ETHNIC IDENTITY, PERCEIVED SOCIAL SUPPORT, COPING STRATEGIES, UNIVERSITY ENVIRONMENT, CULTURAL CONGRUITY, AND RESILIENCE OF LATINA/O COLLEGE STUDENTS

DISSERTATION

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By

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ABSTRACT

The literature on resilience suggests that despite personal, cultural, and environmental challenges, many students do succeed academically. However, few studies have investigated resilience or factors that foster it among Latino college students. Accordingly, this study examined the variables of ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, university environment, and cultural congruity to determine their relation to the resilience of 150 Latina/o college students. The participants were 72 males and 78 females from a large Midwestern, predominantly white institution (PWI). Participants completed a survey packet that included a demographic questionnaire, the Revised Multigroup Ethnic Identity Measure, Multidimensional Scale of Perceived Social Support, Student Coping Scale, University Environment Scale, Cultural Congruity Scale, and Connor-Davidson Resilience Scale. The results showed that ethnic identity, familial, friend, and significant other support, coping strategies, university environment, and cultural congruity accounted for 51% of the variance in measured resilience. These findings are discussed in relation to the existing resilience literature and implications for future research are noted.
Dedicado a mi padre Federico, mis hermanos Federico Jr., Valentin, Miguel, Lorenzo, mi hermana Laura, y en memoria de mi madre Ignacia, una mujer que conoció mi pasión y creyó en mí.
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CHAPTER 1
INTRODUCTION

Although Latinos currently represent the largest minority group (32.8 million or 12%) in the United States (US; US Census, 2000), they remain underrepresented in institutions of higher education (National Center for Education Statistics [NCES], 2002). The number of students enrolling in American colleges is consistently increasing; however, the proportion of students that obtain a degree prior to departure has not improved, especially among minority students (Sanchez, 2000; Strage, 1999). Despite the fact that Latino high school graduates have the second highest college enrollment rates in comparison to Asian/Pacific Islander, Black, and white high school graduates, Latinos have the highest drop-out rates (The Tomas Rivera Policy Institute and National Hispanic Caucus of State Legislators, 2003) and lag behind all other population groups in attaining college degrees, and bachelors degrees in particular (Fry, 2002).

In the present study, the term “Latinos” is used to describe female and male individuals of Latin American or Hispanic origin living in the United States, including individuals of Mexican, Puerto Rican, Cuban, Central American, and South American descent. Specific ethnic terms are utilized when relevant literature is cited.

Within the Latino origin groups, substantial diversity exists. For example, in comparing Mexicans, Puerto Ricans, Cubans, and South American, and Central
Americans, individuals of Mexican descent have the lowest (Aguirre & Martinez, 1993) and Cubans the highest college completion rates. Considering gender differences, even when Latinas earn better grades in college, their persistence to graduation is lower than their male counterparts (Gloria, 1997).

Attainment of higher education is important for poor and working class Latinos, as a college degree is often necessary to secure a well-paying job (Cardoza, 1991; Lango, 1995; Quintana, Vogel, & Ybarra, 1991) and achieve economic power (Wycoff, 1996). For example, college-educated Latinas earn 82% more than Latinas with only a high school diploma (NCES, 1996). Academically, high socioeconomic status translates to financial access to education (Zambrana, Dorrington, & Alonzo-Bell, 1997) and students from high socioeconomic backgrounds tend to remain in college longer and attain better grades (Astin, 1977; Flores, 1992; Vasquez, 1982). Unfortunately, Mexican American women, in particular, are overrepresented in low-paying occupations (Arbona & Novy, 1991) and Latinos remain the most poorly educated group in the U.S. (Fry, 2002; Pew Hispanic Center Fact Sheet, 2002). The lack of finances is the greatest concern of and primary barrier to higher education for Latina/o undergraduate students (Muñoz, 1986; Muñoz & Garcia-Bahne, 1978; Quevedo-Garcia, 1987; Vasquez, 1982). Latinos’ high enrollment rates are not translating into high college graduation rates, thus it is important to examine what happens after these students begin their undergraduate career.

It is well reported that Latina/o college students face many barriers to academic success. Some of the challenges that ethnic minority college students face include feeling isolated, unwelcomed, and detached in the university (Hurtado, 1994; Vasquez, 1982). Additionally, students may experience a negative campus climate, lack parental, social,
and faculty/staff support, and worry about their school grades and study skills (Chiang, Hunter, & Yeh, 2004; Dill & Henley, 1998; Haro, Rodriguez, & Gonzales, 1994; Gloria & Robinson Kurpius, 1996; Tracey & Sedlacek, 1985; Quintana et al., 1991; Zalaquett, 2005). Adding to the academic stress, students often experience emotional stress, which may be associated with familial relationships and responsibilities (Chacon, Cohen, & Strover, 1986; Chiang et al., 2004; Vasquez, 1982), and conflict due to the clash between traditional gender roles and educational expectations (Niemann, Romero, & Arbona, 2000). For example, Latina female students may experience guilt for not living up to familial expectations or may to fail academically by living up to traditional expectations (Mirande & Enriquez, 1979).

Latinos hold negative views toward seeking professional mental health care services (Leong, Wagner, & Tata, 1995) and Latina female college students are least likely to cope by seeking professional advice in comparison to other coping strategies, such as talking with others about the problem and drawing from past experiences (Gloria, Castellanos, & Orozco, 2005). However, Latinos do rely on relationships with close others for support, which is consistent with their interdependent and collectivistic view (Cross, Bacon, & Morris, 2000; Holleran & Waller, 2003). Latinos tend to place a high value on family for support (Keefe, Padilla, & Carlos, 1979; Marin & Marin, 1991). Research shows that parents play an important supportive role in their children’s college attendance (Gandara, 1995), for example, by helping them cope with stressful life situations (Gloria, 1997). Support from friends appears to make a significant contribution to the well-being of Latino college students as well (Rodriguez, Mira, Myers, Morris, & Cardoza, 2003). Evidently, there exist factors that serve a protective role and counteract
the effects of at-risk situations (Arenallo & Padilla, 1996; Werner & Smith, 1992), thus, understanding these protective factors is especially important. For the purpose of the present study, educational resilience is defined as “the heightened likelihood of success in school and in other life accomplishments, despite environmental adversities, brought about by early traits, conditions, and experiences” (Wang, Haertel, & Walberg, 1994, p. 46).

Waxman, Huang, and Padron (1997) report that resilient Latino youth have significantly higher aspirations than their nonresilient counterparts, which is predictive of college attendance and persistence, especially among Latina women (Cardoza, 1991). Furthermore, resilient individuals are more likely to perceive a more supportive environment (Gordon, 1996). Accordingly, it is important to further examine the factors that may predict resilience among Latino college students.

The purpose of this study was to examine potential predictors of resilience among a group of Latina/o college students. The concept of resilience suggests that, regardless of the economic, cultural, and social barriers, students can succeed (Cabrera & Padilla, 2004) and successfully adjust to the environment (Garmezy, 1991). Graham and Hudley (2005) report that ethnic identity may be an important variable that contributes to the resilience of racial/ethnic individuals in general, and is associated with school engagement among Latino students, in particular. Further, African American middle school students tend to be more academically successful when they endorse a positive racial identity versus a Eurocentric identity (Spencer, Noll, Stoltzfus, & Harpalani, 2001). Socially, ethnic minority students who are well integrated into the university environment
are more likely to remain and commit to the university and their coping strategies will allow them to adjust and persist in college (Zea, Reisen, Beil, & Caplan, 1997).

Despite the personal, cultural, environmental, and financial challenges that Latinos encounter in their educational pursuits (Young, 1992) many students do succeed academically (Arellano & Padilla, 1996; Waxman et al., 1997). Investigators call for more research on the personal (Zea et al., 1997), cultural (Lango, 1995), and environmental (Rodriguez et al., 2003) variables that positively affect Latinos’ decision to remain in college. This study heeds the call of researchers to further investigate the factors that promote Latino student resilience in order to increase the number of students that successfully graduate (Vazquez & Garcia-Vazquez, 1995). Based on the literature, the present study specifically investigated ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, cultural congruity, and university environment, as potential predictors of the resilience of Latina/o college students. Focusing on resilience is important as it highlights academic success versus academic failure.

1.1 Purpose of the Study

The purpose of this study was to investigate variables that may predict the resilience of Latina/o undergraduate students, suggesting that, despite obstacles, these students still succeed in college. Specifically, the present study investigated the contribution of ethnic identity, perceived social support from family, friends, and significant other, coping strategies, university environment, and cultural congruity to the resilience of Latina/o undergraduate students.
1.2 Research Questions and Hypotheses

The research questions and hypotheses addressed in this study include the following:

Question #1: Is ethnic identity uniquely predictive of resilience in Latina/o college students?

Hypothesis #1: Ethnic identity will be significantly and positively predictive of resilience in Latina/o college students.

Question #2: Is perceived social support uniquely predictive of resilience in Latina/o college students?

Hypothesis #2a: Perceived social support from family members will be significantly and positively predictive of resilience in Latina/o college students.

Hypothesis #2b: Perceived social support from friends will be significantly and positively predictive of resilience in Latina/o college students.

Hypothesis #2c: Perceived social support from a significant other will be significantly and positively predictive of resilience in Latina/o college students.

Question #3: Are coping strategies uniquely predictive of resilience in Latina/o college students?

Hypothesis #3: Coping strategies will be significantly and positively predictive of resilience in Latina/o college students.

Question #4: Is university environment uniquely predictive of resilience in Latina/o college students?

Hypothesis #4: University environment will be significantly and positively predictive of resilience in Latina/o college students.
Question #5: Is cultural congruity uniquely predictive of resilience in Latina/o college students?

Hypothesis #5: Cultural congruity will be significantly and positively predictive of resilience in Latina/o college students.
CHAPTER 2
LITERATURE REVIEW

The following section includes a review of the literature pertaining to the resilience of Latina/o college students. The review of literature begins with a discussion of ethnic identity and its influence on the resilience and academic performance of undergraduate students, especially Latina/o students. Following will be a discussion of the role that social support from family, friends, and a significant other plays for Latina/o students. Next, will be a discussion of different coping strategies that are utilized by students and the effect of these coping strategies on academic performance. Further, studies that have investigated the role of a supportive university environment are reported. Then, the literature on cultural congruity and incongruity is presented. Lastly, the concept of resilience will be defined and its importance to the success of students reported.

2.1 Ethnic Identity

Ethnic identity is defined as the “sense of belonging to an ethnic group and the part of one’s thinking, perceptions, feelings, and behavior that is due to ethnic group membership” (Rotheram & Phinney, 1987, p. 13). Phinney (1992) states that there are three key elements of ethnic identity, which include 1) self-identification or the label one uses for oneself, 2) a sense of belonging, which assesses ethnic pride, positive feelings
about one’s background, and feelings of belonging and attachment to the group, and 3) attitudes towards one’s group. Individuals that are high on ethnic identity have explored their options and committed to an ethnic identity (Ontai-Grzebik & Raffaelli, 2004), thus they self-identify as members of the group, endorse positive evaluations of their group, feel good about their membership in the group, and engage in ethnic traditions. In contrast, individuals low on ethnic identity are said to have little ethnic interest, they endorse negative evaluations of the group and of their membership in the group, and lack knowledge of, commitment to, or involvement in their group (Phinney, 1991). Consistent with the literature on ethnic identity development, the present review of the literature will interchangeably use strong, secure, and achieved ethnic identity and low ethnic identity with weak or diffuse ethnic identity (Phinney, 1991).

An ethnic identity literature search revealed that few studies have explored the impact of ethnic identity on resilience. Nonetheless, several studies have investigated the impact of ethnic identity on constructs such as self-esteem and psychological well-being. Studies show that an achieved ethnic identity is significantly associated with high self-esteem for African American, Asian American, Mexican American, and white college students (Adams, Shea, & Fitch, 1979; Phinney & Alipura, 1990). Rayle and Myers (2004) investigated the role of ethnic identity, acculturation, and mattering on the wellness of high school students. The participants included African Americans, Latinos, Asian Americans, Native Americans, and white students who ranged in age from 14 to 19 years old. Rayle and Myers results showed that none of the three predictor variables significantly predicted wellness for non-minority students. However, in the minority model, ethnic identity was the only variable that significantly predicted five of the six
areas of wellness, which included spirituality, schoolwork, leisure, love, and friendship. Rayle and Myers’ (2004) findings show the importance of ethnic identity for racial/ethnic minority students.

High racial identity has been shown to buffer the effects of stress and negative life events for African American youth (Bowman & Howard, 1985; McCreary et al., 1996; Stevenson, 1994). In particular, it is suggested that a secure racial identity may buffer the negative effects of and improve one’s ability to cope with a discriminatory university environment (Miller, 1999; Sellers & Shelton, 2003). Furthermore, successful students of Mexican heritage have referred to the pride in their culture and ethnicity as a factor that contributed to their academic achievement (Arellano & Padilla, 1996). Similarly, Bullington and Arbona (2001) found that ethnicity factors were relevant to the career development of four Mexican American high school students. Specifically, the academic achievements of Mexican classmates were grounds for pride in the Mexican culture and despite their awareness of prejudice, the students did not believe their ethnicity served as a barrier to career and academic attainment, but instead served as a source of motivation for one of the students. Consequently, based on the dearth of literature that focuses on the ethnic identity of Latino university students, the present study specifically investigated the contribution of ethnic identity to the resilience of Latina/o college students.

One of the studies that investigated the impact of ethnic identity revealed that the strong ethnic identity of Latino students was linked to school engagement, intrinsic motivation, and a belief in the value of schooling (Okagaki, Frensch, & Dodson, 1996). However, it is suggested that the formation of ethnic identity is complete by early adulthood (Phinney, 1992) and the participants in Okagaki et al.’s (1996) study were 4th
and 5th grade Latino students. Accordingly, it is important to focus on the impact of the ethnic identity of college-aged students, especially when the existing literature alludes to several potential positive outcomes of a secure ethnic identity. For example, a positive ethnic identity is negatively correlated with depression among ethnic minority college students (St. Louis & Liem, 2005). Moreover, studies show that for ethnic minorities a positive ethnic identity is essential to psychological well-being, psychosocial competence, and successful adaptation in American society (Phinney, 1991; Spencer & Markstrom-Adams, 1990). The literature also supports the development of a defined sense of ethnic identity as it relates to academic achievement, self-esteem, positive social interactions with others, and resilience (Hackett, Betz, Casas, & Rocha-Singh, 1992; Holleran & Waller, 2003; Phinney, 1992; Phinney & Kohatsu, 1997).

Torres (2003) examined the ethnic identity development of 10 Latino college students (3 Mexican, 1 Puerto Rican, 1 Cuban, 1 Venezuelan, 1 El Salvadorian, 1 Guatemalan, 1 Nicaraguan, and 1 Columbian). Torres found that the participants in her study, regardless of an Anglo, Bicultural, or Latino Orientation, did not appear to have negative views about their Latino background, instead, they positively talked about their Latino ethnicity and discussed culturally congruent activities including speaking Spanish at home and participating in Latino social functions. St. Louis and Liem (2005) suggest that the ethnic group of Latina/o college students may be a source of strength that plays a critical role in their resilience in college. Specifically, the pride that Latinos have in the Spanish language, cultural practices, and other traditions (Holleran, 2003), may play an important role in counteracting the negative stereotypes that the dominant culture
attributes to them, such as the perception that Latino males are unintelligent and have little personal ambition (Cowan, Martinez, & Mendiola, 1997).

In one of the few studies that investigated the effect of ethnic identity on resilience, Holleran and Waller (2003) found a positive effect of ethnic identity on resilience. They conducted an ethnographic study, which included focus groups and semi-structured interviews, to investigate the relationship between ethnic identity and perceptions of life challenges of Mexican American adolescents that were 13 to 18 years of age. Their results indicated that a positive ethnic identity, rooted in traditional Mexican culture, may have served as a protective factor that contributed to the adolescent’s resilience, defined as positive adaptation in response to hardship. For example, “familismo,” which refers to family closeness and loyalty (Marin & Marin, 1991) was a Mexican value that was consistently identified throughout the interviews. Additionally, many of the respondents talked about the acceptance of suffering as a means of transformation, a Mexican core belief that is grounded in Catholicism and suggests that something positive must come from suffering.

Holleran and Waller’s (2003) findings are consistent with the social adaptation (Berardo, 1991) and strengths perspective (Saleebey, 1997), which suggest that adhering to traditional values and beliefs is a source of strength that promotes resilience in the face of obstacles and that culture serves as a reservoir of coping and adaptation strategies, respectively. Nonetheless, along with discrimination, alienating schools, and economic hardships (Gonzalez & Padilla, 1997), ethnic minority status has been identified as a risk factor, suggesting that it may be associated with negative outcomes in areas that include academics and psychological well-being (Becker, Hill, Jackson, Levine, Stillman, &
It is possible that the cultural value of familism, “which includes a strong identification and attachment of individuals with their nuclear and extended families, and strong feelings of loyalty, reciprocity, and solidarity among members of the same family” (Marin, 1993, p. 184) poses a challenge for Latinos who plan to move away for college. For example, a female study participant stated that, in response to her idea of moving away from home to attend college and plan to live in the dorms, her mother said to her, “The only way you are moving out of this house is when you are married” (Torres, 2004).

