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The Disparity of Racial Diversity in Counselor Education and Supervision

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This is to certify that the doctoral dissertation by

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Abstract

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by

Sharon Hammett Webb

MA/EdS, Gardner-Webb University, 2006

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

In general, doctoral programs in counselor education and supervision (CES) have low minority enrollments. Faculty members in clinical mental health counseling (CMHC) master's degree in science (MS) programs primarily come from CES doctoral programs; therefore, faculty members do not generally reflect the diversity of the MS student population. Using the theory of planned behavior and the bioecological model, the purpose of this research was to determine the extent to which age, gender, faculty support, income, level of parents' or primary caregivers' education, and the Council for Accreditation of Counseling and Related Educational Programs (CACREP) accreditation status predict White and racial minority MS students' decisions to pursue CES doctoral studies and to see if there were differences between the factors for White and minority students. A demographic questionnaire and the Perceived Faculty Support Scale were used to measure the variables through multiple regression, Spearman rho, *t* tests, chi square, and the Mann Whitney U analyses. No variables were significantly predictive for either student groups. Because there were no significant differences between White and minority MS students choosing CES programs, an approach to increase the number of minority faculty members in CMCHC MS programs as a way of promoting positive social change might be for program administrators and faculty to recruit more minority students into MS programs in order to expand the pool of potential CES students. An additional recommendation is for current CES faculty to encourage more minority students who do choose CES doctoral programs to pursue faculty positions after graduation.

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Dedication

I dedicate this research to my family. Each of them has been my inspiration throughout this academic journey. Their encouragement was instrumental in my perseverance to complete this academic goal. I could not have achieved it without their support.

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I have several people to thank for helping me through this dissertation process. Most importantly, I thank God, who has sustained me with energy, emotional strength, and peace as needed. I thank my husband for believing in me and for sacrificing time with me so I could pursue this academic and professional dream. I thank my children for being my biggest cheerleaders. I hope they realize that with persistence, they can successfully achieve anything they strive toward in life, and I will always be their biggest fan.

I thank my parents for their unconditional love and patience in waiting for the much-desired family time that we can now have. I truly look forward to taking care of them as they have cared for me throughout my life.

I thank Dr. Laura Haddock for chairing my committee and for being so supportive and encouraging me for self-care along the way. I thank Dr. Bill Barkley for being my methodologist and for his patience and time to share his expertise via phone consultations. I thank Dr. Shelley Jackson for her invaluable feedback as URR.

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Chapter 1: Introduction to the Study

Introduction

Diversity in the United States is growing; yet, racial minority population groups continue to be disparate in higher-level education (Bowen, Chingos, & McPherson, 2009: Keels, 2013; Robinson, Lewis, Henderson, & Flowers, 2009; Worthington et al., 2010). This disparity is a problem, especially in counseling and counselor education programs, which have strong emphases on multicultural learning and advocacy. Racial minority populations have experienced historical oppression in many ways, including educational attainment. . This study will be a step in determining possible influential systemic factors that are unique to racial minority students and their decision to pursue doctoral education. With minimal minority group representation in higher education, is continued disparity in professional fields that require academic degrees, thus continued oppression. In this study, I focused on the factors that may influence the disparity of racial diversity in counselor education and supervision (CES) PhD programs. The CES profession requires a doctoral degree, so educational institutions need to understand how to increase racial diversity representation in PhD CES programs in order to improve faculty racial diversity. The intent of this research study was to determine bioecological influences for graduate counselor trainees' decisions of pursuing doctoral studies in CES to reveal individual and systemic factors about graduate students' intent to pursue doctoral studies in CES. I will also help to identify potential factors unique to minority students to consider programmatic changes that may help increase racial diversity in the CES profession.

The Council for Accreditation of Counseling and Related Educational Programs (CACREP) (2012) has developed minimum standards that are required for graduate programs to be eligible for accreditation. CACREP requires programs to have a diverse representation of faculty. In meeting the CACREP minimum standards, many doctoral programs require applicants to have graduated from CACREP programs or may require students from non-CACREP programs to take additional coursework. Thus, students who graduate from CACREP-accredited master's programs find acceptance into doctoral level programs easier, and the students are better prepared as doctoral level students compared to non-CACREP graduates (Haight, 1992; Urofsky, 2013). Conducting this study was beneficial to the counseling profession because it will help to identify the factors that contribute to the intent to pursue doctoral studies for students graduating from a master's level counseling program, including whether the student is currently enrolled in a CACREP-accredited graduate program. The CES faculty profession should reflect U.S. racial diversity. The Association of Multicultural Counseling and Development (ACMD) Multicultural Counseling Competencies (1996, 92.B., p.2) mandates counselor awareness and knowledge about minority populations and sociopolitical influences, which may be best facilitated via increased minority faculty representation within the CES profession (Arredondo et. al). Often the most accurate knowledge comes directly from those who have personal experience versus from others who have not. Furthermore, the CES field should be leaders by modeling multiculturalism within the profession, which may also be inspirational for racial minority students toward considering the CES profession.

In this predictive study, I used two theories to increase the awareness of systemic influences on counseling graduate students' intentions for pursuing doctoral studies in CES. When exploring predictive models, the theoretical framework may or may not be confirmed. Individual and systemic variables considered in this study were age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether the student was enrolled in an CACREP-accredited master's program: Each of these variables align with Bronfenbrenner's bioecological theory. Variables within Bronfenbrenner's 1989 bioecological model that influence the potential to achieve their goals include (a) individual, (b) microsystem, (c) mesosystem, (d) exosystem, and (e) chronosystem. Ceci and Hembrooke (1995) found that Bronfenbrenner's theory includes information on how systemic influences affect a person's ability to develop and realize full potential in life. In the bioecological model, Bronfenbrenner stressed how biology and environment interact to produce development. Factors within each system may affect a student's intentions to enroll in doctoral CES programs after graduation. These factors may also be different among varying racial groups. Each system has different levels of influences on the individual person. The microsystem includes factors within the immediate physical and social environment (i.e., family). The mesosystem consists of two or more microsystems that are connected (i.e., family and school). According to the exosystem, social settings are not a part of direct experience (i.e., social welfare services). The macrosystem includes factors in larger cultural understandings of how life should be in society (i.e., cultural ideologies). Finally, the chronosystem (i.e., sociohistorical conditions) consists of the occurrences happening in a given period and as a pattern

(Sigelman & Rider, 2009). In this study, I identified variables that affect a student's decision to pursue enrollment in CES doctoral studies.

In addition to Bronfenbrenner's (1989) systemic model, I utilized the theory of planned behavior (TPB) to understand the cognitive process of decision-making. A missing element in Bronfenbrenner's model is the actual decision-making process when making educational plans. TPB is composed of three constructs that are used to measure intentions for behavior: (a) attitudes toward the behavior, (b) subjective norms, and (c) control. Bronfenbrenner's model and the TPB provide a better understanding of the factors relating to graduate students' decision about enrollment in CES programs. The TPB and Bronfenbrenner's model can help to addresses the cognitive operations for deciding whether to pursue doctoral studies after completing graduate studies in counseling. Researchers have not indicated factors within each of Bronfenbrenner's systemic model as potential influences for the intent to pursue doctoral studies. In addition, conducting searches did not reveal published studies of the effects of TPB on educational pursuits.

A discussion of the background for the research problem, problem statement, purpose statement, research questions, and the hypotheses is provided. I will then discuss the two aligned theories used as the theoretical framework, and I will present the nature of the study. Finally, the chapter concludes with a discussion of core definitions, assumptions, scope, limitations, delimitations, and significance of the research.

Background of the Study

There is a disparity in the representation of minority faculty employed fulltime as undergraduate professors; 1 % of undergraduate professors overall are a member of a racial minority group (Antonio, 2003). Faculty who teach in graduate counseling programs at the university level must have a doctoral degree. The CACREP accreditation board asserted a preference for faculty to hold graduate degrees in CES (2009, Section Y.1., p. 6). In addition, CACREP mandated diversified faculty in CACREP-accredited institutions (Section I. U., p. 5.); therefore, it is vital to find ways to increase racial diversity in CES. Holcomb-McCoy and Bradley (2003) found an adequate representation of minorities in master's level students in counseling programs, but did not find an adequate representation of minority students at the CES doctoral level. There is a shortage of minority faculty representation in CES due to a lack of minority students who decide to pursue doctorates in CES. Increasing minority student representation in CES programs supports the CACREP mandate for diversified faculty in CACREP-accredited institution.

