

THESIS

EXPLORING THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND COLLEGE
COMMITMENT OF FIRST-GENERATION COLLEGE STUDENTS

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ABSTRACT

EXPLORING THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND COLLEGE COMMITMENT OF FIRST-GENERATION COLLEGE STUDENTS

This study sought to determine the relationship between social support and the commitment to college of first-generation college students (FGCS). Previous research shows that social supports can present differently between FGCS and non-FGCS (Dennis, Phinney, & Chuateco, 2005). This study used the adapted version of the Student Adaptation to College Questionnaire (Baker & Siryk, 1989) and the Social Provisions Scale (Cutrona & Russell, 1987). The researchers explored the relationship between social support and commitment to staying in college of FGCS. Participants ($N = 61$) were students at a large western university. Results indicated that there was a relationship between social support and commitment to college.

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DEFINITION OF TERMS

First-generation college students (FGCS). FGCS are defined by the National Center for Education Statistics (1998) as “students whose parents never enrolled in postsecondary education.” For the purpose of this study, FGCS are attending a four-year university. Additionally, in this study, the definition used is the same definition the university the study was conducted at defined FGCS. The definition for this study is, “a student whose parents did not complete a bachelor’s degree or higher” (Colorado State University, 2018).

Non-first-generation college students (non-FGCS). A non-FGCS is a college student attending a four-year university that has at least one parent that completed a bachelor’s degree.

Commitment to college. Commitment to college is a term used in the Student Adaptation to College Questionnaire (Baker & Siryk, 1989). The goal commitment-institutional attachment subscale is used to determine the degree of attachment to the institution the student is attending and their dedication to staying at that institution. When the term commitment to college is used, it is referring to the college student’s attachment to the university they are attending.

Social support. Social support is a broad term to describe how a person receives support. Social support can come from a person such as a friend, family member, romantic partner, counselor, etc. Social support can also come from an organization such as a church or club. In this literature review, the term social support will refer to this broad area of support. However, in the study, we will be using the Social Provisions Scale (SPS) (Cutrona & Russell, 1987) to measure six provisions of social support (attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance).

CHAPTER ONE: INTRODUCTION

In this study the researcher explored the relationship between social support and commitment to college of first-generation college students (FGCS) enrolled at four year universities in the United States.

Background of Study

The rate of first-generation college student's attending college has decreased as more people are obtaining college degrees. The rate of first-generation college students enrolling in college is still a sizable amount with about one-third of students enrolling in U.S. post-secondary institutions, it is important that university staff, administrators, student affairs professionals, etc. know how to best support their unique needs (National Center for Education Statistics, 2018). First-generation college students (FGCS) are students whose parent never earned a degree from a four-year institution. When comparing FGCS to non-FGCS, literature indicated that they experience unique strengths and challenges. FGCS do not complete college at the same rate as non-FGCS (Ishitani, 2006; Nunez & Cuccaro-Amamin, 1998). While, not all of FGCS are from ethnic minority backgrounds, 57.7% of Hispanic college students are FGCS and 20.4 % of African American college students are FGCS (Pryor, Hurtado, Saenz, Sanots, & Korn, 2007). It is important to examine ethnic minority college students as well when looking at FGCS. Of students who enroll in a four-year university, within four years 62.9% of White students complete their bachelor's degree, 40.8% of Black students, 52.5% of Hispanic students, and 49.6% of Pacific Islander students (National Center for Education Statistics, 2015). There is also a difference in degree completion among FGCS, Engle, Bermeo, and O'Brien (2006) suggests that 12% of FGCS complete their degree and 58% of non-FGCS, complete their degree.

One potential reason for the low graduation rates is because of FGCS' perceptions of themselves. Tate and colleagues, (2015) found that FGCS believed they lack the skills and knowledge to do well once they graduate because their parents did not go to college. They also found that FGCS thought they would be marginalized in future careers because of their first-generation status (Tate et al., 2015). Lowered self-perception and confidence in oneself could be potential reasons for low graduation rates.

It is also important to understand the motivation for attending college can provide insight into reasons why many FGCS leave college. Phinney, Dennis, and Osorio (2006) conducted a study to determine motivations for ethnic minority students ($N = 713$) to go to college. The researchers found that Asian-American, African-American, and Hispanic college students reported family motivations as the highest reason for going to college. Family motivations included: help their family, prove their worth, and make their family proud. Students who identified as Caucasian in the study would mention their family; however, it was not as high on their list as it was for ethnic minority college students (Phinney et al., 2006). Understanding student motivation for attending college, such as familial support and expectations, may be helpful in understanding why students decide to stay in college, or ultimately leave college.

If ethnic minority college students are motivated to go to college because of their family, it is important to explore what happens if they are not supported or do not feel supported by their family once in college. Dennis, Phinney, and Chuateco (2005) conducted a study to determine how social support (e.g., family support/resources and peer support/resources) contribute to academic outcomes of ethnic minority FGCS ($N = 100$). The study found that ethnic minority FGCS found their peers to offer them better support than their family. The ethnic minority FGCS reported that their families were able to provide them emotional support, however were unable to

provide them with instrumental support (e.g., financial and academic support) (Dennis et al., 2005). If ethnic minority FGCS are motivated to go to college because of their family, and do not feel supported by their family once in college, this could be one explanation for low retention rates of ethnic minority college students and FGCS. These findings have highlighted the need for future research to explore this idea further in how parental and peer support impact ethnic minority FGCS commitment to college.

Theoretical framework

The theoretical framework for understanding the relationship between the social support FGCS receive and college commitment can be grounded in Arthur Chickering's seven vectors to college identity (1979). In 1993, Chickering and Reisser revised Chickering's student identity development theory to adjust with the changing student body in college and focus more on the impact of race and gender within higher education. Chickering and Reisser's seven vectors are 1) developing competence, 2) managing emotions, 3) moving through autonomy, 4) developing mature interpersonal relationships, 5) establishing identity, 6) developing purpose, and 7) developing integrity. To address areas of need and to better understand FGCS experiences the researchers used the vectors: managing emotions and developing mature interpersonal relationships.

Purpose

The purpose of this study was to explore the relationships between social support and FGCS commitment to college. Learning more about these two different areas may provide more information about why FGCS have a lower commitment to college in comparison to non-FGCS. There is currently a lack of literature surrounding areas of support for FGCS. The researchers

hope to help close this gap of literature to better understand the role of support in FGCS experience.

Research Questions

This investigation is guided by the research questions, provided below.

Research Question One

What relationships exist between factors of social support and college commitment as reported by first-generation college students?

Research Question Two

Does first-generation college student's level of perceived social support predict their commitment to college?

Instrumentation

There are a total of two primary constructs in this investigation: (a) social support and (b) commitment to college. To answer the research questions, this quantitative investigation will use three instruments to investigate these constructs. (1) *Demographic Questionnaire* (DQ), (2) the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire* (SACQ) (Baker & Siryk, 1989), (3) the *Social Provisions Scale* (Cutrona & Russell, 1987).

Demographic Questionnaire. The demographic questionnaire was developed by the researcher to determine age, ethnicity, gender, first-generation status, and year in college.

SACQ. The SACQ (Baker & Siryk, 1989) measures student's adjustment to college. The questionnaire is a 67-item assessment composed of four subscales. For the purpose of this study, the researchers are only using the goal commitment-institutional attachment subscale (15-items). Total scores range from 67 to 603, with higher scores indication better adaptation to college. The

goal commitment-institutional attachment subscale which is used in this study, total scores for the subscale range from 15 to 135. The higher score of the subscale indicates that the student has higher attachment and commitment to college. For reliability the alpha coefficients are $\alpha = .85$ to $\alpha = .91$ for the goal commitment-institutional attachment subscale, and $\alpha = .92$ to $\alpha = .95$ for the full SACQ scale. Validity has been demonstrated by data indicating that the SACQ is significantly associated with commitment institutional attachment and attrition ($-.27$ to $-.41$, $p < .01$) (Baker & Siryk, 1989). Lastly, the reliability of the goal commitment-institutional attachment subscale of the SACQ was calculated from the current investigation and results indicated the scale had acceptable reliability ($\alpha = .87$) (Cohen, 1992).

Social Provisions Scale. The Social Provisions Scale (SPS) (Cutrona & Russell, 1987) is a 24-item scale that measures six relational provisions. The provisions were identified by Weiss (1974) as attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance. The questionnaire has two items that address each provision. The SPS has shown to be valid and reliable measures of social support for college students and adults, the author's found internal consistency at validation ($\alpha = .70$). In a more recent study using the SPS scale, conducted by Agtarap and colleagues (2017), internal reliability was $\alpha = .94$ and test-retest reliability for social support was $r = .42$ (Agtarap et al., 2017). The total scores can range from 24 to 96. Each subscale ranges from 4 to 16. A high score indicates that the individual is receiving high levels of social support. A high score for each provision indicates that the individual is receiving that provision. Lastly, the reliability of the SPS was calculated for the current investigation and results indicated the scale had acceptable reliability ($\alpha = .89$).

Population

The population of this study were students who are first-generation college students, meaning neither of their parents completed a four-year degree. Students were enrolled in a four-year university. Students were 18 years of age or older.

Data Collection Procedure

The investigation took place at a large university in the western region of the U.S. Students were recruited from various offices at the university that works directly with first-generation college students. Recruitment took place during the fall 2017 semester. The survey was administered online through Qualtrics. Prior to completing the survey, participants read an explanation of the study and electronically signed a consent form. All participant information was kept confidential and no identifying information from the participants, such as their name was collected.

Sampling and Procedures

The principal investigator of this study is an assistant professor at a large western U.S. university. The co-principal investigator is a Master's in Education student at a large western university. This study used a convenience sample due to accessibility of the population of the principal investigator and co-principal investigator. According to R statistical software, 55 participants were needed for adequate power, and this investigation had a total of 61 participants complete the survey. One way participants were recruited was through an email to an office on campus that works directly with FGCS. In order to gain a representative sample, the second way participants were also recruited was by newsletters and emails from two cultural centers on campus.

Data Analysis

To explore the first-research question a Pearson Product two-tailed correlation was used. A linear regression analysis was used to explore the second research question. A linear regression analysis is used to measure the predictive strength of one variable on the other. The term regression is used when the goal of the analysis is a prediction. Regression analyses reveal if there is a relationship among variables but do not imply a causal relationship (Tabachnick & Fidell, 2013). All of the data was analyzed using the *Statistical Package for Social Sciences* (SPSS, Version 25).

R is a free statistical software that was used to determine appropriate sample size. Given the one predictor (e.g., social support), an analysis was conducted using R, with the significance level at .05, desired power at .8, and effect size at .15. The R analysis reveal that the study required approximately 55 participants. The researcher's desired sample size was 100 participants. The final sample consisted of 61 participants, thus meeting adequate power.

Summary of Results

The purpose of this investigation was to explore the relationship between social support and commitment to college of first-generation college students. The results of this investigation contribute to a gap in the literature surrounding the role of social support for specifically FGCS. In order to analyze the two research questions, the following two statistical analyses were used (a) a Pearson Product two-tailed correlation, and (b) a linear regression. The first results from them Pearson Product two-tailed correlation revealed a significant relationship between factors of social support and factors of commitment to college. Secondly, the results from the linear regression indicated that social support significantly predicts commitment to college of the

participants included in the study. Lastly, a post-hoc stepwise regression found that two social provisions, social integration and reassurance of worth also predicted commitment to college.

Limitations

Limitations for this investigation are listed below:

1. The data collection instruments in the study were self-reports; therefore, participants may respond in a biased manner.
2. The sample for this study was a convenience sample. Since a random sample was not used, bias in the sample is a possibility.
3. Participants were subject to tester fatigue and loss of concentration while completing instrumentation.

Contribution of Study

The purpose of this investigation was to explore the relationship between social support and commitment to college of first-generation college students. The aim of this study was to highlight the role that social support plays on the college student experience of FGCS. University administrators may benefit from increasing programing that directly provides social support for FGCS. As well as having these programs connect students with counseling services as an additional form of social support. Overall, the results from this investigation contributes to a gap in the literature exploring the role of social support specifically for FGCS.

Chapter Summary

In summary, this chapter provided a background, purpose, and importance of the study. In addition, this chapter presented the gap in the literature and need for empirical investigations on social support of FGCS attending four-year universities. As well as provide an overview of the theoretical framework used for the study. Furthermore, an introduction into the methodology

and results of the study were discussed. In the following chapters, a deeper review of the literature, methodology, results, and discussion will be highlighted.

CHAPTER TWO: LITERATURE REVIEW

Among students that enroll in a four-year university, the graduation rate is significantly lower among underrepresented groups in higher education (Engle, Bermeo, & O'Brien, 2006). Underrepresented students are described as racial and ethnic minorities, economic, and sexual minorities who are underrepresented or underserved in higher education (Strayhorn, 2014). For the purpose of this investigation, the focus is on first generation college students. First-generation college students (FGCS) are defined as students from families where neither parent has completed a degree from a four-year institution (Pascarella, Pierson, Wolniak, & Terenzini, 2004).

Of students who enroll in a four-year university within six years, 62.9% of White students complete their bachelor's degree, 40.8% of Black students, and 52.5% of Hispanic students (National Center for Education Statistics, 2015). Traditionally Asian students have a higher graduation rate, however, when broken down into two categories, Asian and Pacific Islander, Pacific Islander student's six-year degree complete rate is 49.6, compared to Asian student's 70.5% (National Center for Education Statistics, 2015). There is also a difference in graduation rates among FGCS, with 12% of FGCS' completing their degree and 58% of non-FGCS completing their degree. There are many factors for the reason FGCS students are not graduating at the same rate as non-FGCS. In this review, a background to the general literature surrounding barriers of underrepresented undergraduate college students and areas of social support for underrepresented students who are FGCS will be provided. Specifically, this chapter will first discuss self-perceptions, then various barriers that underrepresented students face in higher education.

Self-Perception

As defined earlier, first-generation college students (FGCS) are students from families where neither parent has completed a degree from a four-year institution (Pascarella, Pierson, Wolniak, & Terenzini, 2004). According to Pryor, Hurtado, Saenz, Santos, and Korn (2007) 57.7% of Hispanic college students are FGCS and 20.4% of African Americans are FGCS. However, it is also important to note that not all first-generation college students are low-income or ethnic minorities. Additionally, while not all FGCS are ethnic minorities, ethnic minority students do make up a large population of FGCS and thus, critical to understanding how FGCS perceive themselves and their success while in college. Therefore, this literature review will provide an overview of both first generation students and ethnic minority college students, since they comprise a large portion of FGCS.