The statement of the female participant in Torres’ (2004) study characterizes the prescribed roles and rules from a traditional upbringing, which have in the past worked against Latina female, but not Latino male college students (Mirande & Enriquez, 1979). Latinas often experience stress and doubt their decision to pursue an education when there is a conflict between pursuing an education and fulfilling the traditional roles of a wife and mother (Vasquez, 1982). The ten commandments of marianismo proposed by Gil and Vazquez (1996) highlight the Latina female gender roles and rules from a traditional upbringing. Specifically, marianismo refers to the expectation that a Latina female grows up to be “humble, self-sacrificing, and other-centered” (Gil & Vazquez, 1996, p.17). Several of the ten commandments of marianismo include: Do not forget a woman’s place, do not forsake tradition, do not be single, self-supporting, or independent-minded, do not put your needs first, and do not wish for more in life than being a housewife. Latina females’ involvement in the home and commitment to family is highly valued (Young, 1992). As a consequence, the interaction between ethnic
identity and gender may produce negative outcomes for Latina females, including academic failure.

Ontai-Grzebik and Raffaelli (2004) investigated the individual and social influences on ethnic identity. The participants were Latina/o undergraduate and graduate students ranging in age from 19 to 30 years old. The researchers found that Latino students that reported high levels of ethnic identity were younger, had more educated parents, had been in the United States for a longer period of time, and had high levels of Latino orientation, meaning that they adhered to traditional cultural practices. Ontai-Grzebik and Raffaelli’s findings support the idea that ethnic identity development requires a comparison group (Phinney, 1990). Accordingly, it is suggested that the effect of ethnic identity on school achievement is determined in part by the school environment (Ocampo, Garza, Dabul, & Ruiz, 1991). Specifically, in schools where Latinos are not a numerical minority, their ethnic identity may not be a factor that guides their interactions. In contrast, findings suggest that Latino college students that are highly ethnically identified are at-risk in PWI’s where Latinos are underrepresented (Schneider & Ward, 2003; Torres, 2003). Thus, self-identifying as members of a group can be an important source of pride for some individuals, but aversive to others, especially when the group is discriminated against (Ethier & Deaux, 1990).

Ethnic identity is a construct that varies across individuals, contexts, and over time (Phinney, 1991). The development of an ethnic identity is influenced by experiences with family and peers, cultural values, and traditions (Cabrera & Padilla, 2004; Holleran & Waller, 2003; Ontai-Grzebik & Raffaelli, 2004; Torres, 2003). Previous literature illustrates the importance of ethnic identity in areas including resilience (Holleran &
Waller, 2003), wellness (Rayle & Myers, 2004), academic success (Arellano & Padilla, 1996; Hackett et al., 1992), and high self-esteem (Phinney, 1992; Phinney & Alipura, 1990), especially for ethnic minority students. However, the impact of ethnic identity may differ depending on the context, suggesting that identifying as Latino could be almost irrelevant if Latino students are not singled out as different in the university environment (Ocampo et al., 1991).

The influence of ethnic identity may be different for Latina female and Latino male college students. The familial and academic requirements that permeate the experience of Latina female college students (Vasquez, 1982) could lead to negative outcomes in academics, especially if a Latina’s enrollment in a university is viewed as deviating from cultural expectations (Ethier & Deaux, 1990). Additionally, it is suggested that Latina females who abide by traditional roles are less likely to attend college (Cardoza, 1991). On the contrary, the strong ethnic identification of Latino males that were from largely Latino communities seemed to act in a protective fashion at predominantly white, Ivy League universities. Specifically, highly identified Latino males were less likely to perceive threat to or experience discomfort due to their ethnic identity (Ethier & Deaux, 1990). Furthermore, Latino men experience more freedom to pursue higher education. For men, education is seen as a mechanism to improve himself, secure a better job, and earn more money to financially care for his family (Mirande & Enriquez, 1979). However, college attendance may delay the possibility to provide financial support, thus pursuing education could cause conflict for the Latino male student if he is expected to financially contribute to his family before graduating from college (Niemann et al., 2000).
Studies investigating the contribution of ethnic identity to the resilience of Latino female and male college students in a predominantly white campus are lacking. A small number of studies indicate that Latino academic success is affected by a positive connection to one’s ethnic group, especially for Latina females (Gandara, 1982; Vasquez, 1982). Accordingly, the present study adds to the literature by investigating ethnic identity and examining how it relates to the resilience of Latina/o students in college. The following section reports on the literature that focuses on social support from family, friends, and a significant other, in particular, as it pertains to positive outcomes including resilience.

2.2 Perceived Social Support

Research continues to reinforce the importance of social support for successful students (Gandara, 1982; O’Brien, Friedman, Tipton, & Linn, 2000; Wycoff, 1996; Zalaquett, 2005). In Hispanic cultures, family and community units are of primary importance. Consequently, major life decisions, including college attendance, are made with the consent of other family members (Gloria, 1997; Haro et al., 1994; Vasquez, 1982). The present review of the literature focuses on role that social support plays for ethnic minority students. Specifically, the role of support from family, friends, and a significant other as it influences the resilience of Latina/o college students will be presented and/or connections made where possible.

Family support and encouragement may be especially important for Latino students who tend to be the first in their family to attend college (Rodriguez, 1996; Zalaquett, 2005). It is suggested that first generation college students are at high risk for academic failure as they are often ill prepared to succeed in higher education (Terenzini,
Minority students continually face obstacles when pursuing their educational goals (Gloria, 1997; Haro et al., 1994), however, it is reported that perceived support is an important factor that positively influences and predicts their success. For example, a Black female high school student in Kenny, Gallagher, Alvarez-Salvat, and Silsby’s (2002) study attributed her academic success to “my parents pushing me all the time” (p. 172).

Evidence for the importance of social support among students, including students of color, becomes evident when we examine the studies that have investigated the effect of or relationship between social support and other important variables. For example, social support has been found to predict career aspirations (Flores & O’Brien, 2002), school engagement (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003), school achievement (Bullington & Arbona, 2001), and act as a safeguard against depressive symptoms (Kenny et al., 2002). Additionally, studies have found a positive association between social support and better adjustment in college (Alvan, Belgrave, & Zea, 1996; Schneider & Ward, 2003), academic success (Cabrera & Padilla, 2004; Zalaquett, 2005), positive perception of the university environment (Gloria, 1997), and a negative association with distress (Solberg & Villarreal, 1997). Lastly, students report that their family, including parents, siblings, and extended family members, have “pushed” them to higher aspirations and achievements in school (Bullington & Arbona, 2001).

Students have identified parents as being vital sources who provide support (Gloria, 1997; Kenny et al., 2003) and encouragement (Fisher & Padmawidjaja, 1999), however, other sources of support have also been recognized. For example, extended family members, friends, teachers, and counselors have been listed as important agents
that influence both academics and career aspirations (Bullington & Arbona, 2001; McWhirter, Hackett, & Bandalos, 1998; Phillips, Christopher-Sisk, & Gravino, 2001).

Kenny et al. (2002) investigated high school students’ perception of support from extended family members, nonkin adults, and peer support. The participants were 8 Black, 2 Asian American, 2 Hispanic, and 4 white academically successful high school seniors. A significant relationship with at least one parent, grandparent, or parental figure was identified by all students. Furthermore, relationships with siblings, classmates, extended family members, neighbors, former employers, school counselors, and teachers were also identified. According to participants, these latter relationships, to some extent, also facilitated their academic success. Additionally, in Robbins and Tanck’s (1994) investigation of preferred choices for social support, to cope with tension and anxiety, 95% of the students talked to a friend in comparison to talking to a family member (70%), mental health professional (15%), or clergyman (7%). Lastly, 50% of the Mexican American female graduate students in Wycoff’s (1996) study primarily depended on their spouses for academic support. Previous literature provides evidence for the importance of social support from family, friends, and a significant other.

Kenny et al. (2002) examined parental attachment as an indicator of academic achievement and psychological functioning among a group of academically successful 54 Black, 19 white, 18 Hispanic, and 9 Asian high school students. The findings showed that paternal attachment served as a safeguard against depressive symptoms, but maternal attachment was unrelated. However, similar to Dillard and Campbell’s (1981) findings, which identify the importance of mother’s versus father’s influence, Kenny et al. (2002)
found that only maternal attachment significantly and positively contributed to school achievement.

Gandara (1982) conducted a study to investigate commonalities in the background variables of 17 educationally successful Mexican American women. The 17 women came from families where neither parent had completed a high school education, yet the female participants had earned J.D., M.D., or Ph.D. degrees. Gandara’s findings revealed the mothers’ role in promoting an educational drive for the Mexican American women. In particular, 13 of the 17 females reported that their mothers had been equally, if not more, influential than their fathers with regards to their educational goals. Additionally, mothers, in comparison to fathers, were more likely to promote higher education and nontraditional gender roles.

Gandara’s (1982) contrast group included 28 equally successful men whose parents had not completed high school. In comparison to daughters, both parents placed a higher value on education for their sons and more frequently encouraged them to attend graduate education. However, due to their limited educational attainment, the parents in Gandara’s study were unable to provide instrumental support, which includes help with homework, academic and career choice guidance, and physical aid (Alvan et al., 1996; Cabrera & Padilla, 2004). Nonetheless, Gandara’s results show the importance of emotional support from families for academically accomplished individuals, especially Mexican American females who credited their success to the support of their families.

More than a decade later, Wycoff (1996) and Lango (1995) published similar results regarding emotional support. Wycoff (1996) conducted a study with 50 undergraduate and 50 graduate Mexican American females to explore the sources of
support that served as motivating variables. Wycoff found that mothers were perceived as being the most and fathers least emotionally supportive by 90% and 60% of all respondents, respectively. Similarly, Lango (1995) found that a majority (41%) of Mexican American female students identified their mother as their strongest source of support. Fathers were not identified as the strongest source of support by any one participant. In Lango’s study, 42% of mothers and 35% of fathers had completed high school.

Arellano and Padilla (1996) interviewed 30 undergraduate Latino students to examine the factors that contributed to their academic achievement, specifically, they examined the effect of parental level of education. Participants were placed in one of three groups - students in Group One had parents with no more than 11 years of education, students in Group Two had at least one parent that had graduated high school, and at least one parent of the students in Group Three had a college degree. In general, findings revealed that all students felt supported and encouraged by their parents and agreed that their parents emphasized academic achievement. However, the manner in which parents supported, encouraged, and emphasized the importance of an education varied among the groups and depended on parental level of education. For example, for individuals in Group One, several of their parents had worked in the fields, thus education was stressed as a means for economic mobility. In contrast, it was naturally expected that individuals in Group Three would graduate from college and, unlike individuals in Group One and Two, these students could rely on their parents for information about the education system. Arellano and Padilla’s (1996) findings support the notion that academic achievement translates to high socioeconomic status, thus
facilitating access to education and a tendency for these students to remain in college longer (Flores, 1992; Zambrana et al., 1997).

Cabrera and Padilla (2004) examined the stories of two students of Mexican heritage (1 male, 1 female) who overcame barriers and gained admission to a university. Findings revealed that both participants emphasized the role of their mother to their academic achievement, stating that their mothers continually motivated them and stressed the importance of an education. For the male participant, his father seemed to play an indirect role in his academic success – he was the enforcer in the family and kept his son on the right track and academically motivated through fear. The female participant never knew her father, but had a stepfather who drank excessively and was physically abusive to her mother. Consistent with Gandara’s (1982) findings, Cabrera and Padilla’s (2004) investigation illustrates the importance of the positive influence of the mother and how, despite obstacles and challenges, Latino students continue to succeed academically, demonstrating a resilient profile.

Zalaquett (2005) also documented the stories of Latina/o students who, despite great barriers, had successfully matriculated into the university. The participants included 10 females and 2 males. Ten participants were the first in their family to attend college. Some of the major barriers identified by the students included poor information about the college application process and academic choices and minimal adult supervision. One student explained, “My major obstacle was that my parents couldn’t help me with any of my applications because neither of them went to school and neither of them spoke English” (p. 38). Even though parents did not know how to speak English and lacked exposure to the educational system, family support was identified as a critical factor that
helped students succeed in high school and subsequently pursue higher education.

Furthermore, four students reported that guidance from teachers and a school counselor had a positive influence. Lastly, friends were an important source of support that helped Latina/o students in the college education process.

Schneider and Ward (2003) investigated the effect of various types of support on college adjustment. More specifically, the perception of support from family, general peers, Latino peers, faculty, and the institution as it related to academic, social, and emotional adjustment, and attachment to the university was explored. The participants were 26 female and 9 male students that represented Caribbean, South American, Central American, and other Latino roots, except for Mexican, which is important to note as a plethora of studies have focused on individuals of Mexican descent (Cabrera & Padilla, 2004; Gandara, 1982; Lango, 1995; Lopez, 1995), or represent the majority in the sample (Gloria et al., 2005; Rodriguez et al., 2003). In examining the unique contributions of perceived support, only family support was significantly predictive of emotional, academic, and overall adjustment. Latino peer support did not predict any type of adjustment, however, general peer support was predictive of social adjustment and attachment to the university. The participants came from a university where Latinos represented only 3% of the student body. Thus, similar to the findings on ethnic identity, which suggest that the impact of ethnic identity varies depending on the university context (Ocampo et al., 1991; Torres, 2003), it is possible that the importance of support, specifically Latino peer support, also varies depending on the ethnic minority representation on campus. For example, it may be the case that for Latina/o college
students, peer support becomes more important when they see themselves reflected in the student population – Rodriguez et al. (2003) and Gloria (1997) explore the issue.

Rodriguez et al. (2003) set out to investigate who played a greater supportive role for Latina/o (228 Mexican American, 110 Central American) college students in a predominantly Latino university, family or friends. Consistent with previous findings, their results showed that family support significantly predicted well-being, however, friend support made a slightly greater contribution. Additionally, while friend support protected against psychological distress, family support did not. Lastly, regarding the question about who played a greater supportive role for Latina/o college students, friends provided significantly more support in comparison to family. Rodriguez et al.’s (2003) findings highlight the importance of a social support, friend support in particular, in a primarily Latino university.

To explore the importance of family and friend support in varying university contexts, Gloria (1997) conducted a study with 357 Chicana (Latina female) students from two different universities; an ethnically diverse university (U1) where white students represented a numerical minority (30%) and a predominantly white (82%) institution (U2). For both university samples, nonpersistence decisions were associated with poor perceptions of the university and less perceived family and friend support. Additionally, students’ positive perception of the university environment was positively associated with family and friend support. However, for Chicanas from the ethnically diverse university (U1), their perception of the university environment as friendly and supportive was associated with friend support. In contrast, for Chicanas from the PWI (U2), their positive perception of the university environment was associated with family
support. Gloria’s (1997) findings are aligned with Rodriguez et al.’s (2003) findings, which showed that friends provided significantly more support in comparison to family in a predominantly Latino university. Both Gloria’s and Rodriguez et al.’s findings illustrate the importance of support as a means of decreasing feelings of isolation and alienation, thus likely increasing students’ attachment to and success in the university.

A study that specifically investigated the relationship of protective factors, including social support, and resilience was that of Dumont and Provost (1999). The participants were 8th and 11th grade students from Caucasian French-speaking families. The results showed a negative relationship between satisfaction with social support and frequency of daily hassles and symptoms of depression. For further analysis, participants were classified into 3 groups, which were a well-adjusted group (low on both depressive symptomatology and levels of daily hassles), a vulnerable group (high on both depressive symptomatology and levels of daily hassles), and a resilient group (high on levels of daily hassles and low on depressive symptomatology). Although resilient and well-adjusted youth did seek more social support in comparison to the vulnerable group, Dumont and Provost’s (1999) findings are surprising in that social support did not significantly vary among the 3 group of adolescents.

In 1998, Carbonell, Reinherz, and Giaconia conducted a study in which they investigated differences among 3 groups of adolescents at risk for developing major depression. Participants were 108 primarily white adolescents from working-class and lower-middle-class backgrounds. The 3 groups included 1) individuals who met DSM-III-R criteria for major depression, 2) individuals who did not meet criteria for
depression, but met criteria for another diagnosis, and 3) individuals who did not meet criteria for any diagnosis.