Programs report low numbers of minority students who complete graduate studies. Matthews (2011) reported that only 32 of 1,400 doctoral graduates in a physics program were minority students in 2009. Some researchers suggested that minorities become motivated to enroll in doctoral programs when there is an adequate representation of minority faculty (Brooks & Steen, 2010; Henfield et al., 2011). Because minority students have attained doctoral degrees in programs, there is a greater likelihood

of accomplishing the same goals. This also speaks to the need for increased minority representation among CES faculty in order to attract minority students to CES programs.

Problem Statement

The goal of this survey study was to determine bioecological influences for graduate counselor trainees' decisions of pursuing doctoral studies in CES. The absence of bioecological influence information is a problem because there is minimal racial diversity within the CES profession; in this study, I may reveal factors that can be helpful toward increasing racial diversity in CES PhD programs, therefore increasing CES faculty racial diversity. Institutions need to understand how to increase awareness and understanding of distinct individual and systemic variables that affect racial minority students' decision-making process about the intention to pursue a doctoral level education. The results of this study may provide information for current CES faculty and administrators that can facilitate necessary resources to better empower and advocate for racial minority students. The results will provide administrators and faculty with information that could be used to help increase the number of minority applicants to CES PhD programs. Information on bioecological influences that affect minority students' intent to pursue CES doctoral studies can be used to implement strategies to strive toward increasing racial diversity in CES.

Although diversity continues to increase in the United States, Whites continue to hold the majority of professional positions in the counseling profession. As reported by the ACA (2012), only 20% of all counselors are minorities. A lack of minority representation in CES programs is a problem for CACREP institutions (CACREP, 2012,

Section I.U., p.5); if CACREP-accredited counseling programs are not modeling the very thing mandated by their accreditation, it diminishes the credibility of that accreditation. Although minority representation in the United States has increased over the last decade, minority student representation in CES programs does not appear to be equitable. The US Census Bureau (2011) revealed the following demographic changes from 2000 to 2010 in the United States: The number of Whites decreased from 75.1 to 72.4 %; the number of Hispanics or Latinos increased from 12.5 to 16.3 %; the number of Blacks increased from 12.3 to 12.6 %; the number of Asians increased from 3.6 to 4.8 %; the number of Native Hawaiian and Other Pacific Islander increased from 1 % to 2 %; and the number of those who identified as Other increased from 5.5 % to 6.2 %. The minority representation is approximately 25% of the U.S. population but only 1 % of doctoral faculty in the United States. These statistics are evidence for the huge disparity of racial diversity representation at the doctoral level across disciplines, as well as affirmation for the need to advocate for increasing higher-level learning for racial minority students so there is educational equity, especially within the CES profession, which stresses the importance of cultural knowledge.

Racial diversity is increasing in the United States, but not equitably in the CES profession. Haizlip (2012) noted that, although student racial minority representation is increasing in psychology and counseling programs, it is not increasing in counselor educator positions; increased racially minority student representation is needed in order to increase diverse faculty representation. Bryant et al. (2005) discussed the challenges faced by Black females in the CES counseling profession and offered suggestions for

systemic and personal strategies that are unique to their worldview. Discussions of cultural considerations for Black students, such as racial perspectives of self and systemic dimensions, indicate the need for continued research in this area (Bryant et al., 2005). Although the profession acknowledges faculty and student CES underrepresentation of minorities, there is a need to document the data publicly.

The minimal student and faculty racial diversity within the CES profession has potential implications beyond the counseling relationship. The CACREP standards have a mandate for multicultural competency: "The academic unit has made systematic efforts to recruit, employ, and retain a diverse faculty" (2009, Section I. U., p.5).Yet, the CES profession is culturally disparate in comparison to the overall population of faculty.The CES profession does not reflect the recent change in U.S. population.

Some scholars have examined the factors that influence student assertiveness, which may contribute to their motivation to enroll in PhD CES studies (Ikiz, 2011). For example, an important factor in counselor education programs is developing skills and personality of students; feedback from faculty is important. Furthermore, there may be a connection between how students perceive feedback and their perceptions of faculty support, which is one of the factors assessed in this study. A lack of understanding exists among CES institutions and administrators about factors that affect enrollment of minorities in CES programs. There was a need for conducting this study to determine how best to increase racially diverse representation in CES doctoral programs.

Purpose of the Study

The purpose of this quantitative study was to examine the correlational relationship between variables aligned with Bronfenbrenner's bioecological model and students' decisions to pursue doctoral studies in CES and to identify any factors that are unique to minority students. In this predictive study, I used multiple regression analysis and analyzed the following predictor variables – age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not the student was a graduate of an CACREP-accredited master's program. The intent was to focus on which factors relate to students' decisions of whether to pursue doctoral education in CES, noting any variables that may be unique for those who represent racial minority group populations. Intent was determined according to TPB, the primary theory for this study. The chosen variables relate to the systems represented in Bronfenbrenner's bioecological model, which was the secondary theoretical framework for this study.

Research Questions and Hypotheses

RQ1a: To what extent do the following factors predict decision to enroll in doctoral CES programs for White students in master's level programs - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

RQ1b: To what extent do the following factors predict decision to enroll in doctoral CES programs for minority students in master's level programs - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

$H_0$1a: None of the following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict (α=.05) White students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression and Spearman analyses.

H_a1a: The following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program – predict White students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression and Spearman analyses.

$H_0$1b: None of the following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict (α=.05) minority students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression and Spearman analyses.

H_a1b: The following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program – predict minority students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression and Spearman analyses.

RQ2: Are there differences between majority White and minority culture groups in the extent of the following factors - age, faculty support, gender, income, level of

parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program predict decision to enroll in doctoral CES programs for students?

$H_0$2: There is no significant (α=.05) difference between groups of majority White students and minority students in the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program predict the decision to enroll in doctoral CES programs for students? I tested this hypothesis through *t* tests and chi-squared analyses.

H_a2: There are differences between groups of majority White students and minority students in the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program predict the decision to enroll in doctoral CES programs for students? I tested this hypothesis through *t* tests and chi-squared analyses.

RQ3: Are there differences between majority White and minority racial groups of students in master's level counseling programs for decision to enroll in doctoral CES studies?

$H_0$3: There is no significant (α=.05) difference between groups of majority White students and minority students for decision to enroll in CES doctoral programs. I tested this hypothesis through Mann Whitney U analysis.

H_a3: There are differences between groups of majority White students and minority students for decision to enroll in CES doctoral programs. I tested this hypothesis through Mann Whitney U analysis.

Theoretical Framework

Bronfenbrenner's bioecological model was one of the theories in this research study. Bronfenbrenner asserted that variables within different systems influence developmental outcomes (Ceci & Hembrooke, 1995). I used Bronfenbrenner's model at a taxonomy level; the goal of taxonomy is to provide "an orderly schema for classification and description" (Frankfort-Nachmias & Nachmias, 2008, p. 34). Bronfenbrenner's model provides each of the independent variables for this research.

The TPB was another of the theoretical frameworks for this study and was beneficial as the foundation of this study because the theory provides the foundation that explains the intentions of master's level students to pursue enrollment in doctoral CES programs. Jakopec, Krecar, and Susanj (2013) argued that, based on Ajzen's (1991) theory of planned behavior model, observing student's intentions towards applying for CES enrollment indicates the actions of enrollment in the program. Ajzen used three constructs to measure intentions toward a behavior such as applying for CES admissions: attitudes towards the behavior, subjective norms and control. Lino et al. (2014) argued that attitudes are associated with any positive or negative outcomes master's students may experience from the behavior of enrolling in the CES programs. Subjective norms are associated with any social pressure that motivates or demotivates the action of enrolling in the CES program. I provide further discussion of Bronfenbrenner's model and TPB in Chapter 2.

Nature of the Study

The nature of this study was correlational using a nonexperimental cross-sectional design. This cross-sectional design was beneficial for examining the predictive nature of systemic variables and the intent to pursue doctoral studies in CES. The predictor variables are factors within student's individual demographics, microsystem, mesosystem, exosystem, and macrosystem. The outcome variable was intent, thus decision to enroll in doctoral studies in CES.

There are several reasons for using a quantitative survey design for this study. As Creswell (2009) noted, the observations in quantitative research are structured, which was consistent with the structured surveys that were administered in this study. The correlational design allowed me to predict the predictor variables of age, faculty support, gender, income, level of parents' or primary caregivers' education, number of years after graduate school, and whether the student was enrolled in an CACREP-accredited master's program on the outcome variable of intent to pursue doctoral studies in CES (Frankfort-Nachmias & Nachmias, 2008). I was not able to manipulate the specific variables in this study, therefore limiting appropriate designs. A survey design was advantageous for this current research because it allows for access to current graduate students located throughout the United States. In addition, use and reliance of the Internet for information continues to increase; therefore, using this method increased the potential number of participants I obtained (Frankfort Nachmias & Nachmias, 2008). Yet another rationale for this method was a quick availability and allowance for responses and immediate participant results (Frankfort-Nachmias & Nachmias, 2008).

Using a quantitative methodological design was most suitable among the methodology choices. For instance, the quantitative models allow for collecting numeric data using survey instruments that included close-ended questions. This methodology was best in order to sample a large group of students from various geographical locations in an unbiased approach. A quantitative methodology employs statistical models to test theories such as TBP. The numeric data provides for forming variables, forming research questions and hypotheses, and responding to the hypotheses using the statistical models.

A qualitative design allows for open-ended questions, studying text material or images that may include photos or videos. The qualitative approach would have been better suited when forming themes among open responses, allowing researchers to interject personal biases when interpreting responses. Because an unbiased approach was one of the goals of this study, and for reasons explained above, the quantitative methodology was best suited for this study. Epistemologically, investigators in quantitative designs are independent of the comparative study, therefore unbiased. Questionnaires that have limited predetermined responses ensure a value-free framework (Sale, Lohfeld, & Brazil, 2002). The present research did not require experiments or pre and posttests as in experimental or quasi-experimental approaches. A mixed methodology consideration was not suitable for this study because of the qualitative aspect of the approach.

The basic purpose and rationale for this research was to have a comparison between different racial populations of factors that may predict whether students intend to pursue doctoral studies in CES; I focused on identifying factors that are influential in

students' decision to pursue doctoral studies in CES, which was the outcome variable. In this multiple regression study, I sought to determine the extent to which the identified bioecological factors are influential in graduate students' motivation to pursue doctoral studies in CES. Haizlip (2012) noted that although racial minority representation is increasing in psychology and counseling programs, it is not increasing in counselor educator positions. Young and Brooks (2008) acknowledged that mentorship from faculty of similar racial groups is a most effective support network for Black students, which is influential in their decisions for career paths. With increased minority CES representation, minority students may be more open to considering the CES profession for themselves. Just as people in general often migrate toward relationships with those who they best identify with, racial minority students may seek mentorship from racial minority faculty toward academic persistence at higher levels.

This intent of doing a multiple regression study was seek to determine variables that may predict the decisions for students who represent racial minority groups to pursue doctoral studies to become counselor educators. The complexity of changes and challenges in higher education influence ways to increase diversity (Anderson, 2008; Antonio & Clark, 2011). The present study was a step in unraveling the complexity of possible systemic factors that may be specific to racial minority student groups, thus influential in the decision to pursue CES doctoral studies, which can then provide information to consider for programmatic policies and procedural changes that may better empower and support these students.

Definitions

Council for Accredited Counseling and Related Educational Programs (CACREP) Academic Program: Certifying organization that ensures the unity and format of academic training programs in the area of counseling, which has specific training and internship requirements of all students. Academic graduate programs indicated by response on the demographics questionnaire and verified via the CACREP website (www.cacrep.com) include the following: addiction counseling, career counseling, clinical mental health counseling, marriage, couple, and family counseling, school counseling, and student affairs and college counseling.

Counselor education and supervision (CES): The higher education profession as an instructor and internship supervisor of master's level counselor-trainees.

Faculty support: Level of perceived encouragement and resources provided by faculty members in students 'previous master's program. The level was determined according to participant answers in a questionnaire. There is a positive relationship between advisees' psychosocial and career support on how advisees perceived faculty advisor support (Fullick, Smith-Jentsh, & Kendall, 2013).

Race: The U.S. Census Bureau (n.d.) defined people's race according to their own self-identity. These classifications adhere to the October 30, 1997, Federal Register Notice entitled, 'Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity' issued by the Office of Management and Budget (OMB). The OMB requires five minimum categories (White, Black or African American, American Indian and Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) for race. OMB

approved a sixth category as “Some other race”, which allows respondents the option of selecting one that is not specifically identified (US Census Bureau). This was determined according to participant answers in a demographic survey.

Students: For the purpose of this study, those identified as students were people enrolled in a master’s level program in counseling at an accredited college or university in the United States. Some counseling programs may include school counseling, mental health counseling, marriage and family counseling, as well as other counseling specialization areas.

Theory of planned behavior (TPB): Intention to perform identified behavior, which is positively correlated with the how strong volition of control is (Ajzen, 1991). In TPB, the perception of behavioral control depends on the perceived level of difficulty for a given behavior, contrary to internal locus of control because perception of likelihood for success according to outside factors in a given behavior is also a factor. TPB is similar to Atkinson’s (1964) theory of achievement motivation - success comes from situation expectancy as well as ‘incentive value’ (Ajzen, 1991, p. 184). General concepts of the TPB include beliefs, attitudes, intentions, and behavior (Ajzen, 1991). Each of these constructs was determined according to a scale that measures perceived behavioral control.

Operational Definitions

The following independent variables determine whether influential in graduate students’ intend, thus decide to pursue doctoral level education in CES.

Age: Age was one of the independent variables used to determine if it was a factor in a graduate students' decision to pursue doctoral level education in CES. Participants listed actual years of life on a demographic survey question.

CACREP accreditation: This accreditation was one of the independent variables used to determine if it was a factor in graduate students' decision to pursue doctoral level education in CES. Participants answered "yes" or "no" on a survey question.

Faculty support: Perception of faculty support was one of the independent variables used to determine if it was a factor in graduate students' decision to pursue doctoral level education in CES. This was determined according to participant answers on a Likert scale question.

Gender: Gender was one of the independent variables used to determine if it was a factor in graduate students' decision to pursue doctoral level education in CES. Participants selected the gender they self-identify as "male" or "female" in a demographic survey.

Income: Level of income was one of the independent variables used to determine if it was a factor in graduate students' decision to pursue doctoral level education in CES. Participants selected income range for total household income provided on a demographic survey.

Decision to pursue doctoral education in CES: This was the outcome variable. Participants rated decision to apply for a doctoral CES program. Decision was measured by participant answers on a 4-point scale of 1=*very likely*, 2=*likely*, 3=*unlikely*, and 4=*very unlikely*. If participants answered with decision to pursue CES PhD studies, they

then specified how many years from the time they took the survey until they plan to begin a program.

Level of parents' education: This was one of the independent variables used to determine if it was a factor in graduate students' decision to pursue doctoral level education in CES. Participants answered according to the highest level of education that either parent completed in a demographic survey.

Race: This factor was only used to compare extent of predictor variables between majority and minority racial groups. This was determined according to participant answers in a demographic survey.

Assumptions

I assumed that participants who completed the online survey answered all of questions honestly, and their responses closely reflected the true nature of their feelings, affecting the validity and reliability of results. Participants were those who identified as being enrolled in a master's level counseling program in the United States and were deciding whether to pursue doctoral studies in CES. Students had access to technology to take the survey online. The study had normality, linearity, and homoscedasticity of the residuals with no outliers. To mitigate these assumptions, the implementation of a large sample size ensured that the results were not affected.

Limitations

People may have developed stress or strain when completing this survey due to the sensitive nature of the topic, which may have affected their ability to complete the survey. Additionally, there were limits to time and resources to complete this study.

Limits included personal goals and the length of time for the study set by the university. Further, the response rate of participants was a limitation in this study due to the online environment requirements for participating in the study. In addition, participants were volunteers; students who chose not to participate may have provided different results. Sending out a large amount of invitations to participate in the study accounted for these limitations and meeting requirements for the sample size.

Delimitations

Participants included master's level students enrolled in a counseling program from any college or university located in the United States. Students in various stages of completing their graduate studies in the United States were a part of this sample pool, and students could have been enrolled in ground campus, online campus, or hybrid campus institutions. The study included current master's level students from all racial backgrounds. Participants could be in any year of a master's program.

Significance of the Study

Due to the disparity of racial diversity in the CES profession, a benefit for conducting this study would be to determine the relationship between factors that have a relationship with the decision to continue education at the doctoral level in CES. Identifying significant systemic factors for academic persistence can assist CES and program administrators within this field to understand how best to empower master's level students of diverse races to pursue postgraduate studies in CES. The AMCD (2012) Multicultural Counseling Competencies mandates (2.B, p. 2) counselor awareness and knowledge about minority populations and sociopolitical influences (Arredondo et. al,

1996). CES programs with diverse faculty may be more likely to deliver broadened educational knowledge by sharing their personal experiences with students. The findings of this study may increase awareness of unique experiences and needs of minority students. The results could lead to positive social change by empowering and encouraging minority students to pursue doctoral studies to increase diversity in CES.

A goal of this study was to identify systemic factors that may be unique for racial minority students that influence the decision to pursue CES doctoral studies so that further scholars can then seek ways to advocate for needed resources that are essential for these students to overcome potential challenges that inhibit them from pursuing postgraduate studies in CES. This study reduces the gap in the literature for the CES profession with regard to identifying systemic factors that may influence cognitions, thus behaviors of minority students in pursuing a career as a CES professional. There are minimal research studies specific to predictions for why students may or may not pursue a doctoral degree in CES. This gap includes tools to increase diversity in the CES profession.

Summary

Professionals in the counseling field advocate for the importance of diversity. Yet, there is minimal diversity within student CES doctoral programs, thereby affecting minimal racial diversity within the CES faculty profession. If counseling professionals are concerned about why there is a disparity of racial diversity amongst faculty, those professionals need to conduct and encourage studies that will help to determine reasons for disparity in order to explore how to enact changes within master's level graduate

counseling programs so institutions can better serve and provide necessary resources for racial minority students to encourage them to pursue education at the doctoral level. The disparity of diversity in the CES field influences the disparity of diversity within master's level programs; thus, most professional counselors are Whites.

This study was an initial step in providing answers toward advocating for racial ethnic minority populations to be encouraged to reach their potential of pursuing a doctoral education. In addition to this being advantageous for minority counselor-trainees to have similar counselor educators, counselor-trainees from the majority culture can better learn how to be more culturally responsive through learning from minority counselor educators. In Chapter 2, I discuss the body of literature on various components in this study; the main themes discussed are academic persistence, motivational behavior, and systemic issues.

Chapter 2: Literature Review

Introduction

There is minimal research to examine and explain the disparity of racial diversity in CES. Bradley and Holcomb-McCoy (2005) revealed a disparity of racial minority faculty in most CES programs, and in a follow-up 2003 study Bradley and Holcomb-McCoy (2005) discovered that most counseling training programs did not have strategies to recruit or retain ethnic minority faculty. There continues to be an underrepresentation of minorities in the CES profession, possibly related to systemic dimensions (Bryant et al., 2005). Gottfredson et al. (2008) noted a Supreme Court ruling that higher education institutions need to seek diverse representation of students. Ziomek-Daigle and Bailey (2009) postulated that there is minimal research on culturally responsive practices in counselor education, asserting the necessity for research that considers racial influences. One benefit of increasing diversity in the CES profession would be to meet the CACREP standards for faculty diversity. There continues to be a gap in the literature addressing factors preventing higher enrollment rates among minorities (Ikiz, 2011). Young and Brooks (2008) emphasized that commitment to race consciousness begins with persistent commitment to address the disparity of graduate students and faculty racial diversity, further asserting the necessity for "race conscious" students and faculty members so racial minority students feel supported in their worldview. In addition, Gloria, Castellanos, Lopez, and Rosales (2005) advocated for the need to address educational experiences for Latina/o students. The goal of this study was to understand the systemic dimensions that affect enrollment in, CES programs for minorities.

Several authors have noted the research deficit that is specific to minority students relating to educational attainment.. Johnson, Bradley, Knight, and Bradshaw (2007) asserted the need for more research on vocational decision making of Black students. It is important for the CACREP organization to manage a database of doctoral students to create and monitor data regarding the demographics and attainment of diverse student cohorts. This assimilated data can assist the accrediting board to ensure that programs are at least making efforts to recruit and retain diverse student representation, as well as providing data toward advocacy efforts for diversity. Reynolds, Sneva, and Beehler (2010) acknowledged the deficit of research on the academic success of racial minority students; stressing the need for research on academic and social engagement factors; this will provide valuable information to consider for academic success of Black and Latino and Latina students. Worthington (2012) noted minimal research on diversity research, inquiry, and strategic planning, asserting for studies on the benefits of diversity and explaining reasoning of higher education practices. Increasing the knowledge base regarding issues of diverse populations, thus the implications, can assist counseling program administrators with efforts toward programmatic implementations to increase diverse representation in the counseling and CES fields.

Disparity in Black CES faculty results from the prevailing slow movement of Black students into those doctoral programs (Brooks & Steen, 2010). Fischer (2007) shared that researchers need to explain the unique difficulties for minority students that affect their academic persistence. Kreuter et al. (2011) disclosed that minority races currently represent 30 % of the U.S. population, and were projected to be an estimated

50% by 2050, but diversity representation in graduate education remains disparate. Kreuter et al. reported that, in 2008, Blacks attained only 7% of doctoral degrees in social science, 4.5% in life science, 3.8% in engineering, and 3.2% in physical science. Therefore, for educational attainment to be equitable there should be advocacy efforts to strive for a minimum of 30% of those holding doctoral degrees to be representative of minority groups.

In this quantitative study, I examined the correlational relationship between variables aligned with Bronfenbrenner's bioecological model and students' decisions to pursue doctoral studies in CES and to identify any systemic factors that are unique for minority students that may influence academic persistence toward CES doctoral studies. I assessed variables that aligned with Bronfenbrenner's bioecological model to understand any relationships with students' decision to pursue doctoral studies in CES according to decision as measured in TPB.

In this study, the predictor variables represented each of the five systemic dimensions (individual, microsystem, mesosystem, exosystem, macrosystem, and chronosystem) associated with Bronfenbrenner's (1989) bioecological model. The outcome variable was the decision to enroll in CES doctoral studies. The intent was to focus on factors that influence students' decisions toward doctoral level education in CES. Conducting this study was beneficial for analyzing factors that lead to doctoral CES enrollment of master's level counseling students.

In this chapter, I synthesize the literature on various aspects of education and race. The first section is the literature search strategy, followed by a discussion of TPB. The

third section includes a discussion of Bronfenbrenner's bioecological model leading to a discussion of the predictor variables. In the fifth section, I offer a discussion of racial diversity in education, including demographic statistics and trends of faculty and students. Finally, the concluding section includes a summary of the importance and future implications of this study.

Literature Search Strategy

I used the following databases in my literature search: Academic Search Complete, EBSCOhost, Education Complete, ERIC, Google Scholar, ProQuest, PsycARTICLES, PsycINFO, and Sage. The following keywords were used: *Bronfenbrenner bioecological model, CACREP, counselor, counseling, education, educator, graduate, prefer, race, racial, student, supervise, supervision,* and *theory of planned behavior.* The literature used in the literature review was selected for its qualities of being recent, published no earlier than 2009. Older works were referenced if they were seminal or important in the CES field or to my research study. All referenced literature had been published in scholarly, peer-reviewed journals and books and databases. The literature review included information drawn from several sources that are published by reputable and mainstream publishers.

Theoretical Foundation

The main theoretical framework for this study was the TPB. The TPB provided the basis for explaining the decisions of master's level students to pursue enrollment in CES programs. Ajzen (1991) developed TPB to understand how to predict intention rather than behavior. Although theory leads to behavior, intention is the first step towards

any behavior (Ajzen, 1991). Low intentions for a given behavior may be due to systemic factors, which individuals may or may not be able to personally control. Control over behavior mitigates the relationship between intention and behavior. For instance, master's level students may not enroll in doctoral programs due to controlled factors. For example, a lack of enrollment can flow causally from a lack of resources, an externally controlled factor, which is distinct from actual ability. Systemic barriers such as lower incomes and lower educational backgrounds that racial minority students experience can impede behavioral intentions.

The core of TPB is predicting intentions. Beliefs, attitudes, and perceptions influence and explain intended behaviors, but depend on external factors. According to the TPB, predicted behaviors occur according to intentions and perceptions of behavioral control. Attitude toward a behavior, subjective norm, and perceived behavioral control predicts intentions. Prediction for intention and behavior improves with added variables. Proponents of TPB acknowledge that background factors may affect beliefs, which then influences intentions and behaviors (Ajzen, 2011).

Ajzen (1991) created the TPB model to determine how personal motivation influences behaviors, using this theory to assess psychological constructs relating to perception and attitude. TPB fits well with central concepts in social and behavioral sciences in terms of predicting and understanding behaviors in specific contexts. Through the observation of attitude and behavioral relationships, TPB forms a model of psychological processes. Intention is the central factor that explains human behavior in such contexts, and intention stems from motivation. Intention is the degree a person is

willing to try or the amount of planned effort toward a behavior; motivational factors that influence behavior and intentions vary according to how much effort an individual wishes to exert for the behavior. Strong intention increases the likelihood for the behavior, but only if a person perceives volitional control to make the decision of whether to engage in the behavior. Additionally, TPB theorists acknowledge that most behaviors depend on nonmotivational factors (i.e., resources, time); both motivational and nonmotivational factors, as well as intention level, influence successful behavior. In addition to the measured success of the behavior, the measured or perceived control of the behavior is a critical factor in this behavioral theory. Perceived behavioral control is an important element in TPB and can vary in different situations and actions – perceived behavioral control and intention could directly predict behavior achievement. Under the theoretical model of TPB, confidence in the behavior increases the likelihood of perseverance. Both intentions and perceived behavioral control combine to influence intended behavior. For predictive validity, both intentions and perceived behavioral control that directly relate to a given behavior are assessed, as well as the specific context.

In this study, the behavior was the intention to pursue doctoral studies, and the specific context was in CES. A second condition is that intentions and perceived behavioral control remain stable. In this study, perceived faculty support should remain constant. Another requirement for validity is that perceived behavioral control realistically reflects actual control. TPB theorists acknowledge that either perceived behavioral control or intentions can vary according to any given behavior. The goal of TPB is to explain behavior, not solely predict it. Therefore, TPB assesses attitudes,

subjective norms, and perceived behavioral control. Proponents of TPB postulate that intended behavior stems from relevant beliefs. There are three kinds of beliefs – behavioral beliefs influence attitude, normative beliefs are the underlying determinants of subjective norms (how likely important individuals approve/disapprove), and control beliefs (influenced by second-hand info, others' experiences of the behavior, resources) provide basis for perceptions of behavioral control (Ajzen, 1991).

Three components predict intention toward a given behavior and intention predicts engagement in the behavior: attitudes toward behavior and consequences, subjective norms (expectations of important people), and perceived behavioral control (perceived difficulty to perform it). Perceived behavioral control is a consideration when a behavior is not under volitional control (i.e., it violates norms and/or rules). Stone, Jawahar, and Kisamore (2010) discovered strong results for TPB explaining intent to engage in academic misconduct. However, they acknowledged that most TPB studies examined positive behaviors (dieting, condom use) involving motivation to engage (Stone et al., 2010). The hypothesis relative to this study was that the TPB theoretical framework can be applied to the question of whether the intention to pursue doctoral studies, within the context of CES, can be predicted among particular student cohorts. This is a positive behavior, as examined by many extant studies.

Jakopec et al. (2013) argued that based on Ajzen's 1991 theory of planned behavior model, observing student's intentions towards applying for CES enrollment strongly indicates the action of enrollment in the program. There are three constructs to measure intentions toward a behavior: attitude about an action, subjective norm, and

perceived behavioral controls (Ajzen, 1991). Each of these influences intention, which influences behavior. Perceived behavioral control also directly influences behavior. Each functional variable has a belief and corresponding judgment components.

Lino et al. (2014) argued that attitudes are associated with any positive or negative outcomes master's students may experience from the behavior of enrolling in CES programs. Subjective norms are associated with any social pressure that motivates or demotivates the action of enrolling in the CES program. Additionally, perceived behavioral control is associated with the perceived ability to engage the CES program and attain a doctoral degree. Keels (2013) acknowledged increasing efforts to have more diversity in academia, but argued for more attention to consider contributing factors that influence academic persistence. Academic persistence includes not only graduation, but also intentions for higher-level degree attainment. For purposes of this study, the measured intention was the decision of pursuit toward doctoral studies in CES. High attrition rates among racial minority students magnify disparity of diversity representation in academia. Gloria and Ho (2003) found a positive relationship between Asian American students' relationships in academia, social support, and personal beliefs predicting decisions to persist in higher education. TPB measures these three variables by asking or by examining individual elements of factors and their influential strength and can be applied in multiple scientific fields (Tereza, 2013).

Criticisms of TPB

Some researchers do not support the belief that systemic factors influence behaviors, criticizing that TPB is too rational and neglects affect and emotions (Ajzen,

2011). According to TPB, expectations lead to beliefs, thus leading to behaviors. Emotions are merely experienced because of beliefs (Jaidi, Van Hooft, & Arends, 2011).

Other Studies

In addition to the above-mentioned studies, an online bibliography shows several theory and review papers that have used TPB (Ajzen, 2014). Jaidi et al. (2011) found that TPB explained the positive or negative influence of recruitment information on job pursuit, validating social influences on planned behaviors. Hung and Jeng (2013) found that when combined, the three constructs in TPB significantly contributed to predicting intentions to teach in online formats. Perceived control alone did not significantly influence intentions. Social isolation and lack of personal relationships were concerns for the majority of those who did not favor the concept of online teaching. Favorable statements about capacity to reach a broader audience and convenience of learning were a common theme in those who favored online teaching. TPB significantly predicted online teaching intentions in this study.

Choi (2012) used TPB to consider contextual variables instead of solely intrinsic reasons to predict attitudes, behavioral control, and related intentions. TPB is useful in specifying psychological mechanisms leading to behaviors (Choi, 2012).

Tan and Fawzi (2009) used TPB to gain insight for understanding academic major choices as they sought ways to attract students and improve attitudes and beliefs toward majoring in accounting. Results indicated a positive correlation between favorable attitudes, subjective norms, and perceived behavioral control and likelihood for intention to perform behavior. Tan and Fawzi (2009) found important social influences that

predicted whether students wanted to major in accounting, concluding that major intentions and perceived behavioral control determined major choices, while both personal and social influences of importance to others determined major intentions. Specifically, perceptions of important people influenced major intentions (Tan & Fawzi, 2009).

Using TPB, Fullick (2013) found that students' expectations of advisor support affected reactions to an advisor's behavior. Unlike intrinsic motivation, these authors preferred TPB to explain the effects of contextual factors on individual performance (Zhang & Bartol, 2010). TPB fits well with Bronfenbrenner's bioecological model for research studies, as the purpose for using TPB was to identify force characteristics for academic persistence toward doctoral education in CES.

Bronfenbrenner's Bioecological Model

To enhance TPB, this study assessed background factors (i.e., age) to identify the influence of attitude on behavior, subjective norm, and perceived behavioral control. Thus, I also used Bronfenbrenner's bioecological model as a systemic model for each of the analyzed predictor variables that may influence a person's decision to pursue doctoral studies in CES. Bronfenbrenner proposed that understanding human development was best from a contextual perspective (Darling, 2007; Tudge, Mokrova, Hatfield, & Karnik, 2009). Up until his death in 2005, Bronfenbrenner acknowledged that his human developmental theory was continually evolving (Tudge et al., 2009). As recently as 2005, Bronfenbrenner became concerned that researchers who used his model were overlooking individual differences as they solely considered systemic influences (Darling, 2007).

The main component of bioecological theory consists of process-person-context-time (PPCT) concepts (Bronfenbrenner, 2005; Darling, 2007; Stewart, 2008; Tudge et al., 2009). Tudge et al. (2009) identified force characteristics as one of the three elements of process in the PPCT component of the bioecological model. The process component involves unique reciprocal interactions between individuals and other persons, objects, and symbols within the immediate environment to help individuals with understanding personal worldviews and place in life (Bronfenbrenner & Ceci, 1994; Harney, 2007; Tudge et al., 2009). The person component consists of three characteristic types – demand, resource, and force. The context component includes the four interrelated environmental systems – microsystem, mesosystem, exosystem, and macrosystem. The final component of chronosystem consists of influences that occur throughout an individual's life.

Variables

Each of the predictor variables aligns within PPCT of Bronfenbrenner's bioecological model. The TPB has been applied previously to predict positive behaviors and/or behavioral intention and motivation via TPB. For example, TPB has been used to ascertain likelihood of certain populations using condoms or engaging in dieting (Stone et al., 2010). The TPB was appropriate to this planned study because the focus was a similar type of positive behavior as examined in previous studies using TPB as a framework. For example, intentions and motivation towards planned academic misconduct were applied under a TPB framework by researchers from Illinois and Oklahoma universities (Stone et al., 2010). Increased attention is necessary for understanding demographic and societal

influences of minority population groups so issues like career challenges can be addressed (Mu'min, Robinson, & Davis, 2008). Each of the included variables falls within Bronfenbrenner's bioecological model, categorized within each system as well as within the PPCT context of the model.

Age

The age variable aligns with the person component of PPCT, which consists of biological or genetic characteristics. The age variable is also a demand characteristic. Tudge et al. (2009) shared that demand characteristics have associated expectations, which influence initial interactions. In addition, the time context of PPCT is unique according to an individual's age. Tudge et al. (2009) stated that the time context considers influences according to events that occur during an individual's lifetime; chronological age is a factor that influences development according to lifetime events. Bradley and Holcomb-McCoy (2004) reported that most of minority students in CES were between ages 49 to 60.

Perceived Faculty Support

The perception of faculty support variable aligns with the process context of Bronfenbrenner's process component of PPCT; the interactions between graduate students and faculty influence perceptions of faculty support. Faculty support is also a part of a macrosystem influence, as it involves consistent direct interactions between individual students and faculty members. Institutions need to implement consistent programmatic strategies and techniques that support and encourage Blacks toward professorship. Faculty mentorship is a consistent strategy that Haizlip (2012) referenced

as important for minority students. Young and Brooks (2008) ascertained that in addition to expected academic support, meaningful conversational relationships with faculty influence the likelihood for college success of Black doctoral students. Dialoguing about doctoral studies with these students while early in a master's program can help, while emphasizing diversity and noting the disparity of racial minority faculty role models. (Young and Brooks, 2008)).

Perception of faculty support affects individuals as they encourage and support students by providing resources, which exemplifies a demand characteristic. Social support is vital for racial and ethnic minority students, and support within college may be most important for racial minority students' academia adjustment (Baker & Robnett, 2012). When attending predominantly White campuses, racial minority students are more likely to feel invisible (Rankin & Reason, 2005). With faculty support, racial minority students may not be as likely to perceive that they are less accepted as students compared to White students. Harris and Marsh (2010) found a positive correlation between Blacks who believe in self-achievement based on achievements of other Blacks, and feel more connected with academia. This affirms the importance for racial minority students to have academic support from faculty members of similar racial backgrounds. Engagement with faculty can increase the likelihood for minority students to handle college stresses and demands (Reynolds, Sneva, & Beehler, 2010).

Johnson et al. (2007) suggested that CES faculty members should mentor minority students to encourage them as potential future professorates. In addition, it is important to conduct research that is often collaborative with students, and allow students

to have input on campus standards and policies (Park & Denson, 2009). Gloria et al. (2005) found that perceived mentorship of minority students influenced connection to the university, and revealed evidence that minority students more aptly seek support from minority faculty. Pacquaiao (2007) postulated that a relationship between diverse faculty representation and cultural competence is only evaluated realistically when minority representation increases. In Pacquaiao's (2007) study, evidence supported that minority students more aptly seek support from minority faculty.

In a study that Solórzano (2000) conducted, minority students reported tense racial climate, feeling invisible because they felt ignored or that professors did not acknowledge their concerns, and racial micro-aggressions as faculty had lowered expectations for them. In 2005, Booker (2007) shared that there were only 3% of minority undergraduate faculty represented across all disciplines. Interpersonal faculty interactions and respectful communication is important to Black students (Booker, 2007). Perception of a mentorship influences Asian Americans' perception of a positive university environment (Gloria & Ho, 2003). When leaders encourage openness and sharing of ideas and participation, perception of social context is supportive; thus positively affecting attitudinal judgments (Liao et al., 2010; Zhang & Bartol, 2010).

Gender

The gender variable is a process context, as interactions can vary according to male or female. In addition, it is a demand characteristic; expectations are often associated with either male or female gender. Bowen, Chingos, and McPherson (2009)

found that females have a higher academic performance than males; this is an example of a possible gender expectation that faculty may generalize.

Income Level

The income level predictor variable is a macrosystemic influence. The macrosystem includes multiple layers of political, social, economic, and cultural patterns that establish tone for everything else within a given culture (Ferguson et al., 2011; Tudge et al., 2009). Societal expectations influence behaviors and interactions that ripple down to the lowest systemic level, which is the microsystem (Ferguson et al., 2011). Baker and Robnett (2012) found that Black and Latino students are more likely lower SES, so possibly spend more time working outside of college. Pacquaiao (2007) conducted a study of diversity in nursing education and practice, finding that socioeconomic and power inequalities influenced the disparity in academic achievement between groups. Finally, Fuller-Rowell and Doan (2010) ascertained that Black and Native American adolescents were more likely to be low-SES than Whites were. In spite of these findings, financial support for minority doctoral students is not working (Woodrow Wilson National Fellowship, 2005). Urofsky (2013) reported that although higher education institutions are encouraged to increase student diversity representation, state financial support is decreasing.

Parental or Primary Caregivers Education Levels

Parental or primary caregivers' education level is a microsystem influence for individuals. Microsystemic influences are those people with whom individuals have had much direct contact (Tudge et al. 2009). Parental education level falls within the active

context of Bronfenbrenner's model. For example, Tudge et al. (2009) stated that there is a link between a person's resources and actions taken to change environments. It is likely that family physical resources correlate with level of parental education, which may influence a person's decision to pursue higher level education. Ferguson et al. (2011) revealed a positive correlation between parental education level and parental encouragement of autonomy among children in the U.S. This microsystem influence was determined to affect perceptions of overall well-being (Ferguson et al., 2011).

CACREP-Accreditation

Tom Sweeney, past president of Association for Counselor Education and Supervision (ACES) appointed a committee to develop applicable standards for counseling students to prepare for doctoral studies, resulting in the 1981 development of CACREP (Addison-Bradley, 2013; Bobby, 2013; Mascari & Webber, 2013; Urofsky, 2013). CACREP accredits both masters and doctoral counseling and CES programs. Urofsky (2013) reported that 600 programs were CACREP-accredited and adhere to programmatic regulation standards. Beginning with the 2001 standard revisions, CACREP stressed advocacy and social change mandates that reflected dialogues among counselor educators regarding culturally diverse counseling (Adkison-Bradley, 2013).

CACREP accreditation is a resource characteristic. Resource characteristics are not obvious as a first impression but are mental and emotional resources that result from previous experiences, skills, and intelligence (Tudge et al., 2009). In addition, CACREP is part of the mesosystem according to interactions between income level and accreditation, as well as faculty relationships with CACREP. The United States has

experienced economic challenges that affect college resources and required travel expenses for CACREP site visits to review programs for accreditation (Urofsky, 2013). The opportunity for students to obtain their education from a CACREP-accredited institution is a resource, as this accreditation seeks to best prepare students for doctoral education and professional licensure.

CACREP accreditation and faculty are constructs of a mesosystem. Mesosystems are systems that interact (Tudge et al., 2009). Ferguson et al. (2011) ascertained that institutional norms might affect how faculty respond to students, and those interactions may affect students' academic satisfaction. Johnson et al. (2007) surveyed CACREP-accredited doctoral programs and found that only 17.9 % of current students were Black, with most in the Southern region; there was only one Black student in the Western region. Bradley and Holcomb-McCoy (2004) reported that CACCREP does not have data showing minority faculty representation in CACREP programs.

Methods

Methods for any proposed new study must be consistent with the scope of the study. Within the academic discipline in which TPB can be a useful framework, researchers have approached the problem in multiple ways. Considering the demographics of a particular cohort can be one approach to researching and understanding intended or planned behavior and motivation in relation to future academic decisions. When studies involve the stated future intentions of an individual or group – for example, the decisions towards doctoral study by a specific student cohort – some degree of future follow-up is necessary to verify results. Future intentions can be difficult

to quantify and measure in controlled research; ambiguities or ambivalence can be present.

Other Studies

In a somewhat similar study, Chenoweth and Galliher (2004) studied influential factors on decision-making for high school students toward higher education and career aspirations, finding that academic preparation was a consistent predictor. These authors also discovered the following subjective measures that influenced plans to attend college: perception of intelligence, college preparedness, and comfort in academic settings (Chenoweth & Galliher, 2004). Adamsons, O'Brien, and Pasley (2007) used Bronfenbrenner's theory to examine father involvement among different family types, assessing demographic variables, parenting beliefs, marital satisfaction, and father's duration in the family.

Singal (2006) used Bronfenbrenner's model in a case study to understand contextual influences on inclusive education for Indians, finding that political, historical, and cultural influences contribute. Singal also revealed that the support of professionals in a gatekeeping role had a significant influence for Indian children's inclusion into mainstream society, evidence for Bronfenbrenner's assentation that reciprocal forces which are outside of the family influences individual development (i.e., faculty support).

Voydanoff (2005) used Bronfenbrenner's model as a framework to determine the influential extent between involvement in communities and access to resources relating to quality of jobs and marriages, finding no significant relationship for community

participation and quality of jobs, although discovering a connection between community resources and perceived quality of marriage.

Finally, Jones, Forehand, Brody, and Armistead (2003) studied the association between systemic influences outside of the immediate family and parental monitoring, finding that a depressive maternal psychological state as well as neighborhood locale were significant predictors of parental monitoring. Controversial aspects of studies already carried out in CES included mixed or inconclusive findings by researchers, and the difficulty of attributing planned behavior to a specific element of demographics or quantifiable data regarding the individual study subject or larger group being studied.

Racial Diversity in CES

Johnson et al. (2007) noted there are currently no programs that tackle underrepresentation of Black CES doctoral faculty. Minority student representation is still well below in enrollment numbers in higher education, but this disparity is decreasing as research and openness to diversity increases (Antonio, 2003). The need for finding ways to increase minority faculty continues. Faculty and students reciprocate influences on each other as they interact and navigate through the academic culture. Minority faculty report having feelings of isolation and dissatisfaction, which can influence minority students' decisions to pursue similar careers (Antonio, 2003). A possible reason for these feelings may be due to being the sole representative of a given minority race on a campus. Reynolds et al. (2010) ascertained that institutional racism occurs when practices and policies support opportunity for one racial group over another.

Another example of cultural racism occurs when a dominant group's cultural heritage and values have priority over values, beliefs, and traditions of minority groups.

Gloria, Castellanos, Lopez, and Rosales (2005) found that perception of minority students' college environment influences academic persistence. Fisher (2007) stated that minority students who have negative perceptions of campus racial climate are less likely to continue in college studies. Minority students have many demographic and social challenges, especially for those who attend predominantly White institutions (Keels, 2013). Keels (2013) asserted that administrators should prioritize and be more assertive in recruiting and retaining Black male CES. CES diversity should be representative of student population, so higher education institutions should proactively seek ways to increase matriculation of Black males in doctoral programs for careers in academia and for retaining Black faculty (Brooks & Steen, 2010).

Young and Brooks (2008) noted that although diversity is increasing in the United States, academicians and educational administrators are increasingly White; minority graduate students may need different support resources in order to be navigate academia successfully (Young & Brooks, 2008). Diversity increases collaborative ideas and pedagogies (i.e., evolution of ethnic studies and multiculturalism).

Statistics

Diversity is increasing in United States population, but Whites are still dominant in CES. It is vital to have continued support to advocate for minority faculty representation. Universities must have a mission to hire and retain diverse faculty to facilitate a diverse student body. Robinson, Lewis, Henderson, and Flowers (2009)

postulated that having a diverse faculty increases the ability to enhance a diverse student body. Mentoring strongly influences students' decisions for graduate programs, but minority students often report they feel ignored or that faculty members have low expectations of them. Minority students also reported feelings that the institution does not recognize them; thus, they feel that their pedagogical experiences are limited. Faculty must support and encourage minority students so they do not feel academically isolated.

Underrepresentation is a serious concern because culturally competent health care is a necessity (Edwards and Morris, 2009). A multicultural population is increasing. Blacks and Hispanics are the largest underrepresented groups. Although 20 % of the U.S. population is Hispanic, only 10 % enrolled in college in 2006. Although enrollment is increasing, minority student graduates in higher education continues to be under-represented. Data reveal a much larger gap in the pathway from high school to doctoral attainment for underrepresented groups (American Federation of Teachers, 2010). As the U.S. demographic population and job market evolves with increasing racial diversity, racial diversity should likewise increase in higher education. Two factors that inhibit minority faculty representation are false negative assumptions that they are less qualified, and the current trend of moving away from faculty tenureship. In 2007, only 10.4 % of faculty were from minority groups, and 7.6 % of those positions were contingent.(American Federation of Teachers, 2010).

Benefits

There are many benefits of having a racially diverse enrollment in CES. Minority faculty representation is essential for increasing minority student enrollment (Robinson et

al., 2009). Minority students prefer faculty who are similar, and gatekeeping should regard multicultural considerations that seek to recruit, retain, and remediate students. The world is culturally diverse, thus life experiences differ accordingly (LaFrisco & Osborn, 2012). Students from both racial majority and minority cultures benefit from shared learning experiences with racially diverse faculty. The American Association of Colleges of Nursing (2011) postulated that minority health care providers are less likely biased and more likely helpful to other minorities and underserved populations. Kreuter et al. (2007) found that racial and ethnic minority health care professionals more aptly serve minority and indigent patients and work in underserved communities. Thompson (2009) found that both majority and minority groups value multicultural strategies to help underprivileged groups overcome academic and career challenges in advancement. Stafford and Sankar (2010) called for increased efforts to recruit and retain minority students for long-term advances in business school diversity and subsequently in industry. Stafford and Sankar (2010) attributed research that contributed to increasing minority representation in graduate business education as a substantial influence toward both societal and academic welfare as contributing knowledge to understand, promote, and train future professionals on aspects of diversity. Likewise, minority representation and continued research of diversity in CES will contribute to necessary knowledge, understanding, promotion, and training of future counseling and CES professionals.

Through direct experiences with racially diverse faculty, students can develop better understandings regarding the role of diversity in education and barriers that can affect personal lives. Increasing racial diversity of faculty helps to level the playing field

that otherwise exacerbates economic disparity between races. Racial diversity in CES programs benefits majority group members as well as those representing minority groups. In their study, Park and Denson (2009) found that minority faculty were more likely to advocate for diversity than White faculty and reported that it is essential for institutional commit to diversity promotion in both student and faculty representations. Pacquiao (2007) found evidence revealing that minority health professionals are more likely to serve the underserved; thus, he advocated for increasing health care professionals that reflect these U.S. demographics diverse population.

Summary and Conclusions

To implement and support a racially diverse environment, CES administrators need to develop departmental policies that influence recruitment and retention of racially diverse faculty. Stadler, Cobia, Middleton, and Carney (2006) asserted that a supportive atmosphere for diversity is beneficial in recruiting and retaining diverse students and faculty, which includes having a visual image of diverse faculty and students. As master's level minority students experience institutional support for racially diverse faculty in CES, they may be encouraged to persist in doctoral level education toward that profession. Harvey (2007) asserted that interventions should consider cultural differences, acknowledging the influence of contextual forces that can either impede or foster well-being. Major themes in the literature acknowledge different perceived experiences between students representing minority versus majority races. The disparity of racial diversity in the CES profession is evident, but I found no published studies that provide evidence to explain definitive influential factors for reasons that few minority

students enroll in CES doctoral programs. My findings extend knowledge in the literature as specific variables were considered for potential influences that may dissuade students from academic persistence toward doctoral studies and increase information regarding CES discipline since the participant population was current students in master's level counseling programs, and there is minimal research specific to the CES field.

Research consistently confirms the disparity of faculty of color, and White faculty members often discredit research regarding Black versus traditional European American worldviews (Haizlip, 2012). This devaluing of research that is specific to minority cultures can impede the evolution of understanding multicultural issues in counseling. Reynolds, Sneve, and Beehler (2010) discovered that minority student perceptions of negative effect of institutional policies and practices in their colleges influenced need to disengage in academics to cope. Furthermore, Fuller-Rowell and Doan (2010) suggested that minority students are more likely to attach to academia when they are not a minority of the school's population.

Pacquaiao (2007) stated that institutional administrators significantly foster cultural competence education according to expectations and demands, and that programming development to increase and support diversity shows a commitment to increasing diversity. The Supreme Court ascertained that all students benefit from diverse representation, hypothesizing that academic outcomes might help counter societal problems more than affirmative action that tends to have a sole focus on proportional representation (Gottfredson et al., 2008). Gottfredson et al. (2008) revealed a positive

relationship between classroom diversity and cognitive openness and attitudes favoring equal opportunity.

Jayakumar (2008) asserted the need for institutions to produce graduates who are culturally competent so they can "lead and compete" globally (p. 3), ascertaining that racial diversity facilitates student development. Just as interdisciplinary learning is beneficial, so too is cross-racial learning. It is important to develop cross-cultural workplace competencies, which can be better learned through opportunities for cross-cultural interactions in academic learning settings (Jayakumar, 2008). In addition, Jayakumar argued that adapting to different perspectives is essential to be successful in what is a continually increasing global working society. Diversity in structural settings (i.e. academia) facilitates positive racial climates, and a racially diverse campus climate influences developing related skills and qualities toward productivity (Jayakumar, 2008).

Chatman (2008) found that undergraduate students who interacted with diverse students self-reported to have a better understanding of others as a result. Students attributed change to experiencing interactions with students who were different from self-identities, thus acknowledging the necessity for diversity in academia. Black students reported more belongingness in colleges that had more than 5 % Black students (Chatman, 2008). As efforts are successful for increasing racially diverse faculty in CES, the likelihood for increased minority graduate students increases leading to a further increase in potential minority CES doctoral students.

Following in Chapter 3, I discuss how I analyzed the specific variables of age, faculty support, gender, income, level of parents' or primary caregivers' education, and

CACREP-accreditation to determine the influence on either of these on decision to enroll in CES doctoral studies, as well as a comparison between White and racial minority students.

Chapter 3: Research Method

Introduction

The purpose of the quantitative study was to examine the correlational relationship between variables aligned with Bronfenbrenner's bioecological model and students' decisions to pursue doctoral studies in CES and to identify any factors that are unique to minority students. In this chapter, I present the research questions and provide a rationale for the survey design that I used. I also explain the sampling procedures, instrumentation development and application for this study, the data analysis plan, external and internal validity, and ethical considerations for the study procedures. The study provided information regarding the following research questions:

1a. To what extent do the following factors predict White students' decision to enroll in doctoral CES programs for master's level students - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

1b. To what extent do the following factors predict minority students' decision to enroll in doctoral CES programs for master's level students - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

2. Are there differences between majority White and minority racial groups in the extent of the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

3. To what extent are there differences between majority White and minority racial groups for decision to enroll in doctoral CES programs?

A goal of this study was to raise awareness for differential systemic variables among racial minority counseling students that may hinder their decisions of pursuing doctoral studies in CES, which can then be used for advocacy toward increasing racial diversity in the CES profession.

Research Design

In this quantitative study, I used a survey research design. Surveys are the most common type of quantitative research methods in the social science discipline. Khan (2009) explained that in the survey method, the investigator could use an existing questionnaire or construct in which all the relevant queries pertaining to the phenomenon being investigated are contained and which the study participants are supposed to answer. Surveys may be administered through telephone, mail, e-mail, face-to-face, or as handouts (Khan, 2009). The survey method is advantageous, especially if the researcher is resource-constrained but requires a large pool of participants (Khan, 2009). The survey method is also useful in the exploration of knowledge, beliefs, and attitudes and behaviors of a specific population.

To elicit more than just a yes or no answer, the survey can be structured in such a way that participants are given enough space to elaborate on their answers. However, Khan (2009) noted that surveys should be well planned in order to be effective, and the researcher must decide whether questions to be asked from study participants will be open-ended or close-ended. Surveys containing close-ended questions provide a list of

predetermined answers from which a participant may select and are typically easier to analyze (Khan, 2009). On the other hand, open-ended questions allow participants to answer in their own words and are useful if the investigator has no preset ideas about possible answers. The open-ended surveys are more useful to investigators who are doing qualitative studies where common themes will only emerge after the participants have provided their answers.

For quantitative studies, researchers usually obtain data via surveys. Ziegler (2006) noted that surveys have been one of the most widely used research tools in the study of social behavior. Even federal agencies have depended on survey data in order to reach the largest number of respondents with the least amount of cost (Ziegler, 2006). Moreover, in the fields of political science and sociology, Ziegler asserted that survey research is a "primary source of evidence" (p. 22). Ziegler also shared that not only are surveys cost efficient, they can also potentially reduce some of the error and bias associated with personal interviewing. Surveys can allow people to more honestly answer because they are not afraid of censure. Nevertheless, Ziegler cautioned that surveys, particularly self-administered ones, could still contain varying errors, such as those related to low response rates and questionnaire noncompletion. These issues could adversely affect the generalizability of survey results (Zeigler, 2006).

The survey method is a reliable and trustworthy means for obtaining data on large numbers of people in order to produce prediction models. Groves (2011) established the value of survey research in the field of social sciences over the past 4 decades. Consequently, both scholars and practitioners have addressed issues pertaining to survey

research. Such issues include the suitability of selected participants, as well as the methods used for conducting surveys, such as those using the telephone and, communication technologies, such as mobile devices and the Internet. Communication technologies have transformed the manner through which society has been compiling data. Researchers have established systems that "automatically track transactions of all sorts" (Groves, 2011, p. 868). Researchers have been able to assemble data pertaining to behaviors. According to Groves, this data collection has led to the development of an ecosystem that is "self-measuring in increasingly broad scope" thereby leading to the collection of "organic data" describing various types of social behavior (p. 868). Survey researchers need to design their studies effectively in order to be able to supplement insight they obtain through their respondents by tapping into these organic data. In doing so, they will be able to generate study results that are rich in insights pertaining to the variables being investigated.

By using a multiple regression analysis, I attempted to discover if the following variables predict graduate counseling students' decision to pursue doctoral studies in CES: age, perceived faculty support, gender, income, level of parents' or primary caregivers' education, and whether the student was enrolled in a CACREP-accredited master's program. I chose this design for three reasons. In contrast with the single linear regression, multiple regression analysis allows the researcher to analyze the simultaneous relