this campus.”

Gloria and Robinson Kurpius (1996) reported a Cronbach’s alpha .89 in their validation study assessing 454 Chicana/o undergraduates. Used widely with previous studies on Latina

undergraduates' well-being (Gloria et al., 2005b) and academic persistence (Delgado-Guerrero & Gloria, 2013), Latina/o undergraduates academic persistence (Gloria et al., 2005a), and with mentoring Latina/o first-year students (Bordes & Arredondo, 2005) have yielded Cronbach's alphas of .86, .81, .88, .79, respectively. A comparable internal consistency coefficient of .84 was found for the current study.

Covariates scales. Financial stress and acculturation stress may not be directly related to mentorship; however, the literature suggested it would be important to control for these two potential covariates since both have been found to be related to academic persistence.

College Stress Inventory. The current study used a modified version of the College Stress Inventory (CSI; Solberg, Hale, Villarreal, & Kavanagh, 1993a) that assessed undergraduates' stress. The original 21-item scale was developed with a sample of 164 Latina/o undergraduates attending a west coast university and yielded three-factor structure subscales of Academic Stress ($n = 7$), Social Stress ($n = 8$), and Financial Stress ($n = 6$). Only the 6-item Financial Stress subscale was used since it addressed various issues related to the student's economic situation including stress felt from family related to financial difficulty. Each item began with the statement, "In the last month, how often have you experienced [a particular stress]?" Sample items include: "difficulty paying student fees next quarter" and "difficulty paying rent." Participants scored on a 5-point Likert-type scale from 0 (*never*) to 4 (*very often*) with higher scores reflecting higher college stress levels. The current study modified the sentence stem to "In the last month, how often have you experienced *stress given*" to capture both the process and expression of stress or strain that was the true query of the question.

Solberg et al. (1993a) reported an adequate internal consistency for the original financial stress subscale of .88. Used with a diverse sample of 388 undergraduates at two Midwestern

universities, Solberg and colleagues (1998) reported an internal consistency of .89 for the financial stress subscale. The current study yielded a Cronbach's alpha of .84.

Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale. The current study used a modified version of the Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale (SAFE; Mena, Padilla, & Maldonado, 1987) that assessed acculturation stress levels and was validated with a sample of 214 multicultural undergraduates attending a southwestern university. The overall Cronbach's alpha for the original 61-item scale and sample was .89. Fuertes and Westbrook (1996) validated a shortened 25-item SAFE scale with a of 141 Latina/o undergraduates attending a predominantly White, northeastern university. Each item was scored on a 5-point Likert-type scale from 1 (*not stressful*) to 5 (*extremely stressful*) with higher scores indicating higher acculturation stress levels. Fuertes and Westbrook (1996) reported item-loadings for the 21-item shorted SAFE acculturation scale ranging from .42 to .84. For the current study, only those items with an item-loading of .60 or above were used.

For the current study, seven items were selected from the SAFE acculturation scale and were included in the demographic portion of the study survey. These items were selected because each specifically measured acculturation stress Latina/o students may experience while in college. Furthermore, the seven items were selected proportionally to the shortened 21-item SAFE acculturation scale. That is, the current study used one item from the 4-item Social subscale; one item from the 4-item Attitudinal subscale; two items from the 3-item Familial subscale; and three items from the 10-item Environmental subscale. The Familial subscale had a higher proportion of selected items and was purposeful, given the central importance of family for Latina/os in higher education (Gloria & Segura-Herrera, 2004). Additionally, the two items from the Familial subscale yielded high item-loadings of .80 and .79.

The current study modified the scale by adding the sentence stem: “Because of my ethnic background...” followed by responses such as “others often exclude me from participating in their activities” and “university personnel ignore me” to capture both the process and expression of stress or strain that was the true query of the question. Each item was scored on a 5-point Likert-type scale from 1 (*never*) to 5 (*very often*) with higher scores indicating higher acculturation stress levels. Additionally, the current study modified four of the seven items used from the SAFE acculturation scale to avoid confusing wording and potentially inaccurate reporting. For example, the item “Many people have stereotypes about my culture or ethnic group and treat me as if they are true” was modified to “Because of my ethnic background, I am stereotyped on campus.” See Appendix G for the modified SAFE Acculturation Stress Scale. No study to date has utilized the SAFE scale similar to the current study (i.e., shortened 7-item scale). Therefore, no Cronbach’s alpha can be reported based on the shortened 7-item scale. The current study yielded a Cronbach’s alpha of .85.

Criterion scale.

Persistence/Voluntary Dropout Decision Scale. Based on Tinto’s (1987, 1993) theory of student departure, the Persistence/Voluntary Dropout Decision Scale (P/VDDS; Pascarella & Terenzini, 1980) assessed academic nonpersistence decisions of undergraduates. There were five subscales in the P/VDDS which included *peer group interactions*, *interactions with faculty*, *faculty concern for student development and teaching*, *academic and intellectual development*, and *institutional and goal commitments*. The 30-item scale was measured on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with ten items being reversed-coded. Higher scores reflected fewer academic nonpersistence decisions (i.e., increased persistence decisions). A sample item included “It is important for me to graduate from college.”

Pascarella and Terenzini (1980) sampled 763 undergraduates in their original study that yielded Cronbach's alphas ranging from .71 to .84 for the five subscales. Subsequent studies utilized a total score to assess persistence decisions for Latina/o undergraduates rather than assessing each subscale (Bordes-Edgar et al., 2011; Castillo, et al., 2006; Gloria et al., 2005a), which yielded adequate internal consistencies of .71, .83, and .86, respectively. Most recently, Delgado-Guerrero and Gloria (2013) used the P/VDDS to assess academic persistence decisions with 115 Latina undergraduates and found adequate internal consistency ($\alpha = .81$). Due to the length of the total scale (i.e., 30 questions) and the length of all seven scales and demographic questions, the current study only utilized the institutional and goal commitments subscale (i.e., 6 questions) and yielded an internal consistency coefficient of .52.

Quantitative analysis. Prior to analyzing the three quantitative hypotheses, preliminary analysis was conducted to determine internal consistency of all the constructs within the study. Additionally, descriptive statistics were calculated including means and standard deviations for each of the study variables prior to data analysis. Furthermore, demographic items were examined in the initial analyses to search for additional variables acting as covariates.

Several types of analyses were conducted to examine the study's three quantitative research questions. First, differences by type of mentoring relationship and frequency of mentor contact in relation to PSC variables and academic persistence were examined using a 3x3 MANCOVA to determine group means differences for the study's variables while controlling for two covariates (i.e., financial stress and acculturation stress). Second, canonical correlations assessed for the interrelationship between the psychological, social, and cultural variable sets by mentor type. Finally, a five-step hierarchical regression measured the extent to which the covariates (i.e., financial stress and acculturation stress), contextual variables (i.e., mentor type

and frequency of mentor contact) and the PSC dimensions (i.e., self-beliefs, mentorship support, and university comfort) individually and collectively predicted academic persistence decisions.

Qualitative Procedure

Before conducting any interviews, the primary researcher advised each student that their participation was voluntary and that they had the right to decline or discontinue the interview at anytime. Students had an opportunity to review and sign a consent form (Appendix H). Once the consent form was signed, participants completed a short demographic form (Appendix I) requesting information such as their age, year in school, race/ethnicity, type of mentoring relationship they are currently receiving, duration of the mentoring relationship, the frequency of mentorship meetings, and if known, the race/ethnicity of their mentor. Additionally, the primary researcher used a pseudonym to protect their identity. Finally, data confidentiality was discussed, and further stated that all data from interviews would be kept in a secure location and accessible to the primary researcher, principal investigator, and inter-rater analysis research team.

The semi-structured interviews lasted between 20-50 minutes and were conducted in a private room in a campus building to allow confidentiality for the participant. Participants were compensated with a \$20.00 gift card from Amazon at the conclusion of the completed interview. All interviews were digitally recorded with an electronic audio recorder. Each transcript was transcribed verbatim and stored on a secure network that was password protected, to which the primary researcher, principal investigator, and inter-rater analysis research team had sole access.

Student participants. The primary researcher contacted all participants ($n = 35$) who self-identified as Latina/o from a single institution that agreed to participate in the follow-up interview. Based on the participant responding to the email invitation to set-up an interview time, the primary researcher conducted a total of 20 in-depth interviews. One interview was excluded

from the study due to conflict of interest with the primary researcher (i.e., participant reported that their mentor was the primary researcher at the conclusion of the interview). There was an even distribution of mentorship type, that is, participants had peers ($n = 6$), staff ($n = 7$), or faculty ($n = 6$) mentors. Further description of the 19 interview participants is reported in-depth in Chapter IV.

Interview protocol. The primary researcher, under the guidance of the principal investigator, developed both the demographic form and interview protocol. The demographic form (Appendix I) requested demographic data and further description of their mentoring relationship. Existing literature on mentoring college students guided the development of the interview protocol (Appendix J). Additionally, the primary researcher conducted mock interviews with colleagues and revised both the demographic form and interview protocol based on feedback.

Qualitative analysis. LeCompte's (2000) five-step analysis was utilized to identify items, item patterns, and themes with ultimate goals of offering interpretations of the participants lived experiences (LeCompte & Schensul, 1999). An inter-rater analysis team was formed to provide trustworthiness and validity to the qualitative analysis process (Lincoln & Guba; Shenton, 2004). Before data analysis, team members discussed their expectations and assumptions about mentorship, and how their experience could potentially influence their interpretation of the data. As such, throughout all stages of data analysis, team members openly addressed disagreements and biases to ensure that analysis was as close to the meaning as possible and with the team reaching final consensus at each step of the data analysis to ensure objectivity and validity (LeCompte, 2000; Lincoln & Guba, 1985; Shenton, 2004). The team

consisted of three female graduate students and one female recent alumna who all attended the same Midwestern university from which the interviews were conducted.

Team members. The first rater, the primary researcher, self-identified as Mexican American (second-generation U.S.-born with father from Mexico and mother from Texas) who was raised in the Midwest. She is an advanced doctoral student in counseling psychology, completed her master's in counseling and bachelor's in journalism at her current institution, and is a first-generation college student. She has been both a mentor and mentee and attributes her persistence in post-secondary education to her multiple mentorship experiences. The second rater self-identified as Central American (first-generation U.S.-born with parents from Guatemala and El Salvador) who was raised in the Southwest. At the time of data analysis, she was a second-year master's student in counseling, holds a bachelor's degree in criminology, law, and society from a Southwestern university, and is a first-generation college student. She has been both a mentor and mentee and states that mentorship has played a salient role in both her academic and professional development and has shaped the person she is today. The third rater self-identified as African American (first-generation U.S.-born with parents from Nigeria) who was raised in the South. At the time of data analysis, she was a second-year master's student in counseling, holds a bachelor's degree in both psychology and sociology from her current institution, and is a second-generation college student. She has never been a mentee or mentor; however, always wanted a mentor because of the huge amount of support they provide. The final rater self-identified as Salvadorian (first-generation U.S.-born with parents from El Salvador) who was raised in the Southwest. At the time of data analysis, she was a recent alumna who was currently working full-time at a non-profit community agency helping high school seniors' transition to college. She holds a bachelor's degree in human development and family studies from the same

university where the study was conducted and is a first-generation college student. She has been both a mentee and mentor and states mentorship can have a positive influence on students because it provides them with an individualized sense of support.

Content analysis of data. The PSC framework (Gloria & Rodriguez, 2000) and the Undergraduate Mentoring Model (Nora & Crisp, 2007) provided the basis of the analyses and interpretations of the study's findings using LeCompte's (2000) multi-step content analyses of qualitative data. According to LeCompte (2000), the first step of data analysis required the primary researcher and inter-rater analysis team to "tidy up" the data. Specifically, tidying up involved: (a) making copies of all data; (b) putting all interviews in order of their creation date; (c) creating an instrument management system; (d) cataloging and storing all documents and artifacts; (e) labeling and storing all data; (f) creating an index or table of contents for all data; (g) reviewing research questions, comparing them against the data collected; (h) identifying any missing data; and (i) return to the field to collect additional data to fill gaps in the record (LeCompte, 2000; LeCompte & Schensul, 1999). Essentially tidying up the data allowed researchers to make preliminary assessment of the data set. Prior to the second step of data analysis, the primary researcher conducted a member-check by providing each participant a copy of their transcription and asked for any clarification to further minimize any influence on the interpretation of the data. The member-check was conducted via email and asked each participant to respond within two weeks of receiving the email with confirmation of accuracy and/or with suggestions for edits. Only one participant responded and asked for clarification of colloquial language used (i.e., participant stated "blah, blah, blah" a few times throughout transcript) to which the primary researcher went back to original audio file and verified the participants use of this colloquial language.

The second step of data analysis identified items through line-by-line coding. The primary researcher and inter-rater analysis team read through each transcript carefully and assigned words or phrases to create items or units of analysis. LeCompte and Schensul (1999) describe this item-level inductive process of analysis as building a formative theory through cognitive processes. The principal investigator served as an outside auditor for both step two and step three to provide further trustworthiness of the data.

Step three consisted of stabilizing sets of items to organize them into groups or categories by comparing and contrasting items (LeCompte, 2000). Furthermore, establishing meaningful criteria to rules help make a clear-cut distinction between different items. The objective in this step of analysis was to assemble taxonomies of item sets. The primary researcher created stabilized item sets for each question by mentor type.

Once the primary researcher formulated taxonomies of items that go together, the fourth step of analysis was naming the item patterns. LeCompte (2000) states “locating patterns involves reassembling them in ways that begin to resemble a coherent explanation or description of the program, event, or phenomenon under study” (p. 150). The primary researcher identified these item patterns from across all interviews by mentor type rather than creating separate item patterns per interview. LeCompte and Schensul (1999) suggested that item patterns might emerge by declaration, frequency, omission, similarity, co-occurrence, corroboration, sequence, or in congruence with a prior hypotheses. It was anticipated that most item patterns would emerge from similarity, co-occurrence, or prior hypotheses since the sample population was a group of Latina/o undergraduates attending the same university. However, it was important to understand that invariable differences would also emerge depending on the individual characteristics and lived experiences of each participant.

The fifth and final step of data analysis was taking the item patterns to formulate higher-order structures or emergent themes. These structures taken together build an overall conceptual description of the phenomenon studied. LeCompte (2000) suggested doodling as a way to begin displaying relationships among patterns by creating diagrams, conceptual maps, taxonomic trees, flow charts, and causal maps. In the current study, the goal was explore how emergent themes fit the PSC framework (Gloria & Rodriguez, 2000) for academic persistence decisions using the Undergraduate Mentoring Model (Nora & Crisp, 2007) as a secondary framework. In total, the primary researcher and principal investigator spent approximately 50 hours during the auditing process of stages four and five of the data analysis process.

Trustworthiness. One of the key aspects to rigorous qualitative research design is the incorporation of trustworthiness. Lincoln and Guba (1985) described trustworthiness, or validity, as intentional reflection and use of credibility, dependability, and transferability throughout the research process. The primary researcher utilized a number of strategies to achieve trustworthiness. First, in the current study, credibility was established by the intentional selection and recruitment of participants that have been recently mentored that will address the central qualitative research question. “Selectivity cannot be eliminated, but it is important to be aware of how it affects data collection, and hence, the usefulness and credibility of research results,” (LeCompte, 2000, p. 146). Second, the interview protocol was created based on a thorough theoretical understanding of college mentorship literature; hence, adding to the credibility of the research design. Third, the primary researcher employed the process of member checking by providing each participant the transcription to check for accuracy of their experience. To address dependability, the principal investigator served as the auditor at steps two through five to identify if there was potential bias or misinterpretation from the inter-rater analysis team. Ultimately, the

auditor confirmed reliability of items and item patterns that the primary researcher and inter-rater analysis team established from each participant. Finally, a fifth strategy utilized to establish trustworthiness focused on the transferability of the data to other settings and groups. The primary researcher provided a thorough description of 1) the participants' demographic background; 2) the university setting; and 3) the context of the mentoring relationship in order to offer transferability to similar lived experiences. The primary researcher understands that there is no single correct or universal application of research findings, but rather, the most probable meaning from a particular perspective (Lincoln & Guba, 1985). Ultimately, the goal of trustworthiness is what LeCompte (2000) described as "whether or not research findings seem accurate or reasonable to the people who were studied. It also refers to whether or not results obtained in one study can be applied to other studies with similar or identical people or situations" (p. 152).

Researcher positionality. According to LeCompte (2000), researchers are expected to be as unbiased as possible; however, since we are human, we are inherently interested in certain things and not others, thus prompting us to make selection. Marshall and Rossman (2006) ascertain that "in qualitative studies, the researcher is the instrument," (p. 72). Therefore, it is critical that as the primary researcher, I acknowledge my biases and share a brief biography so that the lens from which I conducted this research is understood.

I am a first-generation Latina college student, who is now an advanced doctoral student in counseling psychology. I chose the topic of mentorship for Latina/os in higher education because I am a product of successful and influential mentoring relationships. For example, as a senior in my undergraduate program, I had the great fortune of being mentored by both a Filipina administrator (pseudonym Liwliwa) and a Chicana director (pseudonym Dolores) who saw

potential in me to pursue graduate studies. One day I was talking to Dolores about my future plans and she asked me if I ever thought about a career in student affairs. At that time, I was pursuing an undergraduate degree in journalism with plans to move back home and write for my local newspaper; therefore, I had no idea what Dolores meant by a career in student affairs. She explained that this career entailed working at a university, helping students navigate their journey to graduate from college. Dolores further explained that I was actually doing the work consistent with student affairs professionals in my role as a peer resident assistant in the resident halls.

Once I became aware of this career path, Dolores helped me get connected to Liwliwa, who was a university administrator and could provide additional opportunities to reach that goal. Liwliwa took the time to sit down with me and explained the importance of continuing my education. I am embarrassed to admit that when Liwliwa told me I had potential to earn a PhD, I had no idea what that meant. I just knew that when you graduated from college, you were supposed to go get a job. Instead of ridiculing me on my lack of educational degree understanding, she took a nurturing and culturally appropriate approach to explain the world of academia to me. Liwliwa encouraged me to apply for graduate school and walked me through every step of the application process. Additionally, Liwliwa connected me to a faculty member, (pseudonym Alma) who identifies as Chicana and who Liwliwa trusted to help me continue my graduate studies. Alma became my faculty mentor and has not only modeled how to be an effective mentor, but has been a role model of someone who uses their passion of research to inform their practice of working with underrepresented students. She has supported my research interest in mentorship from the very beginning and has provided unwavering support to this day.

Had it not been for the mentorship of these three women of color, I would not find myself now on the brink of finishing my doctoral degree in counseling psychology. Culturally, I identify

as Mexican American, and though my family very much values and supports my education, I am constantly asked, “*Mija, cuando terminas? Cuando regresas al casa?*” Translated, this states, “Daughter, when are you done [with school]? When will you come home?” Neither of my parents have a high school diploma. Furthermore, I am the second in my entire family to obtain an advanced degree and will be the first and only to obtain a doctorate. Therefore, the mentorship I received helped me negotiate my home cultural values with the potential to advance myself academically and professionally. This mentorship continues in my graduate program and I know will continue far into my professional career as well.

Since I received tremendous and influential mentorship, I too felt inspired to give back to other students walking steps behind me. As a graduating senior, I mentored a peer, lower-division Latino male undergraduate student (pseudonym Carlos) who was trying to figure out his life path as well. Though this mentorship was not a formal mentoring relationship, I took the time to listen to his cultural struggles of wanting to move back home after graduation and provide for his family. He ultimately decided that he wanted to pursue graduate school as well and when it was time for him to apply, I walked him through the graduate school application process, much like my mentor Liwliwa did for me. Since that first mentoring experience as a mentor with Carlos, I have mentored over 25 undergraduate and graduate students of color. For me, mentoring is a reciprocal process and serves a vehicle in which I am able to influence academic persistence for the students I mentor. In turn, my mentees provide me with a fuel of energy and strength to aid in my own academic persistence as well. It is through this reciprocal process that may have a positive influence on the achievement gap in higher education and ultimately shift the demographic of undergraduate degree conferrals by increasing the number of Latina/o and more broadly REM students who obtain their undergraduate degree.

I share my researcher positionality because I am aware that my experience as both a mentee and mentor may influence the way by which I interpret and conceptualize the participants lived experiences. Therefore, I carefully monitored my influence during the collection and analysis of data. Specifically, while conducting interviews, I followed the interview protocol as close as possible to minimize my bias in the interpretation of participant's stories. Furthermore, during the data analysis stage, I provided each participant a copy of their transcription and asked for any clarification to further minimize my influence on the interpretation of the data. Finally, during data analysis with my research team, we discussed our experiences and perspectives openly to address disagreements and biases to maintain trustworthiness and ultimately obtain consensus. In rigorous qualitative research design, my responsibility as the primary researcher was to incorporate processes to ensure trustworthiness and credibility.

Chapter IV

Results

This chapter presents the results of both an examination and exploration of Latina/o undergraduates' mentoring experiences as related to their academic persistence decisions. For the quantitative data, preliminary analyses including participants' characteristics (i.e., personal and educational) as well as experiences with their mentors are first described, followed by reported descriptive statistics for each of the study's variables. The results of the study's first three research questions are then presented. For the qualitative portion of the study, participants' characteristics (i.e., personal and educational) as well as experiences with their mentors are first described followed by the results (i.e., emergent themes, subthemes, and illustrative statements) of the fourth research question. For purposes of clarity and consistency, the discussion of the quantitative and qualitative findings is presented in Chapter V.

Quantitative Results

Preliminary analyses. The primary researcher conducted preliminary analyses on both demographic questions (i.e., participant characteristics and mentorship experience) and the study's scales (i.e., PSC variables, covariates, and criterion variable) prior to examining the three quantitative research questions.