In Carbonell et al.’s study (1998), a “resilient” group was selected from the group of adolescents without a psychiatric diagnosis. Similar to the adolescents in the “no diagnosis” group, the “resilient” adolescents were at risk for developing major depression. However, unlike the “no diagnosis” adolescents, resilient youth demonstrated high levels of positive functioning and well-being. The family environment and social support of both groups was compared. Results showed that, compared to their no diagnosis counterparts, resilient youth reported significantly higher levels of family cohesion, better communication, and fewer difficulties regarding family functioning. The no diagnosis group presented with more problems in areas including functioning and communication. Additionally, perceiving their parents as supportive and harmony with their siblings was important for resilient adolescents. Regarding social support, the resilience group was significantly more satisfied with the financial help and positive feedback they received in comparison to their no diagnosis counterparts. Carbonell et al.’s (1998) study illustrates the importance of a supportive family environment and social support network for adolescent’s resilience in the face of at-risk situations.

Previous literature illustrates the importance of a supportive network for ethnic minority students. The findings reveal the vital role that family, friends, and significant others have played, which has depended on the context. However, few studies have examined the effect of social support on students’ resilience. In the present review of literature, two studies that explored social support and resilience are those of Dumont and Provost (1999) and Carbonell et al. (1998), however their results appear inconsistent.
Specifically, social support did not significantly vary among 3 groups (well-adjusted, vulnerable, and resilient) in Dumont and Provost’s (1999) study whereas the youngsters identified as resilient in Carbonell et al.’s (1998) study reported significantly higher levels of familial social support in comparison to their non-resilient counterparts. It is important to note that the participants in the two previously reported studies were primarily white youth, thus generalization to a Latino college student population must be done with caution.

In the literature search for the present study, few studies that focused on social support and resilience were identified. Support for the importance of the present investigation comes from findings that show the positive effects of social support on school engagement (Kenny et al., 2003), school achievement (Bullington & Arbona, 2001), academic success (Cabrera & Padilla, 2004; Zalaquett, 2005), and positive relationships found between social support and better adjustment in college (Alvan et al., 1996; Schneider & Ward, 2003). The current study fills a gap in the social support literature by examining the effect of social support on the resilience of Latina/o college students. The following section focuses on the coping strategies used to deal with stressful events.

2.3 Coping Strategies

Coping refers to the methods used to manage stressful situations (Morris, Brooks, & May, 2003). More specifically, coping responses are behavioral and cognitive efforts that individuals use to master, tolerate, or reduce the effects of stressful life events (O’Connor & O’Connor, 2003; Struthers, Perry, Menec, Schonwetter, Hechter, Winberg, & Hunter, 1995; Yi, Smith, & Vitaliano, 2005). In the coping literature, a distinction is
made between two types of coping, which are problem-focused coping and emotion-focused coping (Folkman & Lazarus, 1980). In problem-focused coping, individuals’ cognitive and behavioral responses are aimed at managing or altering the source of stress and includes, for example, making a plan of action and trying a new study technique.

Based on previous literature, problem-focused and active coping will be used interchangeably in the present review of literature (Carver, Scheier, & Weintraub, 1989). In emotion-focused coping individuals use strategies to manage or reduce their emotional distress that is associated with a stressful situation, for example, pretending, or acting as though a situation did not occur (Struthers et al., 1995). It is important to note that, although coping and resilience have been used interchangeably, they are different constructs – resilience refers to a positive outcome in response to stressful events, whereas coping refers to the cognitive and behavioral strategies used to manage the effects of stressful events (Snyder & Dinoff, 1999).

Few studies have investigated the influence of coping styles on the resilience of college students and even fewer have been done with ethnic minority participants. Consequently, an investigation of the coping strategies that ethnic minority college students utilize is important considering the negative attitudes that they hold toward seeking professional help (Gloria et al., 2005; Leong, Wagner, & Tata, 1995) and their underutilization of professional mental health care services (Daly, Jennings, Beckett, & Leashore, 1995). Moreover, previous findings suggest that effective coping facilitates positive growth, whereas ineffective coping places youth at a risk for developing emotional and behavioral problems (Benson & Deeter, 1992) and causes psychological distress for Latino college students (Lee & Liu, 2001). Additionally, one suggestion
based on the research on achievement goal orientation and coping style is that active coping strategies may dispose individuals to focus on the process of achievement versus performance, and as a result these individuals earn higher grades (Morris et al., 2003). The importance of coping strategies as a means to deal with stressful events is implicated in findings that have shown that Mexican American students who report lower levels of stress also report higher GPA’s (Vazquez & Garcia-Vazquez, 1995).

It is suggested that ethnic minority individuals experience more and qualitatively different stressors in comparison to white middle-class individuals (Prelow, Tein, Roosa, & Wood, 2000). Additionally, it is unknown if ethnic minorities cope in similar or different ways in comparison to white individuals (Prelow et al., 2000). Nonetheless, it has been hypothesized that individuals of Mexican heritage prefer a passive coping approach (i.e., passive endurance) versus an active coping style (i.e., managing the external source of stress), which is reportedly preferred by the dominant U.S. culture (Diaz-Guerrero, 1967b). Researchers suggest that an active coping style is an adaptive or functional method of coping, whereas emotional and avoidant coping styles are maladaptive and dysfunctional (Campbell-Sills, Cohan, & Stein, 2006; Dumont & Provost, 1999). Furthermore, findings have shown that emotion-oriented coping is associated with high levels of distress (Beasley, Thompson, & Davidson, 2003) and that avoidance coping (i.e., “Tried to forget the whole thing”) is most characteristic of nonresilient high school students (Yi et al., 2005).

Negy (1995) tested Diaz-Guerrero’s (1967b) proposal that passive coping is preferred by individuals of Mexican heritage and that active coping is preferred by the dominant U.S. culture with a group of Latina and white female inmates – Diaz-
Guerrero’s hypothesis was unsupported. Specifically, Latina and white female inmates did not differ in their use of active or passive coping strategies. Negy suggests that differences in coping strategies may be reflective of socioeconomic status instead of cultural differences. Additionally, it is reported that not one coping style is functional in all situations and that the effectiveness of coping responses depends on their flexibility, context (i.e. academics, family), and culturally related perceptions (Compas, 1987; Kitano & Lewis, 2005). Coping strategies, in general, have been identified as protective factors that buffer the effects at high risk, including poverty and discrimination (Kitano & Lewis, 2005).

Accordingly, the current study investigated the effect of coping on the resilience of Latina/o college students. The present section focuses on the coping strategies that individuals have used to manage stressful situations. Few studies have investigated the effect that coping strategies have on the academic resilience of Latina/o college students. However, descriptive studies have listed the coping strategies that college students use. Other studies have examined the coping strategies that individuals use to cope with stress associated with acculturation, academics, and family and friends. Additionally, studies that investigated the effect of coping strategies on psychological well-being, psychiatric symptoms, adaptation to college, and resilience are presented. Other relevant studies will be cited and connections to resilience made where possible.

An early study that assessed the coping responses in a group of multicultural college students was that of Mena, Padilla, and Maldonado (1987). Mena et al. (1987) conducted a study to examine the coping mechanisms that immigrant and later generation college students used to manage acculturative stress. Early immigrants were identified as
individuals that had immigrated to the U.S. before the age of 12 and late immigrants as individuals that had immigrated after the age of 12. From a list of 9 coping items, participants were asked to select which strategies they most frequently used for each acculturative stress item. The coping items included A) “I try to actively find out more about the situation and I take some positive, planned action,” B) “I talk with others about the problem (friends, relatives),” C) “I don’t worry about it. Everything will probably work out fine,” D) “I become involved in other activities in order to keep my mind off the problem,” E) “I pray and/or consult a priest or minister,” F) “I seek professional advice (physician, psychologist, counselor),” G) “I draw upon my past experiences; perhaps similar situations might help,” H) “I seek support from members of my cultural group,” and I) “I try to reduce tension (e.g., drink, eat, drugs, smoke, more exercise).”

Participants were 214 university students that included 86 first-generation (immigrant status), 37 second-generation, 75 third-generation, and 16 mixed generation (participant and one parent born in the U.S. and one foreign-born parent). Participants in the first-generation group were Asian, Latino, European, Middle Eastern, Canadian, South African, and Indian. 

Mena et al.’s (1987) findings revealed significant differences in acculturative stress among the four groups. Specifically, the first-generation group reported the highest levels of acculturative stress and had significantly lower levels of self-esteem in comparison to the second- and third-generation groups. To cope, later immigrants endorsed more active coping strategies (I try to actively find out more about the situation and I take some positive, planned action) in comparison to early immigrants or later generations. Second- and third-generation participants used their support system to cope
(I talk with others about the problem (friends, relatives)”. There were several responses that were not a preferred mode for coping for students and they included trying to reduce tension by drinking, eating, using drugs, smoking, or exercising, praying and/or consulting with a priest, seeking professional advice, and drawing upon past experiences (items I, E, F, G). Overall, Mena et al.’s (1987) study shows that, for multicultural college students, the most effective coping strategies for managing high stress situations were to 1) actively find out about the situation and take some positive planned action and 2) talk with others about the problem.

Another study to investigate coping strategies and issues of acculturation among a group of college students was that of Vazquez and Garcia-Vazquez (1995). In their study, they examined the impact of acculturation, acculturative stress, and coping strategies on the academic achievement of Mexican American undergraduate students. The students ranged from bicultural to highly acculturated, had higher educated parents, came from middle class incomes, spoke Spanish, and had significant role modes. Vazquez and Garcia-Vazquez’s assessed coping by using the same 9 coping items utilized by Mena et al. (1987). Vazquez and Garcia-Vazquez’s findings confirm the findings of Mena et al. (1987). Specifically, Vazquez and Garcia-Vazquez found that, as a group, the two most prevalent strategies were A) I try to actively find out more about the situation and I take some positive, planned action and B) I talk with others about the problem (friends, relatives). Nonetheless, the Mexican American participants also widely utilized other coping strategies including relying on past experiences and consulting with a priest (items G and E). Additionally, the results showed that, despite differences in generation and acculturation level, the participants did not differ from one another in the levels of stress.
that they experienced, which illustrates the importance of active coping strategies and social support for university students despite different generational levels.

Chiang et al. (2004) conducted an exploratory study to investigate the coping activities, attitudes toward professional counseling, sources of support, and concerns of Black and Latino college students. They found that Black students were primarily concerned with school grades, study skills, and relationships with family. To cope, Black students were more likely to talk with friends, keep problems to themselves, and talk to a parent and a significant other. In descending order, the most frequent concerns of Latino students included school grades, relationship with family, and career choice. Latino students primarily coped by turning to friends, parents, then a significant other. Additionally, both Black and Latino students had more favorable attitudes toward using exercise, studying, and seeking social support as coping practices in comparison to seeking professional help. For example, participants seemed to disagree with items indicating that they would feel comfortable sharing their problems with and seeing a counselor. Additionally, participants did not seem to believe that a counselor could be helpful. Nonetheless, a significant gender and race interaction was found – Black females and Latino males had more favorable attitudes toward professional counseling in comparison to their Black male and Latina female counterparts.

Chiang et al.’s (2004) study illustrates the importance of family and friends for Black and Latino college students. The coping strategies that Latino and Black college students utilized included talking to friends, family, a significant other, keeping problems to themselves, engaging in exercise, and studying. Due to the descriptive nature of the
study, the effect of the coping strategies on participants concerns (i.e. school grades, relationships with family) is unknown.

Another descriptive study that examined coping and perceived stress is that of Kobus and Reyes (2000). Using structured interviews, Kobus and Reyes investigated how Mexican American female and male 10th grade students managed stressful life situations. In the open-ended format, Kobus and Reyes elicited stressful situations, coping strategies, and the effectiveness of these strategies. Participants rated the stress they experienced in friend, school, family, and personal domains. Findings revealed that more than half of the participants rated family situations as their most stressful experience, which included death of a family member, arguments with parents, arguments between parents, and trouble with siblings. The coping strategies most frequently identified by participants included using “active coping”, “family social support”, especially from mothers, “self-reliance”, and “behavioral avoidance”. In general, participants endorsed more problem-focused strategies such as active coping and seeking social support versus emotion-focused strategies, which include venting emotions, avoidance, and distraction. Kobus and Reyes’ (2000) study reveals that Mexican American youth participants more likely to use active coping strategies and also rated these strategies as the most effective way to manage stressful events.

Carver et al. (1989) assessed the coping strategies that college students utilized to manage a stressful event. The participants’ most stressful situation had occurred within the past 2 months and mattered to students “quite a bit” or “a great deal”. Carver et al. found that, in comparison to participants “usual” response to stress, they were less likely to use active coping, seek social support for instrumental reasons (i.e. advice), use
positive reinterpretation of growth, turn to religion, or mentally disengage. Their findings revealed significant sex differences. In particular, women sought support for both instrumental (i.e. advice, assistance) and emotional (i.e. sympathy, understanding) reasons and focused on and vented their emotions whereas males used more alcohol in comparison to their female counterparts. The use of alcohol and drugs seemed to be a counterproductive coping response as individuals who had used alcohol and drugs reported significantly more physical health symptoms in comparison to those who had not (Leitschuh, 1999). Lastly, Carver et al. (1989) found that participants were more likely to focus on and vent their emotions, engage in denial, and seek social support for emotional and instrumental reasons when the event mattered most to them.

Struthers et al. (1995) set out to examine the relationship between stress, coping style, motivation, and performance. The participants were 170 college students enrolled in an introductory psychology course who were asked to imagine themselves doing poorly on an exam at the university. The results of the study showed that students’ stress at the beginning of the academic year positively predicted their use of problem focused coping (PFC), emotion focused coping (EFC), and motivation. Specifically, stress at the beginning of the academic year inversely predicted their grade in the psychology class at the end of the year. Positive relationships between PFC and motivation and motivation and grade also emerged. It is possible that participants’ use of problem-focused coping to deal with academic stress increased their motivation, and thus performance (better grades) or academic success.

Gloria et al. (2005) examined the degree to which perceived educational barriers, university environment, cultural congruity, and coping responses predicted the
psychological well-being of 98 Latina college students. The 9 coping items utilized by Mena et al. (1987) and Vazquez and Garcia-Vazquez (1995) were used to assess coping strategies. The most common coping responses amongst the participants were B) talking with others about the problem, A) trying to actively find out more about the situation and taking some positive, planned action, and G) drawing upon their past experiences. The coping responses that were the least frequently used were C) to not worry about the problem and F) to seek professional advice. The coping responses uniquely accounted for 22% of the variance in psychological well-being. Specifically, the only coping item that significantly predicted psychological well-being was the coping response of trying to find out more about the situation and taking some positive, planned action. Gloria et al.’s study illustrates the importance of a problem-focused, active approach for Latina’s psychological well-being or positive functioning. It is possible that using an active versus passive (i.e. trying not to worry about it) approach increases Latinas ability to deal with stress that is associated with perceived barriers and cultural incongruity, ultimately increasing their persistence, or resilience, in college despite stressful circumstances.

Zea et al. (1995) examined the relationships among social support, psychological competence, and adaptation to college in a sample of 56 African American, 71 Asian American, 66 Latino, 105 white, and 28 college students who identified as “other” (i.e. Middle-Eastern). Their findings showed that satisfaction with social support and active coping, which was represented by items including “I look for possibilities that will help me improve my career goals,” significantly predicted adaptation to college. Although a significant relationship between active coping and locus of control was found for Latino students, locus of control did not contribute to the prediction model, suggesting that
active coping is a more effective strategy in adjusting to college, in comparison to students’ belief that they are in control of situations.

Campbell-Sills, Cohan, and Stein (2006) conducted a study to investigate the relationship between resilience and coping styles, among other variables. Participants included 132 college students who identified as Caucasian (60.6%), Hispanic (11.4%), Filipino (10.6%), Asian American (12.1%), African American (.8%), and of Mixed Ethnicity/Other (4.5%). Campbell-Sills et al. used a self-report measure that assessed for task-, emotion-, and avoidance-oriented coping. Sample items include “Focus on the problem and see how I can solve it” for task-oriented coping, “Blame myself for being too emotional about the situation” for emotion-oriented coping, and “Take time off and get away from the situation” for avoidance-oriented coping. Their results showed that both task- and emotion-oriented coping were significant predictors of resilience; avoidance coping was not included in the analysis as it was composed of both adaptive and maladaptive coping strategies. Further, resilience significantly predicted psychiatric symptoms. Specifically, highly resilient individuals had low psychiatric symptoms, despite the levels of emotional neglect they had experienced, whereas individuals who reported high levels of emotional neglect and low resilience had high levels of psychological distress.

The coping literature seems to point to the importance of active or problem-focused coping and social support for college students (Mena et al., 1987; Vazquez & Garcia-Vazquez, 1995). Regarding the use of social support as a coping strategy, Latino students have first turned to friends, then family, and lastly a significant other (Chiang et al., 2004). Specific to coping and resilience, Zea et al. (1995) found that active coping
was one of the significant predictors of resilience among a group of African American, Asian American, Latino, and white college students, whereas Campbell-Sills et al. (2006) found that both task- and emotion oriented coping were significant predictors of resilience among a group of college students, which included whites, Latinos, Filipinos, Asian Americans, African Americans, and others of mixed ethnicity. Although it is possible that a larger repertoire of coping styles is the most adaptive (Morris et al., 2003), the studies that examined coping styles as predictors of resilience amongst college students revealed inconsistent findings. Additionally, although these studies included Latino college students, it is important to note that Latinos only represented 23.83% in the participant sample of Zea et al. (1995) and 11.4% in Campbell-Sills et al.’s (2006) study; thus, results need to be interpreted with caution.

