ABSTRACT

MENTORING OF FIRST GENERATION COLLEGE STUDENTS: A CROSS-SECTIONAL QUANTITATIVE STUDY

By

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This quantitative study explored the perceived value of mentoring among mentors and mentees in the Partners for Success Program at California State University, Long Beach. Aspects of academic success were compared between mentees and randomly selected undergraduates not in the program. The sample size was 271 (27 mentors, 136 mentees, and 108 other undergraduates). A self-administered online survey measured values of mentoring, social support, and self-efficacy. GPAs were self-reported. Mentees valued career help significantly more than mentors. Both groups rated teaching, career counseling, and trust most highly. European Americans had significantly higher social support scores than Latino/Hispanics. Among mentees, self-efficacy was positively correlated with academic performance. It is recommended that academic mentoring programs focus their efforts on fostering trust and providing advisement. Special attention should be paid to the availability of social capital, especially among ethnic minorities.

MENTORING OF FIRST GENERATION COLLEGE STUDENTS: A CROSS-SECTIONAL QUANTITATIVE STUDY

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CHAPTER 1

INTRODUCTION

Statement of Topic Addressed

Using a quantitative study, this thesis explored the perceived value of mentoring among mentors and mentees in the Partners for Success Program at California State University, Long Beach. The impact of mentoring was also explored by comparing aspects of academic success between mentees and other undergraduates not in the program.

Statement of Purpose

The purposes of the quantitative aspect of this study were: (a) to examine what mentoring functions are most valued by mentors and mentees participating in the Partners for Success Program; (b) to explore differences between mentors and mentees in this regard; (c) to compare GPAs, social support scale scores, and self-efficacy scale scores between mentees and undergraduates not in Partners for Success; (d) to explore the effects of gender matching on mentees' GPAs and self-efficacy scale scores; (e) to explore the effects of ethnicity matching on mentees' GPAs and self-efficacy scale scores; (f) to explore correlations between mentees' GPAs and their social support and self-efficacy scale scores; (g) to examine ethnic differences in mentees' and mentors' views of the value of mentoring functions; and (h) to compare ethnic differences in mentees' social support and self-efficacy scale scores.

Overview

First Generation College Students and Academic Success

Traditional mentoring relationships aim to teach a mentee, also referred to as a "student," the ways a culture or organization operates from information passed on by a mentor or "teacher" (Kochan, 2013). Within higher education systems, many first generation students (FGSs) face academic acculturation challenges because they do not have the cultural knowledge and academic skills to integrate within universities (Jenkins, Belanger, Connally, Boals, & Duron, 2013). These authors further stated that FGSs face struggles due to balancing enculturation within their family system (referring to the cultural norms of their family which are part of their identity) and acculturation within the academic setting. Stress levels are often increased when FGSs face the need to adapt to the academic environment, which can be very different from their home environment (Miville & Constantine, 2006). Typically, these students have more obligations (e.g., to support their family), must learn to navigate academia independently, and rely on intrinsic motivation to overcome obstacles (Jenkins et al., 2013; Petty, 2014).

First generation college students are 8.5 times more likely to drop out of college than those who have parents with higher education degrees (Ishitani, 2006). According to Pryor et al. (2012), first year college students typically pursue higher education to further their career development and for economic advancement. This reflects the increasing requirements and competition for well paying careers. However, if FGSs are at greater risk of not completing college, these statistics indicate future risks of not being equipped to compete for higher paying jobs.

Effects of Mentoring

Fruiht and Wray-Lake (2013) noted that academics use mentorships to assist students in pursuing and accomplishing school and career endeavors. These authors found that within the academic setting, students have significantly higher GPAs and educational attainment when they develop a mentoring relationship with a teacher after high school. This type of mentoring relationship was also more influential in educational attainment compared to kin mentors, friend/family mentors, and community mentors. Additionally, mentor relationships formed after high school predicted greater educational success than those formed before or during high school, thus supporting the importance of college mentorships.

Social capital theory supports the significant influence of relationships with professor mentors during college since professors have increased access to resources and educational and institutional knowledge from which students benefit (Vorhaus, 2014). Vorhaus also explained how social group memberships, or increased social networks within social structures such as a university, increase one's privileged access to services and opportunities. For FGSs who may not come from social networks within their communities with knowledge or access to higher education resources, developing academic mentoring relationships could provide such access. Fruiht and Wray-Lake (2013) found that Latinos and African Americans tended to report more influence from kin mentors and community mentors compared to European American students. Since minority group students often come from families where higher education is not common, these mentors may not provide them with the same social capital as European

American students are likely to receive from similar mentorships (Fruiht & Wray-Lake, 2013).

Definitions of Terms

First generation: Refers to college students whose mothers and fathers did not complete college.

Formal mentoring: The pairing of mentees and mentors by mentoring programs (Bell & Treleaven, 2011).

Informal mentoring: The unplanned and voluntary pairing of mentors and mentees who choose one another (Clarke, 2004).

Mentoring: A relationship in which a more experienced person acts as a "guide, role model, teacher, and sponsor for a less experienced protégé" (Johnson, Huwe, & Lucas, 2000, p. 40).

Partners for Success: A formal mentoring program at California State University, Long Beach, designed to connect FGSs with faculty mentors.

Social support: Perceived support provided by family, friends, and significant others in emotional, informative, and concrete forms (Zimet, Dahlem, Zimet, & Farley, 1988)

Self-efficacy: The belief of an individual that he or she is capable of performing in a way to attain goals (Bandura, 1986)

Multicultural Relevance

According to Pryor et al. (2012), less than half of first year undergraduate students at baccalaureate universities had parents with a college degree. Of these students, approximately 30% were of a minority ethnic background. Additionally, a

majority of college students came from predominantly European American neighborhoods and schools. These findings reflect the fact that minority ethnicities are underrepresented in higher education. Many FGSs, particularly students of color, then struggle to adjust to the university lifestyle, adapt to the environment, and become involved in social activities (Woosley & Shepler, 2011).

Based on recent findings (Keels, 2013), both African American and Latino college students at predominantly European American institutions were less likely to graduate within 6 years than their European American counterparts, while African Americans were less likely to graduate within 6 years than Latinos. Keels further explored the relationship between graduation success and parental college education. He found that when a minority student's mother did not have a college education, this increased the majority-minority gap in GPA and degree attainment time, especially among African American males.

Overall, according to the National Center for Education Statistics (2013), minority students were less likely to complete a bachelor's degree than European Americans. In the 2005 starting cohort at all 4-year institutions, 42% of European American students received a bachelor's degree within 4 years, as opposed to 21% of African Americans students, 29% of Latino students, 45% of Asian students, 23% of Pacific Islander students, and 23% of American Indian students.

Social Work Relevance

According to the National Association of Social Workers' (NASW) *Code of Ethics* (2008), one of the principle values of the profession is promoting social justice. This is further explained as promoting equal opportunities for all individuals, with special

consideration of oppressed groups. Social workers can enhance FGSs' educational opportunities by advocating for and participating in mentoring programs at baccalaureate universities. By participation in a mentoring program, it is expected that FGSs can gain cultural knowledge of campus life, receive coursework and advisement, and network with other students who share similar backgrounds and struggles (Clarke, 2004). The mentoring relationship may also benefit the mentors by providing intrinsic rewards, learning, and stronger working relationships with students (Bell & Treleaven, 2011). As noted in the NASW *Code of Ethics* (2008), strengthening human relationships is essential to social work practice. Human relationships can be fostered in academic programs that provide underprivileged students access to social networks that help them achieve academic success.

CHAPTER 2

LITERATURE REVIEW

This chapter provides the reader with an overview of the fundamental theories that inspired this study and how they are related to mentoring FGSs in higher education. An introduction to higher education and an overview of mentoring enables the reader to comprehend the integral role a mentor can have in an individual's life. This relationship is especially important when a student is the first in his or her family to pursue a college education and lacks a relationship that offers encouragement, support, and information about the ins and outs of academic achievement.

Importance of Higher Education

While graduation rates among students at California colleges (both state and private universities) are gradually rising, retention rates are below 100% and more students complete their education within 6 years as opposed to 4 (National Center for Education Statistics, 2007). Graduation rates for California State Universities (CSUs) are especially low. In a cohort starting in 2001, less than half of the freshman class graduated in 6 years (45.7%) and only 14.2% completed their undergraduate degree in 4 years (National Center for Education Statistics, 2007). Several factors contribute to attrition rates but with an unstable economy and an expanding competitive international workforce, it is crucial for students to be prepared to compete.

Considering the current economic trends in the United States, Zare (2008) suggested that higher education is essential for students to become leaders in a competitive workforce. In addition, he suggested that education makes for a "personally rewarding life" (p. 142). While priming for success in higher education is thought to begin in elementary and high schools, many college students are unequipped to handle demanding courses, especially science and math. Students are then required to take remedial courses to catch up, yet often lose confidence as a result (Zare, 2008). Fear of failure and discouragement can then have negative effects on undergraduates' academic performance and success. Zare went on to emphasize the importance of educators inspiring students to persevere during the first year of college. In addition to mentors sharing knowledge directly related to coursework, students could benefit from encouragement and support from faculty mentors on a one-to-one basis in areas not immediately related to their studies.

Historical Overview

The earliest account of a mentoring relationship is found in Greek literature within the story of Telemachus, the son of Ulysses (Shore, 2005). In this story, Shore (2005) explained how the mentor-mentee relationship between Telemachus and Mentor was based on a personal relationship whereby Mentor was the advice-giver and Telemachus was the protégé. Telemachus was given emotional support and advice to assist him in the search for his father. The word "mentor" is derived from this story and the relationship characteristics of modern mentorship are similar to those in the story described by Homer. The first use of "mentor" in the English language can be traced

back to 1750, at which time the Oxford English Dictionary defined the term as a person with experience who serves as a trusted advisor (Gough, 2008).

Mentorships have long been used in a variety of settings, such as academia and the workplace. In the workplace, a mentor is generally a supervisor who trains a new member of the company, with a primary focus on passing knowledge to the mentee for career development (Campbell & Campbell, 1997). Academic mentoring most commonly uses faculty, staff, or peer mentorships wherein the mentor serves to offer holistic support, including education advice, career advice, emotional support, and role modeling (Campbell & Campbell, 1997). What distinguishes a mentor-protégé relationship from a supervisor-trainee relationship is that there is an emphasis on mutuality between a mentor and mentee, as opposed to an exercise of power or authority between a supervisor and trainee (Gough, 2008). Mentors also serve as professional and ethical role models while guiding and supporting mentees through good and bad times over a longer period of time. Gough (2008) highlighted an important quality of mentorships and stated that mentors are supportive in both career and life goals. Daloz (1999) further illustrated the various influential roles a mentor can play in a protégé's life and said, "Mentors give us the magic that allows us to enter the darkness, a talisman to protect us from evil spells, a gem of wise advice, a map, and sometimes simply courage" (p. 18).

Social Learning Theory

People learn vicariously through others and through self-reflection on failed and successful experiences (Bandura, 1986). Seeing someone succeed at a certain task or in goal attainment helps another to learn how something is done correctly (Bandura, 1986).

Learning by observing others helps people to develop rules regarding behavior without having to acquire them through trial and error (Bandura, 1986). Watching someone make a mistake that produces costly consequences can help another to avoid similar pitfalls. Bandura (1986) further stated that the more costly the mistakes are, the more the reliance on observational learning. FGSs who have not observed someone successfully complete college may not be exposed to pitfalls that can be avoided in dealing with applications for financial aid, campus lifestyle, study demands, time management, and other psychosocial stressors. Bandura explained that the more similar one perceives oneself to be to a role model, the stronger the effect of the vicarious experience.

Bandura (1986) distinguished between mimicry and modeling, stating that modeling encompasses much more than arbitrary criteria; it also causes psychosocial effects. Furthermore, observational learning is most apparent when behaviors are novel. Factors that contribute to a person's inhibition or disinhibition are: the belief that he or she can execute modeled behaviors, his or her perceptions of rewards or consequences, and more specifically, whether he or she could produce similar results. Because social learning affects more than behavior (including personal values and emotional responses to the environment), Bandura categorized the types of processing new information by the observer. These are: attentional processes, retention processes, production processes, and motivation processes. Attentional processes depend on what the observer attends to and "what information is extracted from modeled events" (Bandura, 1986, p. 51). This is further influenced by social and environmental factors. It is thus imperative to consider cultural differences in mentoring. After information is extracted, it is then stored into memory through symbolic conceptions (Bandura, 1986). Retention is strengthened when

one rehearses the performance repeatedly over time (Bandura, 1986). Bandura then explained that production processes involve the observer's planning for producing similar results. Lastly, motivational processes determine whether or not the observer will enact what he or she learned (Bandura, 1986). This can depend upon skills of the observer, incentives, available resources, feedback from others, and perceptions of control.

Social learning also extends to the occupational and social roles one pursues. Gender roles that have been adopted have a lasting effect on how people navigate their environments, influencing the way they process information and utilize capabilities (Bandura, 1986). Since childhood, boys and girls are subjected to gender-specific toys and games, as well as gender-specific clothing (e.g., girls wear pink and boys wear blue). After a child develops a belief about gender differences, he or she broadens his or her knowledge of gender roles, later applying those to jobs and social relationships. Bandura argued that these roles are socially constructed and reinforced through social learning. Through repeated personal exposure to cultural gender beliefs and vicariously through others, gender roles are continuously strengthened. These gender roles are important to consider when modeling, because they can play a significant role in social learning.

Balogun and Okurame (2011) explained that the role modeling aspect of mentorships is consistent with social learning theory. They further explained that a benefit of learning from a mentor is that in addition to observation, protégés can ask for further clarification of a mentor's behavior. This is unique within social learning theory because mentors can provide additional information that the protégé does not get from observation alone. Role modeling in a professional or social environment is an important way to transmit information and skills to protégés, further influencing their values and

thoughts (Balogun & Okurame, 2011). Eventually, protégés become mirror images of their mentors in beliefs, behaviors, and emotional responses (Balogun & Okurame, 2011).

Mentoring in Academia

Academic mentor-mentee relationships can develop formally or informally (Bell & Treleaven, 2011). Informal relationships can occur naturally or spontaneously and some research suggests that they have produced better outcomes in terms of mentees' goals (Clarke, 2004). Formal mentor-mentee relationships are often facilitated through programs in which mentees can select from a pool of mentors to be matched (Bell & Treleaven, 2011). Bell and Treleaven (2011) further explained that in some academic formal mentoring programs, each student is asked identify goals (professionally, educationally, and/or personally) and the program then pairs the student with a faculty member who will best help him or her achieve those goals.

Nora and Crisp (2008) described how universities use several different frameworks upon which mentoring programs are based, but four key constructs are latent throughout the literature. The first construct is psychological/emotional support, meaning that the mentor listens and offers moral support and encouragement, based on a foundation of mutual respect. Secondly, the mentor assesses the mentee's strengths and weaknesses in achieving academic and career goals. The student mentee then has opportunities to build on his or her strengths and reduce his or her weaknesses through tutoring and guided self-study. This challenges the student academically. Lastly, the mentor serves as a role model in which he or she self-discloses parts of his or her

personal life and also shares parts of his or her journey (both professionally and personally) to enrich intimacy, an important characteristic of mentorships.

Students may view professors inside the classroom as an authority figure "in a position to grant or deny critical rewards," such as grades (Putsche, Storrs, Lewis, & Haylett, 2008, p. 522). However, one of the distinguishing benefits of mentoring is the friendship underlying the faculty-student dynamic; students are less fearful of judgment or severance, enabling them to approach the faculty mentor for guidance safely and comfortably. Most students want to feel empowered to learn and to be valued as students (Bradbury-Jones, 2012). Mentorships therefore provide students a safe space to identify goals, express concerns and questions, and receive support to move forward.

Values of Mentorships

Benefits for Mentees

The transition from adolescence to young adulthood can be overwhelming for some students, especially when they are learning to balance the demands of school and work. There are several benefits of mentorships through this life transition. Bell and Treleaven (2011) described the benefits to a mentee as follows: professional and career advancement, feedback from another perspective, and opportunities to learn. In addition to acquiring education and career-related skills through mentoring, friendships and social support networks are formed outside of formal academia (Jones & Goble, 2012).

Literature has shown that mentees value academic mentorships because they provide opportunities to access additional campus resources, provide networking opportunities, enable students to navigate the campus environment, and provide emotional support and encouragement (Jones & Goble, 2012; Putsche et al., 2008).

Mentees also reported the value of having a more experienced person to help them define their goals (Bell & Treleaven, 2012; Putsche et al., 2008).

Benefits for Mentors

The role of being a mentor during adulthood is an important part of human development (Levinson, 1985). Levinson (1985) explained that mentorship is a relationship in which a person feels responsibility for helping another grow successfully into a professional role. Within academia, mentors benefit in instrumental ways, such as having a student to help with research projects and to provide opportunities to learn about life experiences different from their own (Gutierrez, 2012). Students can also help to keep professors current with social issues, introduce them to new cultures, reenergize them when they see students overcome challenges, and provide opportunities to cultivate the intrinsic satisfaction of being of service to another (Bell & Treleaven, 2012; Gutierrez, 2012).

Putsche et al. (2008) suggested that mentors, as well as mentees, value the supportive and non-judgmental aspects of mentoring. In their study, they found that mentors adopt different attitudes from their traditional "professor" role when working with a student mentee.

Thus, mentorships can enrich the lives of both mentors and mentees. Mentorships can be seen as an exchange between two people, the benefits of which are based on the interpersonal relationship between them.

Importance of Social Capital in Academic Mentorships

People depend on social networks to provide them with a variety of resources, such as emotional support, information, and access to services. A person's ability to

access these resources through membership in social networks is referred to as social capital (Gaddis, 2012). Social capital is often measured by academic performance and behavior. Gaddis (2012) suggested that while there are vague definitions of social capital, the five characteristics within academic mentorships that have a positive effect are: (a) amount of time spent together, (b) similarity of race and gender, (c) perceived levels of trust, (d) socioeconomic class (difference between mentor and mentee), and (e) intergenerational closure (interactions between family/parent(s) and faculty).

An established relationship with another person can provide opportunities for increased knowledge and opportunities; however, one must have access to that person in order to benefit. Previous studies have suggested that more interaction between faculty and students was more beneficial in terms of increasing academic performance (DeFreitas & Bravo, 2012; Gaddis, 2012). In Gaddis's (2012) study of 959 youths who were involved in a mentoring relationship for a longer duration and met more frequently with their mentors had higher GPAs and spent more time doing homework than other mentees. These mentees also reported a decrease in maladaptive behaviors (such as drug use) after a longer period of positive interactions.

Perceived trust is also considered important in social capital. Gaddis (2012) explained that setting expectations and obligating oneself to another depend greatly upon trust and the strength of the tie. He explained that factors influencing the strength of the tie are time spent and the emotional intensity of the relationship. Typically, strong ties occur between family and friends, whereas weak ties form among heterogeneous networks (involving, for example, ethnic and socioeconomic class differences). Gaddis found that mentees' perceptions of high levels of trust significantly enhanced academic

performance and reduced maladaptive behavior. Cross-racial matching of mentors and mentees did not have significant effects on trust as a form of social capital. This could be due to value differences among cultures or to individual differences in the study subjects. In addition, Gaddis did not find significant effects of matching a mentor from a higher socioeconomic class to a mentee from a lower socioeconomic class on academic performance, maladaptive behaviors, or levels of trust.

Because trust was found to have significant effects on social capital, Gaddis (2012) suggested that educational institutions might work to foster trusting relationships among faculty and students. Typically, students and teachers have an unspoken power imbalance, which may make it harder for students to trust teachers. Gaddis found that if students are able to acquire social capital in the form of trust of teachers whom they see as providing benefits, this may in turn enhance their study skills and improve their grades.

Overall, social capital depends upon a variety of factors and processes in which one extracts value from membership in social networks. Social capital changes with time and life experiences. The choice of social networks is influenced by individual choices and cultural social constraints. Consistent in the literature is the point that longer duration of mentor-mentee relationships, more frequency of contact between them, and greater trust are essential aspects of academic mentoring success (DeFreitas & Bravo, 2012; Gaddis, 2012).

FGSs' Social Capital

FGSs, who usually do not have the academic preparation or social capital that their non-first generation peers typically possess, are less likely to persist into a second

year of college and have lower levels of academic engagement (Soria & Stebleton, 2012). In addition, they have significantly fewer interactions with faculty members. This could reduce the students' likelihood of graduation, since involvement with faculty has been shown to have positive effects on academic achievement (DeFreitas & Bravo, 2012; Gaddis, 2012; Soria & Stebleton, 2012).

In higher education, social capital among FGSs has been found to support educational growth and improve psychosocial factors (Feld & Morgan-Klein, 2013). Feld and Morgan-Klein found that some FGSs were inspired to pursue a higher education because they felt "stuck" and wished for greater opportunity. They felt limited in career choices and financial growth. Once these students began their college education, they met new people who provided them with internships and career opportunities to which they did not have access previously. However, they compared their social capital to other students from better socioeconomic backgrounds and recognized that those students had better educational opportunities than the FGSs were receiving from the same university. Additionally, as found by Thompson and Subich (2011) in a study of 299 ethnic minority college students, indicated that identifying with their minority ethnicity negatively influenced their perceived social status. Racism experienced through a systemic level also negatively influenced their perceived social status (Thompson & Subich, 2011). These findings support the idea that education systems need to be sensitive to barriers minority students, and FGSs in particular, have historically faced, and continue to face, that deter them from successful completion of a higher education. Linking FGSs to faculty who have academic resources through close relationships, such as mentorships,

could increase their social capital, consequently leading to academic achievement and less systemic oppression within higher education.

Self-Efficacy

Several factors contribute to the process of successful goal attainment: an idea, a set of skills, resources, belief in one's capabilities, and incentives (Bandura, 1986). Variations in any one of these factors will influence the final outcome. For example, one may have the goal of attending college but without financial resources, it is impossible to pay tuition. Or, a father may offer encouragement and financial support to send his daughter to college, but if she does not believe that she is capable of doing well and graduating, she may not pursue higher education (Bandura, 1986).

The perception of one's capabilities to perform or accomplish a task successfully is referred to as self-efficacy (Bandura, 1986). Bandura stated that these self-perceptions significantly influence how one perseveres in the face of obstacles. If students see themselves as capable of giving a class presentation and spend late nights at the library after working, they may feel exhausted and have increased stress, but because of high perceived self-efficacy will exert more effort than if they did not perceive themselves as being capable. If such students do not receive the grade they had anticipated, their high level of self-efficacy will cause them to attribute the poor outcome to a lack of effort as opposed to a deficiency in ability. Bandura further explained that one's perceived judgments about one's efficacy do not always predict outcomes, but rather how one will behave, think, and feel; such judgments thus contribute to the overall "quality of psychosocial functioning" (p. 393).

Self-perceptions of efficacy are primarily influenced by four factors: "performance attainments, vicarious experiences, verbal persuasion, and physiological states" (Bandura, 1986, p. 399). When one has repeated success in performance, one's judgments about self-efficacy will increase. Bandura also suggested that people compare their capabilities to others whom they perceive as similar to themselves, which also increases self-efficacy (Bandura, 1986). Verbal persuasion from others can also have a positive influence on one's perception of efficacy if the words are encouraging and supportive. In addition to input from others, physiological information can contribute to one's judgment regarding one's self-efficacy.

Researchers have further explored factors contributing to students' self-efficacy and found that socioeconomic status, perceived social class, involvement with faculty, and support from immediate family caregivers have significant impacts on students' perceived self-efficacy (DeFreitas & Bravo, 2012; Metheny & McWhirter, 2013; Thompson & Subich, 2011). Metheny and McWhirter (2013) found a positive relationship between students' self-efficacy and academic social capital (i.e., connections to professors with power, resources, and opportunities for school governance), whereby self-efficacy was enhanced by an increase in social capital. Additionally, these authors found that when students' perceived themselves to belong to a higher social status group, their self-efficacy was significantly higher. This could explain the connection between social capital and self-efficacy. That is, when students have more social capital, they have additional supports and resources to help them attain academic goals. Close interactions with people who are successful at academic endeavors could also contribute to students' development of positive self-perceptions.

Family support has been found to have a significant positive relationship with self-efficacy (Metheny & McWhirter, 2013; Thompson & Subich, 2011). If family members offer supportive encouragement when students encounter barriers in higher education, this could help students by providing external motivation to persevere during difficult times, which is also a factor contributing to self-efficacy (Bandura, 1986). This is important to consider with FGSs because their parents may not understand or be aware of what constitutes a "barrier" or difficult time for their child, as they have no prior experience or knowledge of higher education. Therefore, the support may not be given, resulting in negative impacts on FGSs' self-efficacy.

In academic environments, studies have suggested that students' perceptions of self-efficacy related to academic behaviors and skills can have an effect on their overall academic performance (DeFreitas & Bravo, 2012; Putwain, Sander, & Larkin, 2013). Students who had high self-efficacy scores regarding their study-related skills were found to have better academic performance compared to those who did not (DeFreitas & Bravo, 2012; Putwain et al., 2013). Putwain et al. (2013) also found that when students performed better, this elicited positive emotions related to learning. This is important in higher education because students' self-efficacy decreases when coping with depression (Morton, Mergler, & Boman, 2014). Morton et al. (2014) also found that when students reported higher levels of depression, adapting to the university became more difficult.

Matching of Ethnicity, Gender, and Professional Background

Mentors are relied on for a variety of roles and support by their protégés. Roles can be distinct, as when providing academic advice on which courses to take to help fulfill graduate requirements. They also can be shared, as when helping a mentee select a

course that helps accomplish education goals and also enables the mentee to accomplish a professional goal, such as working as a research assistant (Gough, 2008). Considering how influential the mentoring relationship can be in various parts of an individual's life, it is crucial that the relationship is trusting (Hansman, 2003). It is therefore important for a mentor to be sensitive of the power he or she is perceived as having by the mentee (Hansman, 2003). This can be especially important for mentors who are working with historically oppressed groups, such as ethnic minorities, who have faced micro-aggressions in a Eurocentric education system (Alvarez, Cervantes, Blume, & Thomas, 2009). Cramer and Prentice-Dunn (2007) suggested that when mentors are matched with mentees of a different ethnic or gender background than their own, they should educate themselves on diversity issues.

According to the U.S. Census Bureau (2004), it is expected that Hispanic and Asian populations will triple by 2050, reflecting a dramatic shift in the demographic composition of the country. With these projections, it is likely that more ethnic minority students will enroll in higher education. However, full-time faculty at higher education institutions are predominantly European American men, with Hispanics, African Americans, and Asian/Pacific Islanders totaling only 15% (U.S. Department of Education, 2013). Mentors in academia must be sensitive to the challenges minority students may face while navigating a new culture, as well as self-aware regarding their own cultural socialization and values (Alvarez et al., 2009). Alvarez et al. further stated that the responsibility to discuss cultural differences and expectations regarding culture in the mentoring relationship belongs to the mentor, because of the socially constructed power imbalance between mentors and mentees.

While gender and ethnic matches of mentors and mentees are more likely to be dissimilar, researchers have studied the effects of these variables in predicting academic success, considering the challenges women and minority groups may face in academia (Alvarez et al., 2009; Blake-Beard, Bayne, Crosby, & Muller, 2011; Campbell & Campbell, 2007). In a study of 1,013 college students, Blake-Beard et al. (2011) found that women and targeted minority students (African American, Native American, Hispanic, Hawaiian, and other or biracial/multiracial) preferred a mentor of similar gender and ethnic or cultural background. It was also found to be important for women and targeted minorities to have a mentor who understood their cultural background and professional field. When students and mentors were matched similarly by gender and ethnicity, these authors found that mentees received more role modeling and instrumental support; however, there were no significant differences in GPAs or self-efficacy in comparison to non-matched students.

Based on a study of 339 students, Campbell and Campbell (2007) also found no significant improvements in overall GPAs in ethnically matched mentorships. They did find that students who were mentored by faculty of similar ethnic backgrounds were more likely to graduate than students who were not similarly paired. Cramer and Prentice-Dunn (2007) suggested that matching based on similarity benefits the mentee by providing a sense of belonging and increasing his or her social support, in addition to the provision of academic or career guidance.

FGSs' Need for Academic Mentorships

Considerable research has suggested that FGSs face many barriers in higher education (Jenkins et al., 2013; Petty, 2014; Woosley & Shepler, 2011). Some of the

barriers these students may encounter are lack of social supports, lower self-efficacy, isolation from campus involvement, and difficulty adjusting to campus life (Woosley & Shepler, 2011). In addition, when compared to other students, they tend to belong to ethnic minority groups, have lower socioeconomic status, and lack the academic skills needed to help prepare them for the demands of higher education (Gibbons, Woodside, Hannon, Sweeney, & Davison, 2011). FGSs often have an overall emotionally difficult time transitioning into higher education and may feel unprepared, lost, and significant pressure by their families to be successful (Corea, 2009).

Preparation for the demands of college begins in high school or earlier. In a case study of 43 first generation graduates involved in an after-school mentoring program, mentees reported the value of having a mentor to help them navigate the high school system, thus enhancing their chances of being accepted by a college (Kirshner, Saldivar, & Tracy, 2011). Through the mentoring process, the assigned mentors would advise the students on which classes to take that are typically required for college admission, share tips on study skills to maintain better grades, and encourage them to develop autonomy and self-discipline. Mentees had more confidence in their ability to succeed than their peers who were not involved in the program. Parents of the mentees valued the support offered by the mentors because they were unaware of the unwritten rules related to higher education systems (Kirshner et al., 2011). These findings were consistent with those concerning FGSs in college, insofar as one of the primary contributing factors to a less than successful transition into college life was their families' lack of education and knowledge of academic systems (Corea, 2009).

Corea (2009) further explored motivations and experiences of FGSs during their first year at college. Participants in the study reported finances as the primary barrier to a successful transition into college. While families can provide emotional support, financial burdens can be deterrents to enrolling in college and completing several years. Previous literature has also shown that FGSs take longer to complete a bachelor's degree, which could contribute to more expenses (Keels, 2013). Many have reported that increased financial aid would have helped to make their first year of college more successful (Corea, 2009).

Soria and Stebleton (2012) also found that FGSs were less likely than other students to be able to integrate course material into class discussions and ask insightful questions, nor did they participate as much in class discussion. Corea (2009) also found that FGSs believed that they did not receive enough support and preparation during high school for the heavy workload required in college. These students also felt that their studying habits, math knowledge, and writing skills were inadequate, making it challenging to transition to higher education. Soria and Stebleton (2012) suggested that the lack of academic engagement among FGSs contributed to the attrition rates noted in their second year. Cramer and Prentice-Dunn (2007) further stated that FGSs are on the margins of academic settings and may be in the most need of mentoring, yet are less likely to seek mentorships out for themselves.

Benefits of Academic Mentorships for FGSs

Students entering college for the first time face a variety of pressures: to succeed academically, meet new people socially, adapt to new campus lifestyles, and cope with being away from family and friends (Cramer & Prentice-Dunn, 2007). If students fail to

make the transition successfully from adolescence to young adulthood while attending college, they are vulnerable to increased depression, anxiety, and substance use (Cramer & Prentice-Dunn, 2007). However, faculty mentors can play as a valuable role in assisting them make a successful transition. Faculty members are ideal mentors because they are likely to be familiar with on-campus resources (e.g., student counseling, student health services, LGBTQ groups, and other student organizations) to which to direct students. FGSs have reported that advertisements regarding existing campus resources would have helped them to face the challenges that arose during their first year in college (Corea, 2009). With limited social support (Jenkins et al., 2013), this is particularly important to FGSs who may come from families and communities that lack knowledge about campus resources and college social norms.

In a qualitative study of a campus mentoring program, Grabhorn (2009) found that faculty mentoring FGSs were successful in cultivating a sense of community for these students, helping them to develop the capacity to access other university services. Mentees were generally satisfied with the matching of their mentor and felt comfortable seeking help from other faculty members if needed. One-on-one conference hours with faculty and being able to talk with other mentees about challenges have also been helpful for FGSs (Corea, 2009). These social supports outside of the family can be helpful for FGSs to alleviate the pressures parents often place on them to succeed and become role models for others within the family (Corea, 2009). While most faculty do have some investment in students' academic achievement, they are typically less personally invested than authority figures such as parents, making it more comfortable for some students to be open about personal barriers affecting their academics.

Partners for Success

In 1988, California State University, Long Beach, developed a mentoring program, Partners for Success, to assist first generation undergraduate students achieve academic success and experience a rich college experience. FGSs were formally paired with a faculty member to serve as an addition to the students' campus support system as a mentor and friend (Grabhorn, 2009). The program is funded by the California Lottery Fund, which provides the volunteer mentors a stipend to help with mentoring-related expenses. It additionally provides faculty with opportunities to understand how other systems and departments within the university function, allows for leadership development, and promotes the advancement of university careers in administration.

The primary goal of Partners for Success is academic retention. Grabhorn (2009) also identified other goals of the program as: (a) to develop an intervention to help increase retention rates and help students graduate, (b) to pair faculty with FGSs to offer assistance, (c) to cultivate a mentoring environment on campus, (d) to develop social support systems among faculty and students, (e) to increase awareness of university services, (f) to cultivate a community for program participants, and (g) to create closer relationships among faculty members and students. Activities to help accomplish the goals of Partners for Success consist of regular meetings between mentors and mentees, luncheons, networking events, opportunities to develop professional and interpersonal skills, tutoring, and assistance with academic applications and resume writing (Grabhorn, 2009).

Students are recruited for the program during the summer based upon placement exam scores, with a specific focus on FGSs. The program is solution focused and takes

into consideration various aspects of students' lives, including family, personal, and economic burdens. Mentors are recruited and asked to reenlist in the program during the spring semester. Matching of mentors and mentees is facilitated by the program coordinator who is a full-time employee in Academic Affairs. Similarity of mentors' and mentees' discipline is used as a matching criterion.

Mentors are not required to have any formal experience or training to participate; however, they are offered two sessions throughout the year to help improve their mentoring approaches and practices, increase their knowledge of campus resources, and increase their ability to practice solution-focused mentoring. Prior to the beginning of the fall semester, mentors and mentees are informed of their matching and from that point forward, the mentor works with the mentee to schedule meetings and engage in other forms of communication.

Conclusion

The literature explains how faculty can teach students more than the curricula required by universities. Several studies have provided insight into, and empirical evidence of, the barriers FGSs face, suggesting that universities should recognize the significant role they have in creating a safe environment for these students to become success stories. Through mentorships, FGSs can learn more than the required course objectives in syllabi. They can also learn that despite the historical oppression many of their ancestors have faced systematically in higher education, there are people who care and are able to help them succeed in academia and in life. Of the benefits academic mentorships provide, FGSs benefit from them through increased social supports and self-

efficacy, which will in turn raise retention rates. Upon successful completion of higher education, these students will be better suited for competition in the workforce.

CHAPTER 3

METHODS

Design

This study utilized cross-sectional quantitative methods to analyze secondary data from an online-survey. The benefits of quantitative analyses include the provision of precise and objective information. A benefit of secondary data analyses includes efficiency for the researcher. However, drawbacks of secondary data analyses include the possibility that relevant questions were not asked.

Sample

The quantitative data were obtained from a purposive sample of 271 participants, of whom 27 were Partners mentors, 136 were Partners mentees, and 108 were undergraduate students not involved in Partners for Success as the comparison sample. All mentors and mentees currently involved in Partners were invited to participate. The undergraduate students were secured from a randomized list of campus students.

A total of 306 surveys were administered to mentors, mentees, and under undergraduate students through Survey Monkey; a total of 271 completed surveys were obtained, for an overall response rate of 69%. However, all (100%) of the mentors were included in the dataset.

Instrument

Concepts derived from the Alleman Mentoring Activities Questionnaire (AMAQ) were used to measure factors valued in mentoring relationships in academic settings. The original AMAQ instrument has Cronbach's alphas of .91 to .97 (Alleman & Clarke, 2002). Subscales relevant to mentoring are labeled as follows: teaching about university success, assign challenging tasks, educate about university and career politics, provide career help, protect, sponsor, career counseling, and friendship. Answers are based on a 5-point Likert-type scale, from "very frequently or very likely" to "never or very unlikely," with higher scores indicating activities done within mentoring relationships used to measure greater value. Examples of items are: "Provide informal feedback," "Encourage to take initiative and seek greater responsibility," "Deviate from policy or bend the rules for the mentee when necessary," and "Offer to participate jointly in academic activities" (Alleman & Clarke, 2002).

The Multidimensional Scale of Perceived Social Support (MSPSS) scale was used to measure perceived social support, with a Cronbach's alpha of .97 (Zimet et al., 1988). Answers are based on a 7-point Likert-type scale, from "very strongly disagree" to "very strongly agree," with higher scores indicating higher levels of perceived social support. Examples of items are: "There is a special person who is around when I am in need," "My friends really try to help me," and "I can talk about my problems with my friends" (Zimet et al., 1988).

Additional questions were added to explore involvement specific to Partners for Success such as: "How did you hear about the Partners for Success Program?" and "How long have you been involved with Partners for Success?"

The Career Decision-Making Self-Efficacy Scale (CDMSE) was used to measure students' perceptions of their abilities to make career decisions, with a Cronbach's alpha of .98 (Betz, Klein, & Taylor, 1996). Answers are based on a 5-point Likert-type scale, from "no confidence at all" to "complete confidence," where higher scores indicate stronger perceptions of self-efficacy. Examples of items are: "Determine what your ideal job would be," "Prepare a good resume," and "Define the type of lifestyle you would like to live" (Betz et al., 1996).

Mentees and undergraduate students not in Partners for Success self-reported their GPAs.

Data Gathering

The original study was funded by a Research, Scholarly, and Creative Activities grant awarded to Dr. Cheryl Lee by the university. IRB approval was obtained prior to recruitment.

Data for the quantitative aspect of the study were collected using a self-administered survey through Survey Monkey in the spring semester of 2010. As an incentive, volunteers were offered a chance to win a $100 raffle or Starbucks gift cards.

Data Analysis

Descriptive statistics were used to describe the demographics of the sample and scale scores. Independent samples t-tests were used to compare mentors' and mentees' views of the value of various functions within the mentor-mentee relationship. Independent samples *t*-tests were used to compare GPAs, social support, and perceived self-efficacy between mentees and undergraduates not involved in Partners for Success. Independent samples t-tests were used to compare GPAs and self-efficacy scale scores

between mentees who were matched by gender with their mentor versus those who were unmatched. Independent samples t-tests were also used to compare GPAs and self-efficacy scale scores between mentees who were matched by ethnicity with their mentor versus those who were unmatched. Pearson's *r* was used to examine relationships between GPAs and social support and self-efficacy scale scores among mentees. Analyses of variance (ANOVA) were used to analyze ethnic differences in mentees' views of the value of mentoring functions. ANOVA was also used to analyze ethnic differences in social support and self-efficacy scale scores among mentees.

CHAPTER 4

RESULTS

Demographic Characteristics of Respondents

The demographic characteristics are reported in Table 1. The sample size totaled 271; 27 mentors, 136 mentees, and 108 undergraduates not involved in Partners for Success participated. Nearly half of the mentors were over 51 years old (57%), whereas majority of the mentees were younger than 20 years old (72%). The most frequently noted ethnic groups were European American (57%) for the mentors, Latino/Hispanic (55%) for the mentees, and Latino/Hispanic (60%) for the other undergraduates. For all groups, a majority of the participants were female.

TABLE 1. Characteristics of Respondents ($N = 271$)

Characteristic	*f*	%
Participant Role		
Mentor	27	10.0
Mentee	136	50.0
Other Undergraduate	108	40.0
Age of Mentors[a]		
≤ 20	1	4.0
21-25	0	0.0
26-30	1	4.0
31-35	2	9.0
36-40	4	17.0
41-50	2	9.0
≥ 51	13	57.0

TABLE 1. Continued

Characteristic	*f*	%
Age of Mentees[a]		
≤ 20	65	72.0
21-25	23	26.0
26-30	1	1.0
31-35	0	0.0
36-40	0	0.0
41-50	0	0.0
≥ 51	1	1.0
Age of Other Undergraduates[a]		
≤ 20	41	42.0
21-25	48	50.0
26-30	4	4.0
31-35	1	1.0
36-40	0	0.0
41-50	2	2.0
≥ 51	1	1.0
Race/Ethnicity of Mentors[a]		
Latino/Hispanic	4	17.0
Asian/Pacific Islander	1	4.0
European American	13	57.0
African American	2	9.0
Other	3	13.0
Race/Ethnicity of Mentees[a]		
Latino/Hispanic	48	55.0
Asian/Pacific Islander	19	22.0
European American	7	8.0
African American	9	10.0
Other	5	6.0
Race/Ethnicity of Other Undergraduates[a]		
Latino/Hispanic	58	60.0
Asian/Pacific Islander	16	17.0
European American	11	12.0
African American	2	2.0
Other	9	9.0

TABLE 1. Continued

Characteristic	*f*	%
Gender of Mentors[a]		
Female	20	80.0
Male	5	20.0
Gender of Mentees[a]		
Female	78	89.0
Male	10	11.0
Gender of Other Undergraduates[a]		
Female	79	81.0
Male	18	19.0

[a]Contained missing data.

Differences between Mentors' and Mentees' Views of Value of Mentoring

Independent samples *t*-tests were used to examine differences between mentors and mentees in their views of the value of mentoring. As shown in Table 2, mentees scored higher on the career help scale (mean=3.79) than mentors (mean=3.56; $t = 1.42$, p=.02). No other significant differences were found between these groups.

TABLE 2. Differences between Mentors' and Mentees' Views of Value of Mentoring

Scale	Mean	SD	*t*	*p*
Teaching				
Mentor	4.12	0.59		
Mentee	4.07	0.81	0.39	.25
Challenging Tasks				
Mentor	3.19	0.66		
Mentee	3.87	0.90	3.68	.15

TABLE 2. Continued

Scale	Mean	SD	*t*	*p*
Academic Politics				
Mentor	3.48	0.86		
Mentee	3.46	0.95	0.08	.57
Career Help				
Mentor	3.56	0.62		
Mentee	3.79	1.01	1.42	.02*
Protection				
Mentor	2.83	0.83		
Mentee	3.38	0.99	2.35	.57
Sponsorship				
Mentor	3.34	0.80		
Mentee	3.58	1.04	1.11	.10
Career Counseling				
Mentor	4.31	0.67		
Mentee	4.09	0.94	1.09	.11
Friendship				
Mentor	3.54	0.81		
Mentee	3.63	0.97	0.39	.35
Trust				
Mentor	4.53	0.59		
Mentee	4.35	0.78	1.08	.13

*$p<.05$

Differences between Mentees and Other Undergraduates in GPAs, Social Support Scores, and Self-Efficacy Scores

Table 3 contains the results of independent samples *t*-tests regarding differences between mentees and other undergraduates in GPAs, social support scores, and self-efficacy scores. There were no significant differences found.

TABLE 3. Differences between Mentees and Other Undergraduates in GPAs, Social Support Scores, and Self-Efficacy Scores

Scale	Mean	SD	*t*	*p*
GPA				
Mentees	3.22	0.49		
Undergraduates	3.10	0.51	1.38	.92
Social Support				
Mentees	5.60	1.45		
Undergraduates	5.15	1.60	1.92	.42
Self-Efficacy				
Mentees	3.68	0.92		
Undergraduates	3.69	0.77	0.12	.53

Effects of Gender Matching on Mentees' GPAs and Self-Efficacy Scores

Table 4 contains the results regarding the possible effects of gender matching on mentees' GPAs and self-efficacy scores. Independent samples t-tests were used to compare mentor-mentee dyads with the same gender and mentor-mentee dyads who differed in their genders. No significant differences were found.

TABLE 4. Differences between Gender Matched and Unmatched Mentor-Mentee Dyads in GPAs and Self-Efficacy Scores

Scale	Mean	SD	*t*	*p*
GPA				
Matched	3.20	0.50		
Unmatched	3.33	0.44	0.88	.50
Self-Efficacy				
Matched	3.76	0.87		
Unmatched	3.47	1.07	1.14	.42

TABLE 5. Differences between Ethnicity Matched and Unmatched Mentor-Mentee Dyads in GPAs and Self-Efficacy Scores

Scale	M	SD	*t*	*p*
GPA				
Matched	3.10	0.54		
Unmatched	3.26	0.47	0.98	.62
Self-Efficacy				
Matched	3.71	0.95		
Unmatched	3.69	0.95	0.04	.70

Effects of Ethnicity Matching on Mentees' GPAs and Self-Efficacy Scores

Table 5 contains the results regarding mentees' GPAs and self-efficacy scores based on matching by ethnicity with their mentors. Independent samples t-tests were used to determine if there were differences between mentees whose ethnicity was the

same as that of their mentor compared to unmatched mentees. No significant group differences were noted.

Correlations for Current GPAs with Social Support and Self-Efficacy Scores

Table 6 contains the results regarding correlations between current GPAs and social support and self-efficacy among mentees. The results revealed a significantly positive correlation between academic performance and perceived self-efficacy.

TABLE 6. Correlations for Current GPAs with Social Support and Self-Efficacy Scores

Scale	*r*	*p*
Social Support	-.08	.55
Self-Efficacy	.25*	.03

*$p<.05$

Ethnic Differences in Mentors' and Mentees' Views of Value of Mentoring

One-way analyses of variance were also used to examine ethnic differences in mentors' and mentees' views of the value of mentoring. As shown in Table 7, there were no significant differences among ethnic groups in any of the subscales.

Ethnic Differences in Social Support and Self-Efficacy Scores

One-way analyses of variance were used to explore ethnic differences in social support and self-efficacy scores of mentees. As shown in Table 8, European Americans reported greater levels of social support than Latino/Hispanics ($F=2.59$, $p=.04$). No significant differences were found among ethnic groups in self-efficacy scores.

TABLE 7. Ethnic Differences in Mentors' and Mentees' Views of Value of Mentoring

	M	SD	*F*	*p*
Teaching (*N*=93)				
African American	4.08	0.82	0.18	.89
Asian/ Pacific Islander	4.10	0.64		
European American	4.22	0.53		
Latino/Hispanic	4.00	0.90		
Other	4.19	0.69		
Challenging Tasks (*N*=95)				
African American	3.75	0.94	0.93	.45
Asian/ Pacific Islander	3.80	0.85		
European American	3.32	0.84		
Latino/Hispanic	3.78	0.96		
Other	3.88	1.07		
Academic Politics (*N*=92)				
African American	3.76	1.00	0.48	.75
Asian/ Pacific Islander	3.60	0.86		
European American	3.28	0.95		
Latino/Hispanic	3.47	0.94		
Other	3.50	0.98		
Career Help (*N*=96)				
African American	3.67	1.18	0.24	.92
Asian/ Pacific Islander	3.85	0.21		
European American	3.60	0.81		
Latino/Hispanic	3.70	1.02		
Other	3.92	0.97		
Protection (*N*=93)				
African American	3.01	0.89	1.70	.16
Asian/ Pacific Islander	3.71	0.83		
European American	3.01	0.95		
Latino/Hispanic	3.23	0.94		
Other	3.64	1.16		

TABLE 7. Continued

	M	SD	*F*	*p*
Sponsoring (*N*=94)			0.61	.66
African American	3.26	0.94		
Asian/ Pacific Islander	3.74	1.05		
European American	3.34	0.80		
Latino/Hispanic	3.54	1.05		
Other	3.75	1.17		
Career Counseling (*N*=98)			1.42	.23
African American	3.79	1.22		
Asian/ Pacific Islander	4.14	0.77		
European American	4.47	0.51		
Latino/Hispanic	4.07	0.89		
Other	4.45	0.77		
Friendship (*N*=93)			0.12	.98
African American	3.54	0.83		
Asian/ Pacific Islander	3.63	1.00		
European American	3.77	0.92		
Latino/Hispanic	3.59	0.89		
Other	3.61	1.14		
Trust (*N*=98)			0.69	.60
African American	4.39	0.70		
Asian/ Pacific Islander	4.40	0.73		
European American	4.63	0.60		
Latino/Hispanic	4.31	0.72		
Other	3.86	0.69		

TABLE 8. Ethnic Differences in Social Support and Self-Efficacy Scores

	M	SD	*F*	*p*
Social Support (*N*=190)				
African American	5.80	0.81	2.59	.04*
Asian/ Pacific Islander	5.56	1.01		
European American	6.07 [a]	0.80		
Latino/Hispanic	5.16 [b]	1.76		
Other	5.76	1.25		
Self-Efficacy (*N*=150)				
African American	3.90	1.19	1.01	.41
Asian/ Pacific Islander	3.51	0.77		
European American	3.95	0.70		
Latino/Hispanic	3.65	0.88		
Other	3.86	0.69		

*$p<.05$

CHAPTER 5

DISCUSSION

Summary of Findings

Similar to previous research, mentors and mentees valued professional and career advice and opportunities to learn in their mentoring relationships (Bell & Treleaven, 2011; Feld & Morgan-Klein, 2013). This study found that the mentees valued career help more than the mentors. Mentors and mentees also perceived psychosocial factors, such as trust and friendship, to be among the most valuable aspects of mentorships, as has been suggested by previous research (Jones & Goble, 2012; Putsche et al., 2008).

In contrast to the works of Gaddis (2012), there was no significant difference found in GPAs between mentees and undergraduates not involved in the mentoring program. Additionally, Gaddis proposed that higher levels of trust impacted academic performance and while trust was found to be the second highest rated value among mentees, this study did not find a significant difference in academic performance between mentees and undergraduates not involved in the mentoring program.

In contrast to Grabhorn's (2009) suggestion that mentoring can cultivate an academic community, the present study did not find a significant difference between mentees' and undergraduates' levels of perceived social support. Also, the present study did not find a significant difference between mentees' and undergraduates' levels of self-efficacy.

Similar to the findings of Blake-Beard et al. (2011), the present study did not find significant differences in academic performance and self-efficacy levels between mentees who were similarly matched by gender and those who were not. In addition, like the findings of Campbell and Campbell (2007), there were no significant differences in academic performance between ethnically matched and unmatched mentorships. Furthermore, the present study showed no significant differences in self-efficacy scores between mentees who were ethnically matched with their mentor and those who were not.

Prior studies have suggested a positive correlation between GPAs and social support and self-efficacy scores (DeFreitas & Bravo, 2012; Metheny & McWhirter, 2013; Putwain et al., 2013; Thompson & Subich, 2011). Unexpectedly, the present study showed a small but negative correlation between GPAs and social support scores. However, the study confirmed prior research findings, in which higher levels of perceived self-efficacy were positively correlated with academic performance (DeFreitas & Bravo, 2012; Metheny & McWhirter, 2013; Putwain et al., 2013).

When ethnic groups were compared in their reported levels of social support, European Americans had higher scores than Latinos. Building upon the findings of Feld and Morgan-Klein (2013), this could be a result of minority students lacking social capital in higher education and thus perceiving themselves to be lacking in social support. However, there were no significant differences among ethnic groups in their reported levels of self-efficacy, which could also be related to social capital. Finally, there were no significant differences noted among ethnic groups in their views of the value of mentoring.

Limitations of Study

The limitations of the present study center on the lack of generalizability of the results as only one mentoring program was included. The comparison sample of undergraduates involved in the study, have inconclusive evidence of FGS status. Furthermore, the analyses concerning ethnicity were limited due to the small numbers in some groups. Because a majority of the mentors were European American and a majority of the mentees were Hispanic, analyses regarding matching of ethnic dyads is unreliable, as the samples were disproportionate. This was also true for analyses concerning gender and ethnicity matching. Of the sample limitations, mentors had varying years of experience in the program that could be a factor in the measured outcomes. Another limitation of the study pertains to measurement, specifically self-efficacy and academic performance. The instrument used to measure self-efficacy was based on a self-efficacy scale intended to measure career self-efficacy as opposed to academic self-efficacy. Additionally, self-reported GPAs were used rather than an official university database and thus the results involving GPAs may have reflected a social desirability bias.

Implications for Social Work Practice

Based on the finding that mentees highly valued aspects of the mentorship related to career development, such as career counseling and teaching, it is recommended that mentoring programs in academia consider matching mentees and mentors based on academic and career-related interests. This may be beneficial for students because higher education is a time during which they learn skills that will benefit them in the workplace and offers opportunities to acquire the foundation for specialized career interests. If

matched with a mentor who can provide advisement on which classes will be most beneficial and/or practical for their career interests, this might best meet their needs.

Mentors could consider the information they use to develop rapport and build relationships, which are important to the success of mentoring. For example, mentors might engage their new mentees by retelling their stories regarding their own career paths, what classes they took, and how they applied for various jobs to attain their current positions. Based upon the more valued aspects of the mentoring relationships found here, it is also important for mentors to continue to engage mentees in ways to cultivate trust and also continue to teach skills to help students succeed in academics.

Additionally, females and ethnic minorities as a whole comprised a majority of the sample of mentees, both of whom face institutionalized barriers to career advancement. Based upon historical challenges, this further warrants mentors' efforts in assisting mentees with career help to assist in overcoming these challenges. Special attention could also be paid to Latino/Hispanic students' social support systems.

Implications for Future Research

A qualitative study to investigate in greater depth the experiences of mentors and mentees could help social workers to understand ways by which programs can be enhanced to improve academic performance. Qualitative research could also help to explore ways in which mentors approach these relationships and foster trust. A longitudinal study would also be valuable to see if mentoring has an impact on career endeavors after graduation.

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