The term “self-perception” was described by Cooley, that the self is constructed from what an individual imagines others think about them (2001). Understanding the self-perception of FGCS is important in learning about how FGCS perceive their experiences in college. Tate and colleagues (2015) conducted a study to determine how FGCS perceive themselves in higher education. College students participated ($N = 15$) in a focus group at a southeastern university. The participants were students who are FGCS ($n = 10$ women, $n = 5$ men; $n = 6$ European American, $n = 5$ African American/Black, $n = 3$ Hispanic/Latino, and $n = 1$ Asian American). The data was analyzed using an adapted version of consensual qualitative research (CQR). The CQR is a philosophical notion used to analyze qualitative data through finding a consensus on interpretations of data. There were many themes that emerged through the focus groups including family influences, lack of professional/career network, lack of understanding the career development process, and awareness of self-concept. More specifically, results highlighted that

FGCS also believe they lack the skills and knowledge to do well once they graduate, since their parents did not go to college. The participants noted that they lacked the professional network in comparison to their peers that are non-FGCS. They also believed that they would be marginalized in their future career fields because they were a FGCS. In addition to lack of support, they did discuss strengths they believe they had due to their first-generation status. Since their parent did not go to college, participants felt that they were more persistent, motivated, appreciative, self-reliant, responsible, and adaptable because of their first-generation status (Tate et al., 2015). Overall, results indicated that FGCS perceive themselves to have barriers that non-FGCS do not have, while having unique strengths that help them through college.

College Motivation

Gaining insight in the motivation as to why ethnic minority students go to college is also helpful in understanding their drive and commitment to attending and remaining in higher education. Phinney, Dennis, and Osorio (2006) conducted a study to determine motivations for ethnic minority students to attend college. The researchers used the *Student Motivation for Attending University-Revised* (Cote & Levine, 1997) to measure five reasons for attending college: career-materialism, personal-intellectual, humanitarian, expectation-driven, and default. Family interdependence was measured using a scale developed by Phinney. Ethnic identity was measured using the *Multigroup Ethnic Identity Measures* (Roberts et al., 1999). College self-efficacy was measured using an instrument developed for this study by the researchers of this study. Confidence in attaining degree goals was measured through one question. Lastly, commitment to college was measured using a scale also developed by the researchers from a focus group. Researchers surveyed university freshman at a predominantly ethnic minority university in southern California ($N = 713$). The results were analyzed in a variety of ways, first

with a descriptive analyses of ethnic differences. Then correlations were calculated on reasons for attending college and cultural factors and socioeconomic status. Next, regression analysis was used to investigate the effects of socioeconomic status (SES) and ethnicity on reasons for attending college and to examine ethnic identity and family interdependence. Lastly, correlations were calculated among the reasons for attending college and three academic adjustment variables. Results from the correlations among reasons for attending college found that ethnic identity was positively associated with career/personal ($r = .23, p < .001$), humanitarian ($r = .28, p < .001$), encouragement ($r = .29, p < .001$), and prove worth motivation ($r = .23, p < .001$). Results from the hierarchical multiple regression analysis indicated that family motivations are reported as the highest reason for going to college (2006). Additionally, the regression results from each ethnic group were: Asian-Americans (help family: $\beta = .45, p < .01$; prove worth: $\beta = .38, p < .01$), African-Americans (help family: $\beta = .31, p < .01$; prove worth: $\beta = .24, p < .01$) and Hispanic college students (help family: $\beta = .47, p < .01$; prove worth: $\beta = .49, p < .01$). These results suggest that there are various reasons for going to college, such as to help their family, prove their worth, and make their family proud. As reported in the study, Caucasian students would mention their family in reasons for going to college, however it was not as statistically significant as it was for ethnically diverse students (Phinney, Dennis & Osorio, 2006). Results from the Phinney et al. (2006) study highlight the role of college motivations on ethnic minority college students, and how their potential family motivation impacts them while in college.

Moreover, in the same study done by Phinney, Dennis and Osorio (2006) results from the hierarchical multiple regression analysis found that the cultural value of family interdependence was a positive predictor for reasons to attend college ($R^2(3,699) = .01, p < .05$). Family interdependence is closely related to a collectivistic culture. Many ethnic groups also come from

collectivistic cultures that place a high value on interdependence. Students coming from collectivistic cultures may also struggle with assimilating into the individualistic culture of college. The lack of perceived parental support and individualistic culture could be one reason for the low retention rate among ethnic minority students (Phinney, Dennis & Osorio, 2006).

Social Support

As the previous section on college motivation demonstrated, parental support may play a role in FGCS's motivation to stay in college. Examining the role of social support, whether the student receives support from parents, friends, university staff, or organizations on campus may provide insight into the role social support plays in college commitment of FGCS. Parental support is a factor that can be important for the success of students in college. Melendez and Melendez (2010) identified parental support to include, but is not limited to: understanding, sensitivity, availability, acceptance and financial support.

Melendez and Melendez (2010) were interested in studying parental attachment and the effect of college adjustment among White, Black and Latina/Hispanic women attending an urban commuter college. Attachment was measured using the *Parental Attachment Questionnaire* (PAQ1; Kenny, 1987), and adjustment to college was measured using the *Student Adaptation to College Questionnaire* (SACQ; Baker & Siryk, 1989). Results were analyzed using an intercorrelation matrix, and MANOVA, and a series of stepwise multiple regression analyses. Results from the intercorrelation found that the three parental attachment scales revealed significant intercorrelations for the total group (r ranging from .233 to .622 and p ranging from $< .03$ to $< .001$). The correlation results also indicated for the White student subgroups, there was a moderate correlation between the PAQ1 and academic adjustment subscale ($r = .44, p < .03$). For the Black participants, the PAQ1 was significantly correlated with the academic adjustment ($r =$

.44, $p < .01$) and personal-emotional adjustment ($r = .52, p < .01$) subscales of the SACQ. Lastly, for the Latina/Hispanic participants, the parental support scale significantly correlated with institutional attachment ($r = .40, p < .01$). The results from this study indicate that ethnic minority students may face discontinuity between their family and college values and expectations. This can make the demands of college more stressful for them, when compared to their White peers.

In order to understand who Latino students and FGCS turn to for support, Rodriguez, Mira, Myers, Morris, and Cardoza (2003) surveyed Latino college students ($N = 338$) at a predominantly Latino college in the southwestern United States. The instruments used were the *Multidimensional Acculturation Scale* (Rodriguez et al., 2000), *College Stress Scale* (Rodriguez et al., 2000), *Minority Student Stress Scale* (Smedley et al., 1993), *Acculturative Stress Inventory* (Rodriguez et al., 2000), *Perceived Social Support from Family and Friends Scales* (Procidano & Heller, 1983), two subscales from the National Center for Health Statistics' *General Well-Being Schedule* (Dupuy, 1984), and the *Brief Symptom Inventory* (Derogatis, 19993). Results from a hierarchical regression analysis indicated that college students with higher perceived parental support, can better manage the academic and psychological distress that occurs while in college ($F(2, 324) = 13.9, p < .001$). Authors also found that Latino students are more likely to turn to their friends ($M = 3.81, SD = .66$) for support over their family ($M = 3.64, SD = .74$) during college (Rodriguez et al., 2003). While this study only looked at Latino college students, it is helpful to gain insight on the support of one ethnic group in college. One hypothesis is that Latino students in this investigation may not be turning to their parents for support because they do not feel supported or because they do not think their parents know what they are going through since their parents did not go to college. If Latinos are more likely to turn to their peers

for support, it is important to learn more about what happens if they do not have a peer group, and what areas of other resources they would be willing to turn to for support.

Dennis, Phinney, and Chuateco (2005) were interested in learning more about motivational characteristics and social support in ethnic minority FGCS. Dennis and colleagues (2005) conducted a study to determine how motivational characteristics (e.g., family expectation motivations and personal/career motivation) and environmental social supports (e.g., family support/resources and peer support/resources) contribute to academic outcomes of ethnic minority FGCS. This was a longitudinal study of 100 ethnic minority FGCS at an ethnically diverse urban commuter university on the west coast. Multiple regression analyses were used, while controlling for ethnicity, socioeconomic status (SES), gender, and high school GPA. The results found that peer support contributes more to college grades and adjustment than familial support. First-generation ethnic minority students find their peers to offer them better support than their family ($F(10, 73) = 4.70$, $\beta = .38$, $p < .01$). Results from the correlation indicated there was a higher correlations of peer ($r = -.40$, $p < .01$) and family resource ($r = -.37$, $p < .01$) with college outcomes than there was with perception of family ($r = .12$, $p > .05$) and peer ($r = .23$, $p < .05$) support when dealing with academic problems in college. In addition, many students self-reported that their family provided them with emotional support, however they were unable to provide instrumental/quantitative support (e.g., academic support, financial resources, et.). Dennis and colleagues (2005) stress the importance of programs that promote study groups, peer mentoring, or peer groups that can provide support to help mediate the stressors of college. This is especially true among underrepresented groups where struggles (e.g. assimilation, minority status stressors, financial hardships, lack of familial support etc.) may be intensified.

The uncertainties within the college experience can be a stressor for many students. However, ethnic minority students may experience additional stressors such as racism, discrimination, external pressures from ethnic groups, concerns over parental/family expectations, insensitive comments and questioning of belonging on a college campus (Smedley, Myers, & Harrell, 1993). The stressors unique to ethnic minorities are referred to as minority status stress and can impact mental health and college outcomes (Cokley, McCain, Enciso, & Martinez, 2013).

It is beneficial to better understand how minority status stress influences ethnic minority college students. Cokley and colleagues (2013) conducted a study on how minority status stress and imposter feelings impact mental health in ethnic minority college students. They surveyed ethnic minority college students ($N = 24$) at a large southwestern university. Minority status stresses were measured using the *Minority Student Stress Scale* (Smedley et al., 1993). Impostor feelings were measured using the *Clance Imposter Phenomenon Scale* (Clance, 1985). Mental health was measured using the *Mental Health Inventory* (Veit & Ware, 1983).

The data was analyzed using a MANOVA, ANOVA, and two hierarchical regressions. The imposter phenomenon is a belief that a person views themselves as an intellectual “fraud” and are reluctant to ascribe their success to intrinsic skill or intelligence (Clance, 1985). African American, Asian American, and Latino/a American students were also surveyed. Results from the descriptive statistics indicated that African American ($M = 3.24$, $SD = .98$, $\alpha = .94$) students reported higher minority status stress than Asian American ($M = 2.66$, $SD = .88$, $\alpha = .94$) and Latino/a American students ($M = 2.59$, $SD = .99$, $\alpha = .96$). This is consistent with literature that suggests African American students struggle more with racial integration and experience more negative racial stereotypes than other ethnic minorities (Cokley et al., 2013). The results also

suggested that Asian American ($M = 3.09$, $SD = 0.65$, $\alpha = .92$) students experienced higher level of imposter feelings than African-American ($M = 2.56$, $SD = .071$, $\alpha = .92$) and Latino/a American ($M = 2.80$, $SD = 0.72$, $\alpha = .93$) students. When looking at mental health outcomes, minority status stress was found to be a significant negative predictor ($\beta = -.30$, $p < .001$), but did not predict psychological well-being. However, imposter feelings predicted both psychological distress and well-being ($\beta = -.18$, $p < .01$) (Cokley et al., 2013).

Understanding how minority status stress impacts psychological well-being is also crucial to learning about struggles that ethnic minority students face and how it impacts their success while in college. Rodriguez, Myers, Morris, and Cardoza (2000) were interested in studying how minority status stress and acculturative stress impact psychological maladjustment of Latino college students. Acculturative stress is stress that originates through the process of acculturation (Rodriguez, 2000). They surveyed Latino college students from a predominantly Latino university ($N = 338$). Level of acculturation was assessed using the *Multidimensional Acculturation Scale* which was developed for this study using former acculturation scales, generic college stress was measured by the *College Stress Scale* which was also developed by the researchers for this study, minority status stress was assessed using the *Minority Student Stress Scale* (Smedley et al., 1993), acculturative stress was measured by the *Acculturative Stress Inventory* which was developed by the researchers for this study, and psychological well-being was assessed using the *General Well-Being Schedule* (Dupuy, 1974) and the *Brief Symptoms Inventory* (Derogatis, 1993). The results were analyzed with two multiple regressions, controlling for gender, socioeconomic level, acculturation level, and stresses. Their findings suggest that Latino students, even while at a university where Latino students make up the majority of the campus, experience typical college demands but also stresses unique to Latino

students. The results found that acculturative stress ($F(21, 316) = 5.45, P < .01$), especially stress from family conflicts ($F(18, 319) = 5.25, p < .01$), was predictive of distress and negatively related to well-being ($F(21, 316) = 6.85, p < .001$) (Rodriguez et al., 2000). This study is helpful in understanding the role that family stress has on Latino college students. In addition, there is a need to further study familial support on ethnic minority college students and how it relates to college retention and psychological well-being.

Jenkins, Belanger, Connally, Boals, and Duron (2013) were interested in comparing the stress reactions, use of social support, and well-being in FGCS and non-FGCS. They hypothesized that because FGCS often come from low SES families, they are exposed to more traumatic events such as living in a high violence neighborhood and could have developed PTSD symptoms. The participants were undergraduate students from a large state-supported southwestern university. There were a total of 1,647 participants, with more women ($n = 1,084$) than men ($n = 563$). The sample of FGCS was ($n = 368$) Additionally, 63% of the population was self-identified in the study as Caucasian, 14% was African American, 6% was Hispanic, and 4% identified as “other” ethnicity. The measures in the study used were the *Multidimensional Scale of Perceived Social Support* (Zimet, Hahlem, Zimet, & Farley, 1988), the *Traumatic Events Questionnaire* (Vrana & Lauterbach, 1994), the *PTSD Checklist-Specific* (PCL-S; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996), the *Quick Inventory of Depressive Symptoms- Self Report* (Rush et al., 2003), and the *Quality of Life Enjoyment and Satisfaction Questionnaire* (Endicott, Nee, Harrison, & Blumenthal, 1993). The data was analyzed using a chi-square analysis, a correlation, and a MANOVA. The results from the MANOVA indicated that FGCS experienced significantly less support from family when compared to their non-FGCS peers ($F(1, 1642) = 14.90, p < .001$). They also experienced less support from friends ($F(1,$

1642) = 5.05, $p = .02$). However, their support from significant others had no difference. As hypothesized, FGCS reported significantly stronger PTSD symptoms ($F(1, 1642) = 10.07, p = .001$) than non-FGCS. FGCS also reported significantly less life satisfaction ($F(1, 1642) = 4.56, p = .03$). However, FGCS did not report significantly stronger depression symptoms ($F(1, 1642) = 3.13, p = .08$). This study is unique in that its sample includes both FGCS and non-FGCS. The results indicate that FGCS indicate less support from family and friends. FGCS also experience higher level of PTSD symptoms and are have less life satisfaction (Belanger et al., 2013). This study is helpful in better understanding the experiences of a FGCS in comparison to a non-FGCS. In order to better understand the development of college students, Chickering and Reisser's seven vectors of student identity development theory will be discussed here in detail.

Theoretical Framework

The theoretical framework for understanding the relationship between the social support FGCS receive and commitment to college can be grounded in Arthur Chickering's seven vectors to college student identity (1979). Chickering based his work off Erick Erikson's lifespan approach. Chickering's approach differed from Erickson's because he focused on vectors that were built on one another but were not linear or mutually exclusive. Chickering's original seven vectors were 1) developing competence, 2) managing emotions, 3) developing autonomy, 4) establishing identity, 5) freeing interpersonal relationships, 6) developing purpose, and 7) developing integrity (1969). In 1979, Chickering furthered his work on the seven vectors to apply it to student identity development theory. In 1993, Chickering and Reisser revised Chickering's student identity development theory to focus more on different dimensions of identity such as race and gender and to apply to the changing student body in college.