Latino college students are not immune from adversity, yet research that explores the effects of coping on the academic resilience of this population is lacking, consequently highlighting the importance of the present investigation. If the factors that contribute to resilience are identified, it may be possible to promote these factors as a means of increasing the academic success of Latina/o college students despite stressful situations and events. The following section focuses on the relationship between university environment and resilience.

2.4 University Environment

The literature on student outcomes has suggested the importance of several factors in the school environment. For example, findings show that students are more likely to remain in college when they highly identify with the university (Zea et al., 1997) and tend to report more nonpersistence decisions when they report poor perceptions of
the university (Gloria, 1997). Additionally, Latino students have identified faculty
members, counselors, and advisors as individuals in the college environment that
positively influenced their decision to remain in school (Hernandez, 2000). Lastly,
university environment has been shown to significantly mediate the relationship between
ethnic identity and attitudes to remain in college (Castillo, Conoley, Choi-Pearson,
Archuleta, Phoummarath, & Van Landingham, 2006). For example, a student in Hurtado
et al.’s (1994) study reported that “realizing that [their] life would be a struggle because
of the way the system is biased against [their] ethnicity” was the most difficult transition
in college.

In exploring the retention of Latina/o students, a factor that is best described as
campus climate emerges. Green (1989) reports that campus climate encompasses “the
culture, habits, decisions, practices, and policies that make up a campus life. It is the sum
total of the daily environment, and central to the comfort factor that minority students,
faculty, staff, and administrators experience on campus. Students and other members of
the campus community who feel unwelcome or alienated from the mainstream of campus
life are unlikely to remain. If they do remain, they are unlikely to be successful” (p. 113).
Ethnic minority students are more likely to persist in college and graduate if the campus
climate is hospitable (Ponterotto, 1990).

Although previous literature findings highlight the beneficial effect that a positive
perception of the university environment can have on ethnic minority students’
persistence in college, it is unfortunate that students of color have perceived the
university environment as “unwelcoming, lonely, having a general lack of concern,
[having] an expectation that students of color will not make it, inaccessible instructors, an
inadequate number of tutors, and a lack of encouragement from professors” (Turner, 1997, p. 2). Additionally, other studies show that ethnic minority students have felt excluded because of their race, perceived the interracial campus climate as hostile, and believed that the university did not support the on-campus activities of their ethnic group (Patterson, Sedlacek, & Perry, 1984). Nonetheless, despite these and other negative university environment factors that ethnic minority students face, students of color continue to persist and successfully complete college, a factor best defined as resilience. Several researchers have examined the impact of campus climate on academic-related factors such as retention, persistence, and resilience. Only those reports that included Hispanic or Latina/o students will be reviewed here.

Bennett and Okinaka (1990) conducted a study to investigate the factors that related to persistence among a group of undergraduate students at a PWI. Additionally, comparisons were made between first and fourth year cohorts. The participants included 66 Asian, 214 Black, 72 Hispanic, and 205 white students. Focusing on Hispanic students, findings revealed that Hispanic nonpersisters were dissatisfied with their social relationships on campus, such as the number of and closeness with friends. In comparison to nonpersisters, Hispanic persisters had significantly more positive perceptions of their instructors and were significantly more satisfied with their social relations on campus. Additionally, Hispanic nonpersisters reported one of the least positive interracial experiences at the university. Although significant relationships are reported, analyses with the Hispanic freshman students did not reveal significant predictors of retention, which may have resulted from the relatively small sample size. Nonetheless, Bennett and Okinaka’s (1990) study underscores the importance of a positive university environment.
as they report that the “least satisfied and most alienated students drop out whereas those who feel the most satisfied and best adjusted or least alienated remain” (p.57).

Hurtado et al. (1994) investigated the factors that affect Latino students’ adaptation to college, including academic adjustment, social adjustment, personal-emotional adjustment, and attachment. The participants were 203 Latino students, which included Chicanos (Mexican Americans), Puerto Ricans, Cubans, Central Americans, and South Americans. In examining the effect of the university climate measures, the results showed that students’ perception of a student-focused faculty was positively related to academic adjustment whereas perceptions of a hostile environment (racial/ethnic tension) were negatively related to all adjustment measures. Actual experiences with discrimination were significantly and negatively associated with attachment or students’ connectedness to the institution. In open-ended questions, the most difficult transitions for some students included “Being treated as inferior by people who only knew that I was a Hispanic” and “Being so far away from my family and my [Chicano/Mexican] culture made me feel lonely and often times actually depressed” (p. 13).

Zea et al. (1997) conducted a study to investigate the factors that influence ethnic minority and nonminority students’ decision to remain in college. The variables that they investigated included coping with college, self-esteem, academic integration, identification with the university, and experience of disrespect due to their race, ethnicity, or religion. The participants included 507 white, 46 African American, 61 Asian American, and 32 Latino college students. Their findings showed that for both minority and nonminority students, a high level of identification with the university was associated with stronger commitment to remain in college. However, in comparison to their ethnic
minority counterparts, it was the white students had higher levels of identification with
the university. Experiencing disrespect was negatively related to commitment to remain
in college for both white and ethnic minority students, unfortunately, a greater portion of
the ethnic minority students reported that they had been treated with disrespect.
Considering the low number of ethnic minority participants and Latino students in
particular, Zea et al.’s (1997) findings are exploratory in nature.

Pidcock, Fischer, and Munsch (2002) examined and compared how family,
personality, and social risk factors influenced the retention rates of Hispanic and Anglo
students. The participants were 39 Anglo and 36 Hispanic first-year college students.
Their findings revealed that Hispanic students appeared to be at greater risk for family
and social problems as they scored higher on novelty seeking, identified less mentoring,
and were more likely to identify their father as having an addiction. Nonetheless,
Hispanic students had fewer problem behaviors in their first semester as compared to
their Anglo counterparts. It appears that Hispanic females were at greater risk for
withdrawing from school as they left at the highest rate, whereas Hispanic males
persisted in college at the second highest rate. Pidcock et al.’s (2000) study illustrates the
deleterious effects of dysfunctional family dynamics and lack of mentoring, thus it
becomes important to identify the factors that promote Latina/o students’ academic
resilience in the face of obstacles.

Hernandez (2000) conducted a qualitative study with 10 Latino students to
explore the environmental factors and experiences that contributed to their persistence in
college. The participants were 5 men and 5 women that ranged in age from 21 to 25. Data
analysis revealed 11 major themes, some of which represent components of the university
environment and include faculty and staff, cocurricular involvement, finding a Latino community, and the role of other people within the university. Students reported that their decision to remain in college was influenced by faculty, staff, and other people within the university who were attentive to their well-being. Additionally, participants reported that they benefited from their involvement in both on- and off-campus activities. Also, some participants discussed the importance of seeing themselves reflected in other students, as meeting other Latino students helped them cope with the university environment. Hernandez (2000) suggests that participants involvement in Latino organizations on-campus may have been a means to stay connected to their culture, promote their ethnic identity, safeguard against feelings of isolation and alienation, and in the process develop a sense of belonging at the university.

Complementing Hernandez’s (2000) study, Bordes and Arredondo (2005) investigated the relationships between mentoring experiences, cultural congruity, and perceived comfort in the university among a group of Latina/o first-year college students. The participants were 103 first-semester Latina/o students; 77 women, 35 men. Bordes and Arredondo’s findings showed that students who had a mentor perceived the university environment as significantly more positive than their no-mentor counterparts. Additionally, Latina female students perceived the university environment significantly more positively and a greater cultural fit between their culture and the university culture in comparison to their Latino male counterparts.

Focusing on the people in the university environment, research findings show that the availability of faculty and staff support positively affects the academic achievement of Latino students. For example, Gloria (1997) found that, when faculty were accessible
to students, students perceived the university environment as welcoming, which further decreased their feelings of isolation and alienation. Faculty and staff are important to students as they are successful individuals in their field of study who can serve as mentors, counselors, guides, or tutors that allow for the mentee’s intellectual growth, facilitate the mentee’s advancement, acquaint the mentee with organizational values, culture, customs resources, specific actors, and provide advice and moral support (Laden, 1999). However, the lack of counseling and tutoring services was one of the greatest barriers in college reported by Mexican American students in Kavanaugh and Retish’s (1991) study and 63% of the students in Haro’s et al. (1994) study felt that their professors were only fairly interested in them as students.

Hurtado and Carter (1997) investigated Latino students’ background characteristics and college experience during their first and second years and how these experiences contributed to students’ sense of belonging in their third year. Regarding interactions with faculty, Hurtado and Carter found that working on independent research projects, working with a faculty member on a research project, or having been a guest in a professor’s home was not significantly associated with Latino students’ sense of belonging. It is important to continue to investigate the university environment factors, including the interactions between students and faculty, that promote the resilience of Latina/o college students. For example, a participant in Zalaquett’s (2005) study reported, “I was blessed to actually have some teachers that were really good. They got to know me, and they took a genuine interest in me. They gave me advice and encouraged me not to settle” (p. 43).
Hurtado and Carter (1997) also found that interactions outside of class and membership in religious and social-community organizations enhanced Latino students’ sense of belonging in college. The findings revealed that those students who reported tutoring other students and talking to faculty members outside of class in their third year reported a higher sense of belonging in comparison to students who engaged in such activities to a lesser extent. Students’ GPA’s in both the second and third years of college were not shown to be significantly associated with their sense of belonging. Overall, although students’ participation increased from the second to the third year, their sense of belonging significantly increased only when they belonged to religious organizations, sororities, and fraternities as compared to nonmembers in the second year.

Flores (1992) conducted a study to examine if there were differences in the characteristics of Hispanic students that persisted and completed the bachelor’s degree in comparison to those students that did not complete their degree. Her results showed that persisters reported that contact with faculty outside of the classroom had a positive influence in areas including personal growth, intellectual development, and career aspirations. Persisters were significantly more likely to agree or strongly agree that they had established close personal relationships with other students in college. In comparison to persisters, nonpersisters were significantly less likely to have been asked to attend a predominantly Hispanic American event on campus. Lastly, complementing Hurtado and Carter’s (1997) findings, Flores (1992) found that persisters were significantly more likely to belong to a campus organization and attend extracurricular events on campus in comparison to their nonpersisting counterparts.
Gonzalez and Padilla (1997) conducted a study to investigate the academic resilience of Mexican American students from three different high schools in California. In their study, resilient students were 133 and were identified as those students who reported that they obtained mostly A grades in high school, whereas the nonresilient youth were 81 and identified as those who reported mostly D grades or below in school. The specific variables that Gonzalez and Padilla (1997) investigated included 1) a supportive academic environment, 2) sense of belonging to school, and 3) cultural loyalty. The support variable assessed academic encouragement from family, friends, and teachers, sense of belonging to school examined students perceived acceptance by others in the school, and cultural loyalty measured the degree to which traditional Mexican values were retained. Their results showed that the supportive academic environment and sense of belonging to school variables were significantly higher among the resilient youth in comparison to their nonresilient counterparts. Cultural loyalty did not significantly differ between resilient and nonresilient high school students. A stepwise regression showed that sense of belonging to school was the only variable that significantly predicted the GPA of both resilient and nonresilient youth. Gonzalez and Padilla’s (1997) findings highlight the importance of factors including a supportive academic environment and sense of belonging to school for academically resilient Latino students.

Similarly, Gloria, Castellanos, Lopez, and Rosales (2005) conducted a study to investigate the academic nonpersistence decisions of Latina/o college students. More specifically, they investigated the interrelationships of university comfort, social support, and self-beliefs and assessed the degree to which these three variables predicted academic nonpersistence decisions. Participants were 70 Latina female and 29 Latino male
undergraduates. Of importance to the present study, Gloria et al.’s (2005) findings showed that increased persistence decisions were related to a more positive perception of the university environment, increased cultural congruity between students’ values and those of the university, and fewer perceived educational barriers that would result in students dropping out or experiencing if remained in school. Furthermore, increased persistence decisions were also related to perceived social support from family and friends, perception that parents were academically encouraging, and perceived mentorship from faculty and staff. Lastly, additional analyses showed that perceived friend support, mentorship, and a positive university environment were the strongest predictors of academic nonpersistence decisions among a group of Latina/o college students.

Castillo et al. (2006) conducted a study to examine if students’ perception of the university mediated the relationship between the ethnic identity and persistence attitudes of Latino students. The participants were 180 Latino undergraduate students, mostly female. Castillo et al.’s findings showed that university environment did significantly mediate the relationship between Latino students’ ethnic identity and attitudes to persist in college. Their analysis revealed that 1) ethnic identity (independent variable) significantly correlated with perceptions of the university (mediator), 2) ethnic identity significantly correlated with persistence attitudes (dependent variable), 3) perceptions of the university significantly correlated with persistence attitudes, and 4) the significant relationship between ethnic identity and persistence attitudes was no longer significant when the perception of the environment was considered in the model. Thus, ethnic identity influences persistence attitudes indirectly through the perception of the university.
environment, suggesting that, for Latino students, it is their perception of the university context that influences their persistence attitudes.

Studies that have investigated the influence of the university environment illustrate that a positive perception of the university is related to retention whereas a negative perception of the university is associated with nonpersistence. Although a positive perception of the university has been shown to be important, as previously reported, some ethnic minority students perceive a hostile, unwelcoming, and isolating university environment. However, while these negative factors do not promote persistence, not all students who encounter such negative environments leave the university. On the contrary, in spite of a negative university environment, some students do persist and thrive, illustrating the concept of resilience. Few studies have explicitly examined the impact of a positive or negative perception of the university environment on the resilience of college students. Accordingly, the present study investigated Latina/o college students’ perception of the university environment and the extent to which this perception predicted their resilience at a large PWI. Another factor that has been implicated in the academic resilience of racial/ethnic minority students is cultural congruity (Gloria & Robinson Kurpius, 1996). The following section focuses on the cultural congruity literature.

2.5 Cultural Congruity

The concept of cultural congruity refers to students’ perception of fit between their culture and the culture of the university (Gloria & Robinson Kurpius, 1996). Cultural incongruity occurs when students’ values and beliefs are inconsistent with the values of the university. In efforts to recruit and retain ethnic minority students, it is
important to recognize that white cultures’ emphasis and focus on rigid schedules, autonomy, competition, and individual achievement is not universal (Ponterotto, 1990). For instance, minimally acculturated Mexican American students may focus on and emphasize flexible schedules, collaboration, and group achievement (Ponterotto, 1990). Consequently, students must learn to balance their home cultural values and identity as they navigate the culture of the university and its environment.

The importance of cultural congruity is evident in Gloria and Robinson Kurpius’ (1996) study as they found that students were more likely to persist in college when they perceived cultural fit between their values and those of the university. Additionally, Quintana et al.’s (1991) meta-analytic review of Latino student adjustment to higher education revealed that Latino students’ discomfort with white culture was associated with higher stress scores, suggesting that stress comes about when Latino students perceive greater distance between their home culture and the culture of primarily white institutions. Accordingly, the present study assessed Latina/o students’ perception of cultural congruity and how this perception predicted their resilience in college. The current section focuses on the cultural congruity literature.

Young (1992) conducted a study with 218 Mexican American female college students to investigate how their ethnic identity and gender role expectations affected the time it took them to complete a baccalaureate degree. The findings revealed that 26% of the participants were more likely to drop out of school when they lacked family support or when their family opposed their academic pursuits. Additionally, findings showed that 72% of the women experienced interruptions to attend to family matters while studying at home, and, lastly, half of the participants reported feeling some guilt about spending time
at the university instead of their families. Young’s findings underscore the importance of familial support for Latina students, but also fit the between family values and those of the university. In traditional Latino culture, it is the collective and not the individual that is stressed, thus, although the family may be viewed as secondary or tertiary by the university, it is expected that Latinas will place the interests of the family and group before their own personal pursuits (Haro et al., 1994; Gloria, 1997). Thus, cultural incongruity is evidenced when Latina females experience guilt as a result of home demands not being met because of school demands; this incongruity may be a predictor of detrimental effects such as school drop out.

The clash between home values and the values of the university is apparent in Torres’ (2004) study. Torres investigated the influence of family on the ethnic identity of Latino college students. Interviews revealed that parent-child difficulties were due to a clash between traditional gender role expectations and the university expectations and responsibilities. For example, a female Latina participant reported the conflicting messages she received from her father, who at times encouraged her college attendance, but also reminded her “You are a girl, you know” (p. 463), likely alluding to cultural gender roles he expected her to sustain, such as the traditional expectation that Latina females create and maintain a family and household (Gloria, 1997) or that they place the interests of the family and group before one’s personal pursuits. Additionally, although parents were supportive of their children’s college attendance, the majority did not understand the expectations and responsibilities of college students, as reflected in a parent questioning her daughter with, “Do you really have to do all that [studying]?” (p.464) and asking “Are you going to help me [with house chores]?” (p. 464).
The interviews that Torres (2003) conducted revealed the difficulties Latino college students experience in attempting to balance traditional values and expectations with those of majority culture, which they encountered in the university. To manage the different cultures, first generation Latino students either kept information from their parents or kept information from their peers. For example, a Latina mother would call her daughter every night with the expectation that she would be in her dorm room to answer the call. Freedom was considered an American value, which the mother did not ascribe to. The daughter did not share her situation with peers for fear that they would perceive her as “nuts or something” and consequently, isolated herself from her peers in order to meet her mother’s expectation that she be in her dorm room by a certain time. For this Latina student, balancing her home cultural values with those encountered in the university environment resulted in feelings of isolation and stress.

Valentine (2001) conducted a study on Hispanic acculturation. Acculturation is a process by which behaviors and values change or adjust as a result of an individual from one culture coming in contact with another culture (Mena et al., 1987; Vazquez & Garcia-Vazquez, 1995). Although Valentine did not explicitly investigate cultural congruity, his findings are in concert with what occurs when individuals experience cultural incongruity. His findings implied that acculturation increases across generational levels and that there is a negative impact on acculturation when Hispanics identify with their parent culture. Further, Valentine’s (2001) findings support the idea that the acculturation process necessitates a trade-off between traditional Latino tendencies and mainstream American practices. For Latino students, this may create a conflict when
trying to navigate family beliefs and values and the values of the university, which was evident in Torres’ (2003, 2004) findings.

Lango (1995) conducted a study in which she investigated characteristics that may be predictive of success among 151 Mexican American graduate students and 240 Mexican American senior undergraduate students. Both groups were compared in order to identify similarities and differences in the group’s characteristics. The results showed an obvious difference in the comfort level that graduate and undergraduate students experienced in their interactions with Caucasians. Specifically, 58% of the undergraduate students reported feeling “somewhat comfortable” in a group of Caucasians, whereas more than 90% of graduate students reported feeling “comfortable” or “very comfortable”. Demographically, significantly more graduates came from predominantly English speaking families and were at least second generation Mexican Americans. Thus, it is possible that graduate students’ degree of cultural fit may have facilitated their academic success.

Additionally, Lango (1995) found that in comparison to only 16% of seniors, 41% of graduate students identified their mother as their strongest source of support; no participant identified their father as their strongest supporter. The support that the graduate students received from their mothers may have further made it possible for these Mexican American women to balance traditional with nontraditional values and behaviors. Lango’s (1995) findings reiterate the importance of familial support and congruity between the values of Latino students and those of white institutions for academic success.
The beneficial effects of cultural congruity are evidenced in Gloria et al.’s (2005) study on the psychological well-being of Latina college students. The results showed that cultural congruity significantly predicted Latina’s psychological well-being. Additionally, Latinas who perceived higher cultural congruity tended to report fewer educational barriers that would cause them to drop out of college and perceived fewer educational challenges should they stay in school. Furthermore, Latina participants who reported higher cultural congruity tended to cope by using an active, positive, planned approach. Lastly, high cultural congruity was significantly and positively associated with a positive perception of the university.

The literature that focuses on cultural congruity reveals the importance of fit between students’ home culture and that of the university. Specifically, when students perceive greater cultural congruity, they report increased decisions to persist in college (Gloria & Robinson Kurpius, 1996; Gloria et al., 2005) whereas they experience increased stress levels when their home culture conflicts with the culture of a PWI (Quintana et al., 1991; Torres, 2003). Ogbu (1992) reports that cultural congruity between minorities’ culture and mainstream culture is not the reason why some minorities succeed academically and others do not. He reports that, even though students may initially experience challenges in academics and social relations as a result of cultural differences, individuals ultimately thrive and become socially adjusted and academically successful. Ogbu’s (1992) report is consistent with the concept of resilience in that it is possible that minority students perceive cultural incongruity as a challenge to surpass in order to achieve academic and economic success. Consequently, the present study investigated Latina/o students’ perception of cultural congruity at a PWI and if this
perception predicted their academic resilience. The following section focuses on the concept of resilience, in particular the academic resilience of Latina/o university students.

2.6 Resilience

According to Connor and Davidson (2003), “resilience is a multidimensional characteristic that varies with context, time, age, gender, and cultural origin, as well as within an individual subjected to different life circumstances” (p. 76), for that reason, the definitions of resilience differ throughout the literature. For example, researchers report that: resilience “foster[s] a process of successful adaptation and transformation despite risk and adversity” (Benard, 1995); is “an individual’s, family’s, or community’s ability to cope or bounce back from significant adverse life situations or stresses in such ways that are not only immediately effective, but also result in an increased ability to respond to future adversity” (Christle, Harley, & Nelson, ¶ 1); describes “good developmental outcomes despite high risk status, sustained competence under stress, and recovery from trauma” (Werner, 1995, p. 81); and in an educational environment, resilience refers to “students who despite economic, cultural, and social barriers still succeed at high levels” (Cabrera & Padilla, 2004, p. 152). Furthermore, Wang, Haertel, and Walberg (1994) defined educational resilience as “the heightened likelihood of success in school and in other life accomplishments, despite environmental adversities, brought about by early traits, conditions, and experiences” (p. 46). Overall, an educational resilience framework suggests that adversity, also referred to as risk or vulnerability, includes detrimental life events that make adjustment difficult, however, protective factors allow individuals to modify or reduce the negative effects of stressful situations and thus, more successfully adapt to difficult events than would be the case if protective factors were lacking.
As previously mentioned, adversity refers to disabling conditions. The literature suggests that risk factors can be internal or external to the individual. For example, internal risk factors include problems with concentration, hyperactivity, negative attitudes toward school, and low sense of belonging to school (Christle et al., ¶ 4; Waxman et al., 2003), whereas external risk factors can involve the family or school (Christle et al., ¶ 3). Other external risk factors suggested in the literature include membership in a racial/ethnic minority group, low parental education, poverty, low teacher availability, single-parent homes, poor adult leadership, and student prejudice (Benard & Marshall, 2001; Christle et al., Table 1; Miller, 1999). On the other hand, protective factors include qualities or situations that modify the effects of negative situations and allow individuals to thrive and “bounce back”. Protective factors can also be internal or external to the individual. Some internal protective factors reported in the literature include good coping abilities, good problem-solving skills, positive self-concept, motivation, and a positive ethnic identity (Holleran & Waller, 2003; Werner, 1995). External protective factors include caring and supportive relationships with family members including extended family (familismo), a positive learning environment, and religious beliefs (religiosidad) (Benard, 1995; Christle et al., ¶ 8, 9; Holleran & Waller, 2003; Luthar & Cicchetti, 2000; Werner, 1995).

Although the concept of resilience has received much attention in areas that include developmental psychology (Garmezy, 1991), its use in education is more recent. Consequently, the academic resilience of Latino college students has received little attention (Waxman et al., 1997). Accordingly, the present study explored several variables hypothesized to serve as protective factors that predict resilience among
Latina/o university students. In particular, the present study investigated the extent to which ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, university environment, and cultural congruity explained variance in the resilience of Latina/o college students. Because the literature on college student resilience is limited, the following review of literature incorporates those reports that focused on Latina/o college student resilience as well as those that focused on resilience-related factors, such as academic invulnerability, academic success, and persistence. Additionally, the findings of studies that have focused on the resilience of adolescents are also reported.

Luthar (1991) conducted a study to investigate the variables that may promote resilience among a group of 144 high-risk adolescents. The participants included 62 male and 82 female ninth-grade students, 77% were racial/ethnic minorities (45% Black, 30% Hispanic), and most of the participants were from low SES families. Resilient children were identified as those who experienced high stress and high competence. Luthar’s findings showed that an internal locus of control or participants’ belief that they were in control of their environment, and social expressiveness or their popularity with peers, were factors that protected youth against stress. Luthar’s findings on internal locus of control and social expressiveness may be indicative of ways of coping with stress and importance of peer support, respectively.

Consistent with the resilience framework, the resilient youth in Luthar’s (1991) study reported significantly more symptoms of depression and anxiety in comparison to their competent peers from low stress backgrounds. Specifically, the resilience framework suggests that resilient individuals are those that have overcome challenges
and are competent, whereas competent individuals that have not had challenges to
overcome are identified as competent, but not resilient (Driscoll, 2006). Luthar’s (1991)
study identified students who experienced high levels of stress. Out of these high stress
students some demonstrated a low level of competence whereas others demonstrated a
high level of competence. The high stress, high competence participants successfully
adapted after being exposed to negative circumstances, highlighting a resilient profile.

Gordon (1996) investigated self-concept and motivation among a group of
resilient and nonresilient high school students. Resilient youth were categorized as those
who came from low SES and stressful backgrounds, yet had a GPA of 2.75 and above.
Nonresilient youth came from similar backgrounds, but had not done well academically.
The self-concept is an aspect of resilience that encompasses certain beliefs, including
beliefs about one’s abilities, environmental facilitation, and control (Gordon, 1996).
Gordon’s (1996) findings showed that the self-concept of resilient and nonresilient Latino
youth differed. Specifically, resilient youth were more likely to believe in their cognitive
abilities, which served as a protective factor. Gordon’s findings also reiterated the
importance of the environment. Specifically, she found that resilient Latino youth were
more likely to perceive a supportive environment in comparison to their nonresilient
counterparts.

In their study, Waxman et al. (1997) investigated the differences in motivation
and learning environment of 60 resilient and 60 nonresilient Latino students. Resilient
students were identified as those students that had received A or B grades over a 2-year
period and had scored on or above the 75th percentile on a standardized problem solving
test over a 2-year period. Nonresilient students were identified as those that had scored on
or below the 25th percentile on the problem solving test for a 2-year period and reported B, C, D, and F grades in mathematics that year and year before. The participants were middle school students enrolled in mathematics courses. Their findings showed that, in comparison to nonresilient students, resilient students had significantly higher academic aspirations. Specifically, resilient students had significantly higher expectations for graduating high school, college, and attending graduate school. Furthermore, motivation to succeed was significantly higher among resilient Latino students, as was their satisfaction with their learning environment and involvement in their mathematics classes. Consistent with the studies of Gonzalez and Padilla (1997) and Gordon (1996), the results of Waxman et al.’s (1997) study emphasizes the positive influence that external factors, such as the learning environment, can play in the resilience of Latino youth.

Werner (1995) investigated the impact of biological and psychosocial risk factors, stressful life events, and protective factors in the Kauai Longitudinal study, which included 698 children born on the “Garden Island” in Hawaii. Resilient individuals were identified as those who, as children, had experienced four or more risk factors (i.e. poverty, conflict in their familial environment, divorce), yet had developed into “competent, confident, and caring adults (p. 82). Resilient individuals were better able to evaluate stressful life events and were also able to actively seek coping strategies to deal with adversity. Additionally, youth’s belief in their own effectiveness and positive self-concept also served as important protective factors. Furthermore, the results showed that resilient individuals had at least one caring relationship with a person, had support from extended family members, and had found healthy role models in teachers.
Cardoza (1991) investigated domains that may have an effect on the college attendance and persistence of 1252 Latina female high school seniors. Cardoza’s findings revealed that the college attendance and persistence of Latina students was most strongly predicted by their college aspirations. Findings also showed that Latinas were more likely to go to and persist in college when their mother had attended college. Lastly, socioeconomic status was not a significant predictor of college attendance and persistence.

Driscoll (2006) conducted a study in which she investigated the factors that promote academic resilience among middle school students at risk for academic failure. Individuals that graduated from high school on time were defined as academic resilient. The study included 24,599 participants, 47.1% white, 34.1% African American, and 18.8% Mexican origin eighth-grade students from low SES backgrounds. Driscoll’s findings showed that the graduation rates of students with high math and reading scores increased when they had teacher support. Additionally, the graduation rates of students with high math scores and GPAs increased when they frequently talked to their parents about school. Furthermore, for students with high math scores, their likelihood of graduating increased when they had positive attitudes about school. For students high on school engagement, their chances of graduating also increased when they had teacher support in comparison to students high on school engagement but with low levels of teacher support. Lastly, the likelihood of graduating further increased for students with high educational expectations and plans when their peers positively viewed school and students’ parents were involved in their schooling. In general, Driscoll’s findings
underscore the importance of support for students’ academic success, which included parental, peer, and teacher support.

Valencia (1994) conducted a study to examine the personal and motivational attributes of academically successful college seniors. The participants were 21 male and 26 female Mexican American students in their last semester of college. Twenty-one percent of the participants came from low SES families. In rank order, the personal attributes most highly rated by males were 1) persistency (inclination to stay on target to complete a task or chosen goal), 2) responsibility, and 3) attentiveness. Females valued the same attributes, but rated the first two differently; 1) responsibility, 2) persistency, and 3) attentiveness. Regarding motivational attributes, successful females were most motivated by 1) an interest in getting a better job and earning a higher income, 2) an interest in pursuing further studies in major area or field of specialization, and 3) by a general inclination toward scholarly studies. Similarly, in rank order, successful male students were motivated by 1) an interest in pursuing further studies in major area or field of specialization, 2) an interest in getting a better job and earning a higher income, and 3) by a general inclination toward scholarly studies. Although not explicitly reported, Valencia’s investigation appears consistent with the concept of educational resilience in that at-risk (ethnic minority status, possible low SES) college students had successfully navigated college and were enrolled in their last semester of college. It is possible that the personal and motivational attributes most highly rated by participants served a protective function and fostered a sense of resilience in students.

Ceja (2004) conducted a study to investigate the role that parents played in the development of educational resilience of their daughters. The participants included 20
first-generation college bound, high school Latina females from low SES backgrounds. In Ceja’s study, all students consistently discussed the important role that their parents played in their educational success and aspirations. Even though parents had low levels of formal education, Latina students believed that their parents highly valued a college education and understood it as a means of achieving financial success and occupational power. In some cases, parents encouraged their daughters by tapping into their own academic and occupational experiences. For example, participants reported that their parents said, “don’t commit the same mistakes that we did, that we didn’t study that much” and “Keep on going, don’t give up. You don’t want to end up working for minimum wage”. Furthermore, parents talked about their physical scars and physical pain that resulted from manual labor as a means of encouraging and motivating their children.

In Ceja’s study, Latinas’ educational resilience also resulted from their self-interpretation of their parents’ struggles. For example, one student reported that as a consequence of having witnessed her father’s struggle, which resulted from lack of education, she wanted to pursue a college education. Consistent with Valencia’s (1994) findings, Latina participants also talked about a desire to succeed academically as a means to better their economic opportunities. Ceja’s findings are contrary to the literature that reports that low SES, low levels of maternal education, and low-status parental occupation place youth at risk for negative life events (Luthar, 1991). Specifically, Ceja’s (2004) findings show that, despite parents’ low levels of educational and occupational attainment, they were able to foster a sense of resilience in their children. Through their stories, parents were able to motivate, encourage, and “push” their children to academically succeed.
The literature reports that racial/ethnic groups, including Latinos, are "socioeconomically disadvantaged, negatively stereotyped, and culturally devalued by a majority community" (Spencer-Rodgers & Collins, 2006, p. 729) and it is believed that such an experience leads to negative consequences. Accordingly, Spencer-Rodgers and Collins (2006) conducted a study to examine the effects of perceived disadvantage on the self-esteem of Latinos. The participants were 198 graduate and undergraduate Latino students. The results showed that Latino participants strongly believed that they belonged to a disadvantaged group and believed that others held negative perceptions toward their group. Nonetheless, the Latino participants reported a strong connection to their group, positive attitudes toward their group, and high levels of self-esteem. The findings of Spencer-Rodgers and Collins support the literature that suggests that high racial identity buffers the effects of negative racial messages from the environment (Miller, 1999). Furthermore, Spencer-Rodgers and Collins’ (2006) results are in concert with the concept of resilience in that, even though the Latina/o participants perceived their group as disadvantaged, they maintained high levels of self-esteem.

As evidenced in the literature, there are students who experience negative consequences, such as school drop out, when they experience stressful events and conditions, however there are students who despite these negative conditions and events persist in school and maintain high levels of achievement.

The literature on the educational resilience of Latinos has mostly focused on middle and high school students. The concept of resilience is viewed as a characteristic that varies, can be altered, and fostered in all students (Waxman et al., 1997). Accordingly, it is important to explore the variables that contribute to the educational
resilience of Latina/o college students either through directly lessening the impact of negative environmental circumstances or by indirectly acting as protective factors against the impact of such circumstances. For example, although few studies have investigated the effect of ethnic identity on resilience, it is possible that Latina/o college students find strength in their ethnic group, which consequently feeds their sense of resilience (St. Louis & Liem, 2005). Furthermore, the literature consistently reinforces the importance of social support, including family, peers, and at least one caring individual (Benard, 1995; Miller, 1999; Wang et al., 1994), for student resilience. Additionally, it is reported that resilient individuals have developed coping strategies to deal with stress (Christle et al., 1977), nonetheless, Wang et al. (1994) and Waxman et al. (1997) call for research that further investigates the types of coping strategies used by resilient individuals. Lastly, Gloria et al. (2005) reported that Latina/o students were more likely to persist in school when they had a more positive perception of the university environment and perceived congruity between their culture and the culture of the university. Accordingly, the present study investigated factors that may be predictive of the resilience among Latina/o college students, which included ethnic identity, perceived social support, coping strategies, university environment, and cultural congruity.

2.7 Summary of the Literature

The literature reports on the importance of education for Latina/o students in order to achieve economic and occupational power (Cardoza, 1991; Lango, 1995; Quintana et al., 1991; Wycoff, 1996). However, it is reported that, as a group, Latinos lag behind every other group in receiving college degrees and bachelor degrees in particular
(Fry, 2002). Although Latinos do enroll in college in large numbers, they leave the university before graduating, without a degree (Fry, 2002; Strage, 1999).

Investigators have examined the college nonpersistence of Latino students and several personal, cultural, and environmental factors related to nonpersistence have been identified. For example, studies show that Latino students are less likely to persist in college if they lack social support, lack mentors, face discrimination on campus, experience financial challenges, experience discomfort in the university environment, and experience conflict between home cultural values and their decision to pursue higher education (Gloria et al., 2005; Gonzalez & Padilla, 1997; Vasquez, 1982). Nonetheless, it is also reported that there are Latino students who despite challenges persist in and successfully graduate from college (Arellano & Padilla, 1996). The students who overcome challenges and are academically successful are characterized as resilient.

It is important to investigate resilience as it is a malleable characteristic that can be fostered in individuals (Waxman et al., 1997). Resilience has been investigated among children, middle school, and high school students, however, few studies have investigated the resilience of university students, and more specifically, the resilience of Latina/o college students. Accordingly, the present study adds to the resilience literature by investigating the influence of personal, cultural, and environmental factors on the resilience of Latina/o college students. The factors investigated included ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, perception of the university, and students perception of cultural congruity. If we can
identify the factors that predict resilience, it may be possible to foster educational resilience, thus increasing college retention rates and academic success of Latina/o students.
CHAPTER 3

METHOD

3.1 Participants

A total of 162 undergraduate students completed the study survey. Participants included 1 African American, 2 Asian American or Pacific Islander, 3 Caucasian, 4 non-Latino multiracial, 2 17-year-old students, and 150 Latina/o students. In that this study focused on the resilience of Latina/o undergraduate students 18 years or older, analyses were conducted only on the data furnished by the 150 Latino students. Of the 150 participants, 72 were male and 78 were female. By ethnicity, the largest number of students were of Mexican heritage ($n = 63$), followed by students of Puerto Rican ($n = 26$), South American ($n = 19$), Cuban ($n = 10$), Central American ($n = 7$), and Other (Dominican) ($n = 2$) heritage. Additionally, participants included 13 multiracial individuals with one Latino and one non-Latino heritage and 10 multiethnic individuals with two Latino ethnicities (e.g. Puerto Rican and Mexican American). Most participants ($n = 45$) indicated that either they or their sibling(s) was born in the U.S. (i.e. second-generation Latina/o Americans), followed by students who reported that no one in their family was born in the U.S. ($n = 35$; i.e. first-generation Latina/o Americans), and students whose parents were U.S.-born ($n = 34$; i.e. third-generation Latina/o Americans). Not all participants were U.S. citizens.
Students ranged in age from 18 to 43 ($M = 20.25, \textit{SD} = 2.93$). All students were working towards their Bachelor’s degree ($n = 150$). When asked to respond to the statement “I am confident that I will complete the degree that I am currently working towards”, the vast majority of the participants strongly agreed with the statement ($n = 124$), 20 participants agreed, and only 6 indicated any degree of disagreement. Students’ self-reported GPA ranged from 1.88 to 4.00 ($M = 3.08, \textit{SD} = .54; 19$ missing) based on a 4.0 scale. Examined by class standing, 42 identified as freshman, 34 as sophomores, 37 as juniors, and 37 as seniors. All but 13 students were continuously enrolled in college since beginning their bachelor’s degree, and 22 students had transferred from other institutions including junior colleges, community colleges, and 4-year universities (12 missing). Almost all ($n = 143$) of the participants reported being single and almost half of the students lived on-campus ($n = 64$). Most students were affiliated with the College of Engineering ($n = 27$), Biological Sciences ($n = 24$), or Behavioral and Social Sciences ($n = 24$). Of the students that responded to the previous question, 11 reported being affiliated with one additional college. The majority of the participants expected to earn a master’s degree ($n = 56$).

When asked how they financed their education, the majority of students reported that they received scholarships ($n = 109$), followed by those who attained student loans ($n = 78$), received financial support from family ($n = 67$), and worked part-time ($n = 53$). Additionally, 22 students used personal savings and 12 students worked full-time. The participants were able to select more than one way in which they paid for college, thus, in many cases students used a combination of methods to pay for their college education. Students most frequently reported a family income of $70,000 and above ($n = 55$). More
than half \((n = 89)\) of the participants reported that one or both of their parents had attended college. Similarly, more than half \((n = 78)\) of the students reported that they had a sibling who attended college (2 missing). See Table 1 for demographic findings.

3.2 Procedures and Administration

Prior to beginning the study, Institutional Review Board approval was obtained for both the paper-and-pencil and the online version of the survey and the procedures for the administration.

The paper-and-pencil version of the survey was distributed to the Latina/o student population at a large Midwestern, predominantly white institution. Latina/o undergraduate students were recruited from Latina/o campus organizations (i.e., Hispanic Business Student Association, Hispanic Law Student Association, Hispanic Organization for Texas Students, Asociacion de Estudiantes Mexicanos, University-Wide Council of Hispanic Organization, and a co-ed Latino fraternity), by their self-identification of Hispanic or Latino on their admission application, and from a snowballing technique. Surveys were returned via campus mail or collected by the researcher at organizational meetings and during weekly sessions scheduled for participation in the study. Students were informed that participation was voluntary and confidential and that returning the completed paper-and-pencil survey would be considered their consent for participation. An incentive was provided for students’ participation, which was a raffled cash prize. A total of 160 paper-and-pencil surveys were distributed and 87 were returned for a response rate of 54\%.
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Table 1: Student Demographics
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<td>Third generation</td>
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<td>Fourth generation</td>
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<tr>
<td>Fifth generation</td>
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<table>
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<th>Confidence in Degree Completion</th>
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<tr>
<td>Agree</td>
</tr>
<tr>
<td>Slightly Agree</td>
</tr>
</tbody>
</table>
An internet link to the on-line version of the same survey was forwarded to the Latina/o student population at the same institution. E-mails were forwarded to students who self-identified as Hispanic or Latino on their admissions application and to student leaders of Latina/o campus organizations. Latina/o undergraduate students were also recruited from introductory psychology courses and via a snowballing technique. Students were informed that participation was voluntary and confidential and that completing the on-line version of the survey would be considered their consent for participation. Incentives were provided for students’ participation, which included research credit for an introductory psychology course and a raffled cash prize.

3.3 Survey Instruments

All participants completed the same survey packet in either an on-line or a paper-and-pencil format. See Appendix A and B for the consent forms for the paper-and-pencil and electronic versions of the study, respectively. The survey packet included measures designed to assess for factors believed to contribute to students’ resilience in college. The instruments included a demographic sheet, the Revised Multigroup Ethnic Identity Measure (MEIM-R; Phinney, Balderomar, Romero-Alfaro, 2005), Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988), Student Coping Scale (SCOPE; Struthers et al., 1995), University Environment Scale (Gloria & Robinson Kurpius, 1996), Cultural Congruity Scale (Gloria & Robinson Kurpius, 1996), and the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). See Appendix A – I for survey instruments.
The independent variables for the present study were ethnic identity, perceived social support, coping strategies, university environment and cultural congruity. The dependent or criterion variable was resilience.

3.3.1 Demographic questionnaire.

The demographic questionnaire included a total of 18 items. Participants were asked about general personal information including their gender, age, race/ethnicity, grade point average (GPA), marital status, class standing, living arrangements, family income, and generational status. Educational-focused questions were included and they addressed transfer status, degree they were working towards, highest academic degree they expected to earn, college/s they were affiliated with, sources of financial aid, continuity of enrollment, parental and siblings education, and how confident they were about completing the degree that they were working towards. See Appendix C for the demographic questionnaire.

3.3.2 Revised Multigroup Ethnic Identity Measure (MEIM-R; Phinney, Baldelomar, Romero-Alfaro, 2005).

The MEIM was revised based on the findings of Roberts, Phinney, Masse, Chen, Roberts, and Romero (1999). A factor analysis revealed that the MEIM-R best consists of two factors, which include 1) ethnic identity search (items 1, 2, 4, 8, and 10) and 2) affirmation, belonging, and commitment (items 3, 5, 6, 7, 9, 11, and 12). Consequently, two items were dropped and other minor modifications were made. For example, no items are reversed and the MEIM-R is scored on a 5-point Likert-type scale (1 = Strongly disagree to 5 = Strongly agree). Sample items include “I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs” and “I have
a clear sense of my ethnic background and what it means for me.” The MEIM-R produces 2 scale scores, however, the present study used the mean of the 12 item scores for an overall score, as it provides a better assessment of individuals’ sense of their ethnic group membership. No items are reverse scored. The Cronbach alpha value in the present study was .90. See Appendix D for the Revised Multigroup Ethnic Identity Measure.

3.3.3 Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988).

The MSPSS is a 12-item scale developed to assess perceived social support from three different sources, namely family, friends, and a significant other. The MSPSS is rated on a 7-point Likert-type scale (1 = *Strongly disagree* to 7 = *Strongly agree*). No items are reverse scored. Sample items include “There is a special person with whom I can share my joys and sorrows,” “My family really tries to help me,” and “I can talk about my problems with my friends.” The MSPSS produces three scores. The Cronbach’s coefficient alpha values in Zimet et al. (1988) were .91, .87, and .85 for Significant Other, Family, and Friends subscales respectively. In Edwards’ (2004) study with Mexican American high school students, Cronbach alpha values of .88 for the Family, .90 for the Friends, and .61 for the Significant Other subscales. The present study utilizes the three scale scores. The Cronbach alpha values in the present study were .95, .86, and .93 for the Significant Other, Family, and Friends subscales, respectively. The full scale Cronbach alpha value in the present study was .92. See Appendix E for the Multidimensional Scale of Perceived Social Support.
3.3.4 Student Coping Scale (Struthers, Perry, Menec, Schonwetter, Hechter, Weinberg, & Hunter, 1995).

The SCOPE (Struthers et al., 1995) was developed to assess the coping styles of college students. In development of the SCOPE, items were reduced from 95 to 48. Based on factor analysis, the SCOPE scale comprises two ways of coping, which are Problem Focused Coping (PFC) and Emotion Focused Coping (EFC), each is composed of 15 items. Problem focused coping entails thoughts, behaviors, and strategies aimed at altering the source of stressful events. In contrast, the thoughts, behaviors, and strategies in Emotion focused coping are aimed at managing the distress that results from a stressful event. The SCOPE is rated on a 10-point Likert-type scale (1 = extremely uncharacteristic to 10 = extremely characteristic). Items #19, 20, 21, 22, 25, 26, 27, 29, and 30 are reverse scored. In Struthers et al.’s study, the results showed that the SCOPE was reliable and valid and that it related to motivation and performance. Cronbach alpha values in Struther et al.’s (1995) study were .80, .80, and .70 for the overall SCOPE, PFC, and EFC, respectively. The present study utilized the overall scale score. The full scale Cronbach alpha value in the present study was .82. See Appendix F for the Student Coping Scale.

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

The UES (Gloria & Robinson Kurpius, 1996) examines the perceptions of the university environment of racial and ethnic minority students. The scale is composed of 14 items, which includes five reverse-coded items. Items #1, 4, 5, 11, and 13 are reverse scored. Responses are based on a 4-point Likert-type format, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). A sample item is “University staff have been warm and
friendly.” Using a mean scale score, higher scores indicate a more positive perception of the university’s environment. The pilot sample used in Gloria and Robinson Kurpius (1996) study yielded a Cronbach alpha of .84. Similarly, other research has found internal consistency coefficients of .75 and .79 for two groups of Chicana undergraduates (Gloria, 1997). The Cronbach alpha in Gloria et al.’s (2005) study with Latina college students was .80. The Cronbach alpha value in the present study was .84. See Appendix G for the University Environment Scale.

3.3.6 Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius, 1996).

The CCS (Gloria & Robinson Kurpius, 1996) measures the perceptions of cultural fit or cultural congruity between the values of the university and the values of students. Responses on the 13-item scale are based on a 4-point Likert-type format, ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). Items #1, 2, 3, 4, 6, 7, 9, and 10 are reverse scored. A sample item is “I feel that I have to change myself to fit in at school.” Using a mean scale score, higher scores reflect greater perceived cultural congruity. The pilot sample used in Gloria and Robinson Kurpius (1996) study yielded a Cronbach’s alpha of .89. The Cronbach alpha in Gloria et al. (2005) study with Latina college students was .86. The Cronbach alpha value in the present study was .88. See Appendix H for the Cultural Congruity Scale.

3.3.7 Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003).

The Connor-Davidson Resilience Scale (Connor & Davidson, 2003) is designed to measure resilience, defined as the ability to cope with stress. The CD-RISC is comprised of 25 items that are rated on a 5-point Likert-type scale (0 = Not at all true to 4 = True nearly all of the time). No items are reverse scored. Higher scores reflect greater
resilience. At a Cronbach alpha value of .89 (Connor & Davidson, 2003), the CD-RISC demonstrates good internal consistency. The Cronbach alpha value in the present study was .93. See Appendix I for the Connor-Davidson Resilience Scale.

3.4 Data Analyses

Descriptive statistics were calculated including means, standard deviations, and ranges for each of the measures. Correlations were obtained to evaluate the relationship between each of the studies variables, which included ethnic identity, perceived social support, coping strategies, university environment, cultural congruity, and resilience. A simultaneous multiple regression was conducted to investigate the amount of variance accounted for by the variables and to identify the individual variables that accounted for unique significant variance. As a result, it was possible to answer the following five research questions: 1) Is ethnic identity uniquely predictive of resilience in Latina/o college students? 2) Is perceived social support uniquely predictive of resilience in Latina/o college students? 3) Are coping strategies uniquely predictive of resilience in Latina/o college students? 4) Is cultural congruity uniquely predictive of resilience in Latina/o college students? and 5) Is university environment uniquely predictive of resilience in Latina/o college students?
CHAPTER 4
RESULTS

This chapter reports on the instrument reliabilities, preliminary tests, intercorrelations among the variables, and the simultaneous regression analysis used to evaluate the research questions and hypotheses. First, the instrument reliabilities for the scales and subscales are presented. Second, are the means, standard deviations, and ranges of the measures used in this study are reported. Third, the results of preliminary analyses (e.g. independent t-test, ANOVA) are reported. Fourth, the intercorrelations among the predictor and criterion variables are noted. Lastly, the results of the simultaneous multiple regression analysis, which examined resilience, are presented.

4.1 Instrument Reliabilities

Internal consistency reliability was computed for the instruments that were used to measure ethnic identity, perceived social support from family, friend, and a significant other, coping strategies, university environment, cultural congruity, and resilience. The resulting Cronbach alpha coefficients were adequate and ranged from .82 to .95 (See Table 2).
<table>
<thead>
<tr>
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<td>Family</td>
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<td>Friend</td>
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<td>4. University Environment Scale</td>
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</tr>
<tr>
<td>6. Connor-Davidson Resilience Scale</td>
<td>.93</td>
<td>25</td>
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</tbody>
</table>

*Note. N’s ranged from 146 to 150 due to incomplete item response by some subjects*

Table 2
Instrument Reliabilities

4.2 Means, Standard Deviations, and Ranges

The overall means, standard deviations, and ranges for the measures used in this study are presented in Table 3. The average score for coping responses in the present study was ($M = 212.51$). The average scores for the subscales of the SCOPE in Struthers et al.’s (1995) study were $72.92$ ($SD = 18.07$) for Problem-Focused Coping, $55.23$ ($SD = 13.92$) for Emotion Focused Coping; the full scale average score was not provided. In this study, the average score for university environment was $58.74$ and $65.78$ for cultural congruity, both of which are slightly smaller than the average scores found in Gloria and Robinson Kurpius’ (1996) study; $66.63$ for university environment and $71.5$ for cultural congruity. Lastly, the resilience average score in the present study ($M = 79.76$) was similar to the average scale scores found by Connor and Davidson (2003), $77.1$ for women and $77.2$ for men.
<table>
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</thead>
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<td>4.90</td>
<td>4-28</td>
</tr>
<tr>
<td>Significant Other</td>
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<td>3. Student Coping Scale</td>
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<td>4. University Environment Scale</td>
<td>58.74</td>
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<td>41-70</td>
</tr>
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<td>5. Cultural Congruity Scale</td>
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<td>43-76</td>
</tr>
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<td>6. Connor-Davidson Resilience Scale</td>
<td>79.76</td>
<td>13.15</td>
<td>33-100</td>
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</tbody>
</table>

Table 3: Means, Standard Deviations, and Ranges of the Variables

4.3 Preliminary Analyses

A series of group mean analyses (analyses of variance and independent t-test) were conducted to assess whether participant background and academic factors accounted for differences in resilience scores for the Latina/o participants large enough to suggest analyses by subgroup. No differences in resilience scores were found by gender (i.e., male and female) \( t(148) = 1.18, p = .24 \), which is consistent with the findings of Connor and Davidson (2003). Parental college attendance (i.e., at least one parent attended college and no parent attended college) \( t(148) = .70, p = .49 \) and sibling college attendance (i.e. at least one sibling attended college and no sibling attended college) \( t(146) = .21, p = .83 \) did not reveal differences in resilience scores. Grade Point Average (GPA) was aggregated into two groups, above and below 3.0, in order for analyses to have a sufficient sample size. No differences in resilience scores were found by GPA, \( t(129) = .55, p = .58 \). Similarly, family income was also aggregated into two groups,
$39,000 and less or $40,000 and more. No differences in resilience scores were found by family income, $t(145) = .79, p = 4.33$. Additionally, no differences were revealed for resilience scores by generational level (e.g. first, second, third, fourth, and fifth) $F(4, 144) = .63, p = .64$. Accordingly, the main analysis was run on the entire sample.

4.4 Intercorrelations of the Variables

Pearson correlation coefficients were computed for ethnic identity, perceived social support (friend, family, and significant other), coping strategies, university environment, cultural congruity, and resilience. The relationships among the study’s variables are presented in Table 4.

The variable of SCOPE was positively and significantly correlated with all variables. Specifically, SCOPE significantly correlated with MEIM-R ($r = .33$), MSPSS Family ($r = .44$), MSPSS Friend ($r = .33$), MSPSS Significant Other ($r = .39$), CCS ($r = .35$), UES ($r = .32$), and CD-RISC ($r = .63$). Thus, Latinos who reported higher levels of coping strategies also reported higher levels of perceived support from family, friends, and a significant other, a more positive perception of the university, higher cultural congruity, a strong ethnic identity, and higher levels of resilience.

Furthermore, significant and strong correlations were found among the three MSPSS subscales of family, friend, and significant other. For example, MSPSS Significant Other significantly correlated with MSPSS Family ($r = .55$) and MSPSS Friend ($r = .52$), suggesting that students who perceived greater support from a significant other, also reported higher perceived support from family and friends. Additionally, both the Friend and Significant Other subscales of the MSPSS significantly correlated with all other variables except MEIM-R, whereas the Family subscale of the
MSPSS significantly correlated with all variables, including MEIM-R. UES and CCS correlated significantly and positively with each other \((r = .57)\), suggesting that students who reported a more positive perception of the university, also reported increased cultural congruity. Lastly, MEIM-R significantly correlated with fewer of the variables (e.g. MSPSS Family, SCOPE, UES, CD-RISC) and often only weakly; MSPSS Family \((r = .18)\) and UES \((r = .18)\).

4.5 Regression Analysis

A simultaneous multiple regression was conducted to investigate which of the predictor variables significantly accounted for variance in resilience scores. The predictor variables included ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, university environment, and cultural congruity. The criterion variable was resilience.

The predictor variables as a whole accounted for significant variance in resilience scores, \(F(7, 142) = 22.8, p < .001, R^2 = .53\) (adjusted \(R^2 = .51\)). The variables that contributed unique significant variance to resilience included coping strategies \((\beta = .42, t = 5.90, p < .001)\), cultural congruity \((\beta = .23, t = 3.02, p < .01)\), perceived social support from a significant other \((\beta = .18, t = 2.39, p < .05)\), and ethnic identity \((\beta = .13, t = 2.11, p < .05)\). More specifically, the beta weights revealed that coping strategies accounted for the most unique variance in resilience scores, followed by cultural congruity, perceived social support from a significant other, and lastly, ethnic identity. Perceived social support from family, from friends, and university environment did not contribute unique
<table>
<thead>
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<th>1</th>
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<th>5</th>
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<td></td>
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<td>.57**</td>
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</table>

**Note.** MEIM-R = Revised Multigroup Ethnic Identity Measure (Phinney et al., 2005); MSPSS SO = Multidimensional Scale of Perceived Social Support Significant Other Subscale (Zimet et al., 1988); MSPSS FAM = Multidimensional Scale of Perceived Social Support Family Subscale (Zimet et al., 1988); MSPSS FRND = Multidimensional Scale of Perceived Social Support Friend Subscale (Zimet et al., 1988); SCOPE = Student Coping Scale (Struthers et al., 1995); UES = University Environment Scale (Gloria & Robinson Kurpius, 1996); CCS = Cultural Congruity Scale (Gloria & Robinson Kurpius, 1996); CD-RISC = Connor-Davidson Resilience Scale (Connor & Davidson, 2003).  
*p < .05.  **p < .01.

Table 4  Intercorrelations of the Variables
significant variance to the resilience scores of Latina/o college students. Table 5 provides a summary of the analysis. The entire regression analysis, which consisted of ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, university environment, and cultural congruity, accounted for 51% of the variance in resilience scores.

<table>
<thead>
<tr>
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<th>SE B</th>
<th>ß</th>
<th>t</th>
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<td>1.65</td>
</tr>
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<td>Family</td>
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<td>.03</td>
<td>-.04</td>
<td>-.47</td>
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<td>2.39*</td>
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<td>5.90***</td>
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<td>.08</td>
<td>-.02</td>
<td>-.33</td>
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<td>.23</td>
<td>.08</td>
<td>.23</td>
<td>3.02**</td>
</tr>
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</table>

Note. \( N = 150 \), Adjusted \( R^2 = .51 \)
*\( p < .05 \). **\( p < .01 \). ***\( p < .001 \)

Table 5
Summary of the Simultaneous Multiple Regression Analysis Predicting Resilience
CHAPTER 5
DISCUSSION

The present study contributes to the literature by examining variables hypothesized to serve as protective factors that predict resilience among Latina/o undergraduates. Specifically, the present study investigated the relationships among ethnic identity, perceived social support from family, friends, and a significant other, coping strategies, university environment, cultural congruity, and the resilience of 150 Latina/o college students. The results of this study revealed that coping strategies, cultural congruity, perceived social support from a significant other, and ethnic identity accounted for 51% of the variance in Latina/o college students’ resilience scores. This chapter discusses the results of this study in relation to previous literature on Latina/o college student resilience. First, the background variables of participants and context from which they were recruited is presented. Second, the findings from analyses including the simultaneous multiple regression analysis and intercorrelations are discussed. Third, limitations of the study are addressed. Fourth, implications for future research are noted. Lastly, a summary of the findings is presented.

5.1 Discussion of Results

In discussing the results, it is important to note the context from which the participants were recruited and revisit some of their background variables as an aid for
interpretation. The Latina/o participants were recruited from a large Midwestern, predominantly white institution. In the 2005-2006 academic year, a total of 37,411 undergraduate students were enrolled and of these students, 913 (2.4%) were identified as Hispanic, which is the term that was used by the university to represent Latino students (The Ohio State University, 2005-2006). Thus, the Latina/o participants in the present study (N = 150) represented 16.4% of the total Latina/o student population in the 2005-2006 academic year.

In the present study, the majority of the Latina/o respondents were confident that they would complete their bachelor’s degree (97.3%). Furthermore, the majority of the respondents expected to earn an academic degree beyond their bachelor’s degree (83.1%). Males (48%) and females (52%) were about equally distributed. The participants in this study were primarily second generation (30.2%), of Mexican heritage (42%), and freshman (28%). Respondents most often reported a family income of $70,000 and above (37.4%) and over half of the participants reported that at least one of their parents (59.3%) and at least one sibling (52.7%) had attended college. The majority of the respondents were single (96%) and most often lived on-campus (43%). Resilience scores did not differ by gender, GPA, college attendance by parents and siblings, family income, or generational status. The focus on resilience is importance as it is a concept that can be fostered in individuals, allowing them to recover and bounce back from negative events (Garmezy, 1991).

The simultaneous regression analysis that was run in this study gives an indication of the joint impact of several variables on measured resilience. It also provides some indication of the relative importance of those variables. Since most of the available
literature has considered the criterion variables of this study one-at-a-time, it may also be useful to examine the pairwise relationships among the variables.

In the present study, data from the regression analysis supported four of the seven hypotheses. That is, ethnic identity, perceived social support from a significant other, coping strategies, and cultural congruity together predicted resilience. These results are consistent with previous literature that documents the importance of cultural, personal, and environmental factors for the resilience of Latino students (e.g., Alva & Padilla, 1995; Pino & Ovando, 2005).

For example, Gloria, Castellanos, and Orozco’s (2005) findings showed that cultural congruity and one coping response (finding out about the problem and taking some positive, planned action) were the strongest predictors of psychological well-being. Similarly, considering the four factors that significantly predicted resilience in this study (coping strategies, cultural congruity, perceived social support from a significant other, and ethnic identity), coping strategies and cultural congruity were the strongest predictors of Latina/o college student resilience. Coping, in particular, was the strongest predictor of resilience, which is consistent with the high mean score for coping strategies ($M = 212.51$) in this study.

The Latina/o participants in both Pino and Ovando (2005) and Hernandez’s (2000) study referred to their motivation and desire to succeed. The positive mentality of the participants in their studies allowed them to cope with difficult situations and motivated them to overcome barriers (Hernandez, 2000). Similarly, the academically successful Mexican American students in Wycoff’s (1996) study had a strong sense of responsibility and positive attitude about their intellectual ability. In the current study, a
positive outlook or mentality encompassed in coping and assessed with items including “I feel competent” and “I try to come up with a strategy about what to do”, may have contributed to participant’s ability to successfully deal with difficult situations, thus increasing their resilience in college.

Furthermore, the results on coping strategies reveal significant relationships. Specifically, coping strategies correlated significantly and positively with all other criterion variables. The findings suggest that when Latina/o students used more coping strategies, they also had higher levels of ethnic identity, felt supported by their family, friends, and a significant other, perceived the university environment as positive, and felt that their home culture was congruent with the university culture. Again, this finding highlights the importance of studies that investigate the impact of cultural, personal, and environmental variables for Latinos academic success.

In the present study, cultural congruity significantly predicted the resilience of Latina/o participants. The importance of cultural congruity for college students is supported in the literature. For example, Pino & Ovando (2005) found that institutional fit was one of the factors that contributed to the persistence of first-year Mexican American college students - the participants felt welcomed, comfortable, and felt that they belonged at the university campus. Additionally, for these students, cultural fit meant that they had found people that were helpful and friendly, and perceived congruity between their and others’ interests. Hernandez and Lopez (2004) report that a positive campus climate can facilitate Latina/o students’ adjustment to college life and help them manage feelings of isolation.
In this study, cultural congruity significantly and positively correlated with all criterion variables (university environment, coping strategies, and perceived social support from family, friends, and significant other) except ethnic identity. The results suggest that Latino students who felt that their home culture was congruent with the culture of the university, also felt more positive about the university environment, used more coping strategies, and felt supported by their family, friends, and a significant other. This finding is consistent with the findings of Arellano and Padilla (1996) who report that student success depends on the “goodness-of-fit” between background variables and available coping resources.

Cultural congruity and ethnic identity were unrelated in the current investigation, a finding not commonly reported in the literature. However, the literature on cultural congruity and ethnic identity does show that Latinos report a low sense of belonging in the university when they perceive a negative campus climate, especially amongst students who maintain strong connections to their culture (Hurtado & Ponjuan, 2005). Ogbu (1992) reports that voluntary minorities, those that came to the U.S. driven and motivated by the thought of achieving economic success, are likely to retain their cultural values and practices. Furthermore, Ogbu also reports that voluntary minorities “are willing, and may even strive, to play the classroom game by the rules and try to overcome all kinds of schooling difficulties because they believe so strongly that there will be a payoff later” (p. 9). Additionally, Holleran and Waller (2003) found that respondents accepted suffering as a means of transformation, a belief that something good and positive would come from suffering. Thus, the non-existing relationship between cultural congruity and ethnic identity may suggest that regardless of cultural congruity or incongruity, Latinos...
are motivated to overcome barriers and succeed. The decision of Latinos to play the classroom game and follow the rules is consistent with and supports the idea of active coping (e.g., coming up with a strategy, thinking about how to best handle the situation, making a plan of action). Consequently, for the ethnically identified Latino students in the present study, their ability to cope may have been more important than cultural fit for their educational resilience, which was reflected in the high mean score for coping strategies ($M = 212.51$).

In the current study, support from a significant other was the only social support variable that significantly predicted resilience. In Wycoff’s (1996) study, 50% of the graduate student participants reported that they primarily counted on their spouses for academic support in comparison to 10% of the undergraduate women; 40% of the graduate students were married. However, unlike the participants in Wycoff’s study, all the Latina/o participants in this study were undergraduate students and 96% of the participants were single (not married). Nonetheless, the finding on the importance of social support from a significant other is consistent with the literature, which emphasizes the importance of “affectional ties that encourage trust, autonomy, and initiative” (Werner, 1995; p. 83) and importance of at least one caring person (Benard, 1995) for resilient individuals.

Additionally, Pino and Ovando (2005) found that Mexican American females, unlike males, identified a significant other, defined as someone they shared a romantic relationship with, as being part of their social support network and contributing to their persistence in college. Furthermore, Gordon and Dohee Song (1994) reported that one of the factors that positively affected the achievement of individuals at-risk for failure was a
meaningful relationship with a significant other, which could include parents, teachers, guidance counselors, ministers, friends, and peers.

Lastly, ethnic identity significantly predicted the resilience of Latina/o college students. Although this finding is consistent with findings that show that youth’s positive identity serves as a protective factor that contributes to resilience, as well as a source of pride, strength, and support factor that promotes their academic success (Arellano & Padilla, 1996; Holleran & Waller, 2003), the contribution of ethnic identity was relatively small in comparison to the other variables examined in this study. Furthermore, unlike the other variables in this study, ethnic identity only strongly and significantly correlated with coping strategies. Although studies that have examined the relationship between ethnic identity and coping strategies were not identified in the literature, it is reported that a positive ethnic identity is essential for psychological well-being, psychosocial competence, successful adaptation in U.S. society, and that it may help counteract the negative stereotypes attributed to Latinos (Holleran, 2003; Phinney, 1991; Spencer & Markstrom-Adams, 1990).

This study’s findings on ethnic identity may be reflective of the environmental context from which the participants were recruited, a PWI, and, although not investigated in the present study, the environment where they grew up (Torres, 2004). For example, in her study, Torres (2003) found that students did not view themselves as in the minority when they came from areas where Latinos represented a numerical majority. However, not only did this change when they arrived on a PWI, but it prompted a stronger connection to their ethnicity. Furthermore, it has been suggested that when Latinos are not singled out as different in the university, identifying as Latino could be almost
irrelevant (Ocampo et al., 1991). Ocampo et al.’s (1991) suggestion may help explain the relatively weak contribution of ethnic identity to the resilience of Latina/o college students in the present study. Considering that the Latina/o participants in the present study represented a numerical minority (2.4%) on campus, the role of ethnic identity on resilience needs to be further investigated.

The importance of a strong ethnic identity is evident in the findings of Spencer-Rodgers and Collins (2006). In examining the effects of perceived disadvantage on the self-esteem of Latino graduate and undergraduate students, Spencer-Rodgers found that even though Latino participants believed that they belonged to a disadvantaged group and believed that others held negative perceptions toward their group, they reported a strong connection to their group, positive attitudes toward their group, and high levels of self-esteem. Although the findings of the present study are to some extent consistent with the literature that identifies ethnic identity as a protective factor against negative events, including a hostile environment (Miller, 1999), studies that further examine the different components of ethnic identity and environmental context are needed.

Focusing on the intercorrelations, ethnic identity significantly correlated with fewer of the criterion variables. As previously mentioned, ethnic identity correlated significantly and strongly with coping strategies only and weakly with perceived social support from family and university environment. These findings suggest that students who reported higher levels of ethnic identity also reported higher levels of coping, higher levels of support from family, and a more positive perception of the university.

Contrary to the literature that highlights the importance of support from family and friends, and university environment for successful and resilient students (Wang et al.,
1994), perceived social support from family and friends, and university environment did not significantly predict the resilience of Latina/o college students in this study. It is possible that students’ level of resilience increases when parents are supportive and understanding of the demands place on their sons and daughters as college students. On the contrary, students may feel limited and consequently academically fail and/or drop out if, due to their lack of knowledge and experience with the educational system in the U.S., parents place high familial demands and obligations on the student (Hernandez & Lopez, 2004; Tinto, 1993).

For example, some of the Mexican American female participants in Wycoff’s (1996) study felt “caught between two cultures, feeling forced to respond to both traditional values and modern demands” (p. 153). Although some Latino students have been discouraged from pursuing a college education (Wycoff, 1996), other Latino parents emphasize the importance of an education and encourage their children to attend college (Torres, 2004; Young, 1992). Even when parents are supportive, they may not understand the experience of a college student.

The literature often addresses the importance of familial support. For example, students talk about a parental “push” to success (Ceja, 2004; Kenny et al., 2002) and, while it can be a source of motivation for some students, it adds pressure for others when the message received is that college drop out is not an option (Hernandez, 2000). For example, in response to the “push” from parents, one student reported, “At times it was frustrating because at times I would get a B because I wasn’t great in that subject. Basically, they expect straight A’s” (Pino & Ovando, 2005; p. 18). Furthermore, other students allude to the incongruity between home values and those of the university, such
as the value of freedom. For example, one student commenting on her strict parents and curfews she had reported, “I really just wanted to go [to college]. I wanted to leave, and experience what I couldn’t do as a junior or senior in high school… I like the freedom… I just felt that I was independent, and I was one person, not the youngest daughter of my family…” (p. 19-20). Although the literature identifies parental support as important, it may be detrimental to students’ resilience when students experience it as pressure to succeed.

Rodriguez et al. (2003) and Gloria (1997) investigated the friend and family support for Latino college students in predominantly Latino universities. They found that, in comparison to family support, Latino students received more support from friends. Although Rodriguez el. al. and Gloria did not investigate the support from a significant other, it is interesting to note that support from family and friends did not predict resilience in the current study. In the present study, only support from a significant other predicted resilience among Latina/o college students. More studies that investigate support from a significant other are needed.

Contrary to the literature that reports on the importance of university environment for students (Gloria et al. 2005; Gordon, 1996; Hernandez, 2000, Hernandez & Lopez, 2004), university environment also did not significantly predict resilience among Latina/o college students. A weak, but significant correlation between ethnic identity and university environment may suggest that, for Latina/o college students in a PWI, the strength obtained from their ethnic identity is more important than perceiving a positive university environment to overcome barriers and challenges.
5.2 Limitations of the Study

A limitation of the present study was that data from various Latino subgroups, including individuals of Mexican, Puerto Rican, and Cuban heritage, was aggregated in analyses. Latinos represent a heterogeneous group that presents with different occupational, financial, and educational conditions as well as different experiences upon entry into the United States (Fry, 2002; Johnson, Farrell, & Guinn, 1997). For example, regarding socioeconomic levels, individuals of Cuban heritage tend to be middle class, Puerto Ricans tend to be poor, and even though individuals of Mexican heritage represent the largest Latino subgroup in the U.S., they tend to have the lowest average socioeconomic status (Cheng & Starks, 2002; Ogbu, 1992). Additionally, even when Mexican, Puerto Rican, and Cuban students report high academic aspirations and expectations, Mexican and Puerto Rican students have weaker and Cubans have higher aspirations and expectations than white students (Bohon, Kirkpatrick Johnson, & Gorman, 2006).

Another limitation of the present study is that the instruments were not counterbalanced, thus possibly resulting in a response set. Additionally, different data-gathering methods were used (paper-and-pencil and electronic survey), resulting in a non-standard means of administration. Although coping and resilience represent different constructs, coping refers to the cognitive and behavioral methods used to deal with stressful events and resilience refers to positive outcome in response to stress, it is important to note the overlap between the Student Coping Scale and the Connor-Davidson Resilience Scale (See Table 4).
Furthermore, the participants in the present study were recruited from a predominantly white institution, thus the findings may not be generalizable to Latina/o students in universities identified as Hispanic Serving Institutions (HSI). For example in studies conducted with Latinos at predominantly Latino universities, students convey the importance of friend support (Rodriguez et al., 2003; Gloria, 1997), whereas in the present study, perceived support from friends did not significantly predict the resilience of Latina/o students at a PWI. Accordingly, this study’s findings must be interpreted and generalized with caution.

5.3 Implications for Future Research

The findings of this study highlight the importance of coping strategies, cultural congruity, social support from a significant other, and ethnic identity for the resilience of Latina/o college students enrolled in a PWI. Based on the dearth of literature, continued research on the factors that contribute to the resilience of Latino college students is needed, if we are to increase the number of Latino students that leave the university with a degree. Specifically, future studies may further examine the specific coping styles (problem-focused vs. emotion-focused) that serve as protective factors that increase resilience and academic success. Similarly, it is important to investigate the role that various aspects of identity (ethnic identity search vs. ethnic identity belonging and commitment) play for educationally resilient students. Lastly, the focus on social support remains important. Specifically, if we are to increase the resilience of Latino students, it is essential that we investigate possible differences in protective factors between students attending PWI’s and HSI's.
5.4 Summary of Findings

The results of this study revealed that ethnic identity, familial, friend, and significant other support, coping strategies, university environment, and cultural congruity accounted for 51% of the variance in measured resilience. More specifically, coping strategies, cultural congruity, perceived social support from a significant other, and ethnic identity individually accounted for unique and significant variance in Latina/o college students’ resilience scores. In this study, a large majority of the participants (97.3%) were confident in their ability to successfully leave the university with their bachelor’s degree and 83.1% of the Latina/o participants expected to earn an academic degree beyond their bachelor’s degree. Thus, for the Latina/o college students in the present study, the optimal foundation (Pino & Ovando, 2005) for resilience consisted of personal (e.g., coping strategies), cultural (e.g., ethnic identity), and environmental (e.g., cultural congruity, perceived social support from a significant other) factors.
LIST OF REFERENCES


Fry, R. (2002). *Latinos in higher education: Many enroll, few graduate*. Pew Hispanic Center, University of Southern California, Annenberg School of Communication.


Snyder, C. R., & Dinoff, B. L. (1999). Coping where have you been? In C. R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 3-19). New York: Oxford University Press.


APPENDIX A

CONSENT FORM FOR PAPER-AND-PENCIL VERSION
The Study of Resilience

Thank you for your interest in The Study of Resilience. Dr. Don Dell, the principal investigator, and Veronica Orozco, the co-investigator, both associated with the Psychology Department at OSU, are conducting this study concerning the resilience of college students – that is, the ways in which students are able to deal with the difficulties they face as they complete their education. We are interested in exploring factors, such as social support and ethnicity that may affect the resilience of college students. The results of this study may inform counselors, faculty, staff, and others in higher education how to better understand and attend to the needs of diverse student bodies.

If you are interested in participating, in a moment you will be asked to complete the attached surveys and demographic questionnaire. The survey packet will take approximately 30 minutes to complete. Participation in this study is voluntary, and you can withdraw from your involvement at any time without penalty. We would appreciate your careful completion of the instruments and hope that you will respond to all the items. You may, however, choose not to any particular item.

Individuals will not be paid to participate in this study, but participants will have the opportunity to enter a raffle to win 1 of 5 cash prizes that will be awarded throughout the Spring 06 quarter.

The information that is provided will be kept confidential. Only the researchers mentioned above will have access to the information that participants offer. Please do not include any identifying information on any of the survey materials or the demographic questionnaire. When you are finished please return the completed packet to the researcher.

There is a question that asks for current GPA. If you are a first quarter freshman, or a transfer student, please use your high-school GPA or your GPA from your previous institution.

Note that the return of your completed survey will be considered your consent for participation in this study.

Thank you for your participation in this study.

Don Dell, Ph.D. 
Associate Professor
Department of Psychology
The Ohio State University
dell.1@osu.edu 
(614) 688-8287

Veronica Orozco, M.A.
76 Psychology Building
1835 Neil Avenue
Columbus, OH 43210
orozco.10@osu.edu 
(614) 506-3644
APPENDIX B

CONSENT FORM FOR ELECTRONIC VERSION
1. Introduction

Thank you for taking the time to participate in the electronic version of the Study of Resilience: The Latina/o College Experience. During the Spring Quarter 2006, we conducted a paper and pencil version of this same study. If you participated then, thank you – please do not complete the on-line version. If you missed that opportunity, we’d appreciate your participation.

Dr. Don Dell, the principal investigator, and Veronica Orozco, co-investigator, are associated with the Psychology Department at The Ohio State University. We are conducting this study to investigate factors that may influence the resilience of Latina/o students at OSU, including ethnicity, college experiences, and social support. The results of this study may inform counselors, faculty, staff, and others in higher education on how to better understand and attend to the needs of diverse student bodies.

To participate in the study, you must be of Latino/Hispanic descent, 18 years of age, or older, and a currently enrolled student at OSU. The survey packet consists of a demographic questionnaire and several questionnaires aimed at gathering information about your ethnic identity and social support, for example, and will take approximately 30 minutes to complete. Participation in this study is entirely voluntary and anonymous. Upon completion of the questionnaires, you will have the opportunity to enter a raffle to win a $100 cash prize; an OSU e-mail is required. You will in no way be linked to your survey by entering the raffle. Once the raffle has been conducted, your contact information will be destroyed. REP participants are not eligible to enter the raffle as you will receive 1 hour credit.

We would appreciate your careful completion of the instruments and hope that you will respond to all the items. You may, however, choose not to respond to any particular item.

The information that is provided will be kept confidential. Only the researchers involved in this study will have access to the information that participants offer.

There is a question that asks for current GPA. If you are a first quarter freshman, or a transfer student, please use your high school GPA or your GPA from your previous institution.

Note that the completion of the electronic survey will be considered your consent for participation in this study.

We thank you for your participation.
Respectfully,

Veronica Orozco, M.A.  
Doctoral Student  
Department of Psychology  
The Ohio State University  
48 Psychology Building  
1835 Neil Avenue  
Columbus, OH 43210  
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orozco.10@osu.edu

Don Dell, Ph.D.  
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(614) 262-4714  
dell.1@osu.edu

Click “Next” to get started with the survey. If you’d like to leave the survey at any time, just click “Exit this survey”. Your answers will be saved.

Next >>
APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE
Thank you for filling out this survey that examines your thoughts about your educational experiences. Do not spend a lot of time on each question—respond with your first reaction. Please circle the most appropriate answer to each question and answer all the questions.

**Do not write your name on this survey!**

<table>
<thead>
<tr>
<th>Gender:</th>
<th>Age: __________</th>
<th>Marital Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Male</td>
<td>☐ Single  ☐ Divorced  ☐ Widowed</td>
<td></td>
</tr>
<tr>
<td>☐ Female</td>
<td>☐ Married  ☐ Separated</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class Standing:</th>
<th>Where do you live?</th>
<th>Are you a transfer student?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Freshman</td>
<td>☐ on-campus housing</td>
<td>If yes, from where? __________</td>
</tr>
<tr>
<td>☐ Sophomore</td>
<td>☐ off-campus housing with friends</td>
<td></td>
</tr>
<tr>
<td>☐ Junior</td>
<td>☐ off-campus housing with family</td>
<td></td>
</tr>
<tr>
<td>☐ Senior</td>
<td>☐ other __________________</td>
<td></td>
</tr>
<tr>
<td>☐ Graduate student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Professional student</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What degree are you currently working toward?
- ☐ Bachelor of Arts or Science
- ☐ Master of Arts, Master of Science, or other master’s
- ☐ MBA
- ☐ J.D (Law)
- ☐ M.D. (Medicine)
- ☐ Ph.D. or Ed.D.
- ☐ Other: __________________

What is the highest academic degree you expect to earn?
- ☐ Bachelor of Arts or Science
- ☐ Master of Arts, Master of Science, or other master’s
- ☐ MBA
- ☐ J.D (Law)
- ☐ M.D. (Medicine)
- ☐ Ph.D. or Ed.D.
- ☐ Other: __________________

Which College are you affiliated with?
- ☐ College of the Arts
- ☐ College of Biological Sciences
- ☐ College of Business
- ☐ College of Education
- ☐ College of Engineering
- ☐ College of Human Ecology
- ☐ College of Humanities
- ☐ College of Mathematical & Physical Sciences
- ☐ College of Social Work
- ☐ College of Social and Behavioral Sciences
- ☐ Undeclared

What is your race / ethnicity? (check one)
- ☐ Central-American
- ☐ Cuban-American
- ☐ Mexican-American/Chicano
- ☐ Puerto Rican-American
- ☐ South-American
- ☐ African American
- ☐ Asian American or Pacific Islander
- ☐ Caucasian
- ☐ Native American
- ☐ Multiracial __________________
- ☐ Other __________________
How do you finance your education? (check all that apply)
☐ Work part-time       ☐ Family       ☐ Scholarship
☐ Work full-time       ☐ Student loans     ☐ Personal savings

Have you been continuously enrolled since you began the degree you are currently working toward? _______________________

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

Did either or both of your parents attend college? ____________
Have any of your siblings attended college? ____________

What is your family income?
☐ Less than $10,000
☐ $10,000-$19,000
☐ $20,000-$29,000
☐ $30,000-$39,000
☐ $40,000-$49,000
☐ $50,000-$59,000
☐ $60,000-$69,000
☐ 70,000 & Above

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

I am confident that I will complete the degree that I am currently working toward
☐ Strongly Disagree     ☐ Strongly Agree
☐ Disagree              ☐ Agree
☐ Slightly Disagree     ☐ Slightly Agree
APPENDIX D

REVISED MULTIGROUP ETHNIC IDENTITY MEASURE

(Phinney, Baldelomar, Romero-Alfaro, 2005)
In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or *ethnic groups* that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

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

[See below, for response options.]

My ethnicity is
a. Asian or Asian American, including Chinese, Japanese, and others
b. Black or African American
c. Latino or Hispanic, including Mexican American, Central American, and others
d. White, Caucasian, Anglo, European American; not Hispanic
e. American Indian/Native American
f. Mixed; Parents are from two different groups
g. Other (write in): ________________________________________

My father’s ethnicity is ________________________
My mother’s ethnicity is _________________________

Circle the number that best applies.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have thought a lot about how my life will be affected by my ethnic group membership.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have a strong sense of belonging to my own ethnic group.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I understand pretty well what my ethnic group membership means.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have often done things that will help me understand my ethnic background better.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have sometimes wondered about the meaning or implications of my ethnicity.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have a lot of pride in my ethnic group.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I have often talked to other people in order to learn more about my ethnic group.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I feel a strong attachment towards my ethnic group.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I feel good about my cultural or ethnic background.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT

(Zimet, Dahlem, Zimet, & Farley, 1988)
Indicate your level of agreement by circling the number that best applies.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Neutral</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>N</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a special person who is around when I am in need.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>There is a special person with whom I can share my joys and sorrows.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>My family really tries to help me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get the emotional help and support I need from my family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have a special person who is a real source of comfort to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>My friends really try to help me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I can count on my friends when things go wrong.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I can talk about my problems with my family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have friends with whom I can share my joys and sorrows with.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>There is a special person in my life who cares about my feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>My family is willing to help me make decisions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I can talk about my problems with my friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX F

STUDENT COPING SCALE

(Struthers, Perry, Menec, Schonwetter, Hechter, Weinberg, & Hunter, 1995)
Imagine yourself doing poorly on a test at school. When you do poorly on an important test at the University, you typically...

<table>
<thead>
<tr>
<th>Extremely Uncharacteristic</th>
<th>EU</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Extremely Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think about how I may best handle the problem</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I make a plan of action</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I try to come up with a strategy about what to do</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I think hard about what steps to take</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I do what has to be done one step at a time</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I concentrate my efforts on doing something about it</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I think about the reasons why the situation occurred</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I take additional action to try to get rid of the problem</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I feel confident</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I feel competent</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I feel hopeful</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I feel motivated</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I buy a study guide</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I use my study guide</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I try a different study technique</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I discuss my feelings with someone</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I try to get emotional support from friends and family</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I talk to someone about how I feel</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I act as though it hasn’t happened</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I say to myself “this isn’t real”</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I refuse to believe that it happened</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I pretend that it hasn’t really happened</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I let my feelings out</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>I get upset and let my emotions out</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I feel a lot of emotional distress and I find myself expressing those feelings</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I get upset and am really aware of it</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>*I drop out of the class I’m doing poorly in</td>
<td>EU</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>EC</td>
</tr>
<tr>
<td>Item</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
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<td>----------------------------------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I skip class</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*I reduce the amount of effort I put into solving the problem</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*I give up trying to reach my goal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Items are reverse scored
APPENDIX G

UNIVERSITY ENVIRONMENT SCALE

(Gloria & Robinson Kurpius, 1996)
Indicate the extent to which you have experienced the feeling or situation at school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

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

*Items are reverse scored
APPENDIX H

CULTURAL CONGRUITY SCALE

(Gloria & Robinson Kurpius, 1996)
Indicate the extent to which you have experienced the feeling or situation at school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*Items are reverse scored*
APPENDIX I

CONNOR-DAVIDSON RESILIENCE SCALE

(Connor & Davidson, 2003)
Note. The Connor-Davidson Resilience Scale (CD-RISC) is copyrighted and can only be obtained through the authors.