THE IMPACT OF A MENTORING RELATIONSHIP ON COLLEGE ADJUSTMENT AND COLLEGE-RELATED STRESS FOR FIRST-YEAR, FIRST-GENERATION COLLEGE STUDENTS

A DISSERTATION

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ABSTRACT

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The researcher aimed to determine whether developing a mentoring relationship, as a form of coping for first-year, first generation college students (FGCS), would assist in reducing college-related stress and improving level of college adjustment. Experiences of first-year FGCS, who self-identify as either having or not having a mentoring relationship, were evaluated. A demographic form created for this study, the Student Adaptation to College Questionnaire (SACQ) Social Adjustment section (Baker & Siryk, 1989), the College Student Stress Scale (Feldt, 2008), the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), and the College Student Mentoring Scale (Crisp, 2009) were administered through an online survey to assess these factors. One hundred and thirty first-year FGCS matriculating at Texas Woman's University successfully participated. The sample was comprised of 89% women, 9% men, and 2% who identified as other. A MANCOVA was used to analyze all of the hypotheses on mentoring, collegerelated stress, and level of college adjustment. Based on the findings, it appears that there is a significant link between higher levels of college adjustment and lower levels of college-related stress among first-year FGCS who were involved in a mentoring

relationship. The highly mentored group did not differ on college adjustment and collegerelated stress when compared to the less mentored group. It appears that mentoring is beneficial for first-year FGCS, but that the degree of mentoring does not have an impact on college adjustment and college-related stress. Implications for theory, research, training, and practice are discussed.

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CHAPTER I

INTRODUCTION

With an estimated 6,886,000 students enrolled in a four-year college or university in 2010 (United States Census Bureau, 2010) and with post-secondary enrollments increasing 37% between the years 2000 to 2010 (Institution of Education Sciences, n.d.), it is important to aid college students' transition into the college institution. Firstgeneration college students (FGCS) have unique experiences when transitioning to college. FGCS are those whose caretakers have no post-secondary experience (i.e., never attended a community college, junior college, four-year college, or university; Bui, 2002); whereas non-first-generation college students (NFGCS) are those whose caretakers have had some post-secondary experience. This difference can impact FGCS' attempts to enter college in a variety of ways. For example, FGCS received information about how to transition to college from high school counselors rather than their families (Gibbons & Shoffner, 2004). Additionally, FGCS reported receiving support from friends who were not enrolled in college, while second-generation college students (SGCS) received support from friends who were enrolled (Hertel, 2002). Consequently, FGCS' level of preparedness to enter college is often negatively impacted when they are unable to receive information on how best to transition to college (Gibbons & Shoffner, 2004).

FGCS are a unique group of students in comparison to their NFGCS counterparts because they experience college differently than NFGCS. For instance, FGCS reported performing at a lower academic level than NFGCS (Ramos-Sánchez & Nichols, 2007). Further, FGCS indicated having less academic and social satisfaction, lower GPA scores, and an increase in academic difficulties, in comparison to NFGCS (Mehta, Newbold, & O'Rourke, 2011; Wang & Castañeda-Sound, 2008). With FGCS experiencing academic difficulty (Wang & Castañeda-Sound, 2008), they have often reported beginning the school year with lower self-efficacy compared to NFGCS (Ramos-Sánchez & Nichols, 2007). Overall, FGCS experience greater academic difficulty, lower self-efficacy, lower college adjustment, and lower social satisfaction than NFGCS during their first year in college. These results indicate that FGCS need additional assistance to address these concerns when adjusting to college.

To aid in improving college adjustment and social satisfaction for all first-year students, college institutions have begun utilizing various programs, such as orientation and mentoring programs to assist first-year students. Effective orientation programs have worked to bridge recruitment and retention strategies (National Orientation Directors Association, 2012). The National Orientation Directors Association postulated that effective orientation programs introduce students to educational and extracurricular environments and facilitate interactions with other students, faculty, and staff. Researchers have reported that increased interaction with academic counselors during orientation programs has been helpful for first-year students who are transitioning to college (Barefoot & Fidler, 1994). Programming that facilitates the connection of students with academic advisors is encouraged because of the positive relationship

between student involvement and retention (Barefoot & Fidler, 1994; Buhr, Pelletier, & Wark, 1987). In addition to the positive effects of orientation programs on student success, mentoring programs have also been linked with improved retention and graduation rates (Davis, 2009; Wilson et al., 2012).

Mentoring is another form of programming used to help first-year students adjust to college. The purpose of mentoring for undergraduates is to help them find their vocation, make practical vocational choices, and match their talents with their career choices (Anderson & Shore, 2008). First-year students involved in mentoring programs reported positive benefits of receiving guidance, support, and assistance to adjust to college (Hughes & Fahy, 2009). Overall, mentors were found to be an influential support system in first-year students' adjustment to college (Zalaquett & Lopez, 2007). In particular, first-year students reported receiving more mentoring support than higherlevel students (Crisp & Cruz, 2010). It appears that mentoring can provide support for first-year students, which results in higher levels of college adjustment.

Phinney, Campos, Kallemeyn, and Kim (2011) reported that mentoring helped first-year students perform better academically and provided psychosocial support. More specifically, mentoring assisted students in learning about their scholastic program, engaging them in their department and in meeting their faculty, integrating academic information, and increasing academic persistence (Hughes & Fahy, 2009; Larose et al., 2011). Undergraduates reported increased socialization, being academically challenged, and increased self-efficacy scores as a result of their mentoring relationship (Davis,

2009). Additionally, first-year students stated that mentoring assisted them with their career decision-making during the first semester; during the second semester, mentoring improved their level of social adjustment (Larose et al., 2011). Overall, mentoring has been found to provide academic, social, and professional support for first-year students. Further research on the impact of mentoring among FGCS may be helpful, as these students have reported lacking a sense of community when entering college (Orbe, 2004). Additional research on mentoring for FGCS is important, as a lack of community and social support has been associated with lower GPAs (Folger, Carter, & Chase, 2004) and lower levels of college adjustment (Gall, Evans, & Bellerose, 2000; Toews & Yazedjian, 2007). Perhaps mentoring for FGCS will be useful in the same ways it has helped NFGCS.

When reviewing the literature regarding college students receiving community and social support during their first year, it was found that SGCS experienced greater social adjustment than FGCS (Hertel, 2002). Orbe (2004) acknowledged the importance of creating a sense of community for FGCS so that they can share their college experiences with their FGCS peers. Mehta, Newbold, and O'Rourke (2011) encouraged FGCS' participation in Living-Learning programs (i.e., residential programs that allow students to live together, take similar classes, access specialized programming, and encourage interactions among faculty and students) on campus, engaging in specific programs for FGCS, increasing peer interactions, and developing programs that specifically target FGCS who transfer from community colleges. Gibbons and Shoffner

(2004) suggested using small group support meetings to model how FGCS can be supportive to each other once they have entered college, to further increase the interaction between the FGCS community on campus. What is left unexplored is how effective are the existing mentoring programs in helping first-year FGCS adjust to college? How do first-year FGCS who do not participate in these programs handle the transition to college? How capable are mentors in addressing the potentially stressful experiences of FGCS upon entering college, given that first-year students often rely on social support to cope with stress?

The first year in college has been found to be a stressful experience for college students. Gall, Evans, and Bellerose (2000) reported that first-year students experienced poorer health and higher levels of stress when transitioning to college, resulting in negative health, negative mood, and poor academic performance, compared to students' self-reports later in the school year. First-year students reported higher stress than third-and fourth-year students (Misra, McKean, West, & Russo, 2000). Higher stress levels have been linked with higher levels of depression for first-year students (Dyson & Renk, 2006) and lower GPAs (Kerr, Johnson, Grans, & Krumrine, 2004). It was also found that, when stress levels decreased, college adjustment (Brooks & DuBois, 1995; Friedlander, Reid, Shupak, & Cribbie, 2007), social adjustment, and personal/emotional adjustment increased (Brooks & DuBois, 1995). Mentoring has been found to help first-year students cope with stress and depression (Phinney, Campos, Kallemeyn, & Kim, 2011), but

further research is needed to understand the mechanisms through which mentoring had these effects.

Overall, FGCS have more negative first-year college experiences than NFGCS, which increase the level of difficulty in adjusting to college. Researchers have supported the development of small peer groups to create a community atmosphere for FGCS (Gibbons & Shoffner, 2004; Orbe, 2004), given that peer groups were found to improve GPA for FGCS (Folger et al., 2004). What has yet to be studied is the effectiveness of first-year mentoring in helping first-year FGCS adjust to college and manage their stress levels. In the following chapter, the research literature on mentoring relationships, college adjustment, and college-related stress will be reviewed with the intention of answering the question: Does mentoring, either in formal or informal relationships, improve college adjustment and reduce college-related stress for FGCS?

CHAPTER II

LITERATURE REVIEW

First-generation college students (FGCS) often have a different experience of entering college than non-first-generation college students (NFGCS). The literature reviewed in this chapter will address mentoring relationships, college adjustment, and college-related stress for college students and specifically FGCS.

Mentoring

To begin, Berk, Berg, Mortimer, Walton-Moss, and Yeo (2005) described mentoring as a relationship ranging from informal and short-term to formal and longterm, where faculty members use their experience, knowledge, and skills to provide advice, information, support, and referrals to other faculty members or for professional development, when appropriate. The authors indicated that mentors should have "expertise, professional integrity, honesty, accessibility, approachability, motivation, respect by peers in field, and supportiveness and encouragement" (Berk et al., 2005, p. 67). Several forms of mentoring have been found in academic and professional settings.

A Model of Mentoring

Blake-Beard, Bayne, Crosby, and Muller (2011) defined a mentoring relationship as one where the mentor serves as a role model and provides experience in career and psychosocial concerns. Jacobi (1991) stated that mentoring includes psychological/emotional support, career and professional development, along with role modeling. Kram (1983) also acknowledged that mentoring included career support, psychosocial development, and role modeling. Berk, Berg, Mortimer, Walton-Moss and Yeo (2005) believed that mentors have the responsibility to provide resources and expertise in a certain career field, offer guidance regarding professional concerns, respect the mentees' individuality, promote the mentees' autonomy, engage and challenge mentees regarding work, and share feedback with mentees.

Nora and Crisp (2007) identified mentoring functions by assessing mentoring relationships among undergraduate students. The authors identified four domains of mentoring: "psychological or emotional support, support for setting [academic/career] goals and choosing a career path, academic subject knowledge support aimed at advancing a student's knowledge relevant to their chosen field, and specification of a role model" (Nora & Crisp, 2007, p. 342). Nora and Crisp (2007) defined psychological and emotional support as providing encouragement on personal concerns and guidance toward students' goals. Academic/career goal-setting and appraisal were described as using a self-appraisal to set personalized career and academic goals. Academic subject knowledge support was defined as providing students with necessary information to advance in their chosen field. Role modeling was described as the sharing of the mentors' experiences with the mentees.