Participants' characteristics and mentorship experiences. A total of 153 participants met criteria for the study. Personal characteristics of the study sample are presented in Table 1. Two-thirds of the participants were female ($n = 102$, 66.7%) compared to male ($n = 51$, 33.3%). Ranging in age, the vast majority of participants ($n = 148$, 96.7%) were between the ages of 18 and 22, with only five participants (3.3%) between the ages of 23 and 35. Although the entire sample identified with some Latina/o heritage (i.e., racially Latina/o) in order to meet criteria

Table 1

Frequencies of Participants' Personal and Family Characteristics

Characteristic	<i>n</i>	%
Gender		
Female	102	66.7
Male	51	33.3
Age		
18	19	12.4
19	29	19.0
20	40	26.1
21	37	24.2
22	23	15.0
23	2	1.3
24	2	1.3
35	1	0.7
Race		
Latino/Hispanic	118	77.1
Biracial/Multiracial (with some Latino heritage)	35	22.9
Ethnicity		
Brazilian	1	0.7
Chilean	1	0.7
Colombian	2	1.3
Cuban	1	0.7
Dominican	3	2.0
Mexican	64	41.8
Paraguayan	1	0.7
Peruvian	2	1.3
Puerto Rican	8	5.2
Salvadorian	1	0.7
Multiple ethnicities	7	4.8
No identified ethnicity	62	40.5
Family income		
Less than \$10,000	10	6.5
\$10,001-\$20,000	18	11.8
\$20,001-\$30,000	21	13.7
\$30,001-\$40,000	27	17.6
\$40,001-\$50,000	13	8.5
\$50,001-\$60,000	13	8.5
\$60,001-\$70,000	4	2.6
\$70,001-\$80,000	13	8.5
\$80,001-\$90,000	3	2.0
\$90,001-\$100,000	8	5.2
More than \$100,000	18	11.8
Not reported	5	3.3
Primary caregiver's level of education		
No formal school	2	1.3
Elementary school	18	11.8
Middle school	20	13.1
Technical certificate	6	3.9
General equivalency diploma	9	5.9
High school diploma	32	20.9
Some college	10	6.5
Associate's degree	8	5.2
Bachelor's degree	24	15.7
Master's degree	17	11.1
Advanced degree	7	4.6
Unknown	0	0.0
Not applicable	0	0.0
Secondary caregiver's level of education		
No formal school	6	3.9
Elementary school	19	12.4

Table 1

Frequencies of Participants' Personal and Family Characteristics

Characteristic	<i>n</i>	%
Middle school	25	16.3
Technical certificate	7	4.6
General equivalency diploma	7	4.6
High school diploma	26	17.0
Some college	5	3.3
Associate's degree	6	3.9
Bachelor's degree	21	13.7
Master's degree	10	6.5
Advanced degree	5	3.3
Unknown	4	2.6
Not applicable	12	7.8
Sibling's level of education		
No formal school	2	1.3
Elementary school	3	2.0
Middle school	19	12.4
Technical certificate	0	0.0
General equivalency diploma	3	2.0
High school diploma	26	17.0
Some college	28	18.3
Associate's degree	5	3.3
Bachelor's degree	36	23.5
Master's degree	10	6.5
Advanced degree	1	0.7
Unknown	1	0.7
Not applicable	19	12.4
Primary caregiver's top 10 occupations		
Factory worker	15	9.8
Management/supervisor	12	7.8
Customer service	12	7.8
Administrative assistant	11	7.2
Laborer	10	6.5
Teacher	8	5.2
Mechanic	8	5.2
Electrician	5	3.3
Custodial service	5	3.3
Physician	4	2.6
All other occupations	51	33.3
Unemployed	5	3.3
Unknown	0	0.0
Not applicable	4	2.6
Secondary caregiver's top 10 occupations		
Factory worker	17	11.1
Homemaker	11	7.2
Food industry	10	6.5
Laborer	10	6.5
Custodial service	9	5.9
Management/supervisor	9	5.9
Nurse	4	2.6
Drivers	3	2.0
Physician	3	2.0
Bilingual interpreter	3	2.0
All other occupations	34	22.2
Unemployed	10	6.5
Unknown	5	3.3
Not applicable	22	14.4
First-generation college student status		
Yes	96	62.7
No	57	37.3

Table 1
Frequencies of Participants' Personal and Family Characteristics

Characteristic	<i>n</i>	%
Generation status (first U.S.-born)		
No one in my family	18	11.8
Myself or siblings	86	56.2
Parents	28	18.3
Grandparents	15	9.8
Great-grandparents	4	2.6
Great-great-grandparents	1	0.7
Beyond great-great-grandparents	1	0.7

Note. *N* = 153.

for the study, more than half ($n = 91$, 59.5%) did report their specific ethnic heritage, while 62 participants (40.5%) did not report their specific ethnic heritage. Of those who did report their ethnic heritage, participants who self-identified as Mexican were most represented ($n = 64$, 41.8%) in the sample. When asked who in their family was first to be born in the United States (i.e., generation status), the majority ($n = 86$, 56.2%) reported being first in their family to be born in the United States.

Participants were asked familial characteristic questions about family members' level of education and occupations. Most participants reported their primary and secondary caregivers' highest level of education was a high school diploma or less, with 56.9% ($n = 87$) and 58.8% ($n = 90$), respectively. Additionally, another 52.9% ($n = 81$) of participants reported their sibling's highest level of education was some college or less. When asked if they were the first in their families to attend college, 96 participants (62.7%) responded they were first in their families to attend college (i.e., first-generation college students). When socioeconomic status was examined, participants estimated their family household income ranging from no income (\$0) to \$500,000 with a median household income of \$40,000 ($M = \$63,174.32$, $SD = 74373.31$) and reported that both their primary and secondary caregivers' most frequent occupation was a factory worker.

For the educational-focused questions (see Table 2), participants reported grade point averages (GPAs) ranging from 2.2 to 4.0 ($M = 3.19$, $SD = .41$) with just over two-thirds ($n = 103$,

Table 2

Frequencies of Participants' Educational Characteristics

Characteristic	<i>n</i>	%
Grade point average		
2.20-2.49	6	3.9
2.50-2.74	19	12.4
2.75-2.99	21	13.7
3.00-3.24	26	17.0
3.25-3.49	35	22.9
3.50-3.74	33	21.6
3.75-3.99	4	2.6
4.00	5	3.3
Not reported	4	2.6
Class standing		
First-year	30	19.6
Second-year	30	19.6
Third-year	32	20.9
Fourth-year	42	27.5
Fifth-year	11	7.2
Recent alumni	8	5.2
Transfer student		
No	136	88.9
Yes	17	11.1
Continuously enrolled in college		
Yes	146	95.4
No	7	4.6
Majors within school/college		
Agriculture & Life Sciences	40	26.1
Business	10	6.5
Education	14	9.2
Engineering	18	11.8
Environmental Studies	1	0.7
Human Ecology	10	6.5
Letters & Science	68	44.4
Medicine & Public Health	4	2.6
Nursing	7	4.6
Pharmacy	1	0.7
Social Work	5	3.3
Undeclared	6	3.9
Program affiliations		
Academic Advancement Program	12	7.8
Center for Educational Opportunity	22	14.4
Chancellor's Scholars Program	15	9.8
First Wave Scholars Program	4	2.6
McNair Scholars Program	5	3.3
PEOPLE Program	24	15.7
Posse Program	25	16.3
Powers-Knapp Scholars Program	12	7.8
Undergraduate Research Scholars	11	7.2
No program affiliation	37	24.2
Financing for education		
Scholarship/grants	135	88.2
Working part-time	99	64.7
Family/spouse/partner	65	42.5
Student loans	63	41.2
Personal savings	48	31.4
Credit cards	14	9.2
Working full-time	7	4.8
Highest degree expected to earn		
Bachelor's degree	40	26.1
Master's degree	49	32.0

Table 2

Frequencies of Participants' Educational Characteristics

Characteristic	<i>n</i>	%
Professional degree	36	23.5
Research degree	23	15.0
Joint degree	5	3.3
I value the degree I am working towards		
Strongly agree	117	76.5
Agree	28	18.3
Slightly agree	6	3.9
Slightly disagree	0	0.0
Disagree	2	1.3
Strongly disagree	0	0.0
Likelihood will enroll next semester		
Very likely	119	77.8
Somewhat likely	2	1.3
Somewhat unlikely	0	0.0
Very unlikely	11	7.2
Graduating	21	13.7
Likelihood will earn degree from current institution		
Very likely	129	84.3
Somewhat likely	8	5.2
Somewhat unlikely	0	0.0
Very unlikely	6	3.9
Graduated	10	6.5

Note. *N* = 153.

67.3%) reporting a GPA of 3.00 or above. Class standing was somewhat evenly represented with 30 first-year students (19.6%), 30 second-year students (19.6%), 32 third-year students (20.9%), and 42 fourth-year students (27.5%) with an additional 19 students identifying as fifth-year or recent alumni. Most students ($n = 68$, 44.4%) reported their undergraduate major was in the College of Letters and Science. Several participants ($n = 17$, 11.1%) reported transferring from another college or university and the majority ($n = 146$, 95.4%) stated they had been continuously enrolled since beginning their bachelor's degree. The majority ($n = 121$, 79.0%) of participants reported they were likely to enroll in classes the following semester with nearly all ($n = 151$, 98.9%) reporting they valued their college education. Most participants (96.1%) expected to earn their bachelor's degree from their current institution ($n = 147$) and another three-quarters (73.9%) expected to earn an advanced degree ($n = 113$). Participants reported financing their education primarily through scholarships/grants ($n = 135$, 88.2%) or working part-time ($n = 99$, 64.7%).

Participants were asked about specific stressors related to financial stress and acculturation stress, which are presented in Table 3 and Table 4, respectively. Slightly under half ($n = 74$, 48.4%) of the participants never or rarely had difficulty paying student fees the following semester; however, approximately the same number ($n = 73$, 47.7%) reported often or very often having difficulty paying for recreation and entertainment. Just over half ($n = 77$, 50.3%) of participants never or rarely had financial difficulties due to owing money, yet 64 participants (41.8%) reported often or very often having difficulty due to their family experiencing money problems. Despite the perception that one “made it” by getting into college, 42 participants (27.5%) reported having difficulty paying rent and another 44 participants (28.8%) reported having difficulty paying for food.

Table 3
Responses from College Stress Inventory (Financial Stress Subscale)-Modified

<i>In the last month, how often have you experienced stress given ...</i>	<u>Never</u>		<u>Rarely</u>		<u>Sometimes</u>		<u>Often</u>		<u>Very Often</u>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Difficulty paying student fees next semester	42	27.5	32	20.9	42	27.5	24	15.7	13	8.5
Financial difficulties due to owing money	41	26.8	36	23.5	33	21.6	29	19.0	14	9.2
Difficulty paying rent	43	28.1	27	17.6	41	26.8	31	20.3	11	7.2
Difficulty paying for food	31	20.3	37	24.2	41	26.8	37	24.2	7	4.6
Difficulty paying for recreation and entertainment	22	14.4	19	12.4	39	25.5	50	32.7	23	15.0
Difficulty due to your family experiencing money problems	25	16.3	24	15.7	40	26.1	32	20.9	32	20.9

Note. $N = 153$.

With regards to acculturation stress, two-thirds ($n = 101$, 66.0%) of participants stated they were often or very often aware of how different they were on campus with an additional half ($n = 81$, 52.9%) reporting they were often or very often stereotyped on campus. However, 86 participants (56.2%) reported university personnel never or rarely ignored them and additional 79 participants (51.6%) reported never or rarely being excluded from participating in others' activities. Half of the participants ($n = 77$, 50.3%) reported never or rarely having trouble communicating with others. Finally, the same number of participants ($n = 94$, 61.4%) reported

Table 4

Responses from Social, Attitudinal, Familial, and Environmental (SAFE) Scale (Acculturation Stress)-Modified

<i>Because of my ethnic background ...</i>	<u>Never</u>		<u>Rarely</u>		<u>Sometimes</u>		<u>Often</u>		<u>Very Often</u>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
University personnel ignore me	50	32.7	36	23.5	52	34.0	13	8.5	2	1.3
I am stereotyped on campus	21	13.7	19	12.4	32	20.9	52	34.0	29	19.0
Others often exclude me from participating in their activities	38	24.8	41	26.8	44	28.8	24	15.7	6	3.9
I am aware of how different I am	13	8.5	17	11.1	22	14.4	44	28.8	57	37.3
I have trouble communicating with others	30	19.6	47	30.7	35	22.9	32	20.9	9	5.9
My family questions my new values coming to college	68	44.4	26	17.0	22	14.4	25	16.3	12	7.8
Close family members and I have different expectations about my future	52	34.0	42	27.5	19	12.4	24	15.7	16	10.5

Note. *N* = 153.

their family never or rarely questioned their new values coming to college as well as reporting never or rarely having different expectations about their future from close family members.

Finally, with regards to demographic questions about their mentoring experiences (see Table 5), 37 participants reported having a peer mentor (24.2%), 81 participants reported having a staff mentor (52.9%) who was a graduate student, university staff, or administrator, and 35 participants reported having a faculty mentor (22.9%). Participants reported these mentoring relationships were both formally assigned ($n = 86$, 56.2%) or informally sought out ($n = 66$, 43.1%). One participant did report that their mentor was both a formal and informal relationship. Participants reported that their mentoring relationship lasted from one semester or less to eight semesters or more, with just over half (50.3%) of participants being in their mentoring relationship for four semesters or longer. When asked if their mentor helped them persist while in college, the vast majority ($n = 147$, 96.1%) affirmed that their mentor did help them persist in college. When asked to what degree did they value their mentor, 149 participants (97.4%) asserted that they did value their mentoring relationship. Most ($n = 136$, 88.9%) participants reported that they were still in their mentoring relationship with 17 participants (11.1%) reporting their mentoring relationship ended for various reasons such as their mentor moved

Table 5
Frequencies of Participants' Mentorship Experiences

Characteristic	Total (<i>n</i> = 153)		Peer (<i>n</i> = 37)		Staff (<i>n</i> = 81)		Faculty (<i>n</i> = 35)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Formality								
Formal	86	56.2	12	32.4	53	65.4	21	60.0
Informal	66	43.1	24	64.9	28	34.6	14	40.0
Both formal and informal	1	0.7	1	2.7	0.0	0.0	0	0.0
Semesters mentor relationship lasted								
1 or less	22	14.4	7	18.9	12	14.8	3	8.6
2-3 semesters	54	35.3	18	48.6	25	30.9	11	31.4
4-5 semesters	38	24.8	8	21.6	17	21.0	13	37.1
6-7 semesters	25	16.3	3	8.1	18	22.2	4	11.4
8 or more	14	9.2	1	2.7	9	11.1	4	11.4
My mentor helps/helped me persist while in college								
Strongly agree	82	53.6	17	45.9	47	58.0	18	51.4
Agree	44	28.8	15	40.5	20	24.7	9	25.7
Slightly agree	21	13.7	5	13.5	9	11.1	7	20.0
Slightly disagree	3	2.0	0	0.0	3	3.7	0	0.0
Disagree	1	0.7	0	0.0	1	1.2	0	0.0
Strongly disagree	2	1.3	0	0.0	1	1.2	1	2.9
I value/valued my current mentoring relationship								
Strongly agree	92	60.1	19	51.4	55	67.9	18	51.4
Agree	46	30.1	15	40.5	18	22.2	13	37.1
Slightly agree	11	7.2	3	8.1	4	4.9	4	11.4
Slightly disagree	2	1.3	0	0.0	2	2.5	0	0.0
Disagree	1	0.7	0	0.0	1	1.2	0	0.0
Strongly disagree	1	0.7	0	0.0	1	1.2	0	0.0
I am still in this mentoring relationship								
Yes	136	88.9	31	83.8	73	90.1	32	91.4
No	17	11.1	6	16.2	8	9.9	3	8.6

Note. *N* = 153.

away, relationship ended due to the end of the school year, some mentors graduated, others got a new job, or that their mentor was “not a good mentor.”

When asked how frequently they met their mentor in person, most participants (*n* = 66, 43.1%) reported meeting with their mentor either bi-weekly or monthly. Further examination of mentor contact via mode of communication by mentor type (see Table 6), illustrated that, regardless of mentor type, participants reported meeting in person face-to-face was their most frequently used of communication (peer, 48.6%; staff, 29.6%; faculty, 25.7%). However, participants with peer mentor reported seeing their mentor more frequently (48.6%) in person (i.e., weekly basis) than participants with staff and faculty mentors who reported seeing their

Table 6

Frequency of Mentor Contact via Mode of Communication by Mentor Type for Survey Participants

Mode of communication	Total (<i>n</i> = 153)		Peer (<i>n</i> = 37)		Staff (<i>n</i> = 81)		Faculty (<i>n</i> = 35)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Face-to-face (in-person)								
Very frequently	51	33.3	18	48.6	24	29.6	9	25.7
Frequently	66	43.1	14	37.8	37	45.7	15	42.9
Infrequently/never	36	23.5	5	13.5	20	24.7	11	31.4
Face-to-face (video conference, e.g. Skype)								
Very frequently	3	2.0	3	8.1	0	0.0	0	0.0
Frequently	13	8.5	5	13.5	7	8.6	1	2.9
Infrequently/never	137	89.5	29	78.4	74	91.4	34	97.1
Phone conversation								
Very frequently	1	0.7	1	2.7	0	0.0	0	0.0
Frequently	25	16.3	9	24.3	14	17.3	2	5.7
Infrequently/never	127	83.0	27	73.0	67	82.7	33	94.3
E-mail								
Very frequently	29	19.0	7	18.9	13	16.0	9	25.7
Frequently	71	46.4	12	32.4	42	51.9	17	48.6
Infrequently/never	53	34.6	18	48.6	26	32.1	9	25.7
Text message								
Very frequently	26	17.0	15	40.5	11	13.6	0	0.0
Frequently	33	21.6	14	37.8	13	16.0	6	17.1
Infrequently/never	94	61.4	8	21.6	57	70.4	29	82.9
Facebook								
Very frequently	14	9.2	8	21.6	5	6.2	1	2.9
Frequently	31	20.3	16	43.2	11	13.6	4	11.4
Infrequently/never	108	70.6	13	35.1	65	80.2	30	85.7
Twitter								
Very frequently	4	2.6	3	8.1	1	1.2	0	0.0
Frequently	4	2.6	4	10.8	0	0.0	0	0.0
Infrequently/never	145	94.8	30	81.1	80	98.8	35	100.0
LinkedIn								
Very frequently	0	0.0	0	0.0	0	0.0	0	0
Frequently	1	0.7	0	0.0	1	1.2	0	0
Infrequently/never	152	99.3	37	100.0	80	98.8	35	100.0

Note. *N* = 153.

mentors in person more frequently on a bi-weekly or monthly basis, 45.7% and 42.9%, respectively.

Descriptive statistics of study's variables. Prior to analyzing the research questions, each of the study's scales was reviewed for multivariate normalcy, internal consistency, and descriptive statistics (i.e., means, standard deviations, range, skew, and kurtosis). Bivariate correlations were conducted to test for multivariate normalcy. The zero-order correlation coefficients ranged from .00 to .46 for all the scales, indicating non-multicollinearity. Each scale had adequate internal consistencies, ranging from .84 to .96, with the exception of the P/VDDS,

which yielded a Cronbach's alpha of .52. Participants' mean scale scores were reported as missing when less than 20% of the items were missing. Skewness and kurtosis and corresponding histograms were reviewed and determined to be within adequate range (i.e., $|2|$) for each scale with the P/VDDS scale evidencing a negative skew of -1.09 ($SE = .20$) and kurtosis of .92 ($SE = .39$), albeit falls within a considered standard range. Results of preliminary analyses (see Table 7) determined scales met basic assumptions of normality and would be appropriate for hypothesis-testing analyses.

Table 7

Variable	α	M	SD	Range	Skew	Kurt.	2	3	4	5	6	7	8	9
1. ESES	.94	3.26	.71	1-5	.12	-.48	.47**	-.01	.02	.39**	.32**	-.13	-.27**	.27**
2. RSES	.88	3.04	.50	1-4	-.48	.73		.03	.05	.33**	.26**	.01	-.19*	.38**
3. MS	.91	2.91	.47	1-4	.09	-.13			.83**	-.05	-.14	.26**	.32**	-.05
4. CSMS	.96	3.93	.67	1-5	-.26	-.05				.02	-.10	.19*	.33**	.06
5. UES	.84	2.84	.39	1-4	.07	.53					.64**	-.34**	-.48**	.46**
6. CCS	.84	2.79	.46	1-4	.28	-.13						-.28**	-.66**	.31**
7. CSI-M	.84	2.80	.96	1-5	-.22	-.75							.46**	-.19*
8. SAFE-M	.85	2.72	.90	1-5	-.16	-.96								-.20*
9. P/VDDS	.52	4.47	.50	1-5	-1.09	.92								

Notes. ESES = Educational Self-Efficacy Scale; RSES = Rosenberg Self-Esteem Scale; MS = Mentorship Scale; CSMS = College Student Mentoring Scale; UES = University Environment Scale; CCS = Cultural Congruity Scale; CSI-M = College Stress Inventory-Modified; SAFE-M = Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale-Modified; P/VDDS = Persistence/Voluntary Dropout Decision Scale.

* $p \leq .05$, ** $p \leq .01$.

Research question one. To determine group mean differences by mentor type (peer vs. staff vs. faculty) and frequency of mentor contact (very frequently vs. frequently vs. infrequently), a 3x3 MANCOVA was conducted, while controlling for the covariates of financial stress and acculturation stress. Results of the omnibus equation revealed no significant main effects for mentor type ($\Lambda = .86$, $F(14, 272) = 1.54$, $p = .098$, $\eta^2 = .07$) or frequency of mentor contact ($\Lambda = .88$, $F(14, 272) = 1.23$, $p = .252$, $\eta^2 = .06$). Furthermore, the interaction between mentor type and frequency of mentor contact was also nonsignificant ($\Lambda = .81$, $F(28, 492) = 1.08$, $p = .362$, $\eta^2 = .05$).

Given the small sample size, individual follow-up of univariate analysis of variance were

conducted by mentor type and frequency of mentor contact. Based on mentor type, no differences were yielded for the study's variables. When frequency of mentor contact were conducted, results yielded significant group mean differences for MS, $F(2, 150) = 8.53, p = .000, \eta^2 = .10$ and CSMS, $F(2, 150) = 6.28, p = .002, \eta^2 = .08$. More specifically, those students who infrequently met with their mentor (i.e., once a semester) had a less sense of mentorship than those who met with their mentor on a frequently (i.e., once a month or bi-monthly) or very frequently (i.e., weekly) basis. Furthermore, there was no significant difference of sense of mentorship between those who were mentored frequently or very frequently.

Research question two. To examine relationships, canonical correlation analyses (CCA) were used to examine the linear combination of emergent PSC constructs (i.e., self-beliefs, mentor support, university comfort) by mentor type (i.e., peer, staff, faculty). A canonical correlation is a multivariate analysis used to evaluate the relationship among two or more variable set, each consisting of at least two variables (Thompson, 2000; Weiss, 1972). The self-beliefs variable set consisted of ESES (self-efficacy) and RSES (self-esteem), the mentor support variable set consisted of MS (mentor support) and CSMS (college student mentor support), and the university comfort variable set consisted of UES (university environment) and CCS (cultural congruity). A canonical covariate is the correlation of the linear combination of one variable set within one emergent construct with a linear combination of a second variable set within another emergent construct (Gloria & Ho, 2003; Quintana & Kerr, 1993). Together these two covariates comprise the canonical root. The correlation between the two covariates within the canonical root is the canonical correlation.

The canonical coefficient measures the strength of association between these two covariates, which is represented through weighting of each scale in each covariate (Quintana &

Kerr, 1993). The total amount of shared variance among the covariates is calculated by squaring the canonical correlation of significant roots (Harris, 2013; Weiss, 1972). Each root is independent and each consecutive canonical correlation accounts for less variance than the preceding canonical root. The number of canonical roots that can be computed in CCA equals the number of variables in the smaller of the two variable sets (Harris, 2013; Weiss, 1972). In the current study, since all emergent sets consisted of only two variables, two canonical roots were possible. Multivariate analyses were used to examine variable sets, thus decreasing the probability of committing Type I error (Harris, 2013; Thompson, 1991; Weiss, 1972). Canonical roots that were significant with coefficients (β) of .60 or above were interpreted. To examine the relationships among the emergent constructs (i.e., self-beliefs, mentor support, university comfort) by mentor type (i.e., peer, staff, faculty), nine canonical correlation analyses were conducted (see Table 8).

Peer mentors. The first variable set, self-beliefs and mentor support was not significantly related with a canonical correlation = .92, $F(4, 66) = .72$, $p = .580$; therefore, no canonical root was interpreted. Additionally, the second variable set, mentor support and university comfort also yielded a nonsignificant canonical correlation = .90, $F(4, 66) = .89$, $p = .474$. Finally, for the variable set, university comfort and self-beliefs, the relationship was significant with a canonical correlation = .67, $F(4, 66) = 3.69$, $p = .009$, with one significant root $p = .009$. More specifically, higher comfort in the university ($\beta = .88$) and higher cultural congruity ($\beta = .95$) was strongly associated with educational self-efficacy ($\beta = .99$).

Staff mentors. The first variable set, self-beliefs and mentor support was not significantly related with a canonical correlation = .99, $F(4, 154) = .12$, $p = .974$; therefore, no canonical root was interpreted. Additionally, the second variable set, mentor support and university comfort

Table 8
Canonical Covariates for the Study's Variable Sets by Mentor Type

Variable Set	Root 1 β	Canonical Correlation	Root 2 β	Canonical Correlation
Peer Mentors				
Self-Beliefs ^a	$p > .05$	.23	$p > .05$	.18
ESES	-.11		.99	
RSES	.78		.63	
Mentor Support				
MS	-.96		.29	
CSMS	-.71		.71	
Mentor Support^b				
MS	$p > .05$	.27	$p > .05$	.17
CSMS	.82		.58	
University Comfort	.44		.90	
UES	-.99		-.10	
CCS	-.62		-.78	
University Comfort^c				
UES	$p < .01$	.58	$p > .05$	.01
CCS	.88		-.48	
Self-Beliefs	.95		.30	
ESES	.99		.11	
RSES	.44		.90	
Staff Mentors				
Self-Beliefs ^d	$p > .05$	.08	$p > .05$	.00
ESES	.85		.52	
RSES	-.03		1.00	
Mentor Support				
MS	-1.00		-.05	
CSMS	-.80		-.60	
Mentor Support^e				
MS	$p > .05$	.20	$p > .05$	.10
CSMS	.87		-.49	
University Comfort	1.00		.08	
UES	.53		.84	
CCS	-.34		.94	
University Comfort^f				
UES	$p < .01$	.46	$p > .05$	.07
CCS	.94		-.33	
Self-Beliefs	.84		.54	
ESES	.91		-.40	
RSES	.81		.59	
Faculty Mentors				
Self-Beliefs ^g	$p > .05$	.27	$p > .05$	.04
ESES	.20		.98	
RSES	.99		.12	
Mentor Support				
MS	1.00		.09	
CSMS	.83		-.55	
Mentor Support^h				
MS	$p > .05$	.16	$p > .05$	.00
CSMS	.78		.63	
University Comfort	.21		.98	
UES	-.67		-.74	
CCS	-1.00		-.02	
University Comfortⁱ				
UES	$p < .05$	.56	$p > .05$	.05
CCS	.85		.52	
Self-Beliefs	.21		.98	
ESES	.59		-.81	
RSES	.95		.31	

Note. ^a $F(4, 66) = .72, p > .05$. ^b $F(4, 66) = .89, p > .05$. ^c $F(4, 66) = 3.69, p < .01$. ^d $F(4, 154) = .12, p > .05$. ^e $F(4, 154) = 1.00, p > .05$. ^f $F(4, 154) = 4.93, p \leq .001$. ^g $F(4, 62) = .62, p > .05$. ^h $F(4, 62) = .21, p > .05$. ⁱ $F(4, 62) = 3.27, p < .05$.

also yielded a nonsignificant canonical correlation = .95, $F(4, 154) = 1.00$, $p = .407$. Finally, for the variable set, university comfort and self-beliefs, the relationship was significant with a canonical correlation = .79, $F(4, 154) = 4.93$, $p = .001$, with one significant root $p = .001$. More specifically, higher comfort in the university ($\beta = .94$) and higher cultural congruity ($\beta = .84$) was strongly associated with educational self-efficacy ($\beta = .91$) and self-esteem ($\beta = .81$).

Faculty mentors. The first variable set, self-beliefs and mentor support was not significantly related with a canonical correlation = .92, $F(4, 62) = .62$, $p = .650$; therefore, no canonical root was interpreted. Additionally, the second variable set, mentor support and university comfort also yielded a nonsignificant canonical correlation = .97, $F(4, 62) = .21$, $p = .934$. Finally, for the variable set, university comfort and self-beliefs, the relationship was significant with a canonical correlation = .68, $F(4, 62) = 3.27$, $p = .017$, with one significant root $p = .017$. More specifically, higher comfort in the university ($\beta = .85$) was strongly associated with self-esteem ($\beta = .95$).

Research questions three. A five-step hierarchical regression assessed the extent to which the study's covariates (i.e., financial stress and acculturation stress), contextual variables (i.e., mentor type and frequency of mentor contact), and psychosociocultural variable sets (i.e., self-beliefs, mentor support, and university comfort) predicted academic persistence (see Table 9). The overall omnibus regression was significant [$F(10, 2) = 6.29$, $p = .000$] and accounted for a total of 31% of the variance of academic persistence. The covariates of financial stress (CSI-M) and acculturation stress (SAFE-M) were entered as Step 1 to stabilize the regression equation, resulting in a significant Δr^2 of .05, $\Delta F = (2, 150) = 4.00$, $p = .020$. In Step 2, the contextual variables (i.e., mentor type and frequency of mentor contact) resulted in a nonsignificant Δr^2 of .02, $\Delta F = (2, 148) = 1.87$, $p = .158$. For Step 3, the self-beliefs variables (i.e., ESES and RSES)

resulted in a significant Δr^2 of .13, $\Delta F = (2, 146) = 11.92, p = .000$, with RSES ($\beta = .32, t = 3.76, p = .000$) emerging as the only significant predictor. In Step 4, the mentor support variables (i.e., MS and CSMS) resulted in a nonsignificant Δr^2 of .03, $\Delta F = (2, 144) = 2.39, p = .095$. In the final step, university fit variables (i.e., UES and CCS) were entered yielding a significant Δr^2 of .08, $\Delta F = (2, 142) = 7.92, p = .001$, with the UES variable emerging as the only significant predictor ($\beta = .34, t = 3.36, p = .001$) of academic persistence.

Table 9

Hierarchical Regression Predicting Academic Persistence Decisions

Step / Variables	β	<i>t</i> -value	<i>R</i>	r^2 Adj	Δr^2	ΔF
Step 1			.23	.04	.05	4.00*
CSI-M	-.12	-1.37				
SAFE-M	-.14	-1.56				
Step 2			.27	.05	.02	1.87
CSI-M	-.12	-1.30				
SAFE-M	-.15	-1.71				
MENTORTYPE2	-.13	-1.65				
FREQUENCY	-.11	-1.31				
Step 3			.45	.17	.13	11.92***
CSI-M	-.16	-1.85				
SAFE-M	-.05	-.56				
MENTORTYPE2	-.12	-1.53				
FREQUENCY	-.09	-1.20				
ESES	.09	1.09				
RSES	.32	3.76***				
Step 4			.48	.19	.03	2.39
CSI-M	-.14	-1.61				
SAFE-M	-.09	-.98				
MENTORTYPE2	-.12	-1.57				
FREQUENCY	-.09	-1.18				
ESES	.08	.97				
RSES	.31	3.64***				
MS	-.21	-1.60				
CSMS	.29	2.18*				
Step 5			.55	.26	.08	7.92***
CSI-M	-.08	-1.00				
SAFE-M	.07	.62				
MENTORTYPE2	-.08	-1.09				
FREQUENCY	-.11	-1.52				
ESES	.01	.09				
RSES	.25	3.09**				
MS	-.17	-1.32				
CSMS	.20	1.52				
UES	.34	3.36***				
CCS	.04	.41				

Notes. CSI-M = College Stress Inventory-Modified; SAFE-M = Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale-Modified; MENTORTYPE2 = Mentor Type; FREQUENCY = Frequency of Mentor Contact; ESES = Educational Self-Efficacy Scale; RSES = Rosenberg Self-Esteem Scale; MS = Mentorship Scale; CSMS = College Student Mentoring Scale; UES = University Environment Scale; CCS = Cultural Congruity Scale; P/VDDS = Persistence/Voluntary Dropout Decision Scale.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Qualitative Results

Participants' characteristics and mentorship experience. A total of 19 participants were included in the qualitative portion of the study and descriptive information about participants, their mentors, and their mentoring experiences are presented in Table 10. The total sample had slightly more female ($n = 10$, 52.6%) than male ($n = 9$, 47.4%) participants. The participants' ages ranged between 18 and 24 ($M = 20.53$, $SD = 1.47$). Nearly two-thirds of the participants identified ethnically as Mexican/Mexican American/Chicana ($n = 12$, 63.2%). Self-reported GPAs ranged from 2.50 to 3.80 ($M = 3.04$, $SD = .38$) with just over more than half ($n = 11$, 57.9%) reporting a GPA of 3.00 or above. By class standing, the majority ($n = 12$, 63.2%) students identified as upper-division (i.e., third, fourth, fifth, and beyond sixth-year) students.

With regards to their mentoring experience, six participants reported having a peer mentor (31.6%), seven participants reported having a staff mentor (36.8%) who was a graduate student, university staff, or administrator, and six participants reported having a faculty mentor (31.6%). The majority of participants reported these mentoring relationships were formally assigned ($n = 13$, 68.4%). Just under half of the participants reported that their mentor identified racially as Latina/o ($n = 8$, 42.1%) and more than half of participants reported their mentors were male ($n = 11$, 57.9%). When asked how important it was to have a mentor whose racial/ethnic background was the same as theirs, more participants disagreed ($n = 10$, 52.6%) with this statement. Similarly, when asked how important it was to have a mentor whose gender was the same as theirs, more participants disagreed ($n = 11$, 57.9%) than agreed with this statement. Finally, about three-fourths of participants ($n = 14$, 73.7%) reported that they were still in their mentoring relationship.

Table 10

Frequencies of Participants' Characteristics, Mentors' Characteristics, and Mentorship Experiences

Characteristic	Total (n = 19)		Peers (n = 6)		Staff (n = 7)		Faculty (n = 6)	
	n	%	n	%	n	%	n	%
Gender								
Female	10	52.6	3	50.0	6	85.7	1	16.7
Male	9	47.4	3	50.0	1	14.3	5	83.3
Age								
18	1	5.3	0	0.0	1	14.3	0	0.0
19	4	21.1	3	50.0	0	0.0	1	16.7
20	5	26.3	2	33.3	2	28.6	1	16.7
21	4	21.1	0	0.0	3	42.9	1	16.7
22	4	21.1	1	16.7	1	14.3	2	33.3
23	0	0.0	0	0.0	0	0.0	0	0.0
24	1	5.3	0	0.0	0	0.0	1	16.7
GPA								
2.50-2.99	8	42.1	4	66.7	3	42.9	1	16.7
3.00-3.49	8	42.1	2	33.3	2	28.6	4	66.7
3.50-4.00	3	15.8	0	0.0	2	28.6	1	16.7
Class standing								
First-year	4	21.1	2	33.3	1	14.3	1	16.7
Second-year	3	15.8	3	50.0	0	0.0	0	0.0
Third-year	3	15.8	0	0.0	2	28.6	1	16.7
Fourth-year	6	31.6	1	16.7	3	42.9	2	33.3
Fifth-year	2	10.5	0	0.0	1	14.3	1	16.7
Beyond sixth-year	1	5.3	0	0.0	0	0.0	1	16.7
Race								
Latino/Hispanic	15	78.9	6	100.0	6	85.7	3	50.0
Multiracial (with some Latino heritage)	4	21.1	0	0.0	1	14.3	3	50.0
Ethnicity								
Dominican American	1	5.3	0	0.0	1	14.3	0	0.0
Mexican/Mexican American/Chicana	12	63.2	5	83.3	5	71.4	2	33.3
Multiethnic (with some Latino heritage)	4	21.1	0	0.0	1	14.3	3	50.0
Puerto Rican	2	10.5	1	16.7	0	0.0	1	16.7
Program affiliations								
Academic Advancement Program	3	15.8	0	0.0	2	28.6	1	16.7
Center for Educational Opportunity	7	36.8	2	33.3	2	28.6	3	50.0
Chancellor's Scholars Program	2	10.5	1	16.7	0	0.0	1	16.7
First Wave Scholars Program	1	5.3	0	0.0	1	14.3	0	0.0
McNair Scholars Program	3	15.8	0	0.0	0	0.0	3	50.0
PEOPLE Program	6	31.6	3	50.0	2	28.6	1	16.7
Posse Program	3	15.8	0	0.0	3	42.9	0	0.0
Undergraduate Research Scholars	3	15.8	1	16.7	0	0.0	2	33.3
No Program Affiliation	1	5.3	0	0.0	0	0.0	1	16.7
Other Program Affiliation	1	5.3	1	16.7	0	0.0	0	0.0
Formality								
Formal	13	68.4	3	50.0	5	71.4	5	83.3
Informal	6	31.6	3	50.0	2	28.6	1	16.7
Semesters mentor relationship lasted								
1 or less	1	5.3	0	0.0	0	0.0	1	16.7
2-3 semesters	11	57.9	4	66.7	2	28.6	5	83.3
4-5 semesters	4	21.1	1	16.7	3	42.9	0	0.0
6-7 semesters	2	10.5	0	0.0	2	28.6	0	0.0
8 or more	1	5.3	1	16.7	0	0.0	0	0.0
Mentor's gender								
Female	8	42.1	3	50.0	3	42.9	2	33.3
Male	11	57.9	3	50.0	4	57.1	4	66.7
Mentor's race								
African American/Black	3	15.8	1	16.7	1	14.3	1	16.7
Asian American	3	15.8	0	0.0	3	42.9	0	0.0

Table 10

Frequencies of Participants' Characteristics, Mentors' Characteristics, and Mentorship Experiences

Characteristic	Total (<i>n</i> = 19)		Peers (<i>n</i> = 6)		Staff (<i>n</i> = 7)		Faculty (<i>n</i> = 6)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Latino/Hispanic	8	42.1	4	66.7	1	14.3	3	50.0
White/Caucasian	4	21.1	1	16.7	1	14.3	2	33.3
International	1	5.3	0	0.0	1	14.3	0	0.0
Mentor's ethnicity								
Chinese	1	5.3	0	0.0	1	14.3	0	0.0
Ethiopian	1	5.3	0	0.0	1	14.3	0	0.0
Hmong	2	10.5	0	0.0	2	28.6	0	0.0
Mexican/Mexican American/Chicana	5	26.3	2	33.3	1	14.3	2	33.3
Puerto Rican	2	10.5	1	16.7	0	0.0	1	16.7
Salvadorian	1	5.3	1	16.7	0	0.0	0	0.0
Not listed (racially Black or White)	7	36.8	2	33.3	2	28.6	3	50.0
It is/was important my mentor share the same gender as me								
Strongly agree	2	10.5	1	16.7	0	0.0	1	16.7
Agree	5	26.3	3	50.0	2	28.6	0	0.0
Slightly agree	1	5.3	0	0.0	0	0.0	1	16.7
Slightly disagree	1	5.3	0	0.0	0	0.0	1	16.7
Disagree	6	31.6	1	16.7	4	57.1	1	16.7
Strongly disagree	4	21.1	1	16.7	1	14.3	2	33.3
It is/was important my mentor share the same race/ethnicity as me								
Strongly agree	3	15.8	2	33.3	0	0.0	1	16.7
Agree	2	10.5	1	16.7	0	0.0	1	16.7
Slightly agree	4	21.1	1	16.7	1	14.3	2	33.3
Slightly disagree	2	10.5	0	0.0	2	28.6	0	0.0
Disagree	5	26.3	1	16.7	3	42.9	1	16.7
Strongly disagree	3	15.8	1	16.7	1	14.3	1	16.7
I am still in this mentoring relationship								
Yes	14	73.7	4	66.7	7	100.0	3	50.0
No	5	26.3	2	33.3	0	0.0	3	50.0

Note. *N* = 19.

Participants' most frequently used mode of communication was via email ($n = 17$, 89.5%), followed by meeting in person face-to-face ($n = 16$, 84.2%) with their mentors. Further examination of mentor contact via mode of communication, Table 11 illustrated contrasts by mentor type. For those students with peer mentors, their most frequently used communication was meeting with their mentor in person face-to-face ($n = 6$, 100.0%), while for students with faculty mentors, the most frequently used mode of communication was emailing their mentors ($n = 6$, 100.0%). For students with staff mentors, both meeting in person face-to-face and emailing their mentors were the most frequently used method of communication ($n = 6$, 85.7%).

Table 11

Frequency of Mentor Contact via Mode of Communication by Mentor Type for Interview Participants

Mode of communication	Total (<i>n</i> = 19)		Peer (<i>n</i> = 6)		Staff (<i>n</i> = 7)		Faculty (<i>n</i> = 6)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Face-to-face (in-person)								
Very frequently	8	42.1	3	50.0	3	42.9	2	33.3
Frequently	8	42.1	3	50.0	3	42.9	2	33.3
Infrequently/never	3	15.8	0	0.0	1	14.3	2	33.3
Face-to-face (video conference, e.g. Skype)								
Very frequently	1	5.3	2	33.3	0	0.0	1	16.7
Frequently	3	15.8	0	0.0	0	0.0	1	16.7
Infrequently/never	15	78.9	4	66.7	7	100.0	4	66.7
Phone conversation								
Very frequently	0	0.0	3	50.0	0	0.0	0	0.0
Frequently	6	31.6	0	0.0	2	28.6	1	16.7
Infrequently/never	13	68.4	3	50.0	5	71.4	5	88.3
E-mail								
Very frequently	8	42.1	2	33.3	3	42.9	3	50.0
Frequently	9	47.4	3	50.0	3	42.9	3	50.0
Infrequently/never	2	10.5	1	16.7	1	14.3	0	0.0
Text message								
Very frequently	3	15.8	2	33.3	1	14.3	0	0.0
Frequently	5	26.3	3	50.0	1	14.3	1	16.7
Infrequently/never	11	57.9	1	16.7	5	71.4	5	88.3
Facebook								
Very frequently	1	5.3	1	16.7	0	0.0	0	0.0
Frequently	5	26.3	2	33.3	3	42.9	0	0.0
Infrequently/never	13	68.4	3	50.0	4	57.1	6	100.0
Twitter								
Very frequently	1	5.3	1	16.7	0	0.0	0	0.0
Frequently	1	5.3	1	16.7	0	0.0	0	0.0
Infrequently/never	17	89.5	4	66.7	7	100.0	6	100.0
LinkedIn								
Very frequently	0	0.0	0	0.0	0	0.0	0	0
Frequently	0	0.0	0	0.0	0	0.0	0	0
Infrequently/never	19	0.0	6	100.0	7	100.0	6	100.0

Note. *N* = 19.

Research question four. To explore the fourth research question, emergent themes including illustrative statements from participants' lived experiences within their mentoring relationships are described through five domains including the Undergraduate Mentoring Model (Nora & Crisp, 2007) four domains (i.e., psychological and emotional support, goal setting and career paths, academic subject knowledge support, the existence of a role model) and the academic persistence domain that were each analyzed using the PSC framework (Gloria & Rodriguez, 2000). Results of this fourth research question confirms that the PSC framework holds via the interconnected narrative responses that merged through the four latent areas of the

Undergraduate Mentoring Model and additional domain of academic persistence. Furthermore, the PSC domains informed one another despite efforts to ask questions that were specific to a domain, thus the PSC model's tenet of influencing one another. Discussion of the extant literature relative to the findings for this fourth research question is addressed in Chapter V to allow for an integrative and comprehensive understanding of the quantitative and qualitative findings. Additionally, an overview of the participants and their mentors is provided in Table 12.

Table 12
Overview of Participants' Characteristics and Mentors' Characteristics

Participants with	Age	Class standing	Gender	Race/ethnicity	Mentors' gender	Mentors' race/ethnicity
Peer mentors						
Ana	19	First-Year	Female	Mexican-American	Female	Mexican-American
Eddy	19	First-Year	Male	Mexican	Male	African American/Black
Noemi	19	Second-Year	Female	Mexican	Female	Caucasian/White
Antonio	22	Fourth-Year	Male	Puerto Rican	Male	Puerto Rican
Rosalia	20	Second-Year	Female	Mexican	Female	Salvadorian
Angel	20	Second-Year	Male	Mexican	Male	Mexican
Staff mentors						
Susana	18	First-Year	Female	Mexican	Male	Asian American/Hmong
Jessenia	21	Fourth-Year	Female	Mexican	Female	African American/Black
Rita	21	Fourth-Year	Female	Chicana	Male	Asian American/Chinese
Lisa	22	Fifth-Year	Female	Mexican	Male	Asian American/Hmong
Rosa	20	Third-Year	Female	Dominican American	Female	Ethiopian
Mateo	21	Fourth-Year	Male	Multiracial	Female	Mexican
Olive	20	Fourth-Year	Female	Mexican	Male	White
Faculty mentors						
Pablo	22	Fourth-Year	Male	Mexican/Mestizo	Male	Puerto Rican
Juan	24	Beyond Sixth	Male	Puerto Rican & White	Male	White
Tomas	19	First-Year	Male	Latino & White	Female	White
Brad	20	Third-Year	Male	South American & Asian	Male	African American/Black
Randy	22	Fifth-Year	Male	Mexican-American	Male	Mexican
Raphaella	21	Fourth-Year	Female	Puerto Rican	Female	Mexican (Chicana)

Note. Participants' names are pseudonyms.

Results for this fourth research question are organized via the four latent domains of the Undergraduate Mentoring Model (Nora & Crisp, 2007) and a fifth domain of academic persistence. First, each domain is operationalized using the PSC framework (Gloria & Rodriguez, 2000) followed by an overarching summative explanation of the emergent themes from the PSC questions. Next, emergent themes are provided for the domain via a table reference. Finally, salient findings are highlighted within each domain with illustrative statements.

Psychological and emotional support: “I have a someone who gets it...gets me.” The psychological and emotional support domain emerged as having a mentor who provided a space to discuss their mentees’ personal concerns, having had a mentor who influenced mentees’ relationships with their other support systems (e.g., family, friends, etc.), and having had a mentor who validated their mentees culturally. The current study found that the PSC model held for this domain and specifically found that rather than their mentors just providing psychological or emotional support, the mentees felt “I have someone who gets it...get me” which is further explained in the following paragraphs. Emergent themes for this domain are provided in Table 13.

The current study found that it was more of the social connection of “having someone” to discuss personal concerns rather than an internal process of what mentees discussed with their mentor. Rita expressed that her staff mentor, “created a safe space for me to be able to talk about the different problems and issues I faced.” Furthermore, Antonio shared:

[My peer mentor] provided an open door for someone to just talk to, even if he said nothing about it, he just made me feel better having someone there, someone to listen to, and someone more knowledgeable than just my immediate friends.

Additionally, across mentor type, it was the peer and staff mentors who provided a relationship to discuss personal concerns, whereas the faculty mentors did not provide this relationship or the space to talk about their mentee’s personal concerns. Pablo explained:

[My faculty mentor and I] really didn’t talk much about my personal life that much. We would say hello and how are things going, but it was small talk and really just would always just cut straight to business. We really didn’t get to know each other on a personal level.

With regards to how mentors influenced their mentee’s relationships with other support systems, as a function of social connections, mentees expressed expanded notions of relationships, connections, and professional opportunities, of which relationships were beyond

Table 13

Emergent Themes and Subthemes for Psychological and Emotional Support: "I have a someone who gets it...gets me"

Q1. What did it mean to have a mentor who provided a space to discuss your personal concerns?	Q2. How did your mentor influence your relationships with other support systems (family, friends, etc.)?	Q3. How did your mentor validate who you are culturally?
Psychological -- Social - Discussed personal concerns/non-academic difficulties (peers and staff) - Connected me to campus resources (peers and staff) - Someone I balanced a personal and professional relationship (staff and faculty) - Someone connected/related with me (staff)	Psychological - Knew/normalized my experience (peers, staff, and faculty) Social - Helped improve my relationships (peers and staff) - Connected me to campus support resources (peers and staff) - Expanded my professional opportunities (peers and staff) - Encouraged other relationships/other personal needs beyond academics (only some faculty)	Psychological - Supported my awareness as a cultural being (staff) - Understood application of culture to research (faculty) Social - Modeled through their experience (peers and staff)
Cultural Mentor's characteristics (some faculty)	Cultural Mentor knew my core values (staff and faculty)	Cultural - Through shared culture/cultural experiences (peers and staff) - Talked about culture (broadly defined) (staff and faculty) - Was knowledgeable of cultural values (peers and staff) - Connected me to others like me (staff)
Did not discuss personal concerns (faculty)	Did not influence relationships (some peers and faculty)	Cultural validation not discussed (peers and faculty)

Notes. Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

academics. In particular, it was peer and staff mentors who made more of an influence on their mentee's relationships with their support systems. For example, Olive shared that when she was having trouble with her support system, her staff mentor was supportive and helped her come up with solutions to this challenge. Describing her experience with her peer mentor, Rosalia added:

This past semester, I told my mentor how it's been difficult living at home and my family says I have been distant from them because I'm so occupied with school. My mentor suggested that I talk to them about how I feel and to negotiate my time with them.

Mentees with faculty mentors did not perceive their mentors as having influence on their support systems. Tomas explained, "I did not discuss my support systems in depth with my mentor. She asked about my siblings and where my family lives but nothing beyond that." Additionally, Randy shared that he and his faculty mentor, "did not have too much of a connection to talk about my family or friends."

Finally, with regards to how mentors validated who mentees were culturally, findings suggested that mentors understood their mentees' culture and how culture influenced them.

Jessenia explained:

It felt really nice to know that my [staff] mentor "sees me" and can validate my cultural experience...knows to include my family, since I am Latina, when I make decisions and asks how my decision will affect my family.

Another participant with a staff mentor, Lisa, also shared an influential experience with her mentor:

When I worked in the summer with my mentor, he would always bring lunch that was very specific to his culture and I felt like he was proud of what he ate and he would share with me and others. Because he was proud to bring his cultural-specific lunch to work, now I bring my own lunch to work, too. He would share his lunch with me and I felt he was very proud of it, so I feel I should be proud of my own culture in terms of food, too.

Peer mentors also provided cultural validation. For instance, Eddy's peer mentor validated him by participating in the diversity movement on campus in which Eddy saw a picture of his mentor holding a sign that said "Just because I am African American doesn't mean I'm here on an athletic scholarship." Eddy further expressed, "I think [seeing mentor's activism] definitely validated my experience, validated my culture." The only female participant with a faculty mentor, Raphaella, also shared that "my mentoring relationship was somewhere where I felt understood through our shared cultural background."

Goal setting and career paths: "Imagining possibilities." The goal setting and career paths domain emerged as having a mentor who influenced their mentees' academic strengths and weaknesses, having had a mentor who connected their mentees with others in their future career field of interest, and having had a mentor who talked to their mentee about graduate school or advancing their education after college. The current study found that the PSC model held for this domain and specifically found that beyond providing discussions on goal setting and their career path, the mentees shared that mentor helped them with "imagining possibilities" past graduation and mentors often used their own experience as a way to help the mentee explore these future opportunities. The following paragraphs provide further explanation of the overarching findings. Emergent themes for this domain are provided in Table 14.

The current study found that it was more of having someone help motivate mentees to "imagine possibilities" of their career path that both increased with ones belief in themselves and their mentor's belief in them rather than just talking about academic strengths, areas of growth, and assistance with setting academic goals. The emphasis was both on mentors talking about motivation and maintaining motivation with their mentees; however, motivation was evident

Table 14

Emergent Themes and Subthemes for Goal Setting and Career Paths: "Imagining possibilities"

Q4. How did your mentor influence your academic strengths and weaknesses?	Q5. How did your mentor connect you with others in your future career field of interest?	Q6. What did it mean that your mentor talked to you about graduate school or advancing your education after college?
Psychological - Increased my awareness of own skills/ability/knowledge (peers and faculty) - Helped put things in perspective (staff) - Provided motivation (peers-focus on tough love; staff-focus on support to improve; faculty-general spectrum of motivation)	Psychological Told me about resources/opportunities (peers, staff, and faculty)	Psychological - Felt supported/cared for that someone believed in me (peers-cared/interested; staff-believed) - Felt more capable (staff) - Felt encouraged graduate school was possible (staff and faculty) - Encouraged professional development/networking (peer) - It meant a lot since I'm a first-generation college student (staff and faculty) - Focused on my career (faculty)
Social - Helped with academic performance (peers and staff) - Held me accountable (staff and faculty) - Provided advice (staff-focus on classes/major; faculty-focus on academic performance) - Guided my research experience (faculty)	Social - Connected me to others (general) (peers-general connections; staff-connection to professionals; faculty-connection to other faculty, researchers, people with similar interests) - Advocated for me/educated me (faculty)	Social Felt more informed about graduate school via mentor's experience (staff and faculty)
Cultural --	Cultural Discussed career options (peers-focused on major selection; staff-focused more generally; faculty-focused on post-graduation plans)	Cultural - Explained graduate school process (peers) - Perceptions of mentor's status (faculty) - Exposed to new opportunities (faculty)
	Did not connect me to others (few peers, staff, and faculty)	Did not talk about graduate school (some peers, staff, and faculty)

Notes. Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

slightly different in each type of mentoring relationship. For peer mentors, the focus was on giving their mentee “tough love” to succeed. Angel explained:

My [peer] mentor would point out my weaknesses and tell me to work on them. He would be honest by saying, “stop doing that.” At first I did not know why my mentor was being tough on me, but then I realized he knew what he was doing. He already went through all this before me. I knew my mentor didn’t want to see me struggle academically as much as he did and he wanted to help me go through a clear path.

For staff mentors, motivation was focused on support to help their mentees improve.

Olive once again shared, “When I had doubts about my academic success or whether I could be successful, [my staff mentor] was very supportive and made me feel confident so I thank my mentor for my academic success.” Finally, faculty mentors provided a more general spectrum of motivation for their mentees. Randy’s faculty mentor would motivate him by talking about how to make his weaknesses strengths, instead of hindrances. Additionally, Raphaella shared, “my [faculty] mentor is a wonderful motivator and encourager for graduate school...[she would say] ‘don’t be afraid to keep going past your bachelor’s [degree].’”

Participants also reported having had mentors who connected them with others in their future career field of interest; however, each mentor type connected their mentees slightly different in that peer mentors made general connections, staff mentors made connections to other professionals, and faculty mentors made connections to other faculty, researchers, and people with similar interests. Ana shared that her peer mentor “connected me to other Latinos students, which was even more helpful because we were going through a similar struggle here on campus.” For Lisa, her staff mentor was helpful connecting her to professionals in her career of interest.

My mentor was very invested in helping me reach out to educators already in the field...He connected me to a networking social with principals, administrators, and teachers already in this city.

Additionally, Brad explained how his faculty mentor connected him to other faculty connected to his research interests:

My mentor went to great lengths to show how invested he was in my future by helping me make other professional connections with faculty. I once mentioned to my mentor that I had an interest in the brain while I was doing some math research with him. Within a week, he found another faculty mentor in his group and encouraged me to go to his lab group because they were working on f-MRIs and analyzing brain functions while people do math problems.

Finally, participants reported the importance of having had a mentor who talked to them about graduate school or advancing their education after college and the meaning of this interaction—specifically affect coming from the relationships (e.g., feeling supported, cared for, capable). Ana again expressed that, “When my [peer] mentor talks about graduate school or higher education, she really cares about me, she is taking the time to explain the process which shows her interest in my success.” Similarly, Rita shared an emotional account of the significance of having a staff mentor who believed in her success:

I definitely feel very supported by my mentor because it’s hard since my parents do not know anything about post-graduation and ask why am I still going to school. For me, graduate school is a hard topic to talk about because I don’t know many people that do encourage me and make me feel like I am capable of going to graduate school. My mentor is very supportive and I know somebody believes in me...And it’s definitely helpful too because he’s somebody that’s been through the whole process of graduate school and provides guidance to me as a first-generation college student that I need in order to be successful or to feel as capable as everyone else.

Likewise, Juan shared how influential it was to have his faculty mentor talk about graduate school. He explained:

It was very huge to have a mentor who talked about graduate school. I had no idea what graduate school was and what research was. He gave me my first research opportunity working in the research lab.

Academic subject knowledge support: “This is how you work the system.” The academic subject knowledge support domain emerged as having a mentor who assisted with their

mentees academic coursework, having had a mentor who connected their mentee to other campus resources and services to assist with their academic performance, and having had a mentor who facilitated the applicability of their mentee's academic area of study (e.g., major) to their culture and community. The current study found that the PSC model held for this domain and specifically found that rather than their mentors simply helping with academic knowledge acquisition, mentees felt their mentor taught them "This is how you work the system" which often incorporated their culture. Further explanation of this finding is provided in the following paragraphs. Emergent themes for this domain are provided in Table 15.

The current study found that having a relationship with someone who was willing to provide academic help but the emphasis was on helping the mentee understand the system and how their cultural worldview could influence giving back to their community rather than just the mentor providing opportunities for their mentee's skills and knowledge acquisition. The study found that all three types of mentors did help with providing academic help; however, each was slightly different. For peers, many shared that their mentor would help them with their academic coursework. For example, Noemi said, "Having my [peer] mentor take a class before me made it easier because she told me what to expect for exams, told me ways to study, which was really helpful." Similarly, Angel's peer mentor would not only help with coursework, but would also study with him. "I would study with my mentor. He would sometimes review my homework and would let me know if I had something wrong or if I should check my numbers," he explained. For staff mentors, they provided more feedback on professional development skills rather than helping their mentees with their actual coursework. Mateo shared, "My [staff] mentor did not specifically assist with academics, but helped me fine-tune my resume, interview skills, public-speaking, PowerPoint presentation skills, which helped me in my classes that were project- and

Table 1.5

Emergent Themes and Subthemes for Academic Subject Knowledge Support: "This is how you work the system"

Q7. What did it mean to have a mentor who assisted you with your academic coursework?	Q8. How did your mentor connect you to other campus resources and services to assist you in your academic performance?	Q9. How did your mentor facilitate the applicability of your academic area of study to your culture and community?
Psychological • Showed interest in my academic success (peers)	Psychological --	Psychological • Through motivation (staff and faculty)
Social • Was willing to provide academic help (peers and staff-with coursework; faculty-conceptual help) • Referred me to academic resources (staff) • Provided academic advising (staff) • Was someone to ask/answer questions (faculty)	Social • Connected me to campus resources (peers-program/offices/tutoring; staff-general; faculty-academic resource/other faculty) • Perceived mentor's willingness to connect me to academic services (faculty) • Assisted me with help-seeking (staff) • Accompanied me to events/campus offices (peers)	Social • Engaged in community service together (peers)
Cultural • Was willing to provide professional development skills to help me learn the system (peers, staff, and faculty)	Cultural • Was knowledgeable about campus resources (staff) • Through professional development learned culture of conferences (staff) • Informed me about campus involvement (peers)	Cultural • Through conversations about giving back to community (peers) • Through discussion of cultural representation and disparities (staff) • Connected my major/interests to culture and community (staff) • Provided culturally meaningful activities (faculty)
Did not assist with academic coursework (peers-did not ask; some staff-too busy, did not ask; many faculty-too busy, did not ask)	Did not connect me to campus resources (one peer, many faculty)	Did not talk about applicability of academic area of interest to my community and culture (peers, staff, and faculty)

Notes. Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

presentation-oriented.” Some faculty mentors provided more conceptual understanding with coursework that was usually related to research. Juan stated, “I felt I had a closer relationship with my [faculty] mentor and he provided more in-depth learning about the material I was learning, which made me more comfortable asking questions and learning more in classes.” Interesting to note; however, is that the majority of participants with faculty mentors reported that they perceived their mentor to be “too busy” or “just did not ask.” Pablo explained, “I never sought out that type of help [academic assistance] because professors are busy.”

Participants reported having mentors who connected them to campus resources to assist with their academic coursework, but again, each type of mentor did this process slightly different. Peer mentors were more proactive in connecting their mentees to campus resources by literally taking them to an office or service. Antonio said, “Yes, my mentor would connect me to academic resources by walking me over to the specific office that I needed.” Additionally, Noemi shared that “My [peer] mentor would connect me with a campus resource, for example taking me to get a bus pass.” Staff mentors were more likely to know campus resources beyond academic resources such as health services that could help their mentees address concerns affecting their academics. Rosa explained that mental health is often ignored in people of color communities so found it helpful when her staff mentor connected her to someone at the university counseling center to talk to and see if everything was okay. Faculty mentors were more likely to simply direct their mentee to an academic resource. Randy explained:

My mentor connected me to resources a bit differently. He was not “let me show you where this resource is.” My mentor would rather have me seek resources out by saying “there’s this service, go check it out.” For example, my mentor told me about a citation service and search engine to do a literature review, which I had no idea about. He said “these are services, go get trained on it from the library, and then come back to me and we can talk about it.” Another example was the university writing center. He would ask if there were any workshops going on there and tell me to go check those out.

Finally, mentors did have some discussion about how their mentees could apply their academic area of interest (e.g., major) to their culture and community. Angel shared that he and his peer mentor were both in a student organization geared towards helping Latinos in engineering and they would often do outreach activities together promoting STEM fields to high school students back in their predominantly Latino community. Lisa explained her staff mentor would talk to her about how she, as a Latina, could be influential to her community. She stated:

My mentor talks to me about the importance of being a teacher of color when I doubt whether I should be in the teacher education program because there are not many minorities in the education program. We talk about how it's important to have students of all races see me as a Latina teacher in the school teaching them and this helps me remember why I want to be a teacher.

Only one faculty member discussed the importance of connecting their mentee's interest to their community and culture. Raphaella expressed, "Since my mentor is a researcher, I have been involved with her research for about two years now. We interview Latina women around the state that are now role models...it means a lot."

Existence of a role model: "I have someone I can relate with and look up to." The existence of a role model domain emerged as having a mentor who shared personal examples of their successes or failures, having had a mentor who modeled how to connect to or network with others, and having had a mentor who was similar to them (e.g., shared values, racial or gender match, etc.). The current study found that the PSC model held for this domain and specifically found that rather than their mentors just serving as a role model, participants felt "I have someone I can relate with and look up to." Further explanation is provided in the following paragraphs. Emergent themes for this domain are provided in Table 16.

The current study found that the mentor opening up and sharing personal successes and failures enhanced the mentoring relationship. In turn, the mentee could then relate to their

Table 16

Emergent Themes and Subthemes for Existence of a Role Model: “I have someone I can relate with and look up to”

Q10. What did it mean to have your mentor who shared personal examples of their successes or failures?	Q11. In what ways did your mentor model how to connect to or network with others?	Q12. What did it mean to have a mentor similar to you (e.g., shared values, racial or gender match, etc.)?
Psychological Humanized my mentor (staff and faculty)	Psychological Demonstrated sense of confidence (staff)	Psychological I could be myself (faculty)
Social - Shared stories had positive influence on my personal growth (peers, staff, and faculty) - Had someone relatable (staff-understanding; faculty-deeper connection) - Had someone be a role model (staff) - Helped build a reciprocal relationship (staff)	Social - Encouraged me to seek professional skills development (peers, staff, and faculty) - Taught me communication skills (peers-interpersonal; staff and faculty-communication) - Served as a role model (peers, staff, and faculty)	Social - Had a sense of relatedness (peers-sense of relatedness; staff-shared experiences; faculty-could relate to mentor) - Could have communication in relationship (peers, staff, faculty) - Had someone who could help me (peers-major; staff-connect/my success; faculty-build confidence) - Could share similar interests with mentor (staff and faculty)
Cultural - Learned from someone who experienced higher education/graduate school (faculty) - Normalized undergraduate process (faculty)	Cultural - Encouraged professional self-presentation (peers-self-presentation; faculty-maintain formality) - Demonstrated passion about beliefs (staff) - Told me about conferences (faculty)	Cultural - Had someone understand me (peers-felt understood; staff-had someone understand me; faculty-was understood) - Knew my culture (faculty)
Mentor did not share personal stories of successes/failures (some peers, staff, faculty)	Have not witnessed mentor/discussed networking (peers and faculty)	Similar mentor did not matter (peers-but really did matter; faculty really did matter, some did not matter) Uncertain if mentor match mattered (few faculty)

Notes: Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

mentor, which served as a positive influence on the mentee's personal growth. Of all three mentor types, it was both staff and peer mentors that most shared stories about their past experiences with their mentees than the faculty mentors. For example, Mateo shared that:

My [staff] mentor would always talk about her struggles but after talking about those struggles, I would look at how far she has come. She was an example of someone who was determined to go through all these mistakes but would still make big strides to get to where she has been reaching for a long time. It was really helpful and a big confidence boost for me.

Similarly, Olive also shared how hearing about her staff mentor's successes and failures provided comfort knowing someone whom she respected also went through similar things. She added:

My mentor definitely did talk about his own successes and failures and it was nice to have someone who has experienced the same things. It was also nice to have someone that I respect so much and look up to, go through similar things. If I was ever going through something challenging, my mentor would try and find something he experienced. He would say that he was not perfect so it was nice to hear that it was not just me going through these things.

Peer mentors also shared very powerful stories and experience with their mentees that again, served as motivation; however, somewhat different than staff mentors, peer mentors would share their experiences with failure as a way to help prevent their peer mentees from making similar mistakes. For example, Ana shared that:

My [peer] mentor has shared a lot of her own failures and successes. I really appreciate this because if my mentor fails at something, such as a class, she tells me how I can do things differently and how to avoid failure. My mentor did not do well in one of her classes and told me how I could do things differently in order to get a better grade or get something similar to what she got.

Antonio shared that his peer mentor shared a powerful story and lesson his father taught him that motivated Antonio to keep pursuing his degree in engineering. He shared:

Some of the best memories I have of my mentor were his stories and I feel like those are some of the things that motivated me the most. For example, he shared a story when he wasn't doing well in college. When he went back home, his dad had him move a huge

pile of dirt from one side of the yard to the other and had him keep moving the pile. When he asked his dad why he did this, his dad responded, “You’re too smart to be doing this work...you could be designing things. You have a great opportunity in front of you...don’t just do the mindless task of building other people’s hopes and dreams.” My mentor’s story motivated me to learn so that I can be the one designing it, instead of building it. I can be the one making the process better, saving someone who is doing the tough labor...which is an unfortunate stereotype of our [Latino] culture...that we just do other people’s work. I want to break that mold and be able to come up with my own plans and help people in other ways instead of just doing the dirty labor.

Contrary to peer and staff mentors, when faculty mentors did share about their experiences, mentees felt it was less personal and more generalized. Terio explained, “My mentor tried to relate to me when she could. For example, she talked about how drastic the adjustment is from high school to college and how it affects everyone.” Pablo further shared, “I don’t think my mentor ever really talked about his successes or failures...it wasn’t really brought up much.” However, for Randy, he explained that when his faculty mentor did share stories of his failures, it humanized his mentor. Randy stated:

[Having my mentor share about personal experiences] provided me, as a student, information about my mentor, so that I don’t think [professors] are so successful and that they have no failures at all. It reminds me that there is failure and I can overcome this and still be in a position where I am comfortable.

In addition to having someone to look up to, participants shared in great depth how having a mentor similar to them (i.e., shared values, racial or gender match) was influential to the relationship that fostered a sense of relatedness. However, by mentor type, participants shared slightly different ways by which they had a sense of relatedness with their mentor. For participants with peer mentors, relatedness was described as a general sense of relatedness. Rosalia shared that “Since my [peer] mentor is Latina and female, it has been helpful because I can relate to her and she can relate to me.” Ana also had a peer mentor that was Latina and said “I think it’s actually better to have a mentor of the same sex and ethnicity so you can talk to them

about your problems.” Similarly, Eddy found it helpful to have a peer mentor of color. He explained:

In regards to race, I think it made a difference to have a mentor that I could relate to because it wasn’t until this past semester that I became aware of topics of White privilege, male privilege, and being able to see him succeed in a system that historically doesn’t favor people of color is good. Even though he’s not systematically advantaged he’s still doing big things, it lets me know that being successful is definitely possible.

Interesting to note that when there was a gender match but not a racial match, the mentee shared how having a peer mentor with a similar racial background could have been different.

Noemi explained:

Maybe if [my White peer mentor] would have been Hispanic or Latina I would have talked to her more, and we would have become friends...like real friends. There were not a lot of Latinas at the program’s office, so maybe if my mentor was Latina she would have introduced me to some of her friends and I would have more Latina friends...Every time I meet a Latina, they say “hey do you want to come do this.”...I feel that if my mentor was Latina, it would have been easier for her to say “hey do you want to come out and do this together.”

However, it is also interesting to note that findings were mixed for peer mentors with regards to having a racial or gender match. For example, Angel shared that it was more important to have a mentor with a similar academic major. He explained:

I’m not sure about [needing to have same ethnic background]. I like it that we’re both Latino and Mexican and we can go get food or whatever, but if it was different, I don’t think that would play a big role like being an engineer. I think being an engineer would be more important than ethnicity or something like that.

Antonio agreed that it was more important to have a peer mentor who he could connect to with similar life experiences. He shared:

I guess it depends on the person and if I’m able to connect with them on similar experiences, and maybe it’s not necessary specifically cultural-wise, but that’s just the way they grew up and stuff like that.

For participants with staff mentors, sense of relatedness was described by having a mentor with shared experiences and having a racial match and/or gender match further was part

of these shared experiences. Interesting to note, that for participants with staff mentors, no pairing had exact racial matching (i.e., both Latina/o) but rather, had a mentor of color that participants interpreted as a similar racial match (e.g., both women of color or both minorities). For example, Susana shared that having a staff mentor of color with similar experiences had been important for her. She explained:

Having a mentor similar to me is important because I can relate to the things my mentor has been through because he shares stories that give me an understanding of why being a minority on campus is the way it is. He advises me to not get caught up on being a minority in predominantly white campus. My mentor is Hmong, attends the same university, and doesn't have many people to talk to, which I can relate to.

Jessenia felt similarly about having shared experiences with her staff mentor of color that was different than her experience with a White mentor.

Even though I have had Caucasian female mentors in the past, our relationship had never reached a specific level because, while this person has shared their personal experiences, it was not like they could really understand me to the point that my mentor of color could.

Rosa, who also had a woman of color mentor, explained that having a mentor with similar identities helped her relate to her staff mentor and that had she had a White mentor, her experience would have been different. She said:

My mentor is a woman of color and she is also an immigrant and I can relate to that because while I am not an immigrant, most of my family is. I can relate to another woman, but not on the same level as a woman of color, woman of immigrants, daughter of immigrants in which my mentor and I share these identities. Therefore, I connect with my mentor on many different layers of intersectionality, which would be different if I had a different mentor. For example, if I had a woman, who was Caucasian as my mentor, I feel like she would be no different than a professor who teaches a class with 300 people.

For Rita, whose staff mentor was Asian and male, finding commonality as first-generation college students status and moving far away from family bridged the similar experiences that made her feel understood. She shared:

Even though my mentor and I were not the same race and gender, our experience being first-generation college students and the similar experience of having to physically leave

our families made me relate to him better. He understood where I was coming from and that was more important than his race and gender.

Olive shared similar sentiments as Rita that not having a racial and gender match was a barrier to her mentoring relationship; however, noted that it was important that her staff mentor, who identified as a White male “acknowledged that there were differences between he and I and that those differences were there but we did not let them inhibit the relationship.”

For participants with faculty mentors, by having someone participants could relate to within the racial and/or gender match was their sense of relatedness. Pablo, who had a Latino male faculty mentor, specifically sought out this mentor because of those similarities. He said:

Having a mentor with shared values, racial or gender match mattered. He knew Spanish, I knew Spanish. Sometimes we would use both languages...It mattered to me that I got along with him because I think a lot of times it's kind of scary to go up there and just talk to some random professor whose been lecturing you during their office hours. He was friendly and I chose him specifically because I knew he had a similar ethnic background, so I went to him first.

Brad agreed that having a faculty mentor of color, though not the same race, helped relate to his mentor and also provided further understanding. He stated:

My mentor, as a faculty of color, understands hardships, too. He would always share stories about how he grew up and how he came to where he is now. It was really nice to have both of us be people of color to relate to each other.

Raphaella shared that it was tough finding faculty mentors who were similar (i.e., racial or gender match) but that she was able to find a Latina faculty mentor and that it mattered to her. Specifically, she found the gender match as even more important to developing her relationship with her faculty mentor. She explained:

Yeah, having a female mentor definitely means a lot honestly because I feel like if I were to be mentored by a Latino male, sometimes I would be told to not be as loud or tone down myself in some ways. My mentor provided the perfect space where I could explore my identity and I didn't have to succumb to gender-based stereotypes.

For the two participants with White faculty members, both shared differing perspectives on having a mentor similar to them. For Terio, having a racial or gender match was not as important as having a knowledgeable faculty mentor. He stated, “Since my mentor was a White female, race and gender matching does not matter to me...having a knowledgeable mentor is crucial to a successful relationship.” However, for Juan, the racial mismatch was experienced as feeling disconnected from his White male faculty mentor. He explained:

My mentor was Caucasian and came from prestigious universities, such as an Ivy League school, so it seemed like some of the things he dealt with were not relatable with my experiences. He didn’t exactly have some of those personal stories to relate to me. If my mentor was a man of color, I probably could have related to him more with family aspects and he would have understood different cultural things.

Academic persistence: “I have someone who believes in me, encourages me, and motivates me to not give up.” The academic persistence domain emerged as having a mentor who influenced their mentee’s decision to stay in college, having had a mentor who connected their mentees to other social support networks on campus that helped them stay in college, and having had a mentor who affirmed that their mentee belonged on campus through their cultural identity. The current study found that the PSC model held for this domain; however, there were additional emergent themes that were outside the theoretical model and categorized as “instrumental mentoring” which is later explained. Specifically, the overarching theme for this domain was participants feeling “I have someone who believes in me, encourages me, and motivates me to not give up” which positively influenced their decisions to persist. Further explanation of these findings is provided in the following paragraphs. Emergent themes for this domain are provided in Table 17.

Table 17

Emergent Themes and Subthemes for Academic Persistence: "I have someone who believes in me, encourages me, and motivates me to not give up"

Q13. How has your mentor influenced your decision to stay in college?	Q14. How does your mentor connect you to other social support networks on campus to help you stay in college?	Q15. How does your mentor affirm that you belong on campus through your cultural identities?
Psychological • Provided reasons to stay (peers-cognitive and affective reasoning; staff-cognitive and affective reasoning) • Provided encouragement (peers-to talk to professors; staff-about classes/academic advising; faculty-verbal) • Did not let me give up (staff) • Gave me honest insight into/about my efforts (staff) • Increased my internal sense of self (staff-self-confidence; faculty-courage) • Believed in me (staff-believed in me and believed in my future career) Social • Did not want to disappoint my mentor (peers and staff) • Had respect for my mentor (staff) • Was available to talk (staff) • Provided academic support (faculty) Cultural • Validated "I existed" as a student of color (faculty)	Psychological • Reminded me of what I wanted to do (staff) • Perceived my mentor believed I mattered (faculty) • Was honest about what support I needed (faculty) Psychological • Gave motivation (peers-general; faculty-supportive words that motivated me) • Validated that I mattered (peers and staff) • Reinforced/reminded me of my academic capacity (staff-reinforced; staff-reminded) • Mentor did not see race as a barrier to success (faculty) • Had a positive perception of mentor's status (faculty) Social • Encouraged exploration of/joining student organizations (peers and staff) • Introduced me to peers similar to me (peers) • Shared connection of being part of cultural-specific student organizations (peers and staff) • Suggested a broad range of connections (staff-broad range; faculty-campus resources) • Asked about my interpersonal relationships that affected my connections and overall performance (staff) Cultural --	Psychological • Ensured I was not alone (peers) • Showed me how they "made it" so I could do it, too (peers and staff) • Took part in my peer relations that were important to me (staff) • Understood me as an individual (faculty) Cultural • Told me I belong here (peers-generally, staff-even though I do not feel like I belong) • Reminded me of the cultural significance to finish college (staff and faculty) • Reminded me of my purpose in going to college (staff-purpose; faculty-role) • Created a safe space for me (staff) • Mentor was open to learning about other cultural issues/groups (faculty)

Notes. Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

Table 17 (cont.)

Emergent Themes and Subthemes for Academic Persistence: "I have someone who believes in me, encourages me, and motivates me to not give up"

Q13. How has your mentor influenced your decision to stay in college?	Q14. How does your mentor connect you to other social support networks on campus to help you stay in college?	Q15. How does your mentor affirm that you belong on campus through your cultural identities?
Not sure if mentor influenced my decision (faculty) Did not talk about leaving college to mentor (faculty) Has not influenced my decision (some peers, staff, faculty) <i>Outside Theoretical Model</i> Instrumental Mentoring • Discussed transferring as an option (peers) • Provided academic help (faculty)	Did not connect me to social support networks (some peers, staff, faculty) <i>Outside Theoretical Model</i> Instrumental Mentoring • Showed me how to ask for support (peers) • Helped with my time management (staff) • Gave workshops on resources (staff)	Has not affirmed that I belong (some peers, staff, and faculty) <i>Outside Theoretical Model</i> Instrumental Mentoring • Provided opportunities to succeed (staff and faculty) • Bridged other students' experiences to help me (staff) • Considered broad range of contextual factors (staff) • Took time to meet with me individually (faculty)

Notes: Mentor type provided in parentheses. Question numeration corresponds to interview protocol numeration.

First, participants reported having a mentor who believed in them was central regardless of mentor type. This finding was most evident with participants with staff mentors sharing how they believed in their mentees. For example, Olive shared her mentor was influential in her decision to persist. She stated:

My [staff] mentor has been a huge part in me staying in school. There were a lot of times I thought about going back home, but then I thought about how much my mentor believes in me and has faith in me, even when there were times I didn't believe in myself.

Lisa also felt that having her staff mentor believe in her future was influential for her wanting to finish college. She shared:

My mentor is really encouraging about my future, in terms of what I am going to do, he believes I am someone who is going to be very important for future children and I feel that is something I carry every day in my student teaching.

Next, having a mentor who encouraged participants was also evident across all three mentor types though participants shared slightly different experiences for each type. For participants with peer mentors, encouragement was evident through peers encouraging their mentees to go talk to professors when they were not doing well in class. Rosalia explained that she spoke to her peer mentor when she was struggling with a class. She stated, "My mentor also encouraged me to go talk to my professors because [professors] are really nice and to also go to their office hours." For participants with staff mentors, encouragement was related to classes and academic advising. Susana shared that her staff mentor's past knowledge and experience of helping minorities persist in college was how he helped her in her process. Susana said:

There are not many minorities who finished school or go to graduate school and the fact that my [staff] mentor is a minority pushes me. He has seen how other people have finished their undergrad and he focuses on that with me. He encourages me by showing me that I am taking so many classes, so many credits, so there is no reason I would not be able to finish school.

For participants with faculty mentors, encouragement was experienced through verbal affirmations. Pablo shared that hearing his faculty mentor say he was “a smart kid” and would commend him on his work and interest validated him because it came from a professor. Randy shared similar sentiments that the verbal encouragement was helpful in staying in school.

My [faculty] mentor would say encouraging things like “you’re able to do this” and “I know you can do it” and “people believe in you.” This was helpful and made me feel like I belong on this campus and I can do it and there is no way I can’t.

Finally, participants shared that having a mentor who would motivate them to not let them give up on their academic pursuit was influential to their academic persistence. Ana shared that when she told her peer mentor she was thinking about transferring to a school back home because she did not feel comfortable on campus, felt alone, and didn’t feel accepted by her White peers living her residence hall, her mentor helped motivate her to stay by helping her remember how much she had invested in her education. Ana said:

My [peer] mentor really motivated me to stay in college by telling me “No, you can’t let it [scholarships] go. You really have to stay, everything will get better.” And she was right, everything did get better. I couldn’t take the financial aid and all the support for granted...[She] motivated me and told me that I belong here, regardless of what ethnicity I am. She keeps telling me that I belong here and that I have to keep my head up and just continue through the path where I want to be.

Like Ana, Angel was also thinking about transferring schools to go back home but his peer mentor provided motivation to stay and shared a perspective about the importance of graduating. Angel explained:

I was thinking of transferring to go back home because I was getting homesick. But my mentor told me “just stay here...do it for your family. It’s only five years of your life that you’re going to be really working hard for your degree”...My mentor’s philosophy is “once we Latinos graduate, we did it. We were against all the odds, against all the statistics, and if you stay behind you’re just going to be another number, and then once you graduate you become a name instead of just a number and to prove the statistics wrong.”

Antonio never shared with his peer mentor he thought about transferring because he was too ashamed of the thought of letting his mentor down. Instead, he focused on how his mentor motivated him to stay in school and furthermore, what it would mean for them, as Latinos to both graduate with engineering degrees. Antonio reflected:

My mentor made it a point to show me that, even though no one around here looks like us [Latinos], he was already four years into college and was about to walk out the door with a degree. I feel like this was probably the strongest thing he could have done for me...to show me that I could do it. He was like, “all right, if you don’t take anything I say, just look at my accomplishments” and that was it. So, I think that was extremely important.

For participants with staff mentors, motivation was expressed by reminding mentees the significance of completing their degrees. Lisa stated, “My [staff] mentor reminds me of my own family and how proud they would be if I do finish college.” Rosa shared in depth about her experience when she first came to the university and questioned if she belonged. It was her staff mentor that provided the validation for her to stay. Rosa explained:

Two weeks into freshman year, I started to question my place here and whether I belonged here. When I wanted to leave, my mentor went out of her way to validate how I got here through my scholarship program’s selection process and she provided me with a simple answer that helped me figure things out on my own. So looking at myself and asking why/how did I get here, what I am supposed to do.

Mateo shared that even though he did not want to give up on school, there were times he was not happy and unmotivated. He shared his staff mentor was a source of motivation to keep pushing through. Mateo expressed:

I was not going to give up on school but there were times when I just didn’t want to do the work because I was not happy. My [staff] mentor definitely pushed me to get past wanting to give up and did not let me just fall flat on my face because I had a bad semester. She wanted me to still get through the classes and then find something to work on where I could be happier and succeed better than what I was doing in engineering. She definitely did not let me give up on myself.

For participants with faculty mentors, motivation was evident in different ways. For example, Raphaella shared that her faculty mentor provided the motivation for her to change majors that she feels was influential on her overall happiness. She explained:

I would not be in the same place today if it wasn't for my [faculty] mentor. I probably would be in a medical school interview right now, really unhappy, if it wasn't for her. My mentor has given me the courage to consider who I am as a person and what I actually want to do for the rest of my life. She is a transformative woman.

For Randy, his faculty mentor provided motivation more directly by staying to him, "If you're motivated, I can help motivate you, support you, and other people can, too, in order to make sure you succeed."

In addition to mentors who believed in their mentees, encouraged their mentees, and motivated their mentees to not give up within this academic persistence domain, participants shared accounts of "instrumental mentoring" that influenced their academic persistence decision that was outside the PSC theoretical model. Tenenbaum, Crosby, and Gliner (2001) define instrumental mentoring as help that includes "coaching, sponsorship, exposure, and opportunities for challenging assignments" (p. 327). Other scholars further describe that the primary goal in instrumental mentoring is "the learning of skills or the achievement of specific goals" (Karcher, Kuperminc, Portwood, Sipe, & Taylor, 2006). Participants experienced instrumental mentoring by simply discussing transferring as an option with their peer mentors. Additionally, instrumental mentoring was evident with participants when peer mentors would show their mentees how to ask for support. For participants with staff mentors, instrumental mentoring was evident by mentors helping with time management, giving workshops on resources, providing general opportunities to succeed, bridging other students' experiences to help their mentee, and considering a broad range of contextual factors. Finally, for participants with faculty mentors, providing academic help, providing opportunities to succeed, and taking time to meet with their

mentee individually were forms of instrumental mentoring participants expressed in the current study that facilitated academic persistence.

In addition to the responses provided by the 15 protocol questions within the five domains already described, an additional open-ended question was asked to each participant “Is there anything else you would like to share about your mentoring relationship?” at the conclusion of the interview. Emergent themes for this question are presented in Table 18. Many emergent themes fit within either the PSC framework (Gloria & Rodriguez, 2000) and/or the Undergraduate Mentoring Model (Nora & Crisp, 2007). For example, the emergent theme of “specific ways mentor helped” fit both with the psychological and emotional support domain and the academic subject knowledge domain and had a social emphasis or was considered instrumental mentoring. Angel, who had a peer mentor, shared two different ways his peer mentor helped him and further stated that his college experience would not have been the same without his peer mentor. He explained:

My mentor likes to tell me what to do, and not in a bad way obviously, but he would text me or use social media in the past “hey let’s go to the library to study” and also would tell me not to just stay in my apartment and sleep or waste time. My mentor also helped me a lot with a romantic relationship since he’s been in a relationship for a really long time, so he’s already been through the stage of what I’ve been through and just makes me feel more connected with him. My college experience would be different in a lot of different ways, like academically, socially, personally I guess, because my mentor changed a lot of perspectives on college. I know that there’s more people who are capable to fill those shoes to be a mentor because I did know a lot of people that are in engineering that went to my high school but college would just be different if weren’t for my mentor.

Antonio shared a response consistent in the academic subject knowledge support and social domains that was related to his experience with not only his peer mentor, but also with different mentors he had throughout his undergraduate experience. He shared:

I definitely think different types of mentors have been important for different reason. I feel like everyone should have different types of mentor relationships, whether it’s

Table 18

Emergent Themes and Subthemes for Open-ended Question: Is there anything else you would like to share about your mentoring relationship?

Psychological and Emotional Support	Goal Setting and Career Paths	Academic Subject Knowledge Support	Existence of a Role Model	Academic Persistence	Outside Undergraduate Mentoring Model	Outside Undergraduate Mentoring Model & PSC Model
Psychological --	Psychological --	Psychological --	Psychological • Unique to individual (staff)	Psychological --	Psychological --	Instrumental Mentoring • Unique to individual (staff)
Social • Specific ways mentor helped (peer) • Unique to individual (peer)	Social • Compared mentor types (peer) • Invested in me as a person (faculty)	Social • Compared mentor types (peer)	Social • Length of mentoring relationship (staff) • Unique to individual (staff)	Social --	Social • Different mentors needed (peer) • Unique to individual (faculty)	
Cultural --	Cultural --	Cultural • Unique to individual (faculty)	Cultural • Unique to individual (peer)	Cultural --	Cultural • Shared politics/power of mentoring (staff)	<i>Outside Process of Mentoring</i> • Noting appreciation for mentor's influence (faculty) • Unique to individual (faculty)
		Instrumental Mentoring • Specific ways mentor helped (peer)				

Notes. Mentor type provided in parentheses.

faculty, peer, or professional. Those definitely helped me develop in different directions. For example, freshman year was heavily peer mentor oriented, just trying to learn the ropes I guess of college. Then toward my last junior/senior year, it's been a lot of professional development and trying to get a job after I'm done here, so it's been very much professional and faculty mentor oriented.

Rita shared that the length of her mentoring relationship helped her get through her four years in her undergraduate career and attributed her success to having someone to look up to along the way, which fit the existence of a role model and social domains. She stated:

I was able to get through my four years in my undergraduate with the help of my [staff] mentor but now I want to pursue graduate school. I am worried because my mentor does not live here anymore, so I wonder how our relationship is going to continue after or if it is going to fade away. I think about this a lot because he is not “assigned” to me anymore as he was in the beginning. He's not obligated to be my mentor anymore, even though we do have a pretty good relationship in the sense...he has been very supportive. I am a bit worried because maybe when I go to graduate school, I will not find a mentor that I want and need to help support me there.

She additionally shared a unique perspective about the location of where she would meet her staff mentor and how this influenced their mentoring relationship. Rita explained:

The location of where the mentorship takes places influenced our relationship. Our meetings first started at the office then he kind of got the feeling that he wasn't getting to know me, so he decided to try different locations. We moved to a coffee shop, which allowed me to open up to him and for him to get to know me a little bit better. The office made our relationship feel more like a hierarchy—like he was the mentor and I was the mentee—it felt incredibly formal and made me question what I could say and what was appropriate to say. I think being in a coffee shop, it made me feel more personal—like I was with one of my friends or with someone I could trust and share how my day went, which then led me to open up more to him.

Terio spoke to the frequency of mentor contact and stated had he met with his faculty mentor more often, he would have had a better understanding of the university environment. He said, “the more you see [your mentor] the more you will be able to understand how things work on campus and it will make your life a lot easier.” Pablo agreed that more frequency of mentor contact would have been beneficial and acknowledged that he could have made more of an effort. He concluded:

My [faculty] mentor was willing to give more time and effort, but it really was up to me to take the initiative. I could have had more of an initiative, but I didn't really take advantage of that. I was lucky to have a professor that was willing to be flexible. He had his office hours and always welcomed me. He definitely was willing to meet my needs.

Finally, there were a few responses that did not fit either the PSC framework (Gloria & Rodriguez, 2000) or the Undergraduate Mentoring Model (Nora & Crisp, 2007) and were therefore considered outside the theoretical models. For example, Juan shared a response to the open-ended question describing more of how he understood his faculty mentor to be that was outside of the mentoring process. He stated:

Even though my mentor was not a person of color, he tended to pick graduate students that were part of the same graduate prep program for underserved students, as I was part of, as well as graduate students of color in general. Graduate students of color were very welcoming and open to different ideas. I think this was really important and kind of the reason why I got involved with my mentor's research...knowing I could then connect other students that were part of my student org, which stemmed from him having that appreciation and openness that our paths might not be the same, there might be different challenges that he might not see from a student of color's perspective. Therefore, my research experience was enhanced because I could have that connection to other graduate students of color because he chose them to work with him in his lab/research. It was not apparent before I got to know him that he intentionally chose his graduate students from different backgrounds.

Similarly, Raphaella provided a response to the open-ended question that was more of a statement of appreciation to her faculty mentor. She concluded:

I just feel so grateful and I really wish more students had this resource...I wish more professors would be willing to take the time to mentor students like my mentor has done for me.

Discussion of key findings from both the quantitative surveys and qualitative interviews are presented in Chapter V along with implications, limitations, and recommendations for future research.

CHAPTER V

Discussion

This final chapter presents discussion of the study's major findings. First, a brief summary of the study is provided followed by a discussion of the findings contrasted with extant literature on mentoring, educational experiences, or academic persistence processes. Next, the study's limitations are reviewed and specific directives for future research are then provided. The chapter concludes with implications based on the findings provided to those who may engage in mentoring with Latina/o undergraduates and additional implications for the larger university including policies that directly influence Latina/o undergraduates.

Summary of the Current Study

The mixed methods study had two overarching goals: 1) to examine the PSC framework (Gloria & Rodriguez, 2000), specifically psychological, social, and cultural dimensions of mentoring relationships that may influence academic persistence decisions for Latina/o undergraduates; and 2) to particularly explore the construct of mentorship and its role in the academic persistence process. Therefore, the study used both quantitative surveys with 153 participants and qualitative in-depth interviews with a subset of 19 participants to assess the two research goals through four research questions. Participants self-identified as Latina/o undergraduates or recent alumni, attended a single Midwestern university, and participated in a mentoring relationship with a peer, staff, or faculty mentor.

Discussion of the Findings

The first research question examined group mean differences of the study's psychological, social, and cultural variables with academic persistence by mentor type and how frequently a mentee met with their mentor, controlling for financial stress and acculturation

stress. The second research question examined the interrelationship (i.e., associations) of the study's emergent PSC variable sets (i.e., self-beliefs, mentor support, and university environment) by mentor type (i.e., peer, staff, and faculty). The third research question examined how the study's variables predicted academic persistence. Finally, the fourth research question further explored mentorship as a construct and whether the PSC framework (Gloria & Rodriguez, 2000) would hold for responses elicited via the four domains of the Undergraduate Mentoring Model (Nora & Crisp, 2007) and a fifth academic persistence domain.

Differences in frequency of mentor contact. The current study found that participants experienced significant differences in sense of mentor support by frequency of mentor contact (i.e., very frequently vs. frequently vs. infrequently). That is, those mentees who had less frequent contact with their mentors reported less mentor support than those mentees who had more frequent contact with their mentors. Furthermore, there was no difference in sense of mentor support between those mentees who had weekly or monthly contact with their mentors. This finding suggests that mentors may not need to meet weekly with their mentees in order for their mentees to feel a sense of mentorship. Instead, having a minimum monthly meeting can allow their mentees to feel a sense of being mentored.

This finding is consistent with the few studies that examined frequency of mentor contact with college student populations. Campbell and Campbell (1997) found a significant positive relationship between faculty contact and mentees' enhanced academic performance measured by number of credit hours earned and grade point average. More recent empirical work by Santos and Reigadas (2000, 2002) found, with a small sample size of 32 Latina/o college students, that frequency of student-mentor contact was positively correlated with students' adjustment to college, perceived mentor supportiveness, and satisfaction with the Faculty Mentor Program. In a

separate study using a slightly larger, diverse sample of 65 college students, Santos and Reigadas (2004) found students who had same ethnic mentors (i.e., ethnic homogeneity) met more frequently with their faculty mentors than did non-ethnically matched students. Additionally, their path analysis indicated that ethnic homogeneity had an indirect effect on perceived mentor support through frequency of student-mentor contact (Santos & Reigadas, 2004). A unique contribution of the current study was the focus on differentiating frequency of mentor contact (e.g., very frequent contact, frequent contact, and infrequent contact) as a contextual variable that previous empirical studies seldom examined.

However, the mentorship literature on specific activities connected to how much time mentors would spend with their mentees pose additional potential connections to frequency of mentor contact. For example, research has called for mentoring activities that provide strategies for navigating the university, viewing mentoring videos, reading weekly tip sheets, structured support networks, and interacting with program staff through on-line discussion boards or in-person meetings (Collier, Morgan, & Fellows, 2007). Additionally, Pascarella and Terenzini (1979) suggested a positive relationship between the amount of interaction freshman students have with faculty mentors and their perceptions of both their academic and non-academic experiences in college. Finally, Pagan and Edwards-Wilson (2003) called for mentoring activities limited to two or more meetings and a telephone conversation with a faculty member. Contrary to Pagan and Edwards-Wilson (2003)'s recommendation to limit mentor contact, the current study's findings assert the importance of mentors meeting with their mentees at minimum monthly.

Association between PSC variable sets. The current study found that, across mentor type (i.e., peer staff, faculty), the university comfort and self-beliefs variable set had significant

relationships. Specifically, for participants with peer mentors, the more comfort and congruity with the university environment they had, the more likely they also had an increased sense of self-efficacy within their educational capabilities. For participants with staff mentors, the more comfort and congruity with the university environment they had, the more likely they also had an increased sense of self-efficacy within their educational capabilities as well as increased self-esteem. And for participants with faculty mentors, the more comfort they felt with the university environment, the more they reported increased self-esteem.

The current study's findings of associations between the university comfort and self-beliefs variable sets support previous empirical evidence of significant relationships between these two specific PSC variable sets (i.e., university comfort and self-beliefs). With a sample of 99 Latina/o undergraduates, Gloria et al., (2005a) yielded similar results as the current study in that the university comfort and self-beliefs sets were significantly related. Similar studies support this finding with Asian American undergraduates (Gloria & Ho, 2003) and most recently with Hmong American undergraduates (Lin, Her, & Gloria, 2015).

Prediction of academic persistence. The current study found that the PSC variables in combination with the contextual variables (i.e., mentor type and frequency of mentor contact) and the covariates (i.e., financial stress and acculturation stress) collectively accounted for 31% of the variance of academic persistence decisions, with university comfort and self-esteem both serving as significant single predictors of academic persistence decisions. The current study supports previous empirical evidence that comfort in the university was a significant predictor of academic persistence decisions. For example, Gloria et al. (2005a) found that, with a sample of 99 Latina/o undergraduates, perceptions of the university environment was one of three variables predictive of academic persistence decision, with perceived social support from friends and

perceived mentorship as the other two predictive variables. Albeit with different racial ethnic minority groups, university comfort was also shown to predict academic persistence for African American (Gloria et al., 1999), Asian American (Gloria & Ho, 2003), and American Indian (Gloria & Robinson Kurpius, 2001) undergraduates. A recent study (Rigali-Oiler & Robinson Kurpius, 2013) with a mixed-racial sample of 346 REM undergraduates also supported the current study's findings that comfort in the university is a significant predictor for academic persistence.

Using self-esteem as a predictive variable of academic persistence has yielded mixed results for Latina/o undergraduate, wherein Robinson Kurpius et al. (2008) found self-esteem to be predictive of academic persistence for a subsample of 111 Latina/o undergraduates, yet Gloria et al. (2005a) did not have the same conclusion with a sample of 99 Latina/o undergraduates. However, self-esteem has been found to be predictive of persistence for African Americans (Gloria et al., 1999), Asian Americans (Gloria & Ho, 2003), and American Indian (Gloria & Robinson Kurpius, 2001) undergraduates. Rigali-Oiler and Robinson Kurpius (2013) further supported the current study's finding that self-esteem was a predictor of academic persistence with a mixed-racial sample of 346 REM undergraduates.

Contrary to previous research that has shown mentoring to be predictive of academic persistence (Bordes-Edgar, 2011; Gloria et al., 2005a; Gloria & Ho, 2003; Gloria & Robinson Kurpius, 2001), the current study did not support this finding. Both step two (adding contextual variables of mentor type and frequency of mentor contact) and step four (adding social dimension variables of mentor support) were the only two steps of the 5-step hierarchical regression equation that were nonsignificant. This could be due to the nonsignificant bivariate correlations of both the Mentorship Scale (MS) and College Student Mentoring Scale (CSMS)

with the Perceived/Voluntary Dropout Decision Scale (P/VDDS). Furthermore, the non-significant finding could also be due to an imperfect measurement of the P/VDDS that had a low internal consistency (i.e., Cronbach's alpha of .52) that could have also affected both relationships to and prediction of academic persistence decisions. When the P/VDDS was used in a previous study that had an adequate Cronbach's alpha (above .70), Bordes-Edgar et al. (2011) did find that for a sample of 71 Latina/o college students, mentor support did predict academic persistence decisions, which was not consistent with the current study.

PSC Framework Fit with Undergraduate Mentoring Model. The current study confirmed that the PSC framework (Gloria & Rodriguez, 2000) was represented through the Undergraduate Mentoring Model's (Nora & Crisp, 2007) four latent domains (i.e., psychological and emotional support, goal setting and career paths, academic subject knowledge support, existence of a role model) and a fifth academic persistence domain. Each domain yielded emergent themes and subthemes of mentoring experiences that were both consistent and contrary to the extant literature on mentoring undergraduates.

Within the first domain of psychological and emotional support, the current study found that rather than their mentors just providing psychological or emotional support, participants felt a stronger sense that "I have someone who gets it...get me" and that this social connection of having "a someone" to discuss personal concerns was experienced, albeit slightly different, across all three mentor types. This finding is consistent with mentoring literature that posits that mentoring should consist of listening, identification of problems, and encouragement (Miller, 2002). Furthermore, having that social connection is consistent with the mentoring literature that emphasizes a strong and supportive relationship (Roberts, 2000). This finding also extends the current mentoring literature by emphasizing that the mentor "gets" or rather "understands" their

mentee so that the mentee is able to share personal concerns that may be influencing their academic experience. Additionally, the current study extends the current literature on mentorship in that participants expressed expanded notions of relationships, connections, and professional opportunities that were beyond academics as a function of their mentor's social connections.

Within the second domain of goal setting and career paths, the current study found that beyond providing discussions on goal setting and their career path, mentors helped participants with "imagining possibilities" past graduation and mentors often used their own experience as a way to help mentees explore these future opportunities. This finding is consistent with Cohen's (1995) suggestion that mentors stimulate their mentee's critical thinking with regards to envisioning the future and developing personal and professional potential. Additionally, this finding is consistent with Levinson et al. (1978) that recommend mentors should facilitate the realization of their mentee's dreams. This finding also extends the current mentoring literature in that mentors can and should use their own experience to help their mentees explore future possibilities through the use of self-disclosure or sharing their own career path or experiences.

Within the third domain of academic subject knowledge, the current study found that rather than their mentors simply helping with academic knowledge acquisition, participants felt their mentor taught them "This is how you work the system" which often incorporated their culture. This finding is consistent with Miller's (2002) suggestion that mentors assist mentee to employ tutoring skills and focus on subject matter acquisition that Kram (1988) further states is necessary for increased skills and knowledge that mentors can focus on with their mentees. This finding also extends the current mentoring literature in that mentors can help their mentees increase their knowledge of the institutional system beyond their undergraduate career to potentially learn about graduate school. Many participants shared that they did not know the

educational system and did not know about the graduate school process; therefore, they found it very helpful and informative that their mentor talked about graduate school and advancing their career after the undergraduate experience.

Within the fourth domain of existence of a role model, the current study found that rather than their mentors just serving as a role model, participants felt “I have someone I can relate with and look up to.” Specifically, the idea of “relatedness” was expressed via a broad range of cultural relatedness—whether this was a racial/ethnic or gender match or perception of similar experiences across all three mentor types (i.e., peer, staff, or faculty mentors). This finding provides greater weight to the mentor-match debate in supporting that when mentoring matching occurred, students were more likely to feel a sense of relatedness to their mentor. Again, this finding is consistent with previous research that asserts when racial ethnic minority faculty mentors are representative of their racial ethnic minority students, the outcome has a positive effect on retention (Landry, 2002). Similarly, this finding of relatedness, specifically racial match, is consistent with Santos and Reigadas (2002) who found that students who had same-ethnic mentors perceived their mentors to be more helpful in furthering their career and professional development than students who had ethnic-other mentors. A contribution of the current study is an extension to the current mentoring literature that while relatedness need not be based in an exact match (i.e., a Latino male student in engineering did not have to have a Latino male engineering mentor), matching on some level with the mentor appeared to be significant. For example, many participants reported that it was important to have a mentor of color but did not necessarily state the mentor had to be an exact racial ethnic match. Similarly, a Latina participant experienced sense of “relatedness” with an Asian male mentor but since the

mentor identified as a first-generation college student and had the same experience of going to college away from family, she experienced a beneficial and influential mentoring relationship.

Within the fifth domain of academic persistence, the current study found that participants felt they had a mentor who “believes in me, encourages me, and motivates me to not give up” which positively influenced their decisions to persist. Broadly speaking, this finding is consistent with Tinto’s (1987, 1993) Student Departure theory that identified mentoring as a valuable asset for student persistence. Furthermore, the key finding of a positive influence of mentorship on academic persistence for Latina/o undergraduates has strong empirical support. For Latina/o students, mentoring is one resource endorsed as valuable and influential in promoting their educational attainment and success (Arellano & Padilla, 1996). In addition to providing educational support, Latina/o faculty and staff members serving as mentors also models for Latina/o students that they can also succeed academically (Gloria & Rodriguez, 2000). Furthermore, mentorship has been empirically supported with persistence decisions and continued enrollment for Latina/o college populations (Bordes & Arredondo, 2005; Gloria, 1997; Torres & Hernandez, 2009-2010). For example, Gloria et al. (2005a) found that for those Latino/a students who received faculty/staff mentorship reported a decrease in academic nonpersistence decisions. Similarly, a longitudinal study of 71 Latina/o students revealed “those students who graduated perceived that they had received more mentoring than did those who dropped out” (Bordes-Edgar et al., 2011). Therefore, the current study extends the current mentoring literature in that this qualitative finding provides more a descriptive nuance of the mentoring relationship—specifically, having a mentor whom believes in, encourages, and motivates their mentee to not give up has a positive influence on mentees’ subsequent academic persistence.

The current study also had an additional key finding that extends the current mentorship literature in that it contends the importance of having multiple mentors throughout an undergraduate student's educational journey, which suggests a developmental model of mentoring. The current study suggests that it is important to consider students' development needs and potentially assign mentors in accordance to these needs. For example, peer mentors would be most influential during a student's first-year transition to college. Many participants shared how valuable it was to have someone close in age to them who "knew the ropes" who provided support during their first year in college. Next, having a staff mentor would be essential during a student's second and third year to help with major/career exploration and potentially finding internships. Finally, having a faculty mentor during a student's third and fourth year would help facilitate discussions on graduate school or pursuing options after graduation and overall professional development.

Finally, one key finding that appeared within results of both the qualitative and quantitative findings was the importance of comfort in the university environment and participants' sense of self-esteem. The quantitative results found that self-esteem and comfort in the university environment were the two strongest predictors of academic persistence. The qualitative interviews provided many examples of how increasing mentees' self-esteem were positive predictors of persistence, such as mentor's positive affirmations helped mentees stay in school when many considered stopping out of college to go back home. However, when mentees shared they thought about how much their mentor believed in them and had faith in them, even when there were times they did not believe in themselves, this sense of "not letting me give up" was apparent and ultimately influenced their decision to stay in college. In addition to providing support around increasing mentees' self-esteem, the current study found that when mentees had a

stronger sense of comfort in the university, they were more likely to persist. This was demonstrated through participants sharing that their mentors provided validation of their culture and of their belonging on campus that appeared to influence participants' academic persistence. This finding is consistent with previous research that contends "Latina/o students who engage in learning settings that are consistent with their cultural values and practices would have an increased sense of connection, well-being, and persistence toward graduation" (Castellanos & Gloria, 2007, p. 385).

Another example of an integrated finding was that, regardless of mentor type, the current study found that frequency of mentor contact was a significant element of mentees feeling a sense of mentorship. Again, participants within the qualitative portion of the study affirmed this finding. One participant stated that they did not really see their mentor all too often and felt that had they met more frequently with their mentor, mentoring may have played a more significant role in my their decision to stay in college.

Study Limitations

Despite the promising findings in the current study, there are some limitations to consider including generalizability of the findings, sample size, and measurements that warrant discussion. Additionally, future research considerations are provided following each limitation.

Generalizability of findings. As a cross-sectional study with nonrandom sampling, generalizability of the study's findings should be made with caution, particularly since the sample only included participants who identified having a mentor; therefore, conclusions about the importance of mentorship can only made cautiously as there was no control group of participants without mentors. To address this methodological limitation, it is recommended that future research utilize a longitudinal design that follows a cohort of students with mentors

throughout their undergraduate career to allow for more inferences about the effectiveness of mentorship. Additionally, the sample consisted of participants who both were formally assigned a mentor and participants who sought out mentorship. These two groups could have had very different experiences based on being required to meet with their mentor (i.e., frequency of mentor contact) versus wanting to meet more frequently with their mentor out of their own free will. Therefore, to address this limitation, it is recommended that future research try to control for formalized mentoring relationships versus informal mentorship. Few empirical studies with college students have examined specifically formal versus informal mentoring within a university context. With a sample of 265 alumni working in industry, Chao et al. (1992) found that mentees in informal mentoring relationship reported more career-related support (i.e., protection, exposure, visibility, and opportunity for challenging assignments) from their mentors than mentees in formal mentoring relationships. The same study found no significant difference in psychosocial support (i.e., coaching, acceptance, confirmation, role modeling, and counseling) between those in formal versus informal mentoring relationship (Chao et al., 1992).

The primary researcher conducted data collection at four different universities of comparable size and student composition within the Midwest to increase validity; however, the current study's sample was drawn from a single institution due to the disproportionate responses among all four universities (i.e., 412, 14, 2, and 1) of the 429 participants who began the survey. Low response rates from the three other institutions may be attributed to the impersonal electronic modes of communication to program directors and administrators. Whereas the primary researcher had preexisting professional relationships with many offices and programs from which the large response rate was drawn from a single university, these professionals may have sent out the request for participation to their students multiple times. It is recommended that

future researchers establish relationships, if possible, with various offices and departments at different institutions before data collection in order to gain trust and build these relationships that may increase response rates.

Since the current study's sample was drawn from a single university in the Midwest, cultural nuances of this particular university may influence the findings observed, thus generalizability of findings to other universities are recommended with caution. For example, given the heterogeneity of Latina/os in the United States with regards to ethnic identity, results may differ in various regions around the country. It is recommended to include multi-site participant recruitment from other regional universities in the Southwest, Pacific Northwest, South, and East to capture the various cultural nuances of these additional universities.

Finally, another limitation with regards to generalizability was the sample from the qualitative portion of the study. Due to the range in combinations of mentor pairings (i.e., Latino male paired with White female to Latina female paired with African American female), it is recommended to interpret findings cautiously as there were ten different race/gender pairings of the 19 different participants that may have implications such as individual participants experience with their mentor of a similar or dissimilar background. For example, for the current study, all 19 participants self-identified as Latina/o but less than half the sample had a Latina/o mentors. Future research may try and control for specific mentor pairings (i.e., an all-Latina/o mentor/mentee sample) that may provide an opportunity for increased generalizability.

Sample size for quantitative data. It was originally anticipated that a sample size of 200 would be adequate for hypothesis testing with a medium effect size with a power of .80 given a 95% probability of statistical significance. After one year of data collection, the primary researcher collected 330 fully completed surveys. However, once data collection was called,

further examination of participants that met criteria (i.e., Latina/o undergraduate with mentors) yielded only 157, of which 153 were from a single institution. Though the total sample size of 153 met the required sample size for hypothesis testing (i.e., 64) which is a medium effect size with a power of .80 given a 95% probability of statistical significance, one of the study's quantitative questions called for an examination of group mean differences by mentor type and frequency of mentor contact. The cell sizes were 37 peer mentors, 81 staff mentors, and 35 faculty mentor for mentor type and by frequency of mentor contact were 51 very frequently, 66 frequently, and 36 infrequently. The individual cell sizes were small and thus invariably affected the results of the hypothesis testing despite adequate power to conduct the study's analyses. Increasing the sample size may have yielded stronger power to detect differences between the different groupings. To address this limitation, it is recommended that future research collect a larger sample size so that each cell size meets the minimum required sample size (i.e., 64), thus a minimum sample size of 192 would be required if each grouping had an equal distribution of 64 participants.

Measurements. The current study used an abbreviated version of the Persistence/Voluntary Dropout Decision Scale (PVDDS) in the quantitative portion of the study due to the length of the total scale (i.e., 30 questions) and the total number of all seven scales and demographic questions. The shortened scale assisted to shorten the time to complete the entire survey. The current study only utilized the institutional and goal commitments subscale (i.e., 6 questions) and as a result of the shortened scale, the internal consistency may have been compromised. Four previous studies using the entire PVDDS (30-item scale) with Latina/o samples yielded Cronbach's alphas ranging from .71 to .86; however, the Cronbach's alpha of .52 using one subscale (6-items) was yielded for the current study. Although scales with internal

consistencies under .70 are often considered unreliable measures, it may be that the subscale items are more heterogeneous than anticipated. That is, some of the items are more conceptually dissimilar leading to the low internal consistency. It is recommended that future quantitative research use the PVDDS measure in its entirety as to limit the possibility of a low internal consistency.

Additionally, the qualitative demographic survey included two questions that asked the degree to which participants felt having a mentor's gender and race similar to them was important. Although the empirical results were mixed for the interview participants, further qualitative findings in the study provided evidence that having a mentor similar (i.e., same gender or same race/ethnic match) was important for many participants. One participant stated that their undergraduate experience "would have been very different" had they not had a mentor of color. Future research, particularly quantitative methods sampling large student populations, should include measures assessing the degree to which mentor matching with social identity markers influence participants' educational experience. It may additionally be helpful to have distinguished questions to assess racial identity. For example, one question could specifically ask the importance to have an exact racial match (both mentor and mentee being Latina/os) and a second question could ask the importance to have a mentor of color (more generally) regardless if they identify as Latina/o or not.

Directions for Future Research

The current study yielded promising findings and implications for those university personnel and peers that mentor, despite the limitations discussed. From the findings, the study provides directives for more general future research from both the quantitative surveys and qualitative interviews. With regards to future research from the quantitative survey, the first

recommendation is for future research to include questions about influence of cultural variables (i.e., race and gender) on persistence decisions and participants' general sense of how important these variables are on mentor pairing. For example, ask participants to rank how important it was that their mentors share the same race/ethnic, as well as gender, as them.

However, it would be important for the addition of this racial ethnic match question to be two-fold. It is recommended to first include a question asking: "It is important to have a mentor of color" and allow respondents a Likert-type scale of Strongly Agree to Strongly Disagree. Then a secondary question would include: "It is important to have a Latina/o mentor" and allow respondents a Likert-type scale of Strongly Agree to Strongly Disagree. This distinction is based on the study's finding that while it may not necessarily be critical for Latina/o mentees to have a Latina/o mentor, the study suggests that participants provided responses affirming that, as a student of color, it was important to have a mentor of color that offered relateability, sense of comfort, and cultural validation of belongingness within the university environment.

In addition to quantitative directives for future research, qualitative directives for future research are provided. It would be important for future research to provide follow-up (longitudinal) opportunities to potentially follow participants to see how their mentoring experience influenced persistence decisions overtime. This could also potentially include outcome measures of mentoring relationship influence on cognitive factors such as GPA, retention rates, and graduation rates as supplemental data. Lastly, directly asking if participants did in fact persist or for those that did not persist, asking if their mentors had any influence on that decision could be additional longitudinal research.

Finally, another recommendation for future research would be to assess if any participants later became mentors. A few participants in the qualitative portion of the study

alluded to the idea that, as a result of their mentoring experience, they would want to become mentors themselves. It would likely be easiest to assess if participants with peer mentors became a peer mentor to a lower-division student since one could follow peer mentees from their first-year through their graduation. It would be more difficult to follow mentees who had staff mentors or faculty mentor since students would likely be upper-division students and would need to contact mentees post-graduation.

Implications

Despite the study's limitations, the current study's findings provide several implications for those who mentor undergraduate students as well as implications for universities and policy. The prospective implications are organized by first providing specific implications for those who serve as peer mentors, staff mentors, and faculty mentors and then offering broader implications for anyone who provides mentorship to Latina/o undergraduates. Additional implications are provided for universities, particularly predominantly White universities, who may want to implement mentoring programs and an additional implication for those students not currently in mentoring relationships who may want to take advantage of mentoring.

For those who serve as peer mentors, it is critical to view this role as someone who can help peer mentees "learn the ropes" of college. This could be through showing mentees where campus resources are located (i.e., career services, writing center, tutoring services) and if possible, walking with them over to these offices. Another recommendation would be inviting mentees to join a cultural-specific student organization. These cultural-specific student organizations often can serve as "family away from home" that can influence mentees' sense of cultural congruity within the university environment (Delgado-Guerrero, Cherniack, & Gloria, 2014). Finally, another implication for those who serve as peer mentors, the current study found

that participants also found it helpful when their peer mentor invited them to study at the library or would review their homework assignments; therefore, an implication would be including activities within the instrumental mentoring realm.

For those who serve as staff mentors, it is important to view this role as someone who can show mentees “how to work the system” in navigating the university environment. This could be through informing mentees about the wide range of resources and services available that often goes beyond solely academic support. For instance, staff mentors can help mentees learn about financial resources to address any financial stressors they may have. Additionally, it would be important to point out mental health counseling or university health services available if these areas may warrant support. The current study also found that participants with staff mentors found it helpful when their mentors emphasized professional skills development and networking opportunities so it is recommended to talk to mentees about various professional development opportunities throughout their undergraduate career. Finally, it is recommended that staff mentors talk about post-graduation plans and opportunities including talking about graduate school as potential options for mentees.

For those who serve as faculty mentors, it is significant to know that this role can be one of helping mentees “imagine possibilities” for their future. This could be through validating mentees’ interests and providing affirmations of their work ethic. The current study found that participants both held their faculty mentors in high regards but also, when faculty mentors took the time to share their successes and failures, it helped “humanize” their faculty mentors as well. Therefore, it is recommended that faculty mentors be open to self-disclose successes and failures to mentees that can often help strengthen the mentoring relationship. Finally, the current study emphasized the importance of faculty mentors to engage in research opportunities with mentees.

This is not limited to having mentees conduct research in labs, but also opportunities to present research at conferences together or to possibly even publish with mentees. Participants shared that it was helpful to have conversations with their faculty mentors about applying to graduate school and in particular, sharing their own process in applying to graduate school. Therefore, it is advisable for faculty mentors to share educational experiences or educational journeys with mentees to help them in their own processes to imagine possibilities for their future.

Finally, for those who want to serve as mentors to specifically Latina/o undergraduates, it is critical to have an understanding of Latina/o cultural values that often are salient for Latina/o undergraduates. These include centralizing a core Latina/o value of *familismo*, which manifests as solidarity, reciprocity, and loyalty that emphasize the importance of family (Castellanos & Gloria, 2007). Therefore, mentors should regularly ask about their mentee's family and take into consideration family in their mentee's decision-making processes. Additionally, Castellanos and Gloria (2007) posit that within Latina/o undergraduates' interpersonal processes, *personalismo* and *simpatia* are two interactive ways of relating that emphasize personal connections that are harmonious and pleasing, which are critical to the formation of relationships. Mentors can strive towards this type relationship by using self-disclosure with intentionality to help connect more personally. The more Latina/o mentees know about the person sitting across from them, the more likely they are to open up to and build *confianza* (trust) and *respeto* (respect) within a mentoring relationship. Castellanos and Gloria (2007) offer an additional important consideration that "as a function of acculturation (level of adherence to values) and ethnic identity (the importance or meaning attributed to one's ethnic group), not all Latina/os similarly personify these aforementioned values" (p. 385). However, despite the wide range of adherence to these cultural

values, many Latina/o undergraduates do embody these cultural values that any one serving as a mentor should be attuned to their Latina/o mentee.

The study offers an implication for universities that may want to implement mentoring programs. First, the study suggests adopting a developmental mentoring model with multiple mentors based on developmental needs throughout students' undergraduate experience. For example, peer mentors would be most influential during a student's first-year transition to college. Many participants shared how valuable it was to have someone close in age to them who "knew the ropes" and provided support during their first year and transition to college. Next, having a staff mentor would be essential during a student's second and possibly third year to help with "learning the system" to navigate resources and services throughout the university environment. Participants shared that having staff mentors help connect them to these critical resources often influenced their ability to succeed and stay in school. Finally, having a faculty mentor during a student's third or fourth year would help facilitate discussions on "life after college" and focusing on graduate school, pursuing options after graduation, and improving their professional development. The current study found that participants with faculty mentors benefited from these professional development opportunities at the very end of their educational experience.

In implementing a mentoring program, the current study's findings would support mentor matching when possible. Participants shared story after story about how having a mentor "similar to me" was helpful in building a trusting relationship to then disclose times of challenge or even disclose when they considered leaving the university. Therefore, the implication would be to try and match mentees with a mentor who may be similar to them that could be based on social identities (i.e., race/ethnicity, gender match, first-generation college student status, social

economic status, etc.), experiences (i.e., attended same university, from same city/region of country), or even academic discipline.

Finally, in implementing a mentoring program, the current study's findings support instrumental mentoring that is more related to the location where mentoring takes place. Participants shared that when they would meet their mentors in offices, the mentoring relationship felt more formal and more impersonal. However, when mentors would meet their mentees in more informal locations such as a coffee shop or invited their mentee out for pizza, participants shared they were able to feel more connected to their mentor. As a result, mentees saw their mentor as "more human" and were able to open up and share more freely with their mentor. Therefore, a recommendation would be to incorporate various locations when meeting with mentees to allow for development of the mentoring relationship.

The current study offers a final implication to Latina/o undergraduates who many not have a mentor but may wish to consider entering into a mentoring relationship. Many participants shared experiences about being a first-generation college student and not having the ability to ask parents questions about college; therefore, having a mentor could serve as someone to provide answer to the questions navigating the university environment and undergraduate experience. Additionally, Latina/o students may face alienation, isolation, and may not see themselves reflected within the university environment, especially on predominantly White campuses (Gloria, 1997). Therefore, the current study found that mentors often served as someone to help Latina/o undergraduates get connected to other they perceived like them, helped connect them to various resources on campus, and overall feel a stronger sense of belonging that then positive influenced their decisions to stay in college. Potential mentors can be found in cultural-specific student organizations, in various offices and programs that may have a diversity

focus, as well as faculty across campus but perhaps specifically in departments or programs focused on Latina/o or Ethnic Studies.

Conclusion

In sum, this study has attempted to extend the knowledge base of mentoring Latina/o undergraduates for a more comprehensive understanding of specific elements within mentoring relationships that may influence academic persistence. Through a mixed methods approach, it is hoped that those who mentor Latina/o undergraduate, whether peer, staff, or faculty mentors, may have a more cultural nuance to the specific processes within this mentoring relationships. Particularly, the study asserts that for Latina/o students, feelings of cultural congruence and fit with the university environment are at the forefront of their educational experiences that directly influence their academic persistence. Therefore, the study reinforces what Castellanos and Gloria (2007) contend as effective mentoring is mentoring that “encompasses the personal and professional of academic progress while integrating *cultura* (e.g., *familia*, values, practices, and beliefs” (p. 390). More broadly, it is hoped that Latina/o undergraduates see themselves and their experiences reflected in this study and that by their participation in this study, may provide those within a university environment who chose to mentor, additional best practices to ultimately assist in their academic persistence and overall educational journey.

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APPENDICES

Appendix A: Email to Directors

Dear Directors, Coordinators, Specialists, Program Support Staff:

My name is Marla Delgado-Guerrero and I am a doctoral student with the Department of Counseling Psychology at the University of Wisconsin-Madison. I would like to cordially invite student members of your program/office to participate in a study examining undergraduates' educational experiences as well as exploring potential mentoring relationships. The study is an attempt to further understand the outcomes related to undergraduates' educational experiences and mentoring relationships, specifically with regards to academic persistence.

The web-based survey should take approximately 20-30 minutes to complete. The information gathered will remain completely confidential. When participants complete the survey, they will be eligible for a raffle drawing that contains up to \$500 worth of gift certificates and small prizes. Additionally, if students choose to and complete a 1-hour interview regarding their mentoring relationship, they will be compensated with a \$20 gift card to Amazon. Please consider forwarding this study to your student members to help extend the literature on mentoring relationships and academic persistence decisions.

Based on my study design, I do not assume that the institutions recruited to take online surveys are engaged in the research; however, if you are aware of any requirements for external research or for forwarding external research surveys to your students, please contact me and let me know the appropriate channels to follow.

An email will immediately follow with the Invitation to Participate that contains more specific information regarding the study. This email may be forwarded to your student members within your university. If you have any questions, please feel free to contact me or my faculty advisor. Thank you in advance for your help.

Sincerely,
Marla Delgado-Guerrero
Doctoral Candidate
University of Wisconsin-Madison
marladelgado@wisc.edu

Dr. Alberta M. Gloria
Faculty Advisor
Department of Counseling Psychology
University of Wisconsin-Madison
agloria@education.wisc.edu
Office Phone: (608) 262-2669

Appendix B: Quantitative Informed Consent

UNIVERSITY OF WISCONSIN-MADISON RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

Title of the Study: Exploring Psychosociocultural Processes within Mentoring Relationships that Influence Academic Persistence Decisions for Latina/os Undergraduates: A Mixed Method Approach

Primary Researcher: Marla Delgado-Guerrero, M.S. (Email: marladelgado@wisc.edu)

Principal Investigator: Alberta M. Gloria, Ph.D. (Email: agloria@education.wisc.edu)

DESCRIPTION OF THE RESEARCH

You are cordially invited to participate in a dissertation study examining undergraduates' educational experiences as well as exploring potential mentoring relationships. The purpose of this study is an attempt to further understand the outcomes related to mentoring relationships and educational experiences, specifically with regards to academic persistence. Your participation in this study is very important and will help us to better understand the needs and experiences of college students and mentoring.

WHAT WILL MY PARTICIPATION INVOLVE?

This online survey will take about 20-30 minutes of your time and should be completed in one sitting. It can be accessed from any computer or smartphone with an Internet connection.

ARE THERE ANY RISKS TO ME?

We do not anticipate any harm to come to the participants when completing this online survey.

ARE THERE ANY BENEFITS TO ME?

There are no direct benefits to you for your participation.

WILL I BE COMPENSATED FOR MY PARTICIPATION?

As an incentive for participating in the study, participants will be eligible to enter a raffle drawing worth \$500 of gift certificates and prizes (including a iPad Mini) after fully completing the survey. In order to be considered for the drawing, participants must include an email address when requested at the end of the survey. However, email addresses will not be linked to the online survey. Winners will be contacted within two weeks following the conclusion of the data collection.

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

All data obtained from this study will be kept confidential. There will be no identifying information attached to your answers. All data obtained from this study will be reported in combined results and no individual results will be reported. The data collected will be stored in a secure database until the primary investigator has deleted it. Data may be retained from this study for future different research/analysis projects that will seek Institutional Review Board approval. Again, all data will be stored on a private, secure web server.

All contact information we obtain for the raffle drawings will be gathered in a completely separate database and will not be able to be linked to your responses in any way. All contact information we obtain for the gift certificates and iPad drawings will be collected using a separate survey so that identifiable information is not connected to your survey responses.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

If you have questions about the research, you should contact the Primary Researcher, Marla Delgado-Guerrero at marladelgado@wisc.edu. If you are not satisfied with the response of the Primary Researcher, have more questions, or want to talk with someone about your rights as a research participant, you should contact the Education Research and Social & Behavioral Science IRB Office at 608.263.2320. Your participation in this research study is completely voluntary. You have the right to withdraw at anytime or refuse to participate entirely without consequences of any kind. If you desire to withdraw, please just close your Internet browser.

If you click Yes below, then you agree to participate in the research. If you click No below, then you will be exited from the online survey.

PLEASE PRINT A COPY OF THIS FORM FOR YOUR RECORDS

Appendix C: Recruitment Flyer

Enter to Win iPad Mini

Seeking ALL College Students to Participate in
Mentorship Research Study



Dissertation Study on Mentoring College Students

Participate in a study to learn more about college students' academic experiences and mentoring relationships. Online survey will take about 20-30 minutes. Enter to win raffle with a completed survey. Prizes include up to \$500 worth of items, including an iPad Mini. In person interviews also requested with \$20 Amazon gift card provided.

For more information, please contact:

Marla Delgado-Guerrero

marladelgado@wisc.edu

Department of Counseling Psychology
University of Wisconsin-Madison



Scan bar code on
any smartphone to
be taken directly to
the online survey.

Online Survey Link:

https://uwmadison.qualtrics.com/SE/?SID=SV_bdyD5deTuKUmojH



Mentorship Study
Marla Delgado-Guerrero
marladelgado@wisc.edu



Mentorship Study
Marla Delgado-Guerrero
marladelgado@wisc.edu



Mentorship Study
Marla Delgado-Guerrero
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Mentorship Study
Marla Delgado-Guerrero
marladelgado@wisc.edu



Mentorship Study
Marla Delgado-Guerrero
marladelgado@wisc.edu

Appendix D: Electronic Announcement

Dear College Student,

I invite you to participate in my dissertation study to exploring undergraduates' experiences and mentoring relationships.

The purpose of this study is an attempt to further understand the outcomes related to mentoring relationships and educational experiences, specifically with regards to academic persistence. Furthermore, the study will provide valuable information for university staff, faculty, administrators, and students to help create a more inclusive campus climate and close the achievement gap.

By completing the survey (website link below), you will be entered into a raffle of prizes worth \$500 in total (including an iPad Mini).

Don't miss this opportunity to share your experiences towards research to benefit your fellow college students! If you have any questions or concerns, please contact Marla Delgado-Guerrero at marladelgado@wisc.edu. Please forward this email to your undergraduate peers and friends.

Website link for direct access to survey:

https://uwmadison.qualtrics.com/SE/?SID=SV_bdyD5deTuKUmojH

Thank you for your interest in participating in my dissertation study!

Marla Delgado-Guerrero
marladelgado@wisc.edu

Appendix E: Quantitative Demographic Survey

Thank you for choosing to complete this survey that examines your thoughts about your educational experiences. Do not spend a lot of time on each question—respond with your first reaction. Please select the most appropriate answer to each question and answer all the questions, as some questions have multiple parts and/or asks for multiple selections.

1. Gender:

- ☐ Male
- ☐ Female
- ☐ Transgender
- ☐ None of the Above

2. Class Standing:

- ☐ First Year
- ☐ Second Year
- ☐ Third Year
- ☐ Fourth Year
- ☐ Fifth Year
- ☐ Sixth Year
- ☐ Beyond Sixth Year
- ☐ Graduate Student
- ☐ Recent Alumnae

—Please list number of semesters since graduation? _____

3. What is your race **and** ethnicity? (check one and specify ethnicity where applicable)

- ☐ Bi/Multiracial/Multiethnic Specify: _____
- ☐ African American/Black Specify: _____
- ☐ American Indian Specify: _____
- ☐ Asian American Specify: _____
- ☐ Latino/Hispanic Specify: _____
- ☐ Caucasian/White Specify: _____
- ☐ International Specify: _____
- ☐ Not Listed Specify: _____

4. Age: _____

5. GPA: _____

6. Which 4-year university within the Midwest do you currently attend?

- ☐ Indiana University Bloomington
- ☐ University of Illinois at Urbana-Champaign
- ☐ University of Michigan-Ann Arbor
- ☐ University of Wisconsin-Madison
- ☐ None of the Above

—If none, please list school? _____

7. In which school or college is your major(s)? (check all that apply)

- ☐ Agricultural & Life Sciences
- ☐ Business
- ☐ Education
- ☐ Engineering
- ☐ Human Ecology
- ☐ Letters & Science
- ☐ Medicine and Public Health
- ☐ Nursing
- ☐ Pharmacy
- ☐ Social Work
- ☐ Undeclared
- ☐ None of the Above

—If none, please list school or college? _____

8. Are you affiliated with any scholarship or student support programs below? (check all that apply)

- ☐ 21st Century Scholars Program
- ☐ Academic Advancement Program (AAP)/Center for Academic Excellence (CAE)
- ☐ Academic Innovation and Mentoring
- ☐ Academic Support Center
- ☐ Center for Educational Opportunity (CeO)/Student Support Services (SSS)/TRiO/Academic Support Program (ASP)
- ☐ Chancellor's Scholars Program
- ☐ Educational Opportunity Program (EOP)
- ☐ Faculty and Staff for Student Excellence Mentoring Program (FASE)
- ☐ First Wave
- ☐ Groups Scholars Program
- ☐ Herbert Presidential Scholars
- ☐ Hudson and Holland Scholars Program
- ☐ Leaders and Best (LAB) Program
- ☐ McNair Scholars Program
- ☐ Men of Color Leadership Institute
- ☐ MESA Affiliate Program (MAP)
- ☐ Michigan Community Scholars Program
- ☐ Michigan-Pursuing Our Dreams (M-POD)
- ☐ Michigan Transfer Initiative for Emerging Scholars (M-Ties)
- ☐ Minority Association of Pre-health Students (MAPS)
- ☐ Office of Multicultural Initiatives
- ☐ Pathways to Student Success and Excellence (Posse at University of Michigan)
- ☐ Peer Mentoring
- ☐ PEOPLE Program
- ☐ Posse Program (Leadership Scholarship at UW-Madison)
- ☐ Powers-Knapp Scholars Program
- ☐ Summer Undergraduate Research Program
- ☐ Undergraduate Research Opportunity Program (UROP at University of Michigan)

- ☐ Undergraduate Research Scholars Program
- ☐ None of the Above
- ☐ Other: _____

9. What is the highest degree you expect to earn?

- ☐ Bachelor's Degree (BA/BS/BBA/BFA/BNS/BSW, etc.)
- ☐ Master's Degree (MA/MS/MBA/MSW/MFA/MPH/MPA, etc.)
- ☐ Professional Degree (MD/JD/DMD/DMV/PsyD/PharmD, etc.)
- ☐ Research Degree (PhD/EdD/DEng/DA/DBA, etc.)
- ☐ Joint Degree (please list degrees) _____

10. Have you been continuously enrolled since you began the degree you are currently working towards?

- ☐ Yes
- ☐ No

—For what reason(s) were you not continuously enrolled? _____

11. Are you a transfer student?

- ☐ No
- ☐ Yes

—From which institution? _____

12. How likely are you to enroll next semester at your current institution?

- ☐ Very Unlikely
- ☐ Somewhat Unlikely
- ☐ Somewhat Likely
- ☐ Very Likely
- ☐ Graduating/Graduated

13. How likely are you to earn your degree from your current institution?

- ☐ Very Unlikely
- ☐ Somewhat Unlikely
- ☐ Somewhat Likely
- ☐ Very Likely
- ☐ I Have Graduated

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

- ☐ Work Part-Time
- ☐ Work Full-Time
- ☐ Scholarship(s)/Grants(s)
- ☐ Student Loans
- ☐ Credit Cards
- ☐ Family/Spouse/Partner
- ☐ Personal Savings

15. In the last month, how often have you experienced stress/strain given...

- ☐ Difficulty paying students fees next semester.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Financial difficulties due to owing money.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Difficulty paying rent.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Difficulty paying for food.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Difficulty paying for recreation and entertainment.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Difficulty due to your family experiencing money problem.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often

16. What the best estimate for your family household income?

Amount: \$ _____

17. Who of the following family members were first to be born in the United States?

- ☐ No One in Your Family
- ☐ Yourself or Your Siblings
- ☐ Your Parents
- ☐ Your Grandparents

- ☐ Your Great-Grandparents
- ☐ Your Great-Great-Grandparents
- ☐ Beyond Great-Great-Grandparents

18. Because of my ethnic background...

- ☐ University personnel ignore me.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ I am stereotyped on campus.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Others often exclude me from participating in their activities.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ I am aware of how different I am.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ I have trouble communicating with others.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ My family questions my new values coming to college.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often
 - ☐ Very Often
- ☐ Close family members and I have different expectations about my future.
 - ☐ Never
 - ☐ Rarely
 - ☐ Neutral
 - ☐ Often

☐ Very Often

19. Are you a first-generation college student? (neither parent(s)/guardian(s) has completed a postsecondary degree)

☐ Yes

☐ No

20. Primary Caregiver's Highest Completed Education

☐ No Formal School

☐ Elementary School

☐ Middle School

☐ Technical Certificate

☐ General Equivalency Diploma (GED)

☐ High School Diploma

☐ Some College

☐ Associate's Degree

☐ Bachelor's Degree

☐ Master's Degree

☐ JD/MD/PhD or Advanced Other Degree

☐ Unknown

☐ Not Applicable

What is their current occupation/job? _____

21. Secondary Caregiver's Highest Completed Education

☐ No Formal School

☐ Elementary School

☐ Middle School

☐ Technical Certificate

☐ General Equivalency Diploma (GED)

☐ High School Diploma

☐ Some College

☐ Associate's Degree

☐ Bachelor's Degree

☐ Master's Degree

☐ JD/MD/PhD or Advanced Other Degree

☐ Unknown

☐ Not Applicable

What is their current occupation/job? _____

22. Sibling's Highest Completed Education

☐ No Formal School

☐ Elementary School

☐ Middle School

☐ Technical Certificate

☐ General Equivalency Diploma (GED)

☐ High School Diploma

- ☐ Some College
- ☐ Associate's Degree
- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ JD/MD/PhD or Advanced Other Degree
- ☐ Unknown
- ☐ Not Applicable

23. I value the degree I am currently working towards.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Slightly Disagree
- ☐ Slightly Agree
- ☐ Agree
- ☐ Strongly Agree

WHEN ANSWERING THE FOLLOWING QUESTIONS, PLEASE SELECT ONE CURRENT MENTOR/OR THE MENTOR THAT WAS MOST INFLUENTIAL TO YOU IN COLLEGE.

24. Who serves/served as a mentor to you?

- ☐ Peer Undergraduate Student
- ☐ Graduate Student
- ☐ Academic Staff
- ☐ Administrator
- ☐ Faculty Member
- ☐ I do not have a mentor
- ☐ Other: _____

25. What is the type of mentor relationship?

- ☐ Formal
- ☐ Informal
- ☐ Other: _____

26. How do/did you meet with your mentor and with what frequency do/did you meet with your mentor?

- ☐ Face-to-Face meeting (in person)
 - ☐ Never used this mode of communication with my Mentor
 - ☐ Very Infrequently (once a semester)
 - ☐ Infrequently (bi-monthly)
 - ☐ Somewhat Frequently (monthly)
 - ☐ Frequently (bi-weekly)
 - ☐ Very Frequently (weekly)
 - ☐ I do not have a mentor
- ☐ Face-to-Face meeting (via video conference, e.g., Skype)
 - ☐ Never used this mode of communication with my Mentor

- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

Phone Conversation

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

☐ E-mail

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

☐ Instant Message/Text Messages

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

☐ Facebook

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

☐ Twitter

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

☐ LinkedIn

- ☐ Never used this mode of communication with my Mentor
- ☐ Very Infrequently (once a semester)
- ☐ Infrequently (bi-monthly)
- ☐ Somewhat Frequently (monthly)
- ☐ Frequently (bi-weekly)
- ☐ Very Frequently (weekly)
- ☐ I do not have a mentor

27. How long is/was your relationship with your mentor?

—Please provide range of semesters (e.g., 1 semester; 3 semesters, etc.) _____

☐ I do not have a mentor.

28. My mentor helps/helped me to persist in college.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Slightly Disagree
- ☐ Slightly Agree
- ☐ Agree
- ☐ Strongly Agree
- ☐ Not Applicable

29. I value/valued my current mentor.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Slightly Disagree
- ☐ Slightly Agree
- ☐ Agree
- ☐ Strongly Agree
- ☐ Not Applicable

30. ☐ Did this particular mentoring relationship end?

- ☐ Yes
- ☐ No

—If yes, please describe why. _____

31. ☐ Would you be willing to participate in a 1-hour follow-up interview to explain in more depth your mentorship experience?

- ☐ Yes
- ☐ No

—If yes, please provide your 1) name, 2) email, and 3) phone number.

Appendix F: Standardized Scales

Educational Self-Efficacy Scale (ESES)

(Educational Degree Behaviors Self-Efficacy Scale, Gloria, Robinson Kurpius, Hamilton, & Wilson, 1999) &
(College Self-Efficacy Scale, Solberg, O'Brien, Villareal, Kenner, & Davis, 1993)

Assuming that you are motivated to do your best, please indicate how confident you are that you could or already have successfully completed the following tasks.

Not Confident	Somewhat Confident			Extremely Confident
1	2	3	4	5

	NC	SC			EC
1. Research a term paper.	1	2	3	4	5
2. Write course papers.	1	2	3	4	5
3. Do well on your exams.	1	2	3	4	5
4. Take good class notes.	1	2	3	4	5
5. Keep up to date with your schoolwork.	1	2	3	4	5
6. Manage time effectively.	1	2	3	4	5
7. Understand your textbooks.	1	2	3	4	5
8. Participate in class discussion.	1	2	3	4	5
9. Ask a question in class.	1	2	3	4	5
10. Talk to your professors.	1	2	3	4	5
11. Talk to university staff.	1	2	3	4	5
12. Ask a professor a question.	1	2	3	4	5
13. Make new friends at college.	1	2	3	4	5
14. Join a student organization.	1	2	3	4	5
15. Complete the math general studies requirements with a B or better.	1	2	3	4	5
16. Complete the science general studies requirements with a B or better.	1	2	3	4	5
17. Complete the humanities general studies requirements with a B or better.	1	2	3	4	5
18. Complete the social science general studies requirements with a B or better.	1	2	3	4	5
19. Complete the English general studies requirements with a B or better.	1	2	3	4	5
20. Decide on an academic major.	1	2	3	4	5
21. Be accepted into your academic major.	1	2	3	4	5
22. Getting Bs or better in the introductory courses for my major.	1	2	3	4	5
23. Getting Bs or better in the advanced courses for my major.	1	2	3	4	5
24. Getting Bs or better in elective courses.	1	2	3	4	5
25. Getting Bs or better in my upper division courses.	1	2	3	4	5
26. Complete your undergraduate degree with a GPA of a B or better.	1	2	3	4	5
27. Obtain a job in my chosen field after graduation.	1	2	3	4	5
28. Be accepted into graduate school.	1	2	3	4	5

Rosenberg Self-Esteem Scale (RSES)
(Rosenberg, 1965)

Read each statement carefully, and circle the number that indicates how much you agree or disagree with each statement.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

	SD	D	A	SA
1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times I think I am no good at all.	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I certainly feel useless at times.	1	2	3	4
7. I feel that I'm a person of worth.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. All in all, I am inclined to think that I am a failure.	1	2	3	4
10. I take a positive attitude toward myself.	1	2	3	4

Mentorship Scale (MS)
(Tenenbaum, Crosby, & Gliner, 2001)

The statements below refer to aspects of the mentoring relationship. Please select the best answer for each item as to how much you agree or disagree your mentor has provides the content of each statement.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

	SD	D	A	SA
1. My mentor has gone out of his/her way to promote my academic interests.	1	2	3	4
2. I feel that my mentor has conveyed feelings of respect for me as an individual.	1	2	3	4
3. I feel that my mentor has conveyed empathy for the concerns and feeling that I have discussed with him/her.	1	2	3	4
4. My mentor has encouraged me to talk openly about anxiety and fears that have distracted me from my work.	1	2	3	4
5. My mentor has shared personal experiences as an alternative perspective to my problems.	1	2	3	4
6. My mentor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts.	1	2	3	4
7. My mentor has shared history of his/her career with me.	1	2	3	4
8. My mentor has encouraged me to prepare for the next step.	1	2	3	4
9. My mentor has served as a role model.	1	2	3	4
10. My mentor has display attitudes and value similar to my own.	1	2	3	4
11. My mentor has helped me finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete.	1	2	3	4
12. My mentor has protected me from working with other faculty, lecturers, or staff before I knew about their likes/dislikes, opinions on controversial topics, and the nature of the political environment.	1	2	3	4
13. My mentor has given me authorship on publications.	1	2	3	4
14. My mentor has helped me improve my writing skills.	1	2	3	4
15. My mentor has helped me with a presentation (either within my department or at a conference).	1	2	3	4
16. My mentor has explored career options with me.	1	2	3	4
17. My mentor has given me challenging assignments that present opportunities to learn new skills.	1	2	3	4
18. My mentor has helped me meet other people in my field at the University.	1	2	3	4
19. My mentor has helped me meet other people in my field elsewhere.	1	2	3	4

College Student Mentoring Scale (CSMS)
(Crisp, 2009)

While in college, I have had a mentor in my life who...

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

	SD	D	N	A	SA
1. I look up to regarding college-related issues.	1	2	3	4	5
2. helps me work toward achieving my academic aspirations.	1	2	3	4	5
3. helps me realistically examine my degree or certificate options.	1	2	3	4	5
4. I can talk with openly about social issues related to being in college.	1	2	3	4	5
5. I admire.	1	2	3	4	5
6. helps me perform to the best of my abilities in my classes.	1	2	3	4	5
7. encourages me to consider educational opportunities beyond my current plans.	1	2	3	4	5
8. I want to copy their behaviors as they relate to college-going.	1	2	3	4	5
9. provides ongoing support about the work I do in my classes.	1	2	3	4	5
10. gives me emotional support.	1	2	3	4	5
11. encourages me to talk about problems I am having in my social life.	1	2	3	4	5
12. sets a good example about how to relate to other people.	1	2	3	4	5
13. helps me to consider the sacrifices associated with my chosen degree.	1	2	3	4	5
14. expresses confidence in my ability to succeed academically.	1	2	3	4	5
15. serves as a model for how to be successful in college.	1	2	3	4	5
16. discusses the implications of my degree choice.	1	2	3	4	5
17. makes me feel that I belong in college.	1	2	3	4	5
18. encourages me to use him or her as a sounding board to explore what I want.	1	2	3	4	5
19. shares personal examples of difficulties they have had to overcome to accomplish academic goals.	1	2	3	4	5
20. helps me carefully examine my degree or certificate options.	1	2	3	4	5
21. I can talk with openly about personal issues related to being in college.	1	2	3	4	5
22. encourages me to discuss problems I am having with my coursework.	1	2	3	4	5
23. questions my assumptions by guiding me through a realistic appraisal of my skills.	1	2	3	4	5
24. recognizes my academic accomplishments.	1	2	3	4	5
25. provides practical suggestions for improving my academic performance.	1	2	3	4	5

University Environment Scale (UES)
(Gloria & Robinson Kurpius, 1996)

For each of the following items, 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

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

Cultural Congruity Scale
(Gloria & Robinson Kurpius, 1996)

For each of the following items, 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

	SD	D	A	SA
1. I feel that I have to change myself to fit in at school.	1	2	3	4
2. I try not to show the parts of me that are "ethnically" based.	1	2	3	4
3. I often feel like a chameleon, having to change myself depending on the ethnicity of the person I am with at school.	1	2	3	4
4. I feel that my ethnicity is incompatible with other students.	1	2	3	4
5. I can talk to my friends at school about my family and culture.	1	2	3	4
6. I feel I am leaving my family values behind by going to college.	1	2	3	4
7. My ethnic values are in conflict with what is expected at school.	1	2	3	4
8. I can talk to my family about my friends from school.	1	2	3	4
9. I feel that my language and/or appearance make it hard for me to fit in with other students.	1	2	3	4
10. My family and school values often conflict.	1	2	3	4
11. I feel accepted at school as an ethnic minority.	1	2	3	4
12. As an ethnic minority, I feel as if I belong on this campus.	1	2	3	4
13. I can talk to my family about my struggles and concerns at school.	1	2	3	4

Persistence/Voluntary Dropout Decision Scale (P/VDDS)
(Pascarella & Terenzini, 1980)

Please complete the following questions.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

	SD	D	N	A	SA
1. It is important for me to graduate from college.	1	2	3	4	5
2. I am confident that I made the right decision in choosing to attend this university.	1	2	3	4	5
3. It is likely that I will register at this university next fall.	1	2	3	4	5
4. It is not important for me to graduate from this university.	1	2	3	4	5
5. I have no idea at all what I want to major in.	1	2	3	4	5
6. Getting good grades is not important to me.	1	2	3	4	5

Appendix G: Modified SAFE Acculturation Stress Scale

Social, Attitudinal, Familial, and Environmental Acculturation Stress Scale (SAFE) – Abbreviated (Mena, Padilla, & Maldonado, 1987)

Please rate your stress level of each item.

Not Stressful				Extremely Stressful	
1	2	3	4	5	

	NC		SC		EC
1. I often feel ignored by people who are supposed to assist me.	1	2	3	4	5
2. Many people have stereotypes about my culture or ethnic group and treat me as if they are true.	1	2	3	4	5
3. Because of my ethnic background, I feel that others often exclude me from participating in their activities.	1	2	3	4	5
4. I often think about my cultural background.	1	2	3	4	5
5. People think I am unsociable when in fact I have trouble communicating in English.	1	2	3	4	5
6. It bothers me that family members I am close to do not understand my new values.	1	2	3	4	5
7. Close family members and I have conflicting expectations about my future.	1	2	3	4	5

SAFE Acculturation Stress Scale – Modified

Because of my ethnic background...

Never	Rarely	Neutral	Often	Very Often
1	2	3	4	5

	NC		SC		EC
1. University personnel ignore me.	1	2	3	4	5
2. I am stereotyped on campus.	1	2	3	4	5
3. Others often exclude me from participating in their activities.	1	2	3	4	5
4. I am often aware of how different I am.	1	2	3	4	5
5. I have trouble communicating with others.	1	2	3	4	5
6. My family questions my new values coming to college.	1	2	3	4	5
7. Close family members and I have conflicting expectations about my future.	1	2	3	4	5

Appendix H: Qualitative Informed Consent



Alberta M. Gloria, Ph.D.

Professor & Department Chair
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Dear College Student Participant,

You are invited to participate in an interview about your mentoring experience on this campus. My name is Marla Delgado-Guerrero (Primary Researcher) and I am dissertator in the Department of Counseling Psychology who is interested in the mentoring relationship and academic persistence with Latina/o students. My dissertation research is conducted under the supervision of my faculty advisor, Alberta M. Gloria (Principal Investigator).

I am interested in conducting audio-recorded interviews with students about their mentoring relationships, in relation to their educational experience and academic persistence. It is expected that interviews will take approximately 45-60 minutes. Prior to the interview, participants will be asked to complete a brief demographic questionnaire as part of the study interview. You will receive a \$20 gift card to Amazon.com at the completion of the study interview.

All interviews will be confidential such that no names or identifying information will be revealed in any presentation or publication of the data. Data may be retained from this study for future different research/analysis projects that will seek Institutional Review Board approval. Again, all data will be stored on a private, secure web server. Results of the present study will be posted on the Principal Investigator's webspace. There are no foreseeable risks or discomfort involved with the completion of this research. Finally, any presentation or publication of the data will in no way identify you.

Although you may not receive any immediate or direct benefits from this research, the information gained is very important and will help us to better understand the needs and experiences of college students and mentoring.

Please note after reading through this interview consent form, by signing this form, you will be giving your consent to participation in this study. At any point, you may request to discontinue the interview for any reason.

Thank you for considering this study. If you have any questions about your rights as a research participant, please contact the UW-Madison Education Research and Social & Behavioral Institutional Review Board Director, Lil Larson at llarson@ls.wisc.edu.

We greatly appreciate your participation in this study.

I, _____, give my consent to participate in this research study.

(Print Name)

(Signature)

(Date)

Sincerely,

Marla Delgado-Guerrero, MS
Doctoral Candidate
University of Wisconsin-Madison
marladelgado@wisc.edu

Alberta M. Gloria, PhD
Faculty Advisor
University of Wisconsin-Madison
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IRB Approval Date: 5/7/2014
Date IRB Approval Expires: 5/6/2015
FWA00005399 ED/SBS IRB
University of Wisconsin – Madison

Appendix I: Qualitative Demographic Survey

Please select the most appropriate answer to each question and answer all the questions, as some questions have multiple parts and/or asks for multiple selections.

1. Gender:

- ☐ Male
☐ Female
☐ Transgender
☐ None of the Above

2. Age: _____

3. GPA: _____

5. Class Standing:

- ☐ First Year
☐ Second Year
☐ Third Year
☐ Fourth Year
☐ Fifth Year
☐ Sixth Year
☐ Beyond Sixth Year

4. Are you affiliated with any scholarship or student support programs below? (check all that apply)

- ☐ Center for Academic Excellence (CAE/AAP)
☐ Center for Educational Opportunity (CeO)
☐ Chancellor's Scholars Program
☐ McNair Scholars Program
☐ OMAI/First Wave Program
☐ PEOPLE Program
☐ Posse Program
☐ Powers-Knapp Scholars Program
☐ Undergraduate Research Scholars Program (URS)
☐ None of the Above
☐ Other(s): _____

6. What is your race and ethnicity? (check one and specify ethnicity where applicable)

- | | |
|---|----------------|
| ☐ African American/Black | Specify: _____ |
| ☐ American Indian | Specify: _____ |
| ☐ Asian American | Specify: _____ |
| ☐ Bi/Multiracial/Multiethnic | Specify: _____ |
| ☐ Caucasian/White | Specify: _____ |
| ☐ International | Specify: _____ |
| ☐ Latino/Hispanic | Specify: _____ |
| ☐ Not Listed | Specify: _____ |

WHEN ANSWERING THE FOLLOWING QUESTIONS, PLEASE SELECT ONE CURRENT MENTOR/OR THE MENTOR THAT WAS MOST INFLUENTIAL.

7. Who serves/served as a mentor to you?

- | | | |
|---|---|---|
| ☐ Peer Undergraduate Student | ☐ Academic Staff | ☐ Faculty Member |
| ☐ Graduate Student | ☐ Administrator | ☐ Other: _____ |

8. What is the type of mentor relationship?

- ☐ Formal
☐ Informal

9. What is your mentor's gender?

- ☐ Male ☐ Transgender ☐ Unknown
☐ Female ☐ None of Above

10. What is your mentor's race and ethnicity? (check one and specify ethnicity where applicable)

- | | |
|---|----------------|
| ☐ African American/Black | Specify: _____ |
| ☐ American Indian | Specify: _____ |
| ☐ Asian American | Specify: _____ |
| ☐ Bi/Multiracial/Multiethnic | Specify: _____ |
| ☐ Caucasian/White | Specify: _____ |
| ☐ International | Specify: _____ |
| ☐ Latino/Hispanic | Specify: _____ |
| ☐ Not Listed | Specify: _____ |
| ☐ Unknown | Specify: _____ |

11. It is/was important that my mentor share the same race/ethnicity as me.

- ☐ Strongly Agree
☐ Agree
☐ Slightly Agree
☐ Slightly Disagree
☐ Disagree
☐ Strongly Disagree

12. It is/was important that my mentor share the same gender as me.

- ☐ Strongly Agree
☐ Agree
☐ Slightly Agree
☐ Slightly Disagree
☐ Disagree
☐ Strongly Disagree

13. How do/did you meet with your mentor and with what frequency do/did you meet with your mentor?

Face-to-Face (In Person)

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

Face-to-Face (Skype)

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

Phone Conversation

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

E-mail

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

Instant Message/Text Messages

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

Facebook

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

Twitter

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

LinkedIn

- ☐ Very Frequently (weekly)
☐ Frequently (bi-weekly)
☐ Somewhat Frequently (monthly)
☐ Infrequently (bi-monthly)
☐ Very Infrequently (once a semester)
☐ Never used this mode of communication

14. How long is/was your relationship with your mentor?

—Please provide range of semesters (e.g., 1 semester; 3 semesters, etc.) _____

15. ☐ Are you still currently in this mentoring relationship?

☐ Yes

☐ No—If no, please describe why. _____

Appendix J: Interview Protocol

Directions: Explain to the participant the purpose of the interview. Review confidentiality and how the audio recordings will be used. Instruct participants that they should refrain from using direct identifiers, highly sensitive information, and/or 3rd party reporting in their responses. Clarify any questions the participant may have. Ask participant if she would like to review the results for validity check via email.

Psychological and Emotional Support

1. What does it mean to have a mentor who provides a space to discuss your personal concerns? (P)
2. How does your mentor influence your relationships with other support systems (family, friends, etc.)? (S)
3. How does your mentor validate who you are culturally? (C)

Degree and Career Support

4. How does your mentor influence your academic strengths and weaknesses? (P)
5. How does your mentor connect you with others in your future career field of interest? (S)
6. What does it mean that your mentor talks to you about graduate school or advancing your education after college? (C)

Academic Subject Knowledge Support

7. What does it mean to have a mentor who assists you with your academic coursework? (P)
8. How does your mentor connect you to other campus resources and services to assist you in your academic performance? (S)
9. How does your mentor facilitate the applicability of your academic area of study to your culture and community? (C)

Existence of a Role Model

10. What does it mean to have your mentor who shares personal examples of their successes or failures? (P)
11. In what ways does your mentor model how to connect to or network with others? (S)
12. What does it mean to have a mentor similar to you (e.g., shared values, racial or gender match, etc.)? (C)

Academic Persistence

13. How has your mentor influenced your decision to stay in college? (P)
14. How does your mentor connect you to other social support networks on campus to help you stay in college? (S)
15. How does your mentor affirm that you belong on campus through your cultural identities? (C)