The first vector is developing competence. While in college, there are three different types of competence; intellectual competence, physical and manual skills, and interpersonal competence. Intellectual competence is the idea of using one's mind. Physical and manual skills involve athletic and artistic achievement, such as making products or gaining strength. Lastly, interpersonal competence is a variety of skills such as listening, cooperating communicating with others to develop a group relationship (Chickering & Reisser, 1993).

The second vector is managing emotions. While in college, students may experience many different emotions. They can range from anger, fear, depression, guilt, sympathy, wonder, awe, etc. In this vector students acknowledge and become aware of these emotions. Students must get in touch with these emotions and learn to balance them (Chickering & Reisser, 1993).

The third stage is moving through autonomy toward interdependence. In this stage, students take responsibility for pursuing goals and are less reliant on other's opinions. Through this stage the student needs to move through both emotional and instrumental independence and recognition and acceptance of interdependence. During the emotional independence process, the student no longer needs approval from parents, and peers on institutional and occupational choices. Instrumental independence means the student can organize activities and solve problems in a self-directed manner. The desire to be independent, while wanting to be included becomes balanced (Chickering & Reisser, 1993).

The fourth stage is developing mature interpersonal relationships. An important aspect of this vector is tolerance and appreciation of differences. This involves respecting differences, not making automatic stereotypes or biases, being curious and open to others and enjoying diversity. The second important aspect is the capacity for healthy intimacy. In adolescent relationships, there is often high levels of narcissism. In mature relationships there is honesty, responsiveness

and unconditional regard. In developing mature interpersonal relationships there is more in-depth sharing, acceptance of each other's flaws and appreciation of differences. These relationships are long-lasting and can endure hardships such as distance or crises (Chickering & Reisser, 1993).

The fifth stage is establishing identity. Identity formation depends heavily on the previous four vectors. Establishing identity includes many different aspects. Reflecting on one's family origins and ethnic heritage, religion, culture, or historical context helps to develop a sense of identity. Other factors are becoming comfortable with your appearance, gender, and sexual orientation. Another is clarification of self-concept through roles, as well as self-acceptance. College students are often concerned with appearance, however by graduation there is generally little exploration with appearance (Chickering & Reisser, 1993).

The sixth stage is developing purpose. In this vector, students clarify goals and interests and make plans about their future. Students develop vocational plans which is defined as paid or unpaid work. Often, these vocational plans stem from personal interests that help add meaning and value to one's life. The last area in developing purpose is interpersonal and family commitments. Students consider life-styles and family into their equation. During this vector, students develop a plan that includes and balances vocation, personal interests and life-style (Chickering & Reisser, 1993).

The final vector is developing integrity. There are three stages of developing integrity. The first is humanizing values, which involves the shifting from literal beliefs to a more relative view. Students balance their own self-interest with those of others. Students come to college with a large amount of assumptions and values. During college they begin to humanize these values and beliefs. The second stage is personalizing values and that occurs when the student affirms their core beliefs, leave out old beliefs, and respect other's beliefs. The last stage is developing

congruence. In this stage the student matches personal values with society and there is little internal debate. These seven vectors help to understand the identity development of college students (Chickering & Reisser, 1993).

For the purpose of this study the researchers will specifically explore two vectors from Chickering and Reisser's theory as a framework for the current study. The two vectors that will be used for this investigation are (a) managing emotions (stress and anxiety of FGCS), and (b) developing mature interpersonal relationships (social support of FGCS). These two specific vectors provide a framework for the present study and addressing areas that FGCS lack and need.

Empirical Evidence Supporting Theory

Chickering and Reisser's theory has been used widely within higher education since the second version was published in 1993. Additionally, there is research to support the use of the seven vectors of student identity development theory. Foubert, Nixon, Sisson, and Barnes (2005) conducted a large-scale assessment at a midsized public university in the Southeast. This was a four-year longitudinal study analyzing students' development along with Chickering and Reisser's seven vectors over the course of their college careers. All participants ($N = 247$) were traditionally aged college students (18 to 22) and more women ($n = 169$) completed the survey than men ($n = 105$). The majority of participants were Caucasian (79%), Asian American/Pacific Islander (11%), African American/Black (7%), and Hispanic/Latino/"other" students (3%). *The Student Development Task and Lifestyle Inventory* (SDTLI) is an instrument development based on Chickering's and Reisser's theory. The questionnaire has items used to measure each seven vectors of the theory.

The results were analyzed using a repeated measures MANOVA. An eta statistic was computed to determine the effect size of the developmental change. Univariate analyses for each

variable was also calculated. Results indicated there was partial validity of Chickering and Reisser's theory. Students in this study advanced in their development throughout their college experience in developing purpose ($F(2, 388) = 221.62, p < .001$), mature interpersonal relationships ($F(2, 388) = 12.20, p < .001$), academic autonomy ($F(2, 388) = 24.29, p < .001$), and tolerance ($F(2, 388) = 2.96, p = .053$). This study also indicated that the sequence these students progressed were different from the sequence Chickering and Reisser suggested. It is important to note that in Chickering and Reisser's latest update (1993), they note that the vectors are not linear or mutually exclusive. They may often be linear, however, that is not always the case. This idea was further validated by Foubert and colleagues (2005) in their study. This study reinforced the importance of college student development and promoting student growth in many areas such as the ones discussed by Chickering and Reisser. Overall, Chickering and Reisser's theory is one of the most prominent and widely used theories within college student development (Melendez & Melendez, 2010; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008)

CHAPTER THREE: METHODOLOGY

Chapter Three presents the research design, methods, and procedures for the study. The purpose of this study was to investigate the relationships between social support and commitment to college of first-generation college students. Social support was measured by the *Social Provisions Scale* (Cutrona & Russell, 1987) and commitment to college was measured by the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire* (Baker & Siryk, 1989).

The study utilized a descriptive, correlational research design (Gall et al., 2007) in order to understand the relationship between social support and commitment to college. The purpose of this chapter is to describe the research methodology for the investigation, including: (a) population and sampling, (b) data collection procedures, (c) instrumentation, (d) research design, (e) research questions, (f) data analysis, (g) ethical considerations, and (h) study limitations.

Population and Sampling

The co-principal investigator of this study was a Master's in Education student from a large western university. This study used a convenience sample due to accessibility of the population to the co-principal investigator. A convenience sample refers to when the researcher has a sample readily available (Tabachnick & Fidell, 2013). The co-principal investigator worked for an office at the university that serves FGCS thus making the sample a convenience sample. The principal investigator also works as a professor at the same university. The population for this study included undergraduate college students who were enrolled at a large public western university and are over the age of 18.

Cohen (1992) suggests a significance at the .05 alpha level and an adequate power of .80 necessary, therefore these were the desired alpha level and power for this investigation. R free statistical software was used to determine appropriate sample size. Given the parameters of the linear regression in this investigation (i.e., one predictor variable: social support), an analysis using R was conducted with the significance level at .05, desired power at .8, and effect size at .15 was used to determine power (Cohen, 1992). The R analysis revealed the study required a total sample size of 55 participants. Therefore, we targeted 100 students for adequate sample size and power. A total of 95 participants started the survey. A total of 61 participants completed the full survey, and 34 participants did not complete more than 25% of the survey and were not included in the study. The majority of participants who did not complete the survey only completed the consent page ($n = 24$), some participants only completed the first SPS assessment ($n = 9$), the furthest one person made it was through the SPS assessment and the first two items of the SACQ. Of the 34 participants who did not complete the survey, the furthest one person made it was 25% of the way through the entire assessment, therefore all 34 of participants were removed from the study. Since the 34 participants did not complete in full both assessments, and the data from the assessments were critical to the study, Tabachnick and Fidell (2013) suggest dropping the missing values.

Outliers were screened for among the two constructions. An exploration of the box plot for the SACQ goal commitment-institutional attachment subscale score indicated one extreme outlier. The mean including the outlier for the SACQ is ($M = 99.46$). The 5% Trimmed Mean is when the mean is calculated excluding the top and bottom 5% of cases in the data set and recalculates a new mean value. This is used to determine if the extreme scores have a strong influence on the mean (Pallant, 2010). The 5% Trimmed Mean for the SACQ goal commitment-

institutional attachment subscale was 100.31. Since the two mean values are very similar, the researchers chose to retain the outlier in the analysis (Pallant, 2010).

Data Collection Procedures

The investigation took place at a large university in the western region of the U.S. Recruitment took place during the fall semester from October 12th, 2017 until December 12th, 2017. The survey was administered online through Qualtrics. The survey was sent out a total of eight times, twice to three different scholarship groups, and once in newsletters to two different cultural centers. When collecting data through questionnaires, Gall et al. (2007) recommends that follow up letters and requests are beneficial in increasing participation. Therefore, when the investigators had the option to send the survey out more than once, it was sent out two times. Each of these groups and organizations were at the same university where the principal investigators worked. Prior to completing the survey, the students read an explanation of the study and signed an electronic consent form.

Participants were recruited in a variety of ways from the university the co-principal investigator works at. Permission was obtained from the directors of all of the offices that work with these students. The survey was sent out in an email to students who belong to an office that works directly with FGCS. In order to gain a representative sample, participants were also recruited from the cultural centers on campus. Two cultural centers advertised for the survey through their weekly newsletter. Attempts were made by the researcher to gain permission to recruit from all student cultural centers, however, only two offices consented to this study.

Instrumentation

There are a total of two primary constructs in this investigation: (a) social support and (b) commitment to college. This quantitative investigation used three assessments to investigate

these constructs: (1) *Demographics Questionnaire*; (2) the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire* (SACQ) (Baker & Siryk, 1989); and (3) the *Social Provisions Scale* (Cutrona & Russell, 1987).

Demographic Questionnaire

A demographic questionnaire was developed by the researcher to determine age, ethnicity, gender, first-generation status, year in college, and if they live in a college dormitory. The participants were also offered an opportunity to describe their social support and provide any additional comments.

Student Adaptation to College Questionnaire

The SACQ (Baker & Siryk, 1989) measures student's adjustment to college. The questionnaire is a 67 item assessment composed of four subscales. The four subscales are academic adjustment (24-items), social adjustment (20-items), personal-emotional adjustment (15-items), and goal commitment-institutional attachment (15-items). For the purpose of this study, the researchers only used the goal commitment-institutional attachment subscale (15-items). The goal commitment-institutional attachment subscale is used to measure how likely students are to stay in college in general and at the particular institution they are currently enrolled in (Baker & Siryk, 1989). An example item is "I expect to stay at this college for a bachelor's degree." Scores are rated on a 9-point Likert scale (1= "doesn't apply to me at all" to 9= "applies very closely to me"). The goal commitment-institutional attachment subscale has two subscales, "this college" and "college in general." The "this college" subscale measures how committed participants feel to the institution they are currently attending. The "college in general" subscale measures how committed the participant is to college in general. Total score from the SACQ range from 67 to 603, a higher score indicates higher adaptation to college. The

total scores for the goal commitment-institutional attachment subscale range from 15 to 135, with higher scores indicating better attachment to the university and college in general.

Baker and Siryk (1989) found reliability in the SACQ. For reliability, they reported the alpha coefficients are $\alpha = .92$ to $\alpha = .95$ for the full scale and $\alpha = .85$ to $\alpha = .91$ for the goal commitment-institutional attachment subscale. Validity has been demonstrated by data indicating that the SACQ is significantly associated with commitment institutional attachment and attrition ($-.27$ to $-.41$, $p < .01$) (Baker & Siryk, 1989). Validity has also been demonstrated for the two subscales within the goal commitment-institutional attachment subscale. The “this college” subscale alpha coefficient is $\alpha = .87$, and the alpha coefficient of the “college in general” subscale is $\alpha = .82$ (Bowman & Felix, 2017).

Additionally, in another study conducted by Baker and Siryk (1983), data was collected from two small, private, predominately White institutions in the northeast United States. The researchers completed a study on college students. in their first semester of college ($N = 250$) at Clark University, the university the assessment was initially normed at. The full scale score was ($M = 441.8$, $SD = 70.5$), the academic adjustment score was ($M = 153.1$, $SD = 27.3$), social adjustment mean was ($M = 133.8$, $SD = 26.5$), personal-emotional adjustment mean was ($M = 94.0$, $SD = 20.8$), and the goal commitment-institutional attachment mean was ($M = 108.8$, $SD = 20.2$).

Social Provisions Scale

The Social Provisions Scale (SPS) (Cutrona & Russell, 1987) is a 24-item scale that measures six relational provisions that will be used to measure social support. The provisions were identified by Weiss (1974) as attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance. Weiss (1974) describes that all six provisions

are necessary for individuals to feel supported and some may be needed more at different stages of life. Each provision is often received from a relationship, but multiple provisions may be received from the same person. The attachment provision is received from emotional closeness and security from another person. The social integration provision is the feeling of belonging to a group that shares similar interests and concerns. The reassurance of worth is when someone recognizes the individual's competence, skills and value. The guidance provision is related to the advice or information they receive from others. The opportunity of nurturance provisions is the feeling that others rely on them for their well-being. The reliable alliance provision is the tangible assistance that the participant can count on someone for.

The questionnaire has four items that address each provision (e.g., There is someone I could talk about important decisions in my life). The SPS has shown to be valid and reliable measures of social support for college students and adults, the authors found internal consistency and validation ($\alpha > .70$; Cutrona & Russell, 1987). Participants answered each question from a four-point scale (1= "*strongly disagree*", to 4= "*strongly agree*"). The total scores can range from 24 to 96. Each subscale score ranges from 4 to 16. A high score on the full scale indicates that the individual is receiving high levels of social support. A high score for each provision indicates that the individual is receiving that provision. There are a total of six subscales, each has four questions. The subscales include two positively worded questions and two negatively worded questions. For example, a Social Provisions Scale item states "I have close relationships that provide me with a sense of emotional security and well-being."

Cutrona and Russell (1987) conducted a meta-analysis from three studies they did on a variety of populations. The populations include college students from introductory psychology courses ($n = 1,138$), public school teachers ($n = 303$), and nurses from a military hospital ($n =$

306) making up a total sample of 1,792 respondents. The mean score for the total scale was 82.45 ($SD = 9.89$). The six subscale mean scores were: attachment ($M = 13.72$; $SD = 2.42$; $\alpha = .747$) social integration ($M = 14.01$; $SD = 1.90$; $\alpha = .673$), reassurance of worth ($M = 13.29$; $SD = 2.02$; $\alpha = .665$), reliable alliance ($M = 14.43$; $SD = 1.91$; $\alpha = .653$), guidance ($M = 14.18$; $SD = 2.23$; $\alpha = .760$), and opportunity for nurturance ($M = 82.45$; $SD = 9.89$; $\alpha = .915$).

In a more recent study conducted by Agtarap and colleagues (2017), found internal reliability was $\alpha = .94$ and test-retest reliability for social support was $r = .42$ (Agtarap et al., 2017). Participants ($N = 130$) were people who recently had a traumatic injury. The participants completed the survey for a baseline score, and then again twelve months after the injury. At baseline, the mean score for overall social support was 81.56 ($SD = 10.95$). The six subscale mean scores were: attachment ($M = 13.43$, $SD = 2.37$), social integration ($M = 13.48$, $SD = 2.20$), reassurance of worth ($M = 13.27$, $SD = 2.31$), reliable alliance ($M = 14.28$, $SD = 2.12$), guidance ($M = 14.03$, $SD = 2.12$), and nurturance ($M = 13.05$, $SD = 2.41$). Thus, the SPS has been found to be reliable and used in many studies to measure social support in a variety of settings, including college students.

Research Design

A correlational research design will be used to examine the research question. Correlational research design was used to determine if there is a low, moderate, or high relationship between variables (Gall, Gall, & Borg, 2007). Correlational research design is used when researchers want to explore the relationship between different variables at the same point in time (Gall et al., 2007). The study aims to explore the relationship between social support and commitment to college in first-generation college students (FGCS).

Research Questions

The purpose of this research investigation was to explore the relationship between social support and commitment to college of first-generation college students.

Research Question One

What relationships exist between factors of social support and college commitment as reported by first-generation college students?

Research Question Two

Does first-generation college student's level of perceived social support predict their commitment to college?

Threats to Validity

Addressing Construct Validity

Construct validity refers to when a measure correctly measures the concepts being studied (Gall et al., 2007). To support the construct validity of this investigation, reliability of each measurement was analyzed.

Addressing Internal Validity

Internal validity is when the researcher controls extraneous variables, so that the observed effects can be attributed to the treatment variable (Gall et al., 2007). Potential threats to internal validity of this investigation will be discussed: (a) testing fatigue, and (b) instrumentation.

Testing fatigue. Testing fatigue refers to the threat that participants may alter their responses due to tester fatigue (e.g., getting tired); (Gall et al., 2007). Therefore, the researchers chose subscales of full instruments and short scales if possible, to minimize the time it took to complete the assessment. According to Qualtrics, this survey took approximately five minutes to complete.

Instrumentation. A common threat to internal validity is the possibility that the measurement chosen does not measure that construct (Gall et al., 2007). The researchers chose instruments that have been reviewed for construct validity and have been used with similar populations and environments in order to minimize threats to instrumentation validity.

Addressing External Validity

External validity is when the results of the study can be generalized to individuals or populations beyond those used in the study. Common types of external validity within correlational research are population validity and ecological validity.

Population validity. Population validity refers to when the results from the investigation can be generalized from the sample to a large group (Gall et al., 2007). In order to maintain population validity, the researchers generalized findings within first-generation college students, who are attending a university with similar characteristics.

Ecological validity. Ecological validity refers to when the results from the investigation can be generalized to an environment outside of the environment it was studied in (Gall et al., 2007). In order to maintain ecological validity, the researchers generalized findings within the context of four year colleges.

Data Analysis

Data was analyzed using the statistical software SPSS Version 25. To explore research question one, a Pearson-product correlation two-tailed was used to explore the relationship between social support (as measured by the *Social Provisions Scale*) and commitment to college (as measured by the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire*). A correlation was also used to explore the six SPS

subscales in relation to commitment to college. A correlation analysis is used to describe the strength and direction of the linear relationship between variables (Pallant, 2010)

To explore the second research questions a standard linear regression analysis was used. A linear regression analysis is used to assess the relationship between one dependent variable and one independent or predictor variables. The term regression is used when the goal of the analysis is a prediction. Regression analyses reveal if there is a relationship among variables but do not imply a causal relationship (Tabachnick & Fidell, 2013). All of the data was analyzed using the *Statistical Package for Social Sciences* (SPSS, Version 25).

R is a free statistical software that was used to determine appropriate sample size. Given the one predictors (e.g., social support), an analysis was conducted using R, with the significance level at .05, desired power at .8, and effect size at .15. The R analysis reveal that the study required approximately 55 participants. The final population size was 61 participants, therefore this study reached adequate power.

Ethical Considerations

The following ethical considerations are relevant to this investigation:

1. Data was collected with minimal information (e.g. no names of the participants will be collected).
2. Participants in the study were volunteers and received no compensation for completing this survey.
3. All participants were informed of their rights to participate and signed a consent form.
4. Permission to use two of the instruments in this investigation was obtained from the developers.

5. The shortest version of the instruments were chosen to try and prevent tester fatigue.

Limitations

Limitations for this investigation are listed below:

1. The data collection instruments in the study were self-reports; therefore, participants may have responded in a biased manner.
2. The sample for this study was a convenience sample. Since we did not use a random sample, bias in the sample is a possibility.
3. This study is only generalizable to first-generation college students at a large predominately white four-year institution.

Chapter Summary

Chapter Three reviewed the research methodology used to investigate the relationship between social support (as measured by the *Social Provisions Scale*; Cutrona & Russell, 1987) and commitment to college (as measured by the *Student Adaptation to College Questionnaire* goal commitment-institutional attachment subscale; Baker & Siryk, 1989). This chapter provided details on research design, sampling procedures, population sampling, and research questions. Lastly, ethical considerations and limitations were reviewed.

CHAPTER FOUR: RESULTS

Chapter Four presents the results of the investigated research questions. The purpose of this research study was to explore the relationships between the social support that first-generation college students receive (as measured by the *Social Provisions Scale* [SPS]; Cutrona & Russell, 1987) and their commitment to college (as measured by the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire* [SACQ] Baker & Siryk, 1989). This study utilized a descriptive, correlational research design (Gall, Gall, & Borg, 2007) in order to understand the relationship between social support and commitment to college. This chapter details: (a) preliminary statistics; (b) descriptive results; (c) instrument data; and (d) data analyses for each research question.

Sampling and Data Collection Procedures

The researcher obtained approval from their thesis committee and the university Institutional Review Board (IRB). The population for this study included undergraduate first-generation college students enrolled at a four-year public institution in the western United States. All participants were at least eighteen years of age. Permission was obtained to collect data from all of the directors of each office where the investigators recruited participants from. The participants were recruited from an office where the co-principal investigator works at the university. Data was collected in an office within in the university that works directly with first-generation college students. Additionally, data was collected from cultural centers at the university where the investigation took place. The principal investigator of this study was a faculty member at the university in which the data was collected. Therefore, this study used a

convenience sample due to the accessibility of the population for the investigators. Data was collected for this investigation over the 2017 Fall semester.

Recruitment of participants occurred from two different offices at the university where the co-principal investigator worked. The first is an office that oversees students who receive scholarships and must meet with contacts in the office for guidance throughout their college experience. Participants were specifically recruited from three different scholarships. The recruitment took place over two months. Each participant received a recruitment email twice, and two weeks apart. When collecting data through questionnaires, Gall and colleagues (2007) recommend that follow up letters and requests are beneficial in increasing participation. Therefore, when the investigators had the option to send the survey out more than once, they sent it out two times. The second method of recruitment was through two cultural centers at the same university. The cultural centers included a recruitment paragraph in their weekly newsletter. The recruitment paragraph was included once per cultural center. Participant's privacy was ensured at all times, and no personal identifiers were collected at any time. Participants did not receive any incentives to complete the study.

Descriptive Data Results

Descriptive statistics are provided to explore specific characteristics of the data collected to gain a better understanding of the participants and instruments used in this investigation.

Response Rates

Participants were recruited from a university in the western region of the United States. A total of 61 participants completed the survey. There were 95 participants who started the survey, however 34 participants did not complete more than 25% of the survey. Of the 34 participants who did not complete the survey, none of them completed more than one assessment in full,

therefore their results were not included in the analysis. For those who did not complete the survey, 24 of the 34 participants only consented to the study, and never answered an additional question. Since the 34 participants did not complete in full both assessments, and the data from the assessments were critical to the study, Tabachnick and Fidell (2013) suggest dropping the missing values. Participants were recruited from a total of three offices at the university where the principal investigator is a faculty member and where the co-principal investigator works. One of the offices that participants were recruited from works directly with FGCS, from this office, a total of 366 students received a recruitment email with a link to participate in the study. The other two offices were cultural centers (an office that works directly with Asian students and Black students), at the same university. The two cultural centers included a recruitment paragraph in their weekly newsletter. This newsletter reached a total of 1,347 students, however, not all of these student may have been FGCS and thus not eligible to take the survey. As of 2016, the university where the study was conducted reported there were 6,358 FGCS enrolled at the university (Colorado State University, 2016). However, the university does not report the race or ethnic background of these FGCS. As of 2016, the university reported there were 723 Asian identifying students, 33 Hawaiian identifying students, 591 Black or African American identifying students, and 850 multi-race identifying students. All participant's identification was kept anonymous, there is no way of knowing specifically how the participants were recruited from the three office within the university that were used to recruit participants. In total, approximately 1,713 students may have received an email or notice to participate in this survey. However, there is no way in knowing how many of these students were eligible (i.e., over the age of eighteen and FGCS). The total usable sample yielded a response rate of 3.5% ($N = 61$).

Participant Demographics

The descriptive data are provided for all participants ($N = 61$) in the study (See Table 1). The majority of participants identified as female ($n = 47, 77\%$), compared to those who identified as male ($n = 14, 23\%$). The majority of participants were between the ages of 18-19 ($n = 25, 41\%$), followed by those between the ages of 20-21 ($n = 21, 34.4\%$), those between the ages of 22-23 ($n = 11, 18\%$), those between the ages of 30-35 ($n = 4, 6.5\%$). A total of 54.1% of participants ($n = 33$) identified as Hispanic, Latino, or Spanish origin. Race of participants were primarily White ($n = 21, 34.4\%$), from multiple races ($n = 7, 11.5\%$), Asian ($n = 4, 6.6\%$), Black or African-American ($n = 3, 4.9\%$), and other ($n = 8, 13.1\%$). A total of 18 participants (29.5%) did not respond to the question about race, however all of those 18 participants answered that they identified as Hispanic, Latino, or Spanish origin in the previous question. The participants also reported their year in college, 1st year ($n = 17, 27.9\%$), 2nd year ($n = 9, 14.8\%$), 3rd year ($n = 17, 27.9\%$), 4th year ($n = 13, 21.3\%$), and 5th or more years in college ($n = 5, 8.2\%$). The majority of participants do not live in a college dormitory ($n = 39, 63.9\%$), compared to those who do live in a college dormitory ($n = 22, 36.1\%$).

Table 1

Participant Demographics

Demographics	Total (n)	Percentage
Gender		
Female	47	77%
Male	14	23%
Age		
18-19	25	41%
20-21	21	34.5%
22-23	11	18%
24-29	0	-
30-35	4	6.5%
Ethnicity		

Hispanic	33	54.1%
Not Hispanic	28	45.9%
Race		
White	21	34.4%
Asian	4	6.6%
Black or African-American	3	4.9%
From Multiple Races	7	11.5%
Other	8	13.1%
Missing	18	29.5%
Year in College		
1 st Year	17	27.8%
2 nd Year	9	14.8%
3 rd Year	17	27.9%
4 th Year	13	21.3%
5 th or More Year	5	8.2%
College Dormitory		
Live in dormitory	22	36.1%
Does not live in dormitory	39	63.9%

Data Analysis

The following section reviews the results of the analyses for the two research questions. All of the data was analyzed using the *Statistical Package for Social Sciences* (SPSS, Version 25). An alpha level of .05 was set in order to confirm the relationships between the variables in the regression analysis was 95% of the variance due to a relationship between variables, and not sampling error (Tabachnick & Fidell, 2013). This study used a linear regression analysis to determine if social support predicted commitment to college of the participants. Thus, Cohen (1992) suggests a determination of the significance to be set at the .05 alpha level and adequate power of .80 is necessary to decrease the chances of Type 1 error (when the null hypothesis is true, but is rejected). Therefore, the desired alpha level and power for the investigation was set.

Statistical Assumptions and Data Screening

Descriptive statistics were run to determine the percentage of values were missing from each variable (Pallant, 2010). Some participants had 25% or less of their survey completed.

Tabachnick and Fidell (2013) suggest that when data is missing from different variables and from a relatively small sample, deletion of cases is acceptable. Thus, leading to the removal of 34 participants. There were only three participants that did not answer one question. One participant did not answer one question on the SPS scale. Two participants did not answer one questions the SACQ scale. When the data was analyzed, those three participants were excluded pairwise, meaning if the analysis included data from the question they missed, they were excluded. However, they are still included if the analysis does not include the question they missed (Pallant, 2010). For example, if a participant missed question one on the SPS, their response when running analyses that used the total score or any subscale that required question one would not be included. However, their SPS response was still included in the five subscales that did not require question one's data.

Outliers were screened for among the constructions. An exploration of the box plot for the SACQ goal commitment-institutional attachment subscale score indicated one extreme outlier. The mean including the outlier for the SACQ is ($M = 99.46$). The 5% Trimmed Mean is when the mean is calculated excluding the top and bottom 5% of cases in the data set and recalculates a new mean value. This is used to determine if the extreme scores have a strong influence on the mean (Pallant, 2010). The 5% Trimmed Mean for the SACQ goal commitment-institutional attachment subscale was 100.31. Since the two mean values are very similar, the researchers chose to retain the outlier in the analysis (Pallant, 2010).

One item in the SACQ goal commitment-institutional attachment subscale asked, "I enjoy living in a college dormitory (Please omit if you do not live in a dormitory)." Thus, only participants who live in a college dormitory should respond to the question. In the demographics question, the researchers asked, "Do you live in a college dormitory?" This question was asked

to determine if those who answered the question, were indeed living in a college dormitory. Participants who responded “yes” to the demographic question about living in a college dormitory were ($n = 22$). Participants who responded to the dormitory question from the SACQ were ($n = 34$). The number of people who responded to the dormitory question from the SACQ and the demographics questions about the dormitory should have been the same, and there were 12 participants who should not have answered the question, and thus the question was omitted. Previous researchers have omitted this question and still found validity in their results (Beyers & Goossens, 2002).

Instrumentation

This investigation used a total of three instruments. The instruments were administered anonymously online through Qualtrics. Participants were asked to fill out the *Social Provisions Scale* (SPS; Cutrona & Russell, 1987), the *Student Adaptation to College Questionnaire* goal commitment-institutional attachment subscale (SACQ; Baker & Siryk, 1989), and *Demographic Questionnaire*.

Demographic Questionnaire

A demographic questionnaire was developed by the researchers to determine ethnicity, race, age, gender, year in college, first-generation college student status, and if they live in a college dormitory.

College Commitment

The *Student Adaptation to College Questionnaire* (SACQ; Baker & Siryk, 1989) is a 67-item instrument composed of. Total raw score from the SACQ ranges from 67 to 603, a higher score indicates higher adaptation to college. The total score from goal commitment-institutional attachment subscale range from 15-135. A total of seven items needed to be reverse scored prior

to the analysis. High values from the goal commitment-institutional attachment subscale indicate a better level of adaptation to college, attachment to their college, and overall general attachment to college (Baker & Siryk, 1989). The total scores from this study of the SACQ goal commitment-institutional attachment subscale were: ($M = 99.46, SD = 2.23$). The score for the “college in general” subscale were the following: ($M = 24.32, SD = .54$). The score for the “this college” subscale was: ($M = 31.36, SD = .71$). Lastly, the reliability of the goal commitment-institutional attachment subscale of the SACQ was calculated from this study using Cronbach alpha and results indicated the scale had acceptable reliability ($\alpha = .87$) (Cohen, 1992).