Nora and Crisp's (2007) model of mentoring guides this literature review. In Nora and Crisp's (2007) model of mentoring, the first domain, the psychological and emotional

needs of mentees, is supported by existing research literature. For example, Anderson and Shore (2008) supported the idea that the mentors of undergraduate students must use the mentoring relationship to help increase mentees' level of developmental and vocational autonomy, which helps to develop mentees' cognitive and emotional independence. This result has the potential to encourage mentees to increase self-reliance, reduce reliance on family and friends for emotional support, and make sound academic decisions. Anderson and Shore encouraged mentors to increase mentees' level of independence as another means to address students' psychological/emotional needs. To meet the psychological needs of mentees, Kram (1983) identified the importance of developing psychosocial functions in mentees through role modeling, emotional support, friendship, and counseling.

Nora and Crisp's (2007) second domain of mentoring is providing academic/career support, which is supported by research literature. Kram (1983) indicated that mentoring relationships provide academic/career development for mentees through activities, such as coaching, providing challenging work, increasing exposure to the field, and protecting mentees, when necessary. As an example, Anderson and Shore (2008) noted that undergraduates have less life experience than graduate students, resulting in the need for mentors to provide a diverse array of academic/career support functions, such as giving professional guidance, emotional support, and examples from their own lives to their undergraduate mentees. The authors concluded that the focus of undergraduate mentoring relationships should be on helping mentees find their vocation by providing academic subject knowledge, increasing mentees' awareness of their own skills, providing career options to mentees, and matching mentees' skills to the appropriate career field. Mentors are also expected to provide academic advising, act as gatekeepers for the vocation, and identify how to best use the mentees' talents (Anderson & Shore, 2008). Therefore, it seems that mentoring includes attending to the academic and career aspirations of mentees, especially for undergraduates.

Nora and Crisp's (2007) third domain, providing academic subject knowledge, involves sharing information needed to advance in the mentees' chosen field. Providing academic subject knowledge support means assisting mentees in acquiring necessary academic skills and knowledge, being educated about their chosen field, being a tutor when necessary, and challenging mentees academically (Crisp, 2009). In reviewing the research, it appears that the domain of academic subject knowledge was often collapsed and included in the academic/career support domain, also referred to as career/professional support (Blake-Beard et al.; Jacobi, 1991; Kram, 1983). However, Crisp and colleagues have continued to argue that academic subject knowledge is a separate element found within mentoring (Crisp, 2009; Crisp & Cruz, 2010; Nora & Crisp, 2007).

Nora and Crisp's (2007) fourth domain, role modeling, is the sharing of past or current experiences with mentees with the intention of enhancing their learning experience and enriching the mentoring relationship (Crisp, 2009; Nora & Crisp, 2007). Role modeling allows mentees to look to their mentor for guidance and identify with the role model (Blake-Beard et al., 2011). Kram (1983) suggested that role modeling is a psychosocial function, which provides psychological/emotional support to mentees. Firstyear mentees have identified their mentors as being role models for appropriate behavior in the college environment (Buote et al., 2007), socialization, and demonstration through their actions of how to become involved in their institution and the benefits of becoming involved (Jacobi, 1991). With this understanding of the four elements of mentoring, it is helpful to explore how mentors impacted mentees through formalized mentoring programs.

Peer Mentoring

Researchers have noted that at times peer mentoring may be more impactful than faculty/student mentoring. For example, peer mentors were found to be more effective than faculty mentors for students beginning their first mentoring relationship or who may have low self-efficacy regarding their previous mentoring relationship (Ensher & Murphy, 2010). Peer mentors have been found to provide personal/emotional, academic, and social support to their mentees (Page & Hanna, 2008). First-year mentees believed that their peer mentors were aware of their needs regarding being new to the university, able to help them transition to college, able to provide support because they were in their position previously, and helpful with personal and academic-related concerns (Hill & Reddy, 2007).

Sanchez, Bauer, and Pronto (2006) studied peer mentoring among first-year, business undergraduates who participated in a mentoring program and compared the

results against non-mentored undergraduates. The authors completed a longitudinal study, following participants across their four-year college career. The authors found that the benefit of receiving peer mentoring during the first semester resulted in an increased satisfaction with the university. Similar results were reported during students' last semester at the institution. In particular, the higher the quality of peer mentoring, as measured by the responses from the mentored students, the more students reported satisfaction with the university and commitment to the institution (Sanchez et al., 2006). Additionally, peer mentoring was found to aid in the level of satisfaction and commitment to mentees' undergraduate major among science, technology, engineering, and mathematics (STEM) students (Holland, Major, & Orvis, 2012).

Hughes and Fahy (2009) researched the impact of peer mentoring among firstyear psychology undergraduate students. The mentoring program utilized third- and fourth-year students as mentors to incoming first-year students. The mentors were encouraged to be active with their mentee throughout the school year. The authors noted that mentees reported being more acquainted with the psychology department and staff due to their participation in the peer mentoring program. As a result, students reported being encouraged to become active in the department. Overall, mentees rated the peer mentoring experience positively.

Some of Hughes and Fahy's (2009) findings about becoming more acquainted with and being more active in the psychology department were supported by Chester, Burton, Xenos, and Elgar (2013), who also studied the impact of peer mentoring among

first-year psychology students. Chester et al. found that first-year psychology students who participated in the peer mentoring program reported greater levels of feeling connected, understanding the college environment, psychology knowledge, and awareness of resources in comparison to first-year psychology students who did not participate. Seventy percent of mentees enjoyed the peer mentoring, 59% found it helpful with their academic work, and 61% believed it contributed to their sense of belonging. By the end of the semester, mentees reported increases in deep learning, such as seeking meaning, using evidence, relating to and having interest in ideas, and strategic learning, such as organized studying, using time management, awareness of demands, monitoring effectiveness, and academic achievement, when compared to their counterparts who did not participate in the peer mentoring program.

In regard to academic improvements and learning styles, first-year students who participated in a different peer mentoring program endorsed higher scores of strategic and deep learning approaches at the end of the first semester in comparison to their initial scores, and the non-mentored first-year students reported a decrease in deep learning approaches (Fox, Stevenson, Connelly, Duff, & Dunlop, 2010). Program participants were found to have achieved a higher level of academic performance than their nonparticipating counterparts (Fox et al., 2010). Fox and Stevenson (2006) also studied the impact of peer mentoring on academic improvement and found that at-risk first-year accounting students, identified by faculty members as potentially failing, who participated in a peer mentoring program reported passing more papers than at-risk first-

year students who did not participate in the program. Participants also showed a slight academic improvement at the end of the mentoring program (Fox & Stevenson, 2006).

Hughes, Steinhorn, Davis, Beckrest, Boyd, and Cashen (2012) studied the effect of a university-based service-learning mentoring program specifically focusing on its impact on the mentors. The authors assessed 29 undergraduate and three graduate mentors as they provided mentoring to high school students in underprivileged areas. The mentoring program consisted of mentor training, class discussions, mentoring mentees in their high school atmosphere, and ongoing reflection. The program lasted for 16 weeks, with mentors meeting with mentees up to twice weekly. The authors found that mentors reported increased awareness of poverty and social inequalities, such as racism and economic and social disparities, in their surrounding neighborhoods through their participation in a formal service-learning mentoring program.

Peer mentoring has been helpful with providing first-year students psychosocial support (Ensher & Murphy, 2010; Holland et al., 2012; Sanchez et al., 2006), academic support (Chester et al., 2013; Fox & Stevenson, 2006; Fox et al., 2010; Hughes et al., 2012), and aid in their adjustment to college (Hill & Reddy, 2007). Additionally, peer mentored students have become more acquainted with and encouraged to be more active in academic departments (Hughes & Fahy, 2009) and received a benefit of becoming aware of social concerns through specific service-learning mentoring programs (Hughes et al., 2012). It is clear that there are positive benefits of peer mentoring for transitioning students; however, peer mentoring is only one form of mentoring. In addition to

understanding the impact of peer mentoring on students, it is also important to learn about the impact of faculty/student mentoring as another option for students.

Faculty/Student Mentoring

Discussions of formalized mentoring programs between faculty and students were found in the mentoring literature. Researchers have noted that at times faculty/student mentoring may be more impactful than peer mentoring. For example, faculty/student mentoring was reported to be most helpful for providing career-related support (Ensher & Murphy, 2010; Gannon & Maher, 2012). It also was noted that, in order for faculty/student mentoring to be most helpful, it is important to develop the mentoring relationship early in the mentee's college career, at least before their final school year as an undergraduate (Gannon & Maher, 2012; Hughes & Fahy, 2009). The encouragement to begin a mentoring relationship early in students' college career may be due to firstyear students' greater openness to a mentoring relationship when compared to higher level undergraduate students (Opayemi, 2012).

Salinitri (2005) studied the impact of a formal, faculty/student mentoring program among first-year, low-achieving students, which was determined by academic standing and GPA. Students who participated in the mentoring program reported that their overall GPA and major GPA were statistically significantly higher than their non-mentored counterparts. Additionally, mentees reported failing fewer classes than their nonmentored counterparts. The author suggested that mentored students received academic and social support, which in turn increased their retention rates after the first year.

Additional findings support the connection between faculty/student mentoring and retention as well as academic performance. Wilson et al. (2012) studied the impact of the Howard Hughes Medical Institute (HHMI) Professors Program on student retention among Louisiana State University (LSU) STEM undergraduates. The program consisted of providing services through the Center for Academic Support office, offering research opportunities, facilitating mentor/mentee relationships, and advising aimed at empowering students. The authors reported that STEM student retention increased as a result of the mentoring program when compared to STEM students who were not participants in the mentoring program. Additionally, participants of the mentoring program showed an increase in the graduation rate of "62 and 55% respectively for all and minority students" (Wilson et al., 2012, p. 152), and "LSU-HHMI Scholars were significantly more successful in completing STEM BS Degrees than non-participants at LSU" (p. 152). The authors believed that mentoring, academic interventions, exploring career opportunities, and completing undergraduate research contributed to students embracing five essential factors: (1) realizing that their current efforts to complete academic standards were not working, (2) making a commitment to identify what was not working, (3) changing their perspective on their ability to learn a difficult subject, (4) committing and following through on their action plan, and (5) seeking improvement (Wilson et al., 2012).

Faculty/student mentoring has continued to be linked with providing necessary academic and social support to students. Zalaquett and Lopez (2007) researched the

impact of mentoring among Latino undergraduate students. According to the researchers, students reported the tendency to utilize informal mentors who were family members and had little knowledge about college. However, when students reported having high school teachers or school counselors as mentors, they reported receiving academic guidance, moral support, and assistance with college admission. In these more successful mentoring partnerships, students indicated receiving support that welcomed them to the university; acquainted them with the college norms, values, culture, and resources; and provided advice and moral support when necessary.

The overall message of these studies is that the faculty/student mentoring can have positive influences on academic performance, retention, graduation rates, and college adjustment for first-year students (Salinitri, 2005; Wilson et al.,, 2012; Zalaquett & Lopez, 2007). It is important to recognize that both peer mentoring and faculty/student mentoring have a positive impact on academic performance and college adjustment. This positive impact experienced by first-year students after completing a peer or faculty/student mentoring program needs to be evaluated for mentoring relationships with FGCS.

Mentoring Programs for Undergraduate Students

The mentoring literature described many positive outcomes of peer and faculty/student mentoring for undergraduate students. Kalen, Ponzer, and Silen (2012) studied the importance of one-on-one mentoring among undergraduate medical students. These mentees were given physicians as mentors for up to two years. It was found that

mentoring relationships fostered a space for students to reflect on their future profession. Additionally, according to the mentees, these mentoring relationships increased their excitement toward work, motivation to learn, identification with the role of being a doctor, and connectedness to the professional community. Additionally, mentoring aided students in their ability to adopt and integrate the new knowledge, ethical values, and social codes associated with the medical field.

Larose et al. (2011) studied mentoring with undergraduate students who majored in science. The participants were newly admitted students to the Mentoring for the Integration and Success of Science Students program. Students were chosen from the math, science, or technology programs. The authors assessed the impact of three differing modalities: received tutoring only, received tutoring and mentoring, or received no intervention. The authors found that participation in the mentoring modality increased participants' academic motivation, career decisiveness, and college adjustment. The authors reported positive effects on career decisiveness and level of persistence after one semester of mentoring and on academic motivation, social adjustment, and institutional adjustment after two semesters. Wilson et al.'s (2012) study also provided support for the positive impact of mentoring programs among students majoring in science. Wilson et al. studied the impact of a mentoring program for STEM undergraduate students and reported that student retention and graduation rates increased when students participated in the mentoring program. Phinney, Campos, Kallemeyn, and Kim (2011) developed a mentoring program to improve academic performance for Latino students. The authors assessed first-year students who were at high risk for poor academic performance and compared the impact of the mentoring program against high-risk students who did not enroll in the mentoring program. Mentored students maintained their level of academic motivation during the first semester whereas non-mentored students did not. During a second study that occurred the following semester, mentored students' levels of depression and stress decreased during the year, while the non-mentored students' levels of depression and stress increased. Most importantly, mentored students were less likely to be considered at risk at the end of the school year. Increased contact time with mentors led to increased relationship quality, satisfaction with the mentoring program, and belongingness to the institution. The researchers reported that mentees whose mentors provided encouragement and empathy also improved psychosocial performance.

Gannon and Maher (2012) studied the efficacy of their undergraduate mentoring program, which aimed to facilitate the transition from college to work. The authors assessed the mentoring relationships with college alumni and college seniors majoring in hospitality and tourism. While most mentees found the mentoring relationship to be beneficial in providing career advantages, some reported that the mentoring relationship distracted them from working on projects. Specifically, mentees who were completing their final year in the program and who were in honors courses found the program to be distracting. Therefore, the researchers suggested that the mentoring program should occur earlier in mentees' undergraduate experience to avoid this conflict (Gannon & Maher, 2012). Mentors who are involved in formal mentoring programs have positively impacted students' academic performance (Kalen et al., 2012), college adjustment (Larose et al., 2011; Phinney et al., 2011), and stress (Phinney et al., 2011). In this research literature, it is not clear whether mentors who are not involved in a formal mentoring program have a similar positive impact on their mentees. Also, it is not clear whether Nora and Crisp's (2007) four domains of mentoring have a positive impact on FGCS.

Mentoring Ethnic Minority Students

Researchers have studied the impact of mentoring on ethnic minority students. Crisp and Cruz (2010) studied the mentoring experience of ethnically diverse students attending a Hispanic Serving Institute. The authors assessed the level of psychological/emotional support, degree/career support, academic subject knowledge support, and the existence of a role model in students' lives. The diverse sample was composed of 42% Hispanic, 42% Caucasian, 8% African American, 6% Asian American, and less than 1% Native American students. Caucasian and Hispanic students reported receiving a similar quality of mentoring, such as providing psychological/emotional support, academic knowledge, degree/career support, and being a role model. Due to an inadequate sample size, the researchers did not explore the results from the African American, Asian American, and Native American students.

Langer's (2010) reported findings on mentoring ethnic minority students that differed from those in the Crisp and Cruz (2010) study. Langer assessed how

nontraditional undergraduates at Empire State College experienced a mentoring program, which involved mandated mentoring interactions between faculty and students with the goal of students developing their own academic program. The sample was composed of 82% Caucasian, 9% African American, 5% Hispanic, and 4% identified as Other. The author analyzed the ethnic groups separately and grouped all of the ethnic minority students into a non-White group when comparing them with the Caucasian group. Mentees shared their experience of the mentoring program, perceptions of the mentoring received, definition of their mentors' roles and responsibilities, and the most valued aspect of the mentoring process. Mentees from an ethnic minority background reported having different experiences than their Caucasian counterparts. The author reported that "non-White students had more problems obtaining needed faculty and administrative resources, lower levels of self-esteem and higher senses of academic and social isolation than White students" (p. 32) and often did not seek their mentors' assistance in these areas (Langer, 2010).

Blake-Beard, Bayne, Crosby, and Muller (2011) studied the impact of matching mentors with mentees on the basis of gender and race among STEM undergraduate and graduate students. The authors assessed what mentees desired in mentoring relationships, whether they have had a mentor who matched the mentees' gender or race, and whether matching affected mentoring experiences and academic outcomes. The researchers found that students reported receiving more help from mentors who were either of the same race or gender than students who were not matched by race or gender. The authors cautioned that matching on gender or race might be based on incorrect or biased assumptions about demographic characteristics that may be irrelevant to the mentee, whereas matching on deep level characteristics, such as attitude or personality, might have a better result than matching on race or gender alone (Blake-Beard et al., 2011).

In another study on mentoring ethnic minority students, Davis (2009) studied the impact of a national faculty/student mentoring program on African American mentees. Specifically, Davis studied the academic influence of the Committee on Institutional Cooperation's (CIC) Summer Research Opportunity Program (SROP). Although the mentoring program is open to all ethnic minority students, this author focused on results from the African American participants. The mentoring program is 8 to 10 weeks long, and it includes research experiences for ethnic minority undergraduates with the aim to increase minority representation among doctoral candidates. Davis conducted semistructured interviews at various CIC SROP locations across the nation, asking students about the experiences they hoped to have from the program and with their mentor, their satisfaction with the program, their career goals, and how they see the CIC SROP impacting their role in achieving their career goals. Davis reported that mentoring assisted African American students' level of socialization, resulting in increased exposure to varied aspects of academia, peer review of scholarly work, and conference presentations. Additionally, students reported being academically challenged through their mentoring relationship, which increased their knowledge of the research process, academic writing, and career goals. Davis suggested that institutions create formal or

informal mentoring programs for minority students to increase their engagement, retention, and achievement in college (Davis, 2009).

Mentoring and First-Generation College Students

Only one article could be found that specifically discussed mentoring relationships with FGCS, indicating a dearth of knowledge in this area. Therefore, the Ishiyama (2007) article will be reviewed in depth to glean any helpful information regarding mentoring among FGCS.

Ishiyama (2007) researched mentoring and its effect on first-generation African American and Caucasian students in order to discover if race and academic generational status impact mentoring. The author assessed 33 participants from Truman State University's Ronald E. McNair Post-baccalaureate Achievement Program. Participants of the McNair program were typically FGCS, low socioeconomic status (SES), and from an under-represented ethnic group. The McNair program was designed to prepare undergraduate students for graduate school experiences, which would lead to doctoral degrees. All McNair students received mentorship from faculty members and were expected to complete independent undergraduate research projects successfully. Students became eligible to enter the program during their second year in college and were eligible to remain in the program until graduation. The sample included 11 Caucasian FGCS with low SES, 12 African American FGCS with low SES, and 10 African American NFGCS whose SES status was not reported. The sample's gender makeup was approximately 60% female and 40% male students. Fifteen participants were completing their senior

year, while 18 students recently began the research process and were completing their sophomore year. Students reported studying the physical sciences (11 students), social sciences and business (17 students), and humanities and arts (5 students) (Ishiyama, 2007).

Participants were interviewed about their perception of the mentoring relationship with regard to the following three topic areas: career support, research/academic support, and personal consideration, which is providing personal/emotional support (Ishiyama, 2007). The author did not use the four-domain model presented by Nora and Crisp (2007), but investigated similar mentoring areas in this research. The author asked questions regarding the benefits of research experience, which were categorized into the following themes: "'Enhancement of professional and academic credentials,' 'Clarification of Career Path,' 'Understanding the Research Process in your field,' 'Learning a Topic in Depth,' and 'Developing a Continuing Relationship with a faculty member'" (p. 544).

The author also presented questions about the characteristics of a good mentor, which were categorized in five themes: "Expert in their field, Accessible, Friendly, Communicative of goals and plans, Personally concerned with student's welfare, and Helpful with project" (Ishiyama, 2007, p. 544). Ishiyama (2007) reported on the perception of career support and research benefits across all three groups. Upon entering the program, the African American FGCS and NFGCS found it more important to have a mentor who they perceived to demonstrate personal consideration, or personal/emotional support, in comparison to the Caucasian students who did not perceive personal consideration as an essential component to the mentoring relationship. As African American students progressed through the mentoring program, they were less likely to consider personal consideration as an important factor in a mentoring relationship. Regarding reported benefits from participating in the mentoring program, Caucasian FGCS frequently cited that the enhancement of their professional/academic credentials was most beneficial, while the African American FGCS and NFGCS frequently cited that clarification of their career path and increased psychological well-being were most beneficial. Overall, the top three selected benefits for all groups were "enhancement of professional or academic credentials, developing a continuing relationship with a faculty member, and understanding the research process" (pp. 546-547). When describing a good mentor, Caucasian students stated that being an expert in the field was an important characteristic, while African American students indicated that being personally concerned about students was an important mentoring characteristic (Ishiyama, 2007). The researcher relied on the students' reported perceptions of their mentors and mentoring experience.

In summary, whether peer mentors or faculty mentors provided first-year mentees with the four domains of mentoring (i.e., psychological/emotional support, academic/career support, academic subject knowledge, and being a role model; Nora & Crisp, 2007), mentees reported higher levels of psychosocial/emotional support (Ensher & Murphy, 2010), academic support (Fox & Stevenson, 2006; Fox et al., 2010), college adjustment (Hill & Reddy, 2007; Salinitri, 2005; Wilson et al., 2012; Zalaquett & Lopez, 2007), academic performance (Salinitri, 2005; Wilson et al., 2012), and lower levels of stress (Phinney et al., 2011). Unfortunately, due to a dearth of research on the impact of mentoring programs among first-year FGCS, it is difficult to ascertain whether mentoring programs or informal mentors can have similarly positive results with first-year FGCS, as has been reported with other first-year students. Additionally, positive results from mentoring may also influence overall college adjustment for FGCS, and a review of related literature on college adjustment is presented next.

College Adjustment

College adjustment is the transition to a secondary learning institution that impacts whether students believe they belong, feel tense or relaxed in their new environment, remain up-to-date with their academic work, create friendships, attend class, and are satisfied with their social life (Dahmus, Bernardin, & Bernardin, 1992). Students' level of attachment to academia, their social environment, personal/emotional adjustment, and attachment to the institution were named as contributors to overall college adjustment and retention to the institution (Baker & Siryk, 1984). College adjustment can also be understood as the ability to adapt to the demands of an academic environment. It should be noted that social adjustment was found to be a strong predictor of college adjustment and retention rates among first-year students (Baker & Siryk, 1984).

Regarding the relationship between college adjustment and social adjustment, Schmidt and Welsh (2010) found that students who reported low college adjustment also

reported experiencing low social support. Additionally, Woosley (2003) along with Gerdes and Mallinckrodt (1994) reported that social adjustment was related to a high likelihood of degree completion. Moreover, peer support was predictive of college adjustment for Caucasian females (Toews & Yazedjian, 2007). Due to the powerful effect of social adjustment on academic progress and overall college adjustment, social adjustment will be discussed at an in-depth level.

Social Adjustment in First-Year College Students

Social adjustment is the ability to acclimate, function, and participate in a new social environment (Baker & Siryk, 1984). Students' participating in social activities, engaging in social relationships, coping with relocating away from social support at home, and accepting new social environments are examples of successful social adjustment to college (Baker & Siryk, 1984). Woosley (2003) reported that high levels of social adjustment were positively correlated with degree completion.

Kenny and Stryker (1996) studied how social networks impacted college adjustment for diverse students during their first year of college. Participants who were included in the ethnic minority group identified as African American (30%), Asian American (28%), Hispanic American (38%), and Biracial (4%). The ethnic minority group was compared to an European American group. Both groups provided information regarding their social network size, which included people with whom they had contact at school, work, home, and in other social settings. During the first semester, Caucasian students reported having larger social networks than students who identified as an ethnic minority. During the second semester, students who identified as an ethnic minority

reported similar social networks as their Caucasian counterparts. The authors theorized that Caucasian students developed friendships on campus as a means of enjoying their college experience, while minority students might have initially reported smaller social networks because of their reported lower levels of personal/emotional adjustment. Kenny and Stryker surmised that ethnic minority students might view college as an opportunity to prepare for jobs rather than to socialize, which might have contributed to the first semester differences in their levels of social adjustment.

Buote et al. (2007) studied the development of friendships and its impact on college adjustment for first-year students and found that the development of new, high quality friendships (i.e., those that provide help, intimacy, reliability, companionship, self-validation, and emotional security) increased overall social adjustment to college. The authors reported that friendships helped to provide feelings of belongingness, emotional support, assistance, advice, and access to role models. The researchers suggested that it was important for students to be open to new friendships, as openness produced higher quality and quantity of friendships, which positively impacted their social adjustment during their first year. Further, Gray, Vitak, Easton, and Ellison (2013) found that the number of Facebook friends enrolled at the students' university positively impacted students' social adjustment.

Mattanah et al. (2010) studied the effect of a nine-week peer-led support group for first-year students transitioning to college. The authors found that participants reported improved social adjustment with peer support, which reduced their feelings of loneliness and increased their level of perceived social support in comparison to the control group. The benefits of the peer-led groups included learning that peers had experienced similar challenges, receiving role modeling on how to navigate the transition to college successfully, and obtaining information about valuable campus resources.

Also, a lack of social support can negatively impact academic performance (Folger, et al., 2004) and college adjustment (Gall et al., 2000; Toews & Yazedjian, 2007), further promoting the importance of providing a social network for students. Although these studies addressed the impact of social support among first-year students, they have not addressed how social support impacts first-year FGCS. It is interesting to note that students of ethnic minority status experience similarities to first-year FGCS in that they have smaller social networks at the beginning of the academic year (Kenny & Stryker, 1996; Orbe, 2004).

Saunders and Serna (2004) studied Latino/a FGCS' transition to college and found that students who created new social support systems achieved higher GPAs compared to students who continued to rely on their old social support system. Overall, the authors found Latino/a students, who were able to maintain their old social networks and develop new social networks, were more likely to make progress in completing their degree. The authors emphasized the importance of programs that help facilitate warm and nurturing relationships to bridge the transition from high school into college and beyond.

Hertel (2002) studied the perception of on-campus and off-campus support among first-year FGCS and SGCS. SGCS were found to experience greater social adjustment than FGCS. FGCS reported lower levels of social adjustment, which Hertel suspected resulted from receiving less on-campus social support compared to the reports of SGCS. FGCS received more support from friends who were not enrolled in college, while SGCS received more support from friends who were enrolled. Hertel (2002) believed that SGCS' greater ability to adjust may have resulted from their knowledge of college, receipt of additional social support, preparation in high school, focus on college activities, and greater financial means. The positive impact of social adjustment for first-year students is clear, but social adjustment for first-year FGCS students needs further investigation. Social adjustment among FGCS may be influenced by college-related stressors, as transitioning to college is often experienced as a stressful event.

Impact of College-Related Stress on College Students

Researchers have explored the experiences college students have with stress. Lazarus and Folkman (1984) have been widely cited as the leading theorists regarding stress theory. The authors defined stress as occurring when people experience an event that is perceived as threatening to their well-being or is overwhelming for their resources, such that they label the event as stressful. Folkman (1984) noted that stressors are classified as discrete events or continuous events, and Folkman, Lazarus, Pimley, and Novacek (1987) identified stressors in terms of major life events and daily hassles. Chronic stressors were also named as another form of stress (Pratt & Barling, 1988). Major life events were described as discrete events, which are high in intensity, but have low frequency (Hahn & Smith, 1999). Daily hassles were originally defined as
continuous events that are low in intensity and occur at a low or high frequency (Hahn & Smith, 1999). Pratt and Barling (1988) suggested that daily hassles were minor life events that lasted for a short amount of time, had a low intensity level, and occurred infrequently. Chronic stressors were defined as lasting for a short to a long period of time, having low or high intensity levels, and occurring frequently (Pratt & Barling, 1988).

Serido, Almeida, and Wethington (2004) studied how daily hassles and chronic stressors affect psychological states. The authors posited that measuring daily hassles better explained psychological and somatic symptoms than measuring chronic or major life stressors (Serido et al., 2004). Additionally, Lu (1991) researched the effects of daily stress and coping on psychological wellness and found that daily hassles significantly predicted mental health. It appears that research implicates daily hassles as having a predictive value for the development of mental health concerns (Lu, 1991; Serido et al., 2004), which may affect college students, specifically during their first-year college experiences.

Daily Hassles for First-Year College Students

Daily hassles among first-year college students can provide information on the overall experiences of college students. McIntyre, Korn, and Matsuo (2008) investigated the various kinds of daily hassles experienced by undergraduates. McIntyre et al. (2008) indicated that college students generally experienced interpersonal hassles, such as a struggle involving another person; intrapersonal hassles, such as an internal conflict or a

need to solve a problem; school/work-related hassle, such as a difficulty involving course work or professorial teaching styles; and living hassles, such as daily chores and moneyrelated or health-related concerns. Particularly, the authors discovered that the daily hassle's level of importance was associated with the perceived level of stress for each interpersonal, intrapersonal, school/work, or living hassles. The perception of having personal control over the hassles was found to predict lower stress levels for living hassles. Simply stated, the more important daily hassles were perceived to be, the more stressful they were to students. Also, if students believed that they had control over the situation, then the stress levels for living daily hassles decreased.

Gall, Evans, and Bellerose (2000) found that students transitioning to college reported their new academic, living, and romantic environments to be stressful. Overall, the authors described that first-year students experienced daily hassles because they experienced acute stressors, which reduced in intensity and frequency as the school year continued. For daily hassles, women negatively appraised their experiences of school and living environments at higher levels when compared to men. Additionally, women reported more negative health and negative mood states when compared to men, as a result of daily hassles.

Daily hassles have been shown to impact students' ability to transition to college. Kerr, Johnson, Gans, and Krumrine (2004) studied the impact of stress and psychological symptoms on college adjustment. The authors reported that students had difficulty adjusting to college during their first semester due to their level of stress and the presence of psychological symptoms, which improved during the second semester (Kerr et al., 2004). Bell and D'Zurilla (2009) studied the impact of social problem-solving and daily hassles on adjustment for college students and found that increased daily stress was associated with increased maladjustment behaviors for college students. Specifically, maladjustment behaviors were defined as including a negative perception of the problem, engaging in impulsive/careless behaviors, and utilizing avoidant coping behaviors. These maladjustment behaviors were positively correlated with daily stress and the use of internalizing symptoms, such as having psychological distress and somatic symptoms. Specifically, women were found to engage in externalizing symptoms, such as engaging in aggressive or rule-breaking behaviors, as maladjustment and daily stress increased (Bell & D'Zurilla, 2009).

College students experienced daily hassles in various ways, such as through work, on-campus housing, interpersonal relationships, and intrapersonally (Gall et al., 2000; McIntyre et al., 2008), which negatively impacted their adjustment to college (Bell & D'Zurilla, 2009; Kerr et al., 2004). The greater the presence of daily hassles among first-year college students, the greater the difficulty in coping with these new experiences and transitions. High levels of daily hassles could be particularly salient and novel for FGCS, as they would likely have had little to no exposure to others who have had to manage college-related stressors.

College Daily Hassle for First-Generation College Students

Barry, Hudley, Kelly and Cho (2009) studied the disclosure of stressful college experiences for FGCS. The authors hypothesized that disclosure of stressful college events would differ between FGCS and NFGCS. They collected information about selfdisclosure of college-related stressful events across four college campuses. FGCS reported lower levels of self-disclosure than NFGCS, which the authors attributed to a possible lack of social networks. The authors also found that FGCS endorsed disclosing less about their college experiences to their family and friends in comparison to NFGCS (Barry et al., 2009). The researchers suggested that these lower levels of self-disclosure might be an indication of less relevant social support to meet their college needs, which may detrimentally impact stress levels for FGCS.

Shields (2002) studied the relationship of prior knowledge of college cultural aspects, level of adjustment to college, and level of stress for FGCS and second-generation college students. The researcher assessed first-year students, students who had completed 55 to 65 credit hours, and students who had completed 90 or more credit hours. Shields reported that FGCS were more likely to feel unprepared for college life, as they relied upon their employers, secondary education programs, and post-secondary education programs to help prepare them for college, which were found to be less adequate for FGCS than for NFGCS. Younger students and women students tended to report feeling more stressed than older or men students. Although Shields did not find that generation status significantly impacted stress levels, FGCS reported that having to

work, managing family obligations, needing more time, and feeling unprepared contributed to their difficulty in learning and performing the role of a college student. Shields' (2002) findings, taken in conjunction with Misra, Newbold, and O'Rourke's (2000) results that FGCS endorsed higher levels of stress than NFGCS, indicate the importance of continuing to study the impact of daily hassles on first-year FGCS.

Sy, Fong, Carter, Boehme, and Alper (2011) studied daily hassles among women who were first-year FGCS preparing to enter college. The study was designed to examine the relationship between the level of received parental emotional support, parental informational support, and student stress one month prior to entering college. The authors believed that FGCS would indicate receiving lower levels of parental emotional and informational support than NFGCS. Also, it was suggested that FGCS would experience greater levels of stress when transitioning to college then their NFGCS. It was also assumed that higher levels of parental emotional and informational support would lead to lower stress levels for both FGCS and NFGCS.

The study examined 339 women students entering their first-year at a large fouryear, public university (Sy et al., 2011). Participants completed an online survey that asked about their pending transition to college and identified their college generation status, level of parental emotional and informational support, level of chronic stress, and ethnicity. The respondents from the FGCS sample identified as 25% Caucasian, 49% Latina, 19% Asian American, and 7% identified as other ethnic group. The NFGCS

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sample identified as 54% Caucasian, 19% Latina, 21% Asian American, and 7% identified as other ethnic group.

The researchers reported that FGCS and NFGCS reported similar levels of stress. Overall, parental emotional and informational support was lower for FGCS than for NFGCS (Sy et al., 2011). However, when FGCS endorsed receiving high parental emotional support, they reported experiencing lower stress levels when compared to the NFGCS participants. The presence of parental emotional support was found to predict reduced stress among FGCS, but did not have a significant impact on stress among NFGCS. Parental informational support did not have a significant impact on stress for FGCS and NFGCS. These results revealed that it can be helpful for FGCS to receive parental emotional support to help manage their level of stress when preparing for college. As FGCS received lower levels of parental emotional support than NFGCS, FGCS may have felt increased pressure to find a balance between their school and family responsibilities (Sy et al., 2011). Sy et al. recommended that programs aimed at helping the first-year FGCS transition to college may need to focus on preparing parents on how to provide emotional support to their children and on providing resources for students to address their stress levels.

Summary of Literature Review

Research has suggested that mentors who implement the four domains of mentoring (Nora & Crisp, 2007) are effective in assisting first-year students with transitioning to college. Specifically, mentoring relationships offer personal/emotional support, academic/career support, academic subject knowledge, and role modeling. Researchers have examined the positive impact of formal mentoring relationships on first-year students, noting academic improvement, development of helpful social networks, and decreased stress levels. Few researchers have studied the impact of informal mentoring relationships or the four domains of mentoring (Nora & Crisp, 2007) among first-year FGCS.

Research supports the development of social networks for FGCS, given that FGCS tend to lack helpful social networks that assist with adjusting to college. Mentoring relationships among first-year students have been reported to increase social networks, improve college adjustment, and increase college retention, but it is unclear whether these results can be generalized to FGCS.

It has been well documented that first-year students have stressful experiences upon entering college. FGCS' first-year experiences are reported to be stressful and result in low levels of college adjustment. The development of social networks through mentoring has been identified and supported as a means of assisting college adjustment for first-year students and it remains uncertain whether these findings are also true for FGCS.

Purpose of the Study

The purpose of this study was to explore the experiences of FGCS when transitioning to college. Specifically, this researcher investigated first-year FGCS' quality of a current mentoring relationship, level of social adjustment, and level of academic stress. These results were compared against those of first-year FGCS who do not have a current mentoring relationship to ascertain the impact of mentoring among FGCS. This researcher hoped to expand the literature by attempting to answer the general question: Does mentoring for first-year FGCS reduce college-related stress and improve social adjustment?

Hypotheses

After controlling for perceived stress, and only assessing FGCS, it was believed that the following results would occur:

- Mentored students will report a significantly lower level of college-related stress than non-mentored students, as evidenced by statistically significantly lower scores on the College Student Stress Scale.
- 2. Mentored students will report a significantly higher level of college adjustment than non-mentored students, as evidenced by statistically significantly higher scores on the Social Adjustment to College Questionnaire.
- 3. Mentored students who received a higher degree of mentoring, as evidenced by their score on the College Student Mentoring Scale, will report a significantly lower level of college-related stress, as evidenced by statistically significantly lower scores on the College Student Stress Scale in comparison to the nonmentored students who received a lower degree of mentoring.
- 4. Mentored students who received a higher degree of mentoring, as evidenced by their score on the College Student Mentoring Scale, will report a significantly

higher level of college adjustment, as evidenced by statistically significantly higher scores on the Social Adjustment to College Questionnaire in comparison to the non-mentored students who received a lower degree of mentoring.

Assumptions

The following assumptions have been made for the purpose of this study.

- Participants will respond truthfully and accurately to the self-reported measures in the survey.
- 2. The methodological paradigm is appropriate for this study considering the sample population.
- 3. Instruments for this study are reliable and valid in their assessments of the characteristics they were designed to measure.

CHAPTER III

METHODOLOGY

Participants

Participants in this study included first-year, first-generation college students (FGCS) attending Texas Woman's University during the 2015 Spring semester. Two hundred and ninety-four surveys were completed using an Internet survey created through PsychData. The purpose of this research study was to focus on first-year experiences of FGCS, thus students who were not completing their first year of college and who did not identify as FGCS were excluded from the study. Therefore, 130 surveys were utilized in the final data analysis. One hundred and sixty-four surveys were considered unusable as a result of: (1) incomplete data (n = 13) and (2) completion by individuals who did not identify as a first-year student or as a first-generation college student (n = 151). The return rate of the usable surveys was 44%. Participants included 116 women, 12 men, and 2 who identified as other. It was expected that the sample would have a large proportion of women, as 89% of the TWU student population are women (TWU, 2012).

Instrumentation

Demographics Questionnaire

The demographics questionnaire (see Appendix A) was developed for this study. The participants were asked their age, sex, race/ethnicity, year in college, generation status, and whether they have had a formal or informal mentor.

Social Adjustment to College Questionnaire (SACQ)

The Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1989) is a 67-item measure that assesses the quality of adjustment to college (e.g., "whether the student fits in well, feels tense, keeps up to date on academic work, makes friends, attends class, is satisfied with social life" (Dahmus et al., 1992, para. 2)). The SACQ is comprised of four subscales: Academic Adjustment (24 items), Social Adjustment (20 items), Personal-Emotional Adjustment (15 items), and Goal Commitment-Institutional Attachment (15 items; Baker & Siryk, 1989, para. 3). Gray, Vitak, Easton, and Ellison (2013) modified the Social Adjustment subscale, which became the Social Adjustment to College Questionnaire (see Appendix B), resulting in an 11-item measure. For the purpose of this study, only the Social Adjustment to College Questionnaire (Gray et al., 2013) will be used to assess for college adjustment, as previous research supports the idea that students' social adjustment is a greater predictor of retention and graduation rate than the other subscales. Participants respond using a five-point Likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree. The sum of participants' scores is used as an indicator of their level of social adjustment. Scoring ranges from the low score of 11, which means a student has

not been able to socially adjust well to college, to the high score of 55, which means a student has been able to socially adjust to college. The measure was found to have a reliability score of .86 (Gray et al., 2013). For the current study, the Cronbach's alpha coefficient for reliability was .82. Due to the recent development of this scale, the validity of this measure is still being assessed.

College Student Stress Scale (CSSS)

The CSSS (Feldt, 2008; see Appendix C) is an 11-item measure that assesses perception of academic stress and "ability to maintain control" (p. 855). The measure assesses stress related to personal relationships, academic concerns, and financial matters. The scale uses a five-point Likert scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Very Often (Feldt, 2008). Scores are derived by adding all of the participants' responses to receive a total score. Scoring ranges from the lowest score of 11 to the highest score of 55. Higher scores represent higher levels of college-related stress (Feldt, 2008). Convergent validity was reported at a Cronbach's alpha coefficient of .76. Feldt reported a Cronbach's alpha coefficient for reliability of .87, and the test-retest reliability had a mean score of .73. For the current study, the Cronbach's alpha coefficient for reliability was .88. The author noted that the measure is valid on first-year college students, and the total score correlated (r = .76) with the Perceived Stress Scale (Cohen et al., 1983).

Perceived Stress Scale (PSS)

The PSS (Cohen et al., 1983; see Appendix D) is a 14-item, self-report scale, which was created to assess perceived stressors experienced within a one-month time period. The measure assesses the frequency of participants' feelings of nervousness, stress, and confidence to handle personal problems within the last month. Participants use a five-point Likert scale: 1 = Never, 2 = Almost Never, 3 = Sometimes, 4 = Fairly Often, and 5 = Very Often (Cohen et al., 1983). Positively stated items are reverse scored, and all of the responses are summed for a total score. Scores range from a low score of 14, which means a person is experiencing no recent stressors, to a high score of 70, which indicates a person is experiencing a high level of stressors. To assess for validity, the measure was completed by two groups of students, first-year undergraduate students living on campus and first-year students enrolled in an introductory personality psychology class. The measure was found to have moderate correlations with depressive symptomatology (r = .65 and .76, respectively), physical symptomatology (r = .52 and .65, respectively), and social anxiety (r = .37 and .48, respectively), which were used to substantiate the concurrent validity of this measure. Comparative coefficient alpha reliability for two college samples were .84 and .85 (Cohen et al., 1983). For the current study, the Cronbach's alpha coefficient for reliability was .57. The test-retest reliability was .85 for a sample of college students who took the test within a two-day interval (Cohen et al., 1983). This measure was used to control for the variance found in assessing college-related stress.

College Student Mentoring Scale (CSMS)

The CSMS (Crisp, 2009; see Appendix E) is a 25-item questionnaire assessing the four theoretical variables of mentoring: emotional/psychological support (8 items), degree/career support (6 items), academic support (5 items), and role model (6 items) (Crisp, 2009). Participants are asked "to identify the degree to which, while in college, they had someone in their life who provided each of the mentoring experiences" (Crisp, 2009, p. 181). The measure assesses various topics, such as whether students were encouraged to talk openly about their problems, received assistance in making decisions related to degree choice, received assistance in achieving academic goals, and had someone who the student admired. Participants use a five-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree (Crisp, 2009). Scores for the emotional/psychological support factor are derived by taking the total score of items 1 through 8, with scores ranging from 8, which is reflective of a mentee who did not receive emotional and social support from the mentor, to 40, which means a mentee engaged in discussions with the mentor that were found to be emotionally and personally supportive. Scores for the degree/career support factor are calculated by taking the total score of items 9 through 14, with scores ranging from 6, which is reflective of a mentee who did not engage in discussions regarding degree options and educational opportunities with the mentor, to 30, which means a mentee was encouraged to discuss degree choice and educational opportunities with the mentor. Scores for the academic support factor are computed by taking the total score of items 15 through 19, with scores

ranging from 5, which implies that a mentee did not receive support from the mentor regarding reaching the mentee's academic goals nor assistance with coursework, to 25, which reflects a mentee whose mentor assisted with coursework and with achieving the mentee's educational goals. Finally, scores for the presence of a role model factor are determined by taking the total score of items 20 through 25, with scores ranging from 6, which means the mentee does not find the mentor to be someone to emulate, to 30, which means the mentee believed the mentor is someone who is a good example and whose educational and professional career should be imitated. The internal consistency reliability scores were .91 for emotional/psychological support, .90 for degree/career support, .88 for academic support, and .84 for role model (Crisp, 2009). For the current study, the Cronbach's alpha coefficient for reliability was .96. The measure was found to be valid across gender, ethnicity (i.e., both Caucasian and Hispanic samples), and valid overall due to the strong positive correlation between the four factors (Crisp & Cruz, 2010).

Procedure

Participants completed a consent form and four or five questionnaires: the demographics questionnaire, the Social Adjustment to College Questionnaire, the College Student Stress Scale, Perceived Stress Scale, and College Student Mentoring Scale. Participants who identified as not having a current mentoring relationship did not complete the College Student Mentoring Scale. The questionnaires were presented in the same order to all participants. It should be noted that an experimental error occurred when the researcher failed to collect responses to the last question on the CSMS, which loads on the academic support subscale. It is believed that the academic support content area was still effectively assessed despite this omission.

Following approval from the Institutional Review Board, the first-year undergraduate students who were enrolled at TWU during the Spring 2015 semester were sent an emailed request (see Appendix F) via the bulk-enrolled-student listserv to participate in this study. Additionally, undergraduate students who were enrolled in the PSY 1013 (i.e., Introduction to General Psychology) and PSY 1603 (i.e., Developmental Psychology) courses were offered an opportunity to complete this study for research credit. Participants were guided to the study's PsychData website, where the informed consent form (see Appendix G) appeared. The informed consent form detailed the purpose of the study, requirements for participation, and the confidentiality agreement. Additionally, the informed consent form provided information on the content of the questionnaires, the risks and benefits of participating, the mental health services available, and the right to terminate participation at any time without penalty. The informed consent form was electronically signed before prospective participants were able to continue to the five self-report questionnaires (or four self-report questionnaires for the non-mentored-group). When reading the informed consent form, students who chose to participate were reminded that their participation was voluntary and that their responses would remain confidential. Participants provided their contact information if they chose to be included in a drawing to win a \$25 gift card to Barnes and Noble

Bookstore or to receive the study results. If students chose to participate in the drawing or receive the results from this study, then their contact information was saved in a separate electronic database so that their responses would not be paired with their contact information. To de-identify respondents' data and protect their identity, participants were required to create their own code (e.g., mother's initials, followed by the last two digits in their telephone number). After doing so, respondents were instructed to complete the questionnaires. Participants completed the questionnaires in one sitting, which was estimated to take approximately 40 minutes.

Statistical Design and Hypotheses

The researcher used one categorical independent variable, with two levels named mentored group or non-mentored group. The researcher had three continuous dependent variables, which are the total scores from the SACQ, CSSS, and CSMS. The intent of the researcher was to assess only college-related stress. Therefore, the PSS was used to control for general perceived stress. Due to the categorical independent and continuous dependent variables, as well as a need to control for one of the constructs (i.e., perceived stress), a multivariate analysis of covariance (MANCOVA; Howell, 2007) was completed for all of the hypotheses. The researcher's goal was to recruit 280 students (140 in the mentored-group and 140 in the non-mentored-group) to reach a medium effect size of .25 and a power of .95. If a power of .95 could not be reached, then a power of .80 would be considered acceptable and would result in the need for 160 participants.

A MANCOVA was used to allow for the ability to assess interactions and main effects, while controlling the variance for the impact of perceived stress (Howell, 2007). After controlling for perceived stress and only assessing FGCS, the following statistical analyses were used to answer the hypotheses:

Hypothesis One stated that mentored students would report a significantly lower level of college-related stress than non-mentored students, as evidenced by their statistically significantly lower total scores on the CSSS. A one-way MANCOVA was used to assess for any differences between the mentored group and the non-mentored group regarding college-related stress. The independent variable was the mentoring variable, as determined by the demographic questionnaire. The dependent variable was college-related stress as measured by scores on the CSSS. The covariate was perceived stress as measured by the PSS.

Hypothesis Two stated that mentored students would report a significantly higher level of college adjustment than non-mentored students, as evidenced by their significantly higher total scores on the SACQ. A one-way MANCOVA was used to assess for any differences between the mentored group and the non-mentored group regarding college adjustment. The independent variable was the mentoring variable, as determined by the demographic questionnaire. The dependent variable was college adjustment as measured by scores on the SACQ.

Hypothesis Three stated that mentored students who received a higher degree of mentoring, as evidenced by their score on the CSMS, would report a significantly lower

level of college-related stress, as evidenced by statistically significantly lower total scores on the CSSS in comparison to the non-mentored students who received a lower degree of mentoring. The scores for the CSMS were calculated and those who scored above the mean (M = 93.78, SD = 16.20) were included in the high-degree mentoring group whereas those who scored below the mean were included in the low-degree mentoring group. A one-way MANCOVA was used to assess for any differences that the highdegree and low-degree mentored groups may have on college-related stress scores. The independent variable was the degree of mentoring as determined by the mean scores from the CSMS. The dependent variable was college-related stress as measured by scores on the CSSS. The covariate was perceived stress as measured by the PSS.

Hypothesis Four stated that mentored students who received a higher degree of mentoring, as evidenced by their score on the CSMS, would report a significantly higher level of college adjustment, as evidenced by statistically significantly higher total scores on the SACQ in comparison to the non-mentored students who received a lower degree of mentoring. The mean from the total scores on the CSMS was used to include participants in the high-degree and low-degree mentoring groups. A one-way MANCOVA was used to assess for any differences between the high-degree and lowdegree mentored group as it relates to college adjustment. The independent variable was the degree of mentoring as determined by scores from the CSMS. The dependent variable was college adjustment as measured by scores on the SACQ.

CHAPTER IV

RESULTS

Two hundred and ninety-four surveys were completed using an Internet survey created through PsychData. One hundred and thirty surveys were included in the final data analysis. The remaining 164 surveys were considered unusable as a result of: (1) incomplete data (n = 13) and (2) completion by individuals who did not identify as a first-year student or as a first-generation college student (n = 151). The return rate of the usable surveys was 44%. Participants included 116 women, 12 men, and two who identified as other. Participants ranged in age from 18 to 29. A total of 74 participants (64 women; 8 men; 2 other) identified as having a mentor, with 35 of those (30 women; 3 men; 2 other) reporting having a formal mentor. See Table 1 for information on participants' demographics.

Mentoring, College-Related Stress, and College Adjustment

The first hypothesis stated that mentored students would report a significantly lower level of college-related stress than non-mentored students, as evidenced by their statistically significantly lower scores on the CSSS. The second hypothesis stated that mentored students would report a significantly higher level of college adjustment than non-mentored students, as evidenced by their significantly higher scores on the SACQ. Hypotheses One and Two were combined for data analysis in order to measure any main effects and interactions that mentoring may have on college-related stress and college adjustment versus measuring the effect of mentoring on each of the factors independently. In order to test hypotheses about the effects of mentoring on adjustment and stress, a multivariate analysis of covariance (MANCOVA) was conducted on adjustment and stress between the mentored and non-mentored groups. Perceived stress was used as a control variable. After influences of the covariate were removed, the groups were found to differ on the composite of adjustment and stress (F(2,126) = 3.61 p $= 0.03, r^c = 0.42$). Both the group means and structure coefficients indicated that the mentored group was better adjusted and less stressed than was the non-mentored group. The mentored group mean was larger than that of the non-mentored group on a dimension of high adjustment and low stress. Hypotheses One and Two were supported (see Table 2).

Table 1

Demographic	Characteristics for	(n=130) Participants

]	Mentored Group	Non-Mentored Group	
Variables	(<i>n</i> =74), 56.9%	(<i>n</i> =56), 43.1%	
Sex			
Female	64	52	
Male	8	4	
Transgender	0	0	
Other	2	0	
Race/Ethnicity			
White/Caucasian	15	9	
Black/African American	17	9	
Hispanic/Latino	25	30	
American Indian/Alaskan Na	tive 0	1	
Asian	12	7	
Native Hawaiian/Pacific Islan	nder 3	0	
Biracial/Multiracial	3	0	
Form of Mentoring			
Formal	39	N/A	
Informal	38	N/A	
$M_{\rm eff} = M/A_{\rm eff} = m_{\rm eff} + m_$			

Note. N/A = not applicable

Degree of Mentoring, College-Related Stress, and College Adjustment

The third hypothesis stated that mentored students who received a higher degree of mentoring, as evidenced by their score on the CSMS, would report a significantly lower level of college-related stress, as evidenced by statistically significantly lower scores on the CSSS in comparison to the non-mentored students who received a lower degree of mentoring. The fourth hypothesis stated that mentored students who received a higher degree of mentoring, as evidenced by their score on the CSMS, would report a significantly higher level of college adjustment, as evidenced by statistically significantly higher scores on the SACQ in comparison to the non-mentored students who received a lower degree of mentoring. Hypotheses Three and Four were combined for data analysis in order to measure any main effects and interactions that the degree of mentoring may have among college-related stress and college adjustment versus measuring the effect of degree of mentoring on each of the factors independently. To designate a high degree of mentoring from a low degree of mentoring, the scores for the CSMS were calculated M =93.78, SD = 16.20). Participants who scored above 93 on the CSMS were included in the high-degree mentoring group (n = 39) and participants who scored below 93 were included in the low-degree mentoring group (n = 35).

Table 2

Mean and Coefficient Scores for College Adjustment and College-Related Stress Among Mentoring Groups

	Mean	Means		Coefficient		ts	
Variables	Mentored	Non-Mentored	V	v'	S		
College Adjustment	39.70 (6.18)*	37.02 (6.47)*	.12	.74	.86		
College-Related Stress	33.26 (8.45)*	35.96 (6.70)*	07	52	69		
Perceived Stress	31.03 (7.36)	31.79 (5.45)					
Variate	2.37	1.92					
* < 0.05							

**p* < 0.05

A multivariate analysis of variance was conducted on adjustment and stress between the high-degree and low-degree mentored groups (F(2,127) = 1.31, p = .27, $r^c = 0.42$). The groups were found to have no difference on the composite of adjustment and stress. The group means were not statistically different at the .05 alpha level, thus no structure coefficients were generated. The results indicated that the high-mentored group did not differ on adjustment and stress scores when compared to the low-mentored group. Hypotheses 3 and 4 were rejected (see Table 3).

Table 3

Mean and Coefficient Scores for College Adjustment and College-Related Stress for Degree of Mentoring

	Means		Coefficients		
Variables	High	Low	v	v's	
College Adjustment	37.60 (6.27)	38.98 (6.50)	02	N/A41	
College-Related Stress	33.43 (7.23)	34.58 (8.26)	.12	N/A .99	
Perceived Stress	28.34 (4.94)	32.42 (6.57)			
	1				

Note. N/A = not applicable

CHAPTER V

DISCUSSION

The current study had the main objective of examining the impact of mentoring on college-related stress and college adjustment for first-year, first-generation college students (FGCS). Specifically, mentoring was examined to determine if it helped to reduce college-related stress and to improve college adjustment. The quality of mentoring was then analyzed to determine if receiving a higher degree of mentoring further reduced college-related stress and further improved college adjustment when compared with students receiving a lower degree of mentoring. The main objective was met with the present study. A significant difference was found for the impact of mentoring, which was the expected finding. No significant difference was found for the quality of mentoring, which was somewhat unexpected.

Mentoring, College-Related Stress, and College Adjustment

Based on the findings in this study, involvement in a mentoring relationship appears to be linked with lower college-related stress and higher college adjustment for students. It appears that receiving support through a mentor helped first-year FGCS manage their stress levels and improve their adjustment to college. These findings are consistent with previous literature supporting the link between mentoring and improved academic performance (Kalen et al., 2012), college adjustment (Friedlander et al., 2007; Hill & Reddy, 2007, Larose et al., 2011; Mattanah et al., 2010; Schmidt & Welsh, 2010; Toews & Yazedjian, 2007), and reduced levels of stress (Phinney et al., 2011) among first-year students. These findings are also consistent with the work of Ishiyama (2007) who reported that FGCS mentees benefited from receiving academic support, psychological/emotional support, and career-related support from their mentors. FGCS have reported lacking a sense of community, lacking social support, and receiving low GPA scores during their first year of college (Folger et al., 2004; Orbe, 2004), and consistent with the current study, the positive impact of mentoring on adjustment and stress is likely to improve students' experiences in each of these areas.

This study is unique because it is the first to measure the impact of mentoring on FGCS during their first year in college. The results of this study contribute to the existing literature by indicating that the existence of a mentoring relationship, regardless of the quality of the mentoring, has a positive impact on college stress and adjustment for FGCS completing their first year.

Degree of Mentoring, College-Related Stress, and College Adjustment

Based on the findings of this study, the degree of mentoring was not found to have an effect on college-related stress and college adjustment. These findings imply that receiving a high degree rather than a low degree of mentoring does not have an additive impact on college-related stress and college adjustment. It appears that mentoring positively impacts college students such that they will experience improvements in stress and adjustment regardless of the quality of mentoring received. Since existing research has supported the idea that having a high quality of mentoring contributes to satisfaction with and commitment to the university (Sanchez et al., 2006), satisfaction with a mentoring program, and feelings of belongingness to the university (Phinney et al., 2011), it was important to understand the impact of high quality mentoring on stress and adjustment as well.

As there has been a dearth of research specifically addressing the quality of mentoring and its impact on college stress and adjustment, the current study has addressed this gap in the literature. It is somewhat surprising to have found no significant relationship between quality of mentoring and stress and adjustment because the quality of relationships with friends and faculty members has been reported to have a positive impact on first-year students. For instance, high quality friendships have been associated with improved social and academic adjustment (Buote et al., 2007; Fuentes, Alvarado, Berdan, & DeAngelo, 2013); along with a lower internalization of problem behaviors, such as aggressive behaviors, anxiety, and depression (Pittman & Richmond, 2008) for first-year students.

Although some literature has indicated a relationship between the quality of mentoring and adjustment-related variables, such as a sense of belonging, academic success, and social support, the current study did not obtain similar findings. One possible reason that no relationship was found between quality of mentoring and college stress and adjustment is that no relationship exists. Perhaps this study's results have provided an accurate assessment of the quality of mentoring, and it indeed does not have an additive impact for first-year FGCS. It is possible that merely having a mentoring relationship in any form has a strong enough positive impact to fulfill first-year FGCS' academic, social, and psychological/emotional needs. Additionally, it is possible that the mere perception of being mentored, rather than the quality of the mentoring relationship, may be sufficient to have a positive impact on first-year FGCS.

Another possible reason why quality of mentoring was not found to have an impact on college-related stress and adjustment could be due to how the quality of mentoring was measured. The researcher used the CSMS, a valid measure on mentoring behaviors, to assess the quality of a mentoring relationship. The CSMS, however, is not designed to measure the quality of a mentoring relationship but is designed to measure the implementation of the four domains represented in a mentoring relationship. It could be that different results would be found if a different measure, which was specifically designed to measure the quality of a mentoring relationship, was used in the CSMS' place.

It is also possible that no additive impact was found regarding the quality of the mentoring relationship because the quality of a mentoring relationship improves over a longer period of time than what is measured in this study. Fuentes et al. (2013) suggested that mentoring is a longitudinal relationship that improves over time. However, there is a lack of longitudinal literature measuring the mentor relationship. Thus, it is possible that the quality of mentoring cannot be fully assessed in a study such as this one, which measured mentoring at only a single point in time.

Implications

Implications for Theory

When thinking theoretically about mentoring, psychologists and academicians may want to ponder why having a mentoring relationship is effective for FGCS, as assessing the effectiveness from each of the four main areas of mentoring support (i.e., providing psychological/emotional support, academic support, career-related support, and being a role model; Nora & Crisp, 2007) could be relevant. The current study assessed the mentoring relationship as a whole versus measuring how each of the four mentoring behaviors impacted college stress and adjustment. The mentoring relationship, as a whole, was found to improve college stress and adjustment, but it would be beneficial for theorists to explore the individual contributions of the four domains of mentoring on college stress and adjustment.

Extending the theory to discuss the best practices of formal mentoring versus informal mentoring could extend the knowledge based on mentoring relationships. Much of the mentoring literature highlights formal mentoring programs. However, research has shown that FGCS tend to utilize informal mentoring (Zalaquett & Lopez, 2007) and use support from friends and family members who are not enrolled in a university (Hertel, 2002; Saunders & Serna, 2004). Future theoretical conceptualizations that include the application of both formal and informal mentoring may be used.

Implications for Research

This study's results indicated that the quality of a mentoring relationship did not have an impact on improving college stress and adjustment. These findings may genuinely indicate that there is not an additive effect of having a high quality mentoring relationship on college stress and adjustment. However, it is suggested the future researchers attempt to replicate this finding. Further examination of the quality of mentoring relationships and the potential impact on first-year FGCS is warranted.

Because there was no relationship found between quality of mentoring and college stress and adjustment in this study, it is suggested that future researchers examine the impact of the quality of a mentoring relationship by improving this study's methodology. It is possible that mentoring quality takes years to develop. Future research should focus on conducting longitudinal studies to examine the quality of the mentoring relationship on college stress and adjustment at varying time points over a period of years and throughout first-year FGCS' matriculation.

Considering the intersection of diverse cultural backgrounds with mentoring for FGCS may be useful for future researchers. Past researchers have found that students from an ethnic minority background reported receiving more assistance from their mentor when they shared the same ethnic backgrounds (Blake-Beard et al., 2011). However, additional investigation of mentoring characteristics and mentoring behaviors may provide an understanding of what combinations of factors, such as gender, race, or specific mentoring behaviors, are most effective when mentoring students from ethnic minority backgrounds.

The current study's sample was comprised of 89% women. Considering that 89% of the TWU student population identify as women (TWU, 2012), the gender representation for this study is reflective of the gender population for TWU. As a result, the findnigs can only be generalized to college students in a primarily female university setting. Future researchers should consider conducting comparable research with a student population that is more evenly distributed in its gender demographic, to assess whether or not gender has an impact on mentoring and college-related stress and adjustment. Conducting this study among a more evenly distributed gender sample will likely improve the generalizability of the results.

Future researchers could also explore differences between informal mentoring and formal mentoring, as more research has been conducted on formal than informal mentoring. It could be helpful to explore differences between the structure and function of informal and formal mentoring and how these differences impact first-year, FGCS.

Comparing results among first-year non-first generation college students (NFGCS) and first-year FGCS could be valuable to determine if there are differences in mentoring needs between the two groups. Future researchers could focus on the mentoring needs of NFGCS and FGCS from various ethnic minority backgrounds to improve mentoring programs. An increased understanding of how and/or whether the quality of a mentoring relationship can affect students could lead to changes in the selection and training of mentors and to overall improvements of mentoring programs and mentoring relationships.

Implications for Practice and Training

Several implications emerged for practice and training among psychologists working with first-year FGCS. Psychologists working in university settings will likely interact with first-year FGCS through individual counseling, group counseling, or outreach activities, such that proper training on how to implement best practices is essential.

FGCS are reported to experience increased stress during the transition to college (Misra et al., 2000; Shields, 2002; Sy et al., 2011) and they may seek help from a psychologist during this time. Considering that this study's findings suggested that mentoring has a positive impact for first-year FGCS, it is suggested that psychologists encourage mentoring opportunities for first-year FGCS. It is also important that psychologists become familiar with fundamental mentoring behaviors (i.e., Nora & Crisp, 2007) to assist students in finding an appropriate mentor.

FGCS are also reported to experience low levels of college adjustment, partly due to a lack of social support (Gall et al., 2000; Orbe, 2004; Toews & Yazedjian, 2007). Since mentoring has been found to improve college adjustment among first-year FGCS, it is suggested that practitioners become trained in how to provide support in the form of referrals to available mentors and/or mentoring programs. Additionally, practitioners can provide services to increase social support and connection, specifically targeted to the needs of FGCS.

Practitioners can use knowledge on helpful mentoring behaviors to assist in the development of mentoring programs for first-year FGCS. Psychologists who are involved in the creation of mentoring programs should focus on the selection of mentors and on how best to improve the mentoring relationship. It may be helpful to include training focused on the needs of first-year FGCS, such as assisting with transitioning to college (Hill & Reddy, 2008), increasing satisfaction with the university (Holland et al., 2012; Sanchez et al., 2006), improving departmental participation (Chester et al., 2013; Hughes & Fahy, 2009), and making academic improvement (Chester et al., 2013; Fox & Stevenson, 2006; Fox et al., 2010; Hill & Reddy, 2008; Salinitri, 2005; Zalaquett & Lopez, 2007). Additionally, the quality of mentoring can be improved by training mentors on the expected phases of mentoring relationships, implementing methods for increasing mentees' level of competence and self-esteem, anticipating potential problem areas for mentees, and adapting mentoring practices to specific environments and populations can aid in the quality of mentoring (Alleman, Cochran, Doverspike, & Newman, 1984).

Limitations

Several limitations in the current study should be noted. An experimental error on the College Student Mentoring Scale (CSMS) score calculation may have impacted the results of the study. Specifically, the experimental error occurred when the researcher failed to collect responses to the last question on the CSMS. The last question on the CSMS loads on the mentoring support subscale and asks if someone in the student's life "provides practical suggestions for improving my academic performance (Crisp, 2009)." The academic support scale is measured by four additional questions, which participants answered. It is believed that the academic support content area was still assessed despite this omission. Only the total score for the CSMS was calculated and used in this study's analyses. The researcher believes that the intent of the survey was accurately measured by the completion of the remaining questions. In the future, it is recommended to ensure that all questions are included when surveying participants. It is suggested that in future research an additional measure that assesses the quality of mentoring, such as the Mentoring Relationship Quality instrument, be used for construct validity purposes (Ferro, Wells, Speechley, Limpan, & DeWitt, 2014).

It should be noted that the results are limited by the self-report measures used to collect data. Self-report measures rely on participants to provide accurate albeit subjective information about their experiences. For this reason, these results are only as strong as the participants' ability to describe their stress levels and experiences with a mentor.

The small sample size of the high and low mentoring groups is a limitation of the study. The researcher recruited participants during the month of April 2015 until the end of the Spring 2015 semester. It is possible that the findings would differ if the recruitment of participants occurred earlier in the school year, as fewer first-year FGCS students

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returned to TWU during their second semester (L. Haynes, personal communication, January 26, 2015).

The current study is also limited by data collection occurring at only one timepoint, reducing the ability to measure the impact of mentoring on college stress and adjustment across the school year. Future researchers could assess students' progress at the beginning and at the end of their first year by obtaining a pre-mentoring score, as a baseline, and a post-mentoring score for comparison purposes. As the data for this study were collected during the late Spring semester, it is possible that the participants reported higher levels of adjustment than they might have if they had been assessed earlier in their first year of college. A longitudinal study conducted across one or more years of college with multiple data collection points may help to track changes in college adjustment and college-related stress.

This study's gender imbalance (89% women) limits the generalizability of the results to a college student population comprised primarily of women. Generalizability to a college student population of both women and men can be improved by sampling a more evenly distributed gender demographic.

Conclusions

First-year FGCS are a unique subgroup of students who experience their first year of college very differently from NFGCS. As a result, some first-year FGCS may leave the university prematurely due to a lack of college adjustment or difficulty in managing their stress levels. Mentoring clearly assists first-year FGCS with adjustment and stress. With the implementation of the various theoretical, research, practice, and training suggestions a genuine effort can be made to develop stronger mentoring programs to meet the needs of first-year FGCS. Mentoring relationships can help provide first-year FGCS with the resources they need to successfully complete their post-secondary education.
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APPENDIX A

Demographics

Demographics

Age:

Sex: (Please select the appropriate one)

Male Female Transgender Other

Race/Ethnicity: (Please select your Race/Ethnicity. Select all that apply.)

- a) White/Caucasian
- b) Black/African American
- c) Hispanic/Latino
- d) American Indian/Alaska Native
- e) Asian
- f) Native Hawaiian/Pacific Islander
- g) BiRacial/MultiRacial

College Year Status: (Please select the option that best describes your class status.)

- a) First-Year/Freshman
- b) Second-Year/Sophomore
- c) Third-Year/Junior
- d) Fourth-Year/Senior
- e) Fifth-Year or more
- f) Graduate Student

Generation Status:

Has your caretakers/parents ever attended a community college, junior college, 4-year college or university?

Yes No

Mentoring Status:

A mentor is person who uses their experience, knowledge, and skills to provide advice, information, and support for personal or professional development.

While in college, have you had someone who has provided you with mentoring experiences?

Yes No

If you answered yes that you have a mentor, do you consider that person to be a formal or informal mentor?

Formal Informal

APPENDIX B

Social Adjustment to College Questionnaire (SACQ)

Social Adjustment to College Questionnaire (SACQ)

Please indicate the extent to which you agree or disagree with each of the following statements by selecting the appropriate response.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	1	2	3	4	5
1.	I am satisfied w	ith social part	icipation.		
2.	I am satisfied with social life.				
3.	I have good friends to talk about problems with.				
4.	I have several close social ties.				
5.	I am adjusting well to college.				
6.	I feel lonely a lot				
7.	I am satisfied with extracurricular activities.				
8.	I am very involved with college social activities.				
9.	I am meeting people and making friends.				
10.	I am pleased about my decision to attend this college.				
11.	I have difficulty feeling at ease with others at college.				

APPENDIX C

College Student Stress Scale (CSSS)

College Student Stress Scale (CSSS)

For the following items, report how often each has occurred this semester using the following scale:

Never	Rarely	Sometimes	Often	Very Often
1	2	3	4	5

- 1. Felt anxious or distressed about personal relationships _____
- 2. Felt anxious or distressed about family matters _____
- 3. Felt anxious or distressed about financial matters
- 4. Felt anxious or distressed about academic matters _____
- 5. Felt anxious or distressed about housing matters _____
- 6. Felt anxious or distressed about being away from home _____
- 7. Questioned your ability to handle difficulties in your life
- 8. Questioned your ability to attain your personal goals _____
- 9. Felt anxious or distressed because events were not going as planned
- 10. Felt as though you were NO longer in control of your life
- 11. Felt overwhelmed by difficulties in your life

APPENDIX D

Perceived Stress Scale

Perceived Stress Scale

The questions in this scale asks you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

Never	Almost	Sometimes	Fairly	Very
	Never		Often	Often
0	1	2	3	4

1. In the last month, how often have you been upset because of something that happened unexpectedly?

2. In the last month, how often have you felt that you were unable to control the important things in your life?

3. In the last month, how often have you felt nervous and "stressed"?

4. In the last month, how often have you dealt successfully with irritating life hassles?

7. In the last month, how often have you felt that things were going your way?

8. In the last month, how often have you found that you could not cope with all the things that you had to do? _____

9. In the last month, how often have you been able to control irritations in your life?

12. In the last month, how often have you found yourself thinking about things that you have to accomplish?

13. In the last month, how often have you been able to control the way you spend your time? _____

14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? _____

^{5.} In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?

^{6.} In the last month, how often have you felt confident about your ability to handle your personal problems?

APPENDIX E

College Student Mentoring Scale

College Student Mentoring Scale

A mentor is person who uses their experience, knowledge, and skills to provide advice, information, and support for personal or professional development. In answering these questions, have in mind one person you consider to be your mentor.

Currently, I have someone in my life who....

St D	trongly isagree	Disagree	Neutral	Agree	Strongly Agree	
	1	2	3	4	5	
1. 2. 3. 4. 5. 6. 7.	I look up to rehelps me work helps me real I can talk with I admire helps me perference me	egarding colleg k toward achie istically exami h openly about form to the bes ne to consider o	ge-related issue eving my acad ine my degree t social issues t of my abiliti educational op	es emic aspiration or certificate related to bein es in my class oportunities be	ons options ng in college ses eyond my current p	– blans
 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 	 I want to copy their behaviors as they relate to college-going					
19. 20	shares person academic goa	al examples of als	f difficulties the	ney have had	to overcome to acc	complish
20.21.22.23.	I can talk with encourages m questions my	h openly about the to discuss pro- assumptions b	personal issu coblems I am l	es related to l naving with m through a rea	being in college by coursework listic appraisal of 1	 my skills

24. recognizes my academic accomplishments _____

25. provides practical suggestions for improving my academic performance _____

APPENDIX F

Recruitment Letter

Recruitment Letter

The impact of a mentoring relationship on college adjustment and college-related stress for first-year, first-generation college students.

• Participants Needed

> First-year students, who are at least 18 years old, **and** are first-generation college students

- > Participation is voluntary
- > A chance to win a \$25 Barnes and Nobles Gift Card

• Research Requirements

- > Complete online survey investigating mentoring, stress, and college adjustment
- > Participation will require approximately 40 minutes

• If you are a first-year, first-generation college student, and are interested in participating, please click on https://www.psychdata.com/s.asp?SID=165091

• Questions or need further information?

Contact Rhea Horton at rwhite5@twu.edu

There is a potential risk of loss of confidentiality in all email, downloading, and Internet transactions. You can choose to receive the results of the research project by emailing the principal investigator with your mailing address.

APPENDIX G

Consent Form

Consent Form

TEXAS WOMAN'S UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

Title: The ir	Fitle: The impact of a mentoring relationship on college adjustment and college-related				
stress for first-year, first-generation college students.					
Investigator:	Rhea Horton	RWhite5@twu.edu (xxx) xxx-xx	XX		
Advisor:	Linda Rubin, PhD	<u>LRubin@twu.edu</u> (940) 898-23	14		

Explanation and Purpose of the Research

You are being asked to participate in a research study for Rhea White's dissertation at Texas Woman's University. The purpose of this research is to study the impact of mentoring on a person's college stress level and college adjustment. You can participate in this study if you are a first-year, first-generation college student. You can participate if you are 18 years old or older, and you are not participating to receive research credit from your undergraduate course at Texas Woman's University.

Description of Procedures

As a participant in this study, you will be asked to spend 40 minutes of your time completing an on-line survey. The website, psychdata.com, will guide you through five different survey forms, each of varying lengths. The surveys will ask you for basic demographic information. You will be asked questions about whether you have a mentoring relationship with an adult. You will be asked questions about how much college stress you experience. Questions will include topics around your adjustment to college. Your answers will be kept confidential. Your answers will be saved under a code, as to de-identify you. If you decide to receive the results from the survey, you must email the principal investigator with your name and mailing address. Your contact information will be kept in a separate file than from you answers. Once you have completed the survey, you will be asked if you would like to participate in a drawing to win a \$25 gift card to Barnes and Nobles. Should you choose to participate in the drawing, you will only be contacted if you with the prize.

Potential Risks

You may be asked questions that may cause some discomfort. If you become tired or upset you may take breaks as needed. You may also stop answering questions at any time and end the session. There is no penalty for ending the session early. However, you will only be able to enroll in the drawing for the Barnes and Nobles gift card if you complete the entire survey. If you feel you need to talk to a professional about your discomfort, you may contact the TWU Counseling Center at (940) 898-3801.

Another risk in this study is loss of confidentiality in all email, downloading, and Internet transactions. Confidentiality will be protected to the extent that is allowed by law. No one but the researcher will know your real name, should you choose to provide it to receive the results of this study or to be entered into the drawing for the \$25 Barnes and Nobles gift card. The results of the study may be reported in scientific magazines or journals but no identifying information will be included.

Additional risks in this study are loss of time and fatigue. You are compensated for your 40 minute time commitment, by the opportunity to enter the drawing for the \$25 Barnes and Nobles gift card. You can choose to take breaks or discontinue the survey at any time.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. Following the completion of the study, you will be compensated by the opportunity to enter the drawing for the \$25 Barnes and Nobles gift card. If you would like to know the results of this study we will mail them to you. Be sure to provide a mailing address, to where you would like to receive the results, by emailing the information to the principal investigator.

Questions Regarding the Study

You are free to print a copy of this consent form for your records. If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

The return of this survey constitutes your consent to participate in this research.