Social Support

In order to measure the participant’s social support, the 24-item *Social Provisions Scale* (SPS; Cutrona & Russell, 1987) was used. The scale utilizes a four-point Likert scale response (e.g., 1 = *strongly disagree*, 4 = *strongly agree*). An example item from the SPS is, “I have close relationships that provide me with a sense of emotional security and well-being.”

The instrument assesses six different social provisions as identified by Weiss (1974). The provisions are attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance. Weiss (1974) describes that all six provisions are necessary for individuals to feel supported and some may be needed more at different stages of life. Each provision is often received from a relationship, but multiple provisions may be received from the same person. The attachment provision is received from emotional closeness and security from another person. The social integration provision is the feeling of belonging to a group that shares similar interests and concerns. The reassurance of worth is when someone recognizes the individual’s competence, skills and value. The guidance provision is related to the advice or information they receive from others. The opportunity of nurturance provisions is the feeling that

others rely on them for their well-being. The reliable alliance provision is the tangible assistance that they can count on someone for.

There are four items used to assess each provision. The raw score can range from 24-96. A higher score indicates that the individual is receiving high levels of social support. The higher the score for each provision indicates that the individual is receiving that provision. For example, if a participant's response is a high score to the four questions in the guidance subscale, that would indicate that they are receiving the provisions of guidance, and thus that need is being met (Cutrona & Russell, 1987).

From this investigation, the total SPS score for participants were the following: ($M = 80.30$, $SD = 1.3$). The guidance provision score was: ($M = 13.93$, $SD = .28$, $\alpha = .760$), the reassurance of worth provision was: ($M = 13.24$, $SD = .24$, $\alpha = .665$), the social integration provision was: ($M = 13.65$, $SD = .30$, $\alpha = .673$), the attachment provision was: ($M = 13.03$, $SD = .29$, $\alpha = .747$), the nurturance provision was: ($M = 12.22$, $SD = .33$, $\alpha = .655$), and the reliable alliance provision was: ($M = 14.02$, $SD = .25$, $\alpha = .653$). Lastly, the reliability of the SPS was calculated for this study using Cronbach alpha and results indicated the scale had acceptable reliability ($\alpha = .89$).

Descriptive Results by Demographics

In the demographic question, participant's race, ethnicity, and gender were collected. Results for participants that identified as Hispanic, Latino, or Spanish origin ($n = 33$) from the SPS total score was ($M = 80.42$, $SD = 9.69$) and for the SACQ total score was ($M = 99.56$, $SD = 18.31$). For non-Hispanic participants ($n = 27$) the score for the SPS total score was ($M = 80.15$, $SD = 10.72$) and the SACQ total score was ($M = 99.35$, $SD = 16.36$). For students that identified as Asian ($n = 4$) their SPS total score was ($M = 80.25$, $SD = 7.18$) and their SACQ total score

was ($M = 108.25$, $SD = 10.31$). For students that identified as Black or African American ($n = 3$) their SPS total score was ($M = 83$, $SD = 5.57$) and their SACQ total score was ($M = 90.66$, $SD = 6.66$). For students that identified as White ($n = 21$) their SPS total score was ($M = 80.50$, $SD = 10.62$) and their SACQ total score was ($M = 101.76$, $SD = 13.79$). For students that identified as multiple races ($n = 7$) their SPS total score was ($M = 69.57$, $SD = 9.65$) and their SACQ total score was ($M = 77.58$, $SD = 19.83$). Students who identified as other ($n = 8$) their SPS total score was ($M = 80.62$, $SD = 9.43$) and SACQ total score ($M = 102$, $SD = 15.87$).

For participants that identified as female ($n = 47$) their SPS total score was ($M = 81.36$, $SD = 9.94$) and their SACQ total score was ($M = 99.52$, $SD = 18.06$). For participants that identified as male ($n = 13$) their SPS total score was ($M = 76.69$, $SD = 10.52$) and their SACQ total score was ($M = 98.07$, $SD = 14.95$). Participants who were in their first year ($n = 17$) their SPS total score was ($M = 81.31$, $SD = 9.45$), and their SACQ total score was ($M = 102.41$, $SD = 17.55$). Participants who were in their second year ($n = 9$) their SPS total score was ($M = 78.11$, $SD = 10.13$), and their SACQ total score was ($M = 96$, $SD = 16.89$). Participants who were in their third year ($n = 17$) their SPS total score was ($M = 81.29$, $SD = 10.88$), and their SACQ total score was ($M = 99.44$, $SD = 17.65$). Participants who were in their fourth year ($n = 13$) their SPS total score was ($M = 79$, $SD = 11.43$), and their SACQ total score was ($M = 95.46$, $SD = 19.91$). Participants who are in their fifth or more year ($n = 5$) their SPS total score was ($M = 81$, $SD = 8.88$), and their SACQ total score was ($M = 106$, $SD = 8.67$).

Research Question and Data Analysis

The purpose of this study was to explore the relationship between social support and commitment to college of first-generation college students. The following section provides a

description of data analysis and the results from the research questions. A standard multiple regression and Pearson product two tailed correlation were used in the data analysis.

Research Question One

The first research question explored: What relationships exist between factors of social support and college commitment as reported by first-generation college students?

A Pearson-Product two-tailed correlation was conducted to inspect the relationships between factors of social support (as measured by the *Social Provisions Scale*) and college commitment (as measured by the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire*). Results indicate that there was a strong positive relationship between various factors of social support and college commitment (see Table 2).

Primary research relationship question. There was a strong positive relationship between overall commitment to college and overall social support ($r = .675, p < 0.01$, 45% of variance explained). There was a positive relationship between commitment to college and all six provisions (attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance) of social support ranging from weak to strong relationship. These include: guidance ($r = .472, p < 0.01$, 22% of variance explained), reassurance of worth ($r = .564, p < 0.01$, 32% of variance explained), social integration ($r = .660, p < 0.01$, 44% of variance explained), attachment ($r = .593, p < 0.01$, 35% of variance explained), nurturance ($r = .290, p < 0.05$, 8.4% of variance explained), and reliable alliance ($r = .496, p < 0.01$, 25% of variance explained). There was a strong positive relationship between overall commitment to college and commitment to “college in general” subscale ($r = .601, p < 0.05$, 36% of variance explained). There was also a strong positive relationship between overall commitment to college and “this college” subscale ($r = .755, p < .05$, 57% of the variance explained).

Further found relationships. There was a moderate positive relationship between the “general” subscale from the SACQ used to measure how committed and attached the participants are to college in general, and three of the SPS subscales (reassurance of worth, social integration, and attachment). These include: reassurance of worth ($r = .346, p < 0.01$, 12% of variance explained), social integration ($r = .328, p < 0.01$, 11% of variance explained), and attachment ($r = .337, p < 0.01$, 11% of variance explained). There was also a positive relationship between the “general” subscale and overall SPS ($r = .293, p < 0.05$, 8.6% of variance explained). There was no significant relationship between SACQ “general” subscale and SPS subscale guidance ($r = .103, p > .05$, 1% of the variance explained), SPS subscale nurturance ($r = .044, p > .05$, .2% of the variance explained), and SPS subscale reliable alliance ($r = .239, p > .05$, 5.7% of the variance explained). Additionally, there was a moderate positive correlation between “college in general” subscale from the SACQ and the “this college” subscale from the SACQ ($r = .396, p < .01$, 16% of the variance explained)

There was a weak to moderate positive relationship between the “this college” subscale from the SACQ used to measure how committed they are to attending the particular college they are at, and three of the SPS subscales (reassurance of worth, social integration, and attachment. These include: reassurance of worth ($r = .297, p < .05$, 8.8% of variance explained), social integration ($r = .440, p < 0.01$, 19% of variance explained), and attachment ($r = .406, p < 0.01$, 16% of variance explained). There was also a moderate positive relationship between the “this college” subscale and overall SPS ($r = .417, p < 0.01$, 17% of variance explained). Additionally, there was a moderate positive correlation between the SACQ “this college” subscale and the SPS subscale guidance ($r = .235, p > .05$, 5.6% of the variance explained), SPS subscale nurturance ($r = .208, p > .05$, 4.3% of the variance explained), and the SPS subscale reliable alliance ($r = .233,$

$p > .05$, 5.4% of the variance explained). There was a moderate positive correlation between the SACQ “this college” subscale and the SACQ “general in general” subscale ($r = .396$, $p < .01$, 16% of the variance explained).

Furthermore, there was a strong positive correlation with overall social support and many social support subscales. There was a strong positive correlation with overall social support (as measured by the SPS) and the SPS subscale guidance ($r = .798$, $p < .01$, 64% of variance explained), the SPS subscale reassurance of worth ($r = .731$, $p < .01$, 53% of variance explained), the SPS subscale social integration ($r = .833$, $p < .01$, 69% of variance explained), the SPS subscale attachment ($r = .835$, $p < .01$, 70% of variance explained), the SPS subscale nurturance ($r = .575$, $p < .01$, 33% of variance explained), and the SPS subscale reliable alliance ($r = .818$, $p < .02$, 67% of variance explained).

There was also a varying relationships between the SPS subscale guidance, and other SPS subscales. There was a moderate positive correlation between the SPS subscale guidance and the SPS subscale reassurance of worth ($r = .460$, $p < .01$, 21% of variance explained). There was a strong positive correlation between the SPS subscale guidance and the SPS subscale social integration ($r = .677$, $p < .01$, 46% of variance explained), the SPS subscale attachment ($r = .684$, $p < .01$, 47% of variance explained), and the SPS subscale reliable alliance ($r = .699$, $p < .01$, 49% of variance explained). Additionally, there was a weak positive relationship between the SPS subscale guidance and the SPS subscale nurturance ($r = .178$, $p < .00$, 3.2% of variance explained).

There was a strong positive correlation between the SPS subscale reassurance of worth and the SPS subscales social integration ($r = .559$, $p < .01$, 31% of variance explained) and reliable alliance ($r = .653$, $p < .01$, 43% of variance explained). There is also a moderate positive

correlation between the SPS subscale reassurance of worth and the SPS subscales attachment ($r = .430, p < .01$, 18% of variance explained) and nurturance ($r = .346, p < .01$, 13% of variance explained).

There was a strong positive correlation between the SPS subscale social integration and the SPS subscales attachment ($r = .705, p < .01$, 50% of variance explained), and reliable alliance ($r = .558, p < .01$, 31% of variance explained). Furthermore, there was a moderate positive correlation between the SPS subscale social integration and the SPS subscale nurturance ($r = .304, p < .05$, 9% of variance explained).

Lastly, there was a moderate positive correlation between the SPS subscale attachment and the SPS subscale nurturance ($r = .377, p < .02$, 14% of variance explained). There was also a strong positive correlation between the SPS subscale attachment and the SPS subscale reliable alliance ($r = .602, p < .01$, 36% of variance explained). There was a moderate positive correlation between the SPS subscale nurturance and the SPS subscale reliable alliance ($r = .347, p < .01$, 12% of variance explained) See Table 2 for a full summary of correlations. Overall, weak to strong effect sizes were found from the correlation results.

Table 2

Pearson Correlation Matrix

		SPS	SACQ	SPS Guidance Subscale	SPS Reassur- ance of worth Subscale	SPS Social Integratio n Subscale
SPS	Pearson Correlation	1	.675**	.798**	.731**	.833**
	Sig. (2- tailed)		.000	.000	.000	.000
	<i>N</i>	60	59	60	60	60
SACQ	Pearson Correlation	.675**	1	.472**	.564**	.660**

	Sig. (2-tailed)	.000		.000	.000	.000
	<i>N</i>	59	60	59	60	60
SPS Guidance Subscale	Pearson Correlation	.798**	.472**	1	.460**	.677**
	Sig. (2-tailed)	.000	.000		.000	.000
	<i>N</i>	60	59	60	60	60
SPS Reassurance of worth Subscale	Pearson Correlation	.731**	.564**	.460**	1	.559**
	Sig. (2-tailed)	.000	.000	.000		.000
	<i>N</i>	60	60	60	61	61
SPS Social Integration Subscale	Pearson Correlation	.833**	.660**	.677**	.559**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	<i>N</i>	60	60	60	61	61
SPS Attachment Subscale	Pearson Correlation	.835**	.593**	.684**	.430**	.705**
	Sig. (2-tailed)	.000	.000	.000	.001	.000
	<i>N</i>	60	60	60	61	61
SPS Nurturance Subscale	Pearson Correlation	.575**	.290*	.178	.346**	.304*
	Sig. (2-tailed)	.000	.025	.174	.006	.017
	<i>N</i>	60	60	60	61	61
SPS Reliable Alliance Subscale	Pearson Correlation	.818**	.496**	.699**	.653**	.558**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	<i>N</i>	60	60	60	.61	61
SACQ General Subscale	Pearson Correlation	.293**	.601**	.103	.346**	.328**
	Sig. (2-tailed)	.023	.000	.436	.006	.010
	<i>N</i>	60	60	60	61	61
SACQ This College Subscale	Pearson Correlation	.417**	.755**	.235	.297*	.440**
	Sig. (2-tailed)	.001	.000	.073	.021	.000
	<i>N</i>	59	60	59	60	60

** = Correlation is significant at the 0.01 level (2-tailed)

* = Correlation is significant at the 0.05 level (2-tailed)

Pearson Correlation Matrix continued

		SPS Attachm ent Subscale	SPS Nurturan ce Subscale	SPS Reliable Alliance Subscale	SACQ General Subscale	SACQ This College Subscale
SPS	Pearson Correlation	.835**	.575**	.818**	.293*	.417**
	Sig. (2- tailed)	.000	.000	.000	.023	.001
	<i>N</i>	60	60	60	60	59
SACQ	Pearson Correlation	.593**	.290*	.496**	.601**	.755**
	Sig. (2- tailed)	.000	.025	.000	.000	.000
	<i>N</i>	60	60	60	60	60
SPS Guidance Subscale	Pearson Correlation	.684**	.178	.699**	.103	.235
	Sig. (2- tailed)	.000	.174	.000	.436	.073
	<i>N</i>	60	60	60	60	59
SPS Reassurance of worth Subscale	Pearson Correlation	.430**	.346**	.653**	.346**	.297*
	Sig. (2- tailed)	.001	.006	.000	.006	.021
	<i>N</i>	61	61	61	61	60
SPS Social Integration Subscale	Pearson Correlation	.705**	.304*	.558**	.328**	.440
	Sig. (2- tailed)	.000	.017	.000	.010	.000
	<i>N</i>	61	61	61	61	60
SPS Attachment Subscale	Pearson Correlation	1	.337**	.602**	.337**	.406**
	Sig. (2- tailed)		.008	.000	.008	.001
	<i>N</i>	61	61	61	61	60
SPS Nurturance Subscale	Pearson Correlation	.337**	1	.347**	.044	.208
	Sig. (2- tailed)	.008		.006	.734	.111
	<i>N</i>	61	61	61	61	60
SPS	Pearson	.602**	.347**	1	.239	.233

Reliable Alliance Subscale	Correlation Sig. (2-tailed)	.000	.006		.064	.074
	<i>N</i>	61	61	61	61	60
SACQ General Subscale	Pearson Correlation Sig. (2-tailed)	.337**	.044	.239	1	.396**
	<i>N</i>	61	61	61	61	60
SACQ This College Subscale	Pearson Correlation Sig. (2-tailed)	.406**	.208	.233	.396**	1
	<i>N</i>	60	60	60	60	60

** = Correlation is significant at the 0.01 level (2-tailed)

* = Correlation is significant at the 0.05 level (2-tailed)

Research Question Two

The second research question explored: Does first-generation college students' level of perceived social support predict their commitment to college?

A linear regression was used to assess the ability of the social support (as measured by the *Social Provisions Scale*) to predict the participant's commitment to college (as measured by the goal commitment-institutional attachment subscale of the SACQ). A simple linear regression was calculated to predict commitment to college based on social support. To check model assumptions, preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. In the Casewise Diagnostic, one case was identified as having a standardized residual value below -3.0. In order to determine if this case had an influence on the results, the Cook's Distance was checked. According in Pallant (2010), if the Cook's Distance is larger than 1 there is potential for a problem. The Cook's Distance for this regression was .282, suggesting no major problems, therefore the results are reported including the potential outlier. Additionally, the linear regression analysis was conducted with and without

the potential outlier, and the significance did not change. A significant regression equation was found ($F(1, 57) = 47.70, p < .000$), with an R^2 of .456 (See Table 3). Thus, the regression had a medium effect size (Cohen, 1992). The final regression equation produced from this model was: 6.577 (commitment to college) + 1.157 (social support). Thus, commitment to college increased 1.157 points of social support (See Table 4). Social support significantly predicted SACQ attachment scores ($b = .675, t(6.901), p < .000$).

Table 3

Social Support Model Summary

Model	R	R^2	Adjusted R^2	SE of the Estimate	F	df	p
1	.675	.456	.446	12.866	47.70	1	.000

Table 4

Coefficient Summary

Model		<u>Unstandardized Coefficients</u>		<u>Standardized Coefficients</u>	<u>Values</u>	<u>Sig.</u>
		B	$SE B$	β	t	p
1	(Constant)	6.57	13.551		.485	.629
	SPS Total	1.157	.167	.675	6.907	.000

Additional Analyses

A post-hoc regression was conducted to further explore the relationship between the factors of social support (as measured by the SPS) and commitment to college (as measured by the goal commitment-institutional attachment subscale of the SACQ). A stepwise regression was used to determine which subscales of the SPS predicted commitment to college. A stepwise regression is a method of fitting a regression model by entering or removing predictors in a

stepwise manner. In this analysis, all six subscales of the SPS were entered as independent variables, and overall commitment to college (as measured by the goal commitment-institutional attachment subscale of the SACQ) was the dependent variable. SPSS Statistical Software excluded variables that were not significant at the .05 level. The stepwise regression excluded four variables (guidance, attachment, nurturance, and reliable alliance) and found that the SPS subscales social integration and reassurance of worth were positively predicted commitment to college.

A stepwise regression was calculated to predict commitment to college based on social integration. A significant regression equation was found ($F(1, 57) = 44.098, p < .000$), with an R^2 of .436 (See Table 5). Thus, the regression had a medium effect size (Cohen, 1992). The final regression equation produced from this model was: 33.95 (commitment to college) + 4.798 (social integration). Commitment to college increased 4.79 points as social integration increased (See Table 6). Social integration significantly predicted SACQ attachment scores ($b = .660, t(6.641), p < .000$).

Furthermore, the stepwise regression indicated that commitment to college was predicted by the reassurance of worth SPS subscale. A significant regression equation was found $F(2, 56) = 27.092, p < .000$, with an R^2 of .492 (See Table 5). Thus, the regression had a medium effect size (Cohen, 1992). The final regression equation produced from this model was: 15.815 (commitment to college) + 2.558 (reassurance of worth). Commitment to college increased 2.558 points as reassurance of worth increased (See Table 6). Reassurance of worth significantly predicted SACQ attachment scores ($b = .284, t(2.474), p < .016$).

Table 5

Factors of Social Support Model Summary

Model	<i>R</i>	<i>R</i> ²	Adjusted <i>R</i> ²	<i>SE</i> of the Estimate	<i>F</i>	<i>df</i>	<i>p</i>
1	.660	.436	.426	13.093	44.098	1	.000
2	.701	.492	.474	12.542	27.092	2	.000

Table 6

Coefficients Summary

Model		<u>Unstandardized Coefficients</u>		<u>Standardized Coefficients</u>	<u>Values</u>	<u>Sig.</u>
		<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
1	(Constant)	33.951	10.012		3.391	.001
	SPS Social Integration Subscale	4.798	.722	.660	6.641	.000
2	(Constant)	15.815	12.071		1.310	.195
	SPS Social Integration Subscale	3.645	.835	.502	4.368	.000
	SPS Reassurance of Worth Subscale	2.558	1.034	.284	2.47	.016

Written Responses

At the end of the two assessments in the survey, the researchers asked, “How would you describe your support system while in college?” This question was not a forced response, and allowed students to answer if they wanted to. There were a total of 60 participants who responded to the question. Responses varied from describing a specific person of support to saying their support was good, needed more, or currently had no one. Those who described a specific person or office were ($n = 32$), those who described their support using an adjective ($n =$

37), there were participants who would describe a person as well as use adjectives ($n = 9$). Those who used adjectives and described a specific person/place were included in both sections. There were participants who discussed their family ($n = 13$), their advisor or mentor at the university ($n = 9$), said no one ($n = 1$), friends ($n = 8$), and a mental health counselor ($n = 1$). Additionally, participants used terminology and adjectives about having a “good” support system, “adequate”, and “satisfactory” these were categorized as having a “good support system” ($n = 26$). Participants described their support system as “alright, could be better,” or “I have people to talk to, but I wish I had more,” there were ($n = 7$). Lastly, students described their support system as “lacking,” “not good,” “bad” and there were ($n = 4$). This question was used to allow the participants to describe their support and potentially where it comes from and how supported they felt.

Summary of Results

The purpose of this investigation was to explore the relationships between social support and commitment to college of first-generation college students. The results of this investigation contribute to the gap in higher education literature on social support, commitment to college, and on first-generation college students. A Pearson Product two-tailed correlation identified the following significant relationships: (a) a positive relationship between social support and commitment to college, and (b) significant positive relationship between three factors of social support and the subscales of commitment to college. The results from the linear regression indicated that social support significantly predicted commitment to college.

Chapter Summary

Chapter Four presented the results of the data analyses which included (a) descriptive analysis, (b) Pearson’s correlations, and (c) a linear regression. Chapter Five continues with a

discussion of the results, offering implication for student affairs within higher education, student resources, and recommendations for future research.

CHAPTER FIVE: CONCLUSIONS

The purpose of Chapter Five is to provide an overview of the study, research methodology, and a discussion of the results. Specifically, results are discussed and compared with other findings presented in Chapter Two and beyond. This Chapter Five (a) reviews results of main research questions; (b) identifies limitations of the study (e.g., research design, sampling, instrumentation); (c) provides recommendations for future research, and (d) presents implications student affairs and higher education administrators.

Summary of Study

The purpose of this research study was to explore the relationship between social support and commitment to college of first-generation college students. This investigation was focused on first-generation college students attending a large university in the western United States. The following sections elaborate on the results of the data analysis described in Chapter Four. Specifically, a review of the descriptive data and instrumentation are presented. In addition, the results of the data analyses are compared to research investigations found in Chapter Two and additional literature provided, focused on social support, commitment to college, and the relationships between these constructs.

Sampling and Procedures

The investigation was approved by the Institutional Review Board (IRB) from a large western university in the United States where the investigation took place. Participants were recruited from various offices at this university that work directly with first-generation college students during the Fall 2017 semester. A total of 95 participants started the study, however 34 participants were removed because they did not complete more than 25% of the survey. The final

sample included first-generation college students who met criteria and participated fully in this study ($N = 61$). The approximate response rate using the university statistics was 3.5% ($N = 61$). Power was calculated using R statistical software and needed 55 participants, thus adequate power was met.

Participants

Participants were first-generation college students, meaning neither of their parents completed a four-year degree. All participants were at least 18 years of age and were enrolled in a four-year institution.

Participant Demographics

The descriptive data are provided for all participants ($N = 61$) in the study (See Table 1). The majority of participants identified as female ($n = 47, 77\%$), compared to those who identified as male ($n = 14, 23\%$). The majority of participants were between the ages of 18-19 ($n = 25, 41\%$), followed by those between the ages of 20-21 ($n = 21, 34.4\%$), those between the ages of 22-23 ($n = 11, 18\%$), those between the ages of 30-35 ($n = 4, 6.5\%$). A total of 54.1% of participants ($n = 33$) identified as Hispanic, Latino, or Spanish origin. Race of participants were primarily White ($n = 21, 34.4\%$), from multiple races ($n = 7, 11.5\%$), Asian ($n = 4, 6.6\%$), Black or African-American ($n = 3, 4.9\%$), and other ($n = 8, 13.1\%$). A total of 18 participants (29.5%) did not respond to the question about race, however all that did not respond to the question about race did answer that they identified as Hispanic, Latino, or Spanish origin in the previous question. The participants also reported their year in college, 1st year ($n = 17, 27.9\%$), 2nd year ($n = 9, 14.8\%$), 3rd year ($n = 17, 27.9\%$), 4th year ($n = 13, 21.3\%$), and 5th or more years in college ($n = 5, 8.2\%$). The majority of participants do not live in a college dormitory ($n = 39, 63.9\%$), compared to those who do live in a college dormitory ($n = 22, 36.1\%$).

The majority of the demographic characteristics within this investigation (e.g., age, gender, and race) are consistent with research on FGCS and social support. In Jenkins et al., (2013), their sample ($n = 368$) consisted of 70% women and 30% men, which was consistent with this investigation. Representation of race and ethnicity varies by study and often geographic location of the study (Jenkins et al., 2013; Melendez & Melendez, 2010; Cokley et al., 2013). However, this study was representative of the university's demographic make-up. The ethnic and racial breakdown for the undergraduate student population at the university where the investigation took place largest population is White students, then Hispanic/Latino, and third being multiracial. The three largest ethnicity category in this investigation was Hispanic/Latino, then White, and the multiracial, thus representative this sample was representative of the sample of the university, considering the general characteristics of FGCS.

Instrumentation

There are a total of two primary constructs in this investigation: (a) social support and (b) commitment to college. This quantitative investigation used three assessments to investigate these constructs: (1) *Demographic Questionnaire*; (2) the goal commitment-institutional attachment subscale from the *Student Adaptation to College Questionnaire* (SACQ) (Baker & Siryk, 1989); and (3) the *Social Provisions Scale* (Cutrona & Russell, 1987).

Social Support

The Social Provisions Scale (SPS) (Cutrona & Russell, 1987) is a 24-item scale that measures six relational provisions that will be used to measure social support. The provisions were identified by Weiss (1974) as attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity of nurturance. The questionnaire has four items that address each provision (e.g., There is someone I could talk to about important decisions in my life). The

SPS has shown to be valid and reliable measures of social support for college students and adults, the author's found internal consistency at validation ($\alpha > .70$; Cutrona & Russell, 1987).

The total SPS score in this investigation for participants were ($M = 80.30, SD = 1.3$). The guidance provision score was: ($M = 13.93, SD = .28$), the reassurance of worth provision was: ($M = 13.24, SD = .24$), the social integration provision was: ($M = 13.65, SD = .30$), the attachment provision was: ($M = 13.03, SD = .29$), the opportunity for nurturance provision was: ($M = 12.22, SD = .33$), and the reliable alliance provision was: ($M = 14.02, SE = .25$). Lastly, the reliability of the SPS was calculated using Cronbach alpha and results indicated the scale had acceptable reliability ($\alpha = .89$) (Cohen, 1992). Scores from the SPS can range from 24 to 96, and each provision can range from 4 to 16. Thus, the participant's mean score from this investigation of the SPS indicated that they had high levels of social support and are receiving support in each provision. Similarly, Cutrona and Russell (1987) found in a study using the SPS with college students, overall SPS score was ($M = 82.45, SD = 9.89$), guidance provision ($M = 14.18, SD = 2.23$), reassurance of worth provision ($M = 13.29, SD = 2.02$), social integration provision ($M = 14.01, SD = 1.90$), opportunity of nurturance ($M = 12.82, SD = 2.28$), attachment provision ($M = 13.72, SD = 2.42$), and reliable alliance provision ($M = 14.43, SD = 1.91$). Thus, the averages of SPS scores from the current investigation were congruent with other investigations where the SPS was used with college students.

Commitment to College

The SACQ (Baker & Siryk, 1989) measures student's adjustment to college. The questionnaire is a 67 item assessment composed of four subscales. The four subscales are academic adjustment (24-items), social adjustment (20-items), personal-emotional adjustment (15-items), and goal commitment-institutional attachment (15-items). For the purpose of this

study, we only used the goal commitment-institutional attachment subscale (15-items). An example item is “I expect to say at this college for a bachelor’s degree.” Scores are rated on a 9-point Likert scale (1= “*doesn’t apply to me at all*” to 9= “*applies very closely to me*”). Total scores range from 67 to 603, a higher score indicates higher adaptation to college. The total scores for the goal-commitment-institutional attachment subscale ranged from 15 to 135, with higher scores indicating better attachment to the university and college in general.

The total scores in this investigation of the SACQ goal commitment-institutional attachment subscale were: ($M = 99.46, SD = 2.23$). The score for the “college in general” subscale was the following: ($M = 24.32, SD = .54$). The score for the “this college” subscale was: ($M = 31.36, SD = .71$). Lastly, the reliability of the goal commitment-institutional attachment subscale of the SACQ was calculated using Cronbach alpha and results indicated the scale had acceptable reliability ($\alpha = .87$) (Cohen, 1992). Scores from the goal commitment-institutional attachment subscale of the SACQ can range from 15 to 135, and the “this college” subscale can range from 4 to 36, and the “college in general” subscale can range from 3 to 27. Thus, results from the full subscale indicate moderate commitment and attachment to college. Results from the two subscales indicate moderate to strong commitment to the college they are currently at, and college in general. Results were similar to other studies using the SACQ with college students enrolled at a four-year university. Roszkowski (2014) found the goal commitment-institutional attachment subscale from the SACQ score was ($M = 102.28, SD = 18.26$). Thus, the average score from the goal commitment-institutional attachment subscale from the SACQ was congruent with other similar investigations. However, other studies did not include the mean and standard deviation of the two subscales, “this college” and “college in general” subscales of the goal commitment-institutional attachment subscale of the SACQ.

Summary of Results and Conclusions

The following sections discuss the results and conclusions of each research question. In addition, the results will be critiqued and compared to similar research studies, including those studies discussed in Chapter Two.

To explore research question one, a Pearson-Product two-tailed correlation was used to determine the relationship between social support and commitment to college. The results were analyzed using the IBM SPSS 25 package software. The Pearson Product correlation matrix revealed that there was a relationship between commitment to college and multiple factors of social support (as measured by the *Social Provisions Scale*). Additionally, to explore the second research question, a linear regression was used to determine if social support predicts the participant's commitment to college. The results from the linear regression indicated that social support significantly predicted commitment to college.

Research Question One

The first research question explored: What relationships exist between factors of social support and college commitment as reported by first-generation college students?

A Pearson-Product two-tailed correlation was conducted to inspect the relationship between social support and commitment to college of FGCS. The results revealed multiple significant relationships between social support and commitment to college ($r = .675, p < 0.011$, 45% of variance explained), commitment to "this college" ($r = .417, p < 0.01$, 17% of variance explained), and commitment to college in "general" ($r = .293, p < 0.05$, 8.6% of variance explained). The results also indicated all six factors of social support were significantly correlated with overall commitment to college: guidance ($r = .472, p < 0.01$, 22% of variance explained), reassurance of worth ($r = .564, p < 0.01$, 32% of variance explained), social

integration ($r = .660, p < 0.01$, 44% of variance explained), attachment ($r = .593, p < 0.01$, 35% of variance explained), nurturance ($r = .290, p < 0.05$, 8.4% of variance explained), and reliable alliance ($r = .496, p < 0.01$, 25% of variance explained). The correlation matrix also indicated varying significance between various factors of social support and various factors of commitment to college (see Table 2). Results from this study suggest that weak, moderate, and strong relationships exist between factors of social support and factors of commitment to college. In sum, social support appears to have a positive relationship with the constructs in this investigation.

Research Question Two

The second research question explored: Does first-generation college student's level of perceived social support predict their commitment to college?

A linear regression was used to assess if social support (SPS) predicts commitment to college (SACQ goal commitment-institutional attachment subscale). As previously described, preliminary analyses were conducted to ensure no violation of the assumptions of normality and linearity.

A significant regression equation was found ($F(1, 57) = 47.70, p < .000$), with an R^2 of .456. Thus, the regression had a medium effect size. The final regression equation produced from this model was: 6.577 (commitment to college) + 1.157 (social support). Commitment to college increased 1.157 points of social support increased. Social support significantly predicted SACQ attachment scores ($b = .675, t(6.901), p < .000$). Thus, overall social support predicts overall commitment to college of FGCS.

Comparison of Results from Research Questions with Previous Literature

Research question one indicated that social support and factors of social support are correlated with commitment to college and factors of commitment to college. Few published studies were identified that examined the role of social support on commitment to college. However, there were studies examining social support using the SPS on college students (Cutrona & Russell, 1987). Additionally, there were studies examining commitment to college using the SACQ with other underrepresented college students such as ethnic minority college students (Melendez & Melendez, 2010). Melendez and Melendez (2010) were interested in studying parental attachment and the effects of college adjustment among White, Black, and Latina/Hispanic women. Melendez and Melendez (2010) used the SACQ to measure adjustment to college and correlated results with the *Parental Attachment Questionnaire* (Kenny, 1987). In their study, they found from intercorrelations that Latina/Hispanic participants parental support scores were significantly correlated with institutional attachment ($r = .40, p < .01$). The Melendez and Melendez (2010) study is similar to this investigation due to similar sample demographics with White students ($n = 24$), Latina/Hispanic students ($n = 44$) and Black students ($n = 27$). This study also only used another instrument to correlate with the SACQ. The Melendez and Melendez (2010) study also took place at a large university with a high population of FGCS.

Additionally, in a study conducted by Agtarap and colleagues (2017) conducted a study to determine the impact of a traumatic injury on social support (as measured by the *Social Provisions Scale*) on participants ($N = 130$). The overall mean score in the Agtarap and colleagues (2007) study for social support was ($M = 81.56, SD = 10.95$), attachment subscale ($M = 13.43, SD = 2.37$), social integration subscale ($M = 13.48, SD = 2.20$), reassurance of worth

subscale ($M = 13.27, SD = 2.31$), reliable alliance subscale ($M = 14.28, SD = 2.12$), guidance subscale ($M = 14.03, SD = 2.12$), and nurturance subscale ($M = 13.05, SD = 2.41$). In the current study, the overall mean score for social support was ($M = 80.30, SD = 1.3$), attachment subscale ($M = 13.03, SD = .29$), social integration subscale ($M = 13.65, SD = .30$), reassurance of worth subscale ($M = 13.24, SD = .24$), reliable alliance subscale ($M = 14.02, SE = .25$), guidance subscale ($M = 13.93, SD = .28$), and nurturance subscale ($M = 12.22, SD = .33$). The mean and standard deviation results from this study and the Agtarap and colleagues (2017) were consistent with one another. Each mean score from the full scale and the subscales were within one point of each other. This means that results from this study were consistent with previous literature using the same scale.

In addition, Cutrona and Russell (1987) found in a study using the SPS with college students, overall SPS score was ($M = 82.45, SD = 9.89$), guidance provision ($M = 14.18, SD = 2.23$), reassurance of worth provision ($M = 13.29, SD = 2.02$), social integration provision ($M = 14.01, SD = 1.90$), opportunity of nurturance ($M = 12.82, SD = 2.28$), attachment provision ($M = 13.72, SD = 2.42$), and reliable alliance provision ($M = 14.43, SD = 1.91$). Thus, the averages of SPS scores from the current investigation were congruent with other investigations where the SPS was used specifically with college students.

Agtarap and colleagues (2017) were also interested in determining if the social provisions from the SPS predicted depression. Their study found that four of the SPS provisions predicted depression: attachment ($\beta = -.26, SE = .08, p = .001$), social integration ($\beta = -.25, SD = .08, p = .002$), reassurance of worth ($\beta = -.24, SE = .08, p = .003$), and guidance ($\beta = -.22, SE = .08, p = .010$). The provisions reliable alliance and opportunity for nurturance were not significant. The Agtarap et al. (2010) results were consistent with this investigation finding that both reassurance

of worth ($b = .284, p < .016$) and social integration ($b = .660, p < .000$) were predictor variables in predicting commitment to college.

Furthermore, results from a previous study done by Baker and Siryk (1989) on students in their first semester of college ($N = 250$) were consistent with results from this investigation. Baker and Siryk's (1989) results from goal commitment-institutional attachment subscale was ($M = 108, SD = 20.2$). The results from the current study indicated the total score from the goal commitment-institutional attachment subscale was ($M = 99.46, SD = 2.23$). The score from the "college in general" subscale was ($M = 24.32, SD = .54$) and the "this college" subscale was ($M = 31.36, SD = .71$). Baker and Siryk's study indicated a higher level of goal-commitment-institutional attachment. However, the study was from students in their first semester of college. This investigation included students ranging from first year students ($n = 17$) to students in their fifth or more year of school ($n = 5$). The current year in school may have impacted the participant's scores. Scores from research question one were consistent with other studies using similar assessments and populations.

Results from research question two indicated that social support predicted commitment to college. The results from this investigation were congruent with previous literature. From the same Melendez and Melendez study (2010), they used a stepwise multiple regression analyses. Results from the regression analysis found that the parental support scale (PAQ3) significantly predicted institutional attachment (as measured by the SACQ goal commitment-institutional attachment subscale) ($\beta = .29, t = 2.97, F(1, 93) = 8.82, p < .01, 9\%$ of the variance explained). Even though Melendez and Melendez (2010) did not use the same measures, parental attachment and social support are similar measures. However, in this study, the results from the regression analysis were stronger than in the Melendez and Melendez (2010) study, however both still

found social support and parental attachment to predict college commitment and institutional attachment (as measured by the SACQ).

Similarly, Wintre and Bowers (2007) conducted a study to determine persistence to graduation of college students ($N = 944$). The researchers used both the full SACQ and an adapted version of the SPS. The SPS scale they used was tailored to determine support specifically from parents, and is 12 items instead of 24. Their study found that parental support did not significantly predict college adaptation ($\beta = .044$, $SE \beta = .022$). The Wintre and Bowers (2007) study was not congruent with results from this study, as the SPS predicted commitment to college in the current investigation. However, Wintre and Bowers (2007) specifically studied parental support, which previous studies have found were not as significant of a predictor of college success as peer and academic support (Dennis et al., 2005) and thus a potential explanation for the difference in results. Results from research question two were consistent with similar studies using similar assessments within the college student population.

Limitations

Every investigation contains limitations. While efforts have been made to minimize as many limitations as possible in this investigation, the following section discusses the limitations that were present in this investigation: (a) research design, (b) sampling, (c) instrumentation.

Research Design

Limitations within the research design include threats to internal and external validity that were discussed in Chapter Three. One major threat of interval validity is testing fatigue (e.g., getting tired) (Gall et al., 2007). To limit tester fatigue, the shortest version of the instrument or subscale was used when possible. However, 34 participants may have suffered from testing fatigue since 34 participants started the assessment however, did not make it a quarter of the way

through the questionnaire. Thus, these 34 participant's responses were removed from the data. This may have contributed to the lower response rate in the study.

In addition, the power in this investigation for the post-hoc stepwise regression is also a limitation. R statistical software suggested a sample size of 55 for one predictor. Thus, adequate power was met for the linear regression, which was used for the primary research question. However, R statistical software suggested a sample size of 98 for six predictors. While, the information gathered from the post-hoc stepwise regression with the six SPS subscales provided additional information, the sample size and lack of power may have affected the significance of results.

Sampling

This investigation used a convenience sample, and because this was not a random sample, there are limitations. The co-principal investigator had access to support offices at the university where the study was conducted. These offices provide academic, financial, and social support for historically underserved populations like first-generation college students, students of color, and low-income students. The researchers were unable to obtain access to all first-generation college students at this particular institution, thus resorting to utilizing the support networks. The university limits research on FGCS as a precaution to not oversaturate FGCS's with research studies. This convenience sample limits its potential of generalizability (Tabachnick & Fidell, 2013). This study was aimed at FGCS at a large western region university in the U.S. Therefore, generalizability of findings is only to FGCS receiving support from support networks on campus.

Another limitation in sampling is the lack of a racial diversity within the population. The two largest ethnic group respondents were Hispanic/Latino ($n = 33$) and White ($n = 21$). The

ethnic make-up of FGCS in the United States in primarily Hispanic and Black students (Pryor et al., 2007). Our study was representative of Hispanic students, however, lacked representation of Black students ($n = 3$). Therefore, representation of Black and African-American students was a limitation in this study. Thus, the results from this investigation are only generalizable to FGCS who identify as Hispanic and White at a predominately White institution at a large western university.

Furthermore, the response rate was also a limitation in this study. The approximate response rate was 3.5%. The response rate was difficult to collect, for two reasons. First, there is a good possibility of overlap from students in the various forms of recruitment. For example, if a student is a member of the support network that works directly with FGCS and identifies as Asian, they would have received the survey twice. Many students participate in multiple support networks and thus it is possible that potential participants received the survey multiple times and making the response rate lower. Secondly, the response rate was calculated using the total amount of students who identify as both Asian and Black/African American, since students were recruited from two offices that work with this population of student. Efforts were made by the researchers to recruit from all student diversity offices, however only received permission to recruit from two. The students were recruited from these two offices through a recruitment paragraph in their weekly newsletter. This newsletter is sent to all students who attend the university who identified as Asian and/or Black/African American. However, there was no way of knowing how many students opened the weekly newsletter and saw the recruitment paragraph. All students who received the newsletter were included in the response rate, contributing to the lower rate. The response rate is a limitation in this study.

Instrumentation

The assessments used within this investigation was also a limitation of this study. The two assessments used were the goal commitment-institutional attachment subscale of the *Student Adaptation to College Questionnaire* (Baker & Siryk, 1989) and the *Social Provisions Scale* (Cutrona & Russell, 1987). While the SACQ is a widely used assessment to measure adaption to college and other factors that impact adaptation to college (e.g., college commitment), there were limitations.

There are limited studies that have used the goal commitment-institutional attachment subscale independently from the SACQ. Most studies use the full scale, and therefore means and standard deviation scores were available for the goal commitment-institutional attachment subscale, however, there was no information on the two subscales within the goal commitment-institutional attachment subscale. This made it difficult to compare the results from the “this college” and “college in general” subscales to results from other research. Thus, results from those two subscales were not used in any post-hoc regression analysis and were only used in descriptive data and correlations.

Additionally, the SPS assessment has been a widely used assessment for determining how participants feel supported socially (Jackson et al., 2005). This assessment has been used previously in studies with college students (Cutrona & Russell, 1987, 1983; Wintre & Bowers, 2007), however, they are more limited in number. There are other assessments that are more widely used to measure social support among college students, such as the *Social Support Questionnaire* (Sarason, Levine, Basham, & Sarason, 1983) and the *Multidimensional Scale of Perceived Social Support* (Zimet, Dahlem, Zimet & Farley, 1988). In future research, measuring social support of college students, the *Social Support Questionnaire* or the *Multidimensional*

Scale of Perceived Social Support may be considered over the SPS. In conclusion, given some of the limitations presented from the current study, several recommendations are provided for future research.

Recommendations for Future Research

The researchers recognize several potential recommendations for future research from this current investigation. First, future researchers can replicate this study with a larger and more diverse sample, specifically representative of White, Latino, and Black college students. This investigation is limited to the generalizability of FGCS at a large Predominately White Institution (PWI) who are connected to support networks. Future researchers can include non-FGCS in their sample as well. Including both FGCS and non-FGCS would allow researchers to compare results of social support and commitment to college with both groups, and thus providing more information about the role of social support.

Second, future researchers can further explore where FGCS are receiving social support from. This study used Weiss's (1974) six social provisions to determine areas of social support received. However, the investigation did not specifically collect data from where and who their support or lack of support is coming from. Understanding more about specifically who or where is providing them support can be beneficial in developing programs within higher education to increase support in areas that are lacking.

This investigation sought to understand how FGCS perceive their social support in college by asking in an open ended question, "How would you describe your support system while in college?" This question was intentionally left vague to allow the participants to describe their support and potentially where it comes from and how supported they felt. As described in Chapter Four, results ranged in describing family, friends, and advisors, and ranging from good

support system to poor. A recommendation for future research would include studying different means of social support (e.g., family, friends, student organization, counseling, mentor groups, etc.). Additionally, for the participants who lack support, exploring their intentions and willingness to seek support from potential offices, people on campus, or family and friends at home. A formal qualitative study interviewing FGCS about their areas of social support may provide useful information in learning more about who provides them with support, or who they are willing to turn to when they are in need. Learning more about who or where students specifically turn to for support would be instrumental in designing programs and shaping the structure of higher education to support FGCS.

Furthermore, this investigation studied social support (as measured by the SPS) and six provisions of social support. The results from the Pearson-Product two-tailed correlation indicated that factors of social support are correlated with college commitment (as measured by the goal commitment-institutional attachment subscale of the SACQ). The factors of social support include: guidance ($r = .472, p < 0.01, 22\%$ of variance explained), reassurance of worth ($r = .564, p < 0.01, 32\%$ of variance explained), social integration ($r = .660, p < 0.01, 44\%$ of variance explained), attachment ($r = .593, p < 0.01, 35\%$ of variance explained), nurturance ($r = .290, p < 0.05, 8.4\%$ of variance explained), and reliable alliance ($r = .496, p < 0.01, 25\%$ of variance explained). The three strongest correlated provisions of social support with commitment to college were social integration, attachment and reassurance of worth. The linear regression used to assess if social support predicted commitment to college found a significant regression equation ($F(1, 57) = 47.70, p < .000$), with an R^2 of .456. Thus, social support (as measured by the SPS) significantly predicted SACQ goal commitment-institutional attachment scores ($b = .675, t(6.901), p < .000$). Participants from this study had high level of social support ($M =$

80.30, $SD = 1.3$). However, the participants were recruited from different support network offices on campus, and likely receiving support from these offices already. Therefore, the results from this investigation highlight the need to study more in-depth the areas of social support that FGCS turn to within higher education. As well as recruiting participants who are not already connected with support networks on campus.

The stepwise regression indicated that both the social integration subscale ($F(1, 57) = 44.099, p < .000$) and reassurance of worth subscale ($F(2, 56) = 27.092, p < .000$) predicted commitment to college. The social integration provision is the feeling of belonging to a group that shares similar interests and concerns. The reassurance of worth provision is when someone recognizes the individual's competence, skills, and value. These results indicate that future research is necessary studying these provisions specifically.

Additional recommendations for future research include conducting a longitudinal study following a group of FGCS through their years in college. Measuring their social support and commitment to college each year and where they are receiving their biggest support from. This would be useful in determining the relationship between social support and college graduation. Since FGCS current graduation rate is 12% and non-FGCS graduation rate is 58% (National Center for Education Statistics, 2015), determining how social support impacts their graduation would be helpful in developing and shaping support programs within higher education to increase the graduation rate of FGCS. Utilizing these recommendations would contribute to the gap in literature on social support for FGCS.

Implications

The purpose of this investigation was to explore the relationship between social support and commitment to college. Implication of the results of this investigation for higher education and student affairs professional will be discussed next.

As mentioned previously, FGCS students graduate college at a much lower rate than non-FGCS. Previous researchers (Melendez and Melendez, 2010; Rodriguez et al., 2003; Jenkins, 2013) have found that social support predicts higher levels of well-being and adaptation to college. Results of previous studies highlight the need to further explore factors of social support on commitment to college. Results from this investigation were congruent with previous studies indicating that social support and factors of social support were correlated and predicted commitment to college. Thus, indicating the need for support programs specifically for FGCS within higher education.

Given that the results from this investigation indicated that social support predicted commitment to college of FGCS ($F(1, 57) = 47.70, p < .000$), the implication includes forming social support networks on campus. Many universities across the nation have support services in place that support FGCS. One of the largest national programs to support FGCS through college is the Student Support Services (SSS) United State Department of Education TRIO Program. The TRIO programs have eight support programs aimed at serving low-income, first-generation college students, and students with disabilities through the academic pipeline (United States Department of Education, 2018). Various researchers have found that TRIO programs help these students through their transition into college, motivation while in college, desire to give back to the program, and support through college (Olive, 2008; Mahoney, 1998; Boughan, 1996). While TRIO programs have been found to be successful in supporting their students through

graduation, there are limitations. TRIO programs are federally funded on a five-year grant. Meaning not every university has TRIO programs on their campus and they are limited in the amount of students they are able to serve. Additionally, since TRIO programs are federally funded, they are only able to support students who have been identified by the federal government as underrepresented and citizens of the United States. Thus, not all students are able to access TRIO services. However, programs with services like TRIO should be implemented at universities to address the importance of social support for FGCS.

Additionally, summer bridge programs have become a prevalent intervention over the last five years (Wilbrowski, Matthews, & Kitsantas, 2017). Summer bridge program's general purposes are to expose FGCS and other underrepresented college students to college courses, develop academic skills, and expose them to university support services. Often, universities have support services in place, however, FGCS and underrepresented college students are unaware of services or apprehensive to utilize these services (Wilbrowski et al., 2017). Research has supported the success of these programs. Cabrera, Miner, and Milem (2013) found that summer bridge programs supporting FGCS, ethnic minority college students, and low-income college students improve participants first-year grade point averages and overall retention.

Given the strong relationship between social support and commitment to college of FGCS from both the Pearson Product correlation and linear regression of this investigation, implications include development of support networks at universities to provide social support to FGCS. Wilbrowski et al. (2017) designed a skills learning support program (SLSP) using information about successful programs like summer bridge and TRIO. The SLSP was designed for students from educationally and economically disadvantaged backgrounds whose standardized test scores fell below the admission standards. The program was a six-week

intensive summer academic program prior to the participant's first year in college. The program included college preparatory coursework, study skills training, tutoring, and extensive counseling services. Students were required to meet with counselors one-on-one for academic and personal needs. Students motivation, learning strategies, and resource management were measured prior and post intervention. This was a longitudinal study following these students academically through graduation. The results from this study indicated that the SLSPs had a positive effect on students' academic self-regulation, motivational beliefs, and academic outcomes. Additionally, students who participated in the SLSP program were more likely to graduate than regular admitted students. Those who participated in the program had strong first-year GPA in comparison to students who did not participate in the program. (Wilbrowski et al., 2017). This study found a positive effect on students who participated in the SLSP program. The requirement for counseling was unique for these type of support and transition programs. Social support can be achieved through counseling, and thus an important aspect to consider when designing support programs.

Previous research studies have also indicated that FGCS have low intentions to seek counseling, when compared to non-FGCS (Garriott, Raque-Bogdan, Yalango, Siemer, & Utley, 2017). Counseling services is one form of social support on college campuses. Previous research indicates that having a relationship with someone or knowing someone who have received help from psychological services, increases positive attitudes toward counseling (Vogel, Wade, Wester, Larson, & Hackler, 2007). Thus, programs like the SLSP designed by Wilbrowski et al., (2017) may be a useful way to increase FGCS perceptions of counseling and adding an additional resource for social support.

Overall, the current investigation found that social support can positively predict commitment to college of FGCS. Thus, programs within higher education, like the ones previously mentioned that are designed to provide social support to FGCS can help FGCS with their overall commitment to college, ideally leading to higher graduation rates of FGCS.

Chapter Summary

Chapter Five compared results from the current investigation with existing literature within higher education and student affairs. The results from this investigation should be interpreted with the limitations discussed in mind. Overall, the results from this investigation contributed to a gap in the literature exploring factors of social support and commitment to college of first-generation college students. Suggestions for future research and implications from this study were discussed.

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APPENDIX A: IRB APPROVAL LETTER



Research Integrity & Compliance Review Office
Office of Vice President for Research
Fort Collins, CO 80523-2011
(970) 491-1553
FAX (970) 491-2293

Date: September 14, 2017

To: Jessica Gonzalez, School of Education
Ariana Garcia, School of Education

From: IRB Coordinator, Research Integrity & Compliance Review Office
(RICRO_IRB@mail.colostate.edu)

Re: Exploring the Relationship between Social Support and the College
Commitment of First-Generation College Students

IRB ID: 166-18H **Review Date:** September 14, 2017
This project is valid from three years from the review date.

The Institutional Review Board (IRB) Coordinator has reviewed this project and has declared the study exempt from the requirements of the human subject protections regulations with conditions as described above and as described in U45 CFR 46.101(b):

Category 2 - Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

The IRB determination of exemption means that:

- **This project is valid for three years from the initial review.** After the three years, the file will be closed and no further research should be conducted. If the research needs to continue, please let the IRB Coordinator know before the end of the three years. You do not need to submit an application for annual continuing review.
- You must carry out the research as proposed in the Exempt application, including obtaining and documenting (signed) informed consent if stated in your application or if required by the IRB.
- Any modification of this research should be submitted to the IRB through an email to the IRB Coordinator, prior to implementing any changes, to determine if the project still meets the Federal criteria for exemption.
- Please notify the IRB Coordinator (RICRO_IRB@mail.colostate.edu) if any problems or complaints of the research occur.


Please note that you must submit all research involving human participants for review by the IRB. **Only the IRB or designee may make the determination of exemption**, even if you conduct a similar study in the future.

**APPENDIX B: CLIENT DEMOGRAPHIC, SOCIAL PROVISIONS SCALE, STUDENT
ADAPTATION TO COLLEGE QUESTIONNAIRE-GOAL COMMITMENT-
INSTITUTIONAL ATTACHMENT SUBSCALE**

The Social Provisions Scale (Cutona & Russell, 1987)

Please respond to each item by marking one box per row	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
1. There are people I can depend on to help me if I really need it.				
2. I feel that I do not have close personal relationships with other people				
3. There is no one I can turn to for guidance in times of stress.				
4. There are people who depend on me for help.				
5. There are people who enjoy the same social activities I do.				
6. Other people do not view me as competent.				
7. I feel personally responsible for the well-being of another person.				
8. I feel part of a group of people who share my attitudes and beliefs.				
9. I do not think other people respect my skills and abilities.				
10. If something went wrong, no one would come to my assistance.				
11. I have close relationships that provide me with a sense of emotional security and well-being.				
12. There is someone I could talk to about important decisions in my life.				
13. I have relationships where my competence and skills are recognized.				
14. There is no one who shares my interests and concerns.				
15. There is no one who really relies on me for their well-being.				
16. There is a trustworthy person I could turn to for advice if I were having problems.				
17. I feel a strong emotional bond with at least one other person.				
18. There is no one I can depend on for aid if I really need it.				
19. There is no one I feel comfortable talking about problems with.				
20. There are people who admire my talents and abilities.				
21. I lack a feeling of intimacy with another person.				
22. There is no one who likes to do the things I do.				
23. There are people I can count on in an emergency.				
24. No one needs me to care for them.				

Student Adaptation to College Questionnaire, goal commitment-institutional attachment subscale (Baker & Siryk, 1989)

Please respond to each item by marking <u>one box per row</u>	<div style="display: flex; justify-content: space-between;"> Doesn't apply to me at all (1) Applies very closely to me (9) </div> 								
1. I feel that I fit in well as part of the college environment.									
2. I am meeting as many people, and making as many friends as I would like at college.									
3. I am pleased now about my decision to go to college.									
4. I am pleased now about my decision to attend this college in particular.									
5. I enjoy living in a college dormitory. (Please omit if you do not live in a dormitory; any university housing should be regarded as dormitory.)									
6. I wish I were at another college or university.									
7. I am satisfied with the number and variety of courses available at college.									
8. I am having difficulty feeling at ease with other people at college.									
9. I expect to stay at this college for a bachelor's degree.									
10. I feel I am very different from other students at college in ways that I don't like.									
11. On balance, I would rather be home than here.									
12. Lately I have been giving a lot of thought to transferring to another college.									
13. Lately I have been giving a lot of thought to dropping out of college altogether and for good.									
14. I find myself giving considerable thought to taking time off from college and finishing later.									
15. I am quite satisfied with my social life at college.									

Demographic Questionnaire:

How would you describe your support system while in college? _____

Any additional comments? _____

Are you of Hispanic, Latino, or Spanish Origin? Yes ___ or No ___

If No, how do you describe yourself?

- American Indian or Alaskan Native
- Asian
- Black or African-American
- White
- Native Hawaiian or other Pacific Islander
- From multiple races
- Other

Age:

- 18
- 19
- 20
- 21
- 22
- 23
- 24+

I identify my gender as _____

- Female
- Male
- Non-binary/third gender
- Prefer to self-describe _____
- Prefer not to say

What level of school are you in?

- 1st year
- 2nd year
- 3rd year
- 4th year
- 5th or more year

First parents/guardians highest level of education?

- Less than a high school diploma
- High school degree or equivalent (e.g. GED)
- Some college, no degree
- Associate degree (e.g. AA, AS)
- Bachelor's degree (e.g. BA, BS)
- Master's degree (e.g. MA, MS, MEd)
- Professional degree (e.g. MD, DDS, DVM)
- Doctorate (e.g. Ph.D., Ed.D.)
- I do not know
- N/A

Demographic Questionnaire *continued*:

How do you identify this parent/guardian (e.g. mother, father, grandmother etc.)

- Mother
- Father
- Grandmother
- Grandfather
- Legal guardian
- Other
- N/A

Second parents/guardians highest level of education?

- Less than a high school diploma
- High school degree or equivalent (e.g. GED)
- Some college, no degree
- Associate degree (e.g. AA, AS)
- Bachelor's degree (e.g. BA, BS)
- Master's degree (e.g. MA, MS, MEd)
- Professional degree (e.g. MD, DDS, DVM)
- Doctorate (e.g. Ph.D., Ed.D.)
- I do not know
- N/A

How do you identify this parent/guardian (e.g. mother, father, grandmother etc.)

- Mother
- Father
- Grandmother
- Grandfather
- Legal guardian
- Other
- N/A

APPENDIX C: RECRUITMENT EMAIL

Dear Participant,

My name is Ariana Garcia and I am a researcher from Colorado State University in the education department. We are conducting a research study on the impact of social support on first-generation college students. The title of our project is *Exploring the Relationship Between Social Support and College Commitment of First-Generation College Students*. The Principal Investigator is Dr. Jessica Gonzalez from the education department and I am the Co-Principal Investigator.

We would like you to take an anonymous online survey. Participation will take approximately 10 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participation at any time without penalty.

We will not collect your name or personal identifiers. When we report and share the data to others, we will combine the data from all participants. While there are no direct benefits to you, we hope to gain more knowledge on the impact of social support while in college.

It is not possible to identify all potential risks in research procedures, but the researchers have taken reasonable safeguards to minimize any known and potential (but unknown) risks.

To indicate your consent to participate in this research and to continue on to the survey, please click here: [<link>](#).

If you have any questions about the research, please contact Ariana Garcia at arianag@colostate.edu or Dr. Jessica Gonzalez as Jessica.gonzalez2@colostate.edu. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: RICRO_IRB@mail.colostate.edu; 970-491-1553.

Jessica Gonzalez
Assistant Professor

Ariana Garcia
Master's student

APPENDIX D: INFORMED CONSENT

Consent to Participate in a Research Study Colorado State University

Dear Participant,

We are conducting a research study on the relationships between social support and level of commitment to college of first-generation college students. The title of our project is "Exploring the Relationship Between Social Support and College Commitment of First-Generation College Students." This study was approved by CSU Institutional Research Board 166-18H. The Principal Investigator is Dr. Jessica Gonzalez, and the Co-Principal Investigator is Ariana Garcia, master's student.

We would like you to complete the following survey. Participation will take approximately 10 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty.

There are no direct benefits for participating in this study. It is not possible to identify all potential risks in research procedures, but the researchers have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

Please note, that by completing this survey, you are indicating your consent to participate and that the following five statements are true:

1. You are **at least 18 years' old**
2. You are **enrolled in a four-year institution**
3. You are **a first-generation college student**. Meaning neither of your parents completed a degree from a four-year institution.

This study is anonymous. For this study, we are not obtaining your name or other identifiable data from you, so nobody (not even the research team) will be able to identify you or your data. All confidential information will be kept in a locked cabinet, in a locked room, within a secure building at the Colorado State University Education Building. We may be asked to share the research files for audit purposes with the CSU Institutional Review Board ethics committee, if necessary. When we write about the study to share with other researchers, we will write about the combined information we have gathered.

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigators, Jessica Gonzalez at 970-491-6289 or Ariana Garcia at arianag@colostate.edu or by phone at 509-432-5714. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: RICRO_IRB@mail.colostate.edu; 970-491-1553.

By selecting yes, you are acknowledging that you have read the information stated and willingly to accept this consent form.

Sincerely,

Dr. Jessica Gonzalez
Ph.D. Assistant Professor

Ariana Garcia
M.Ed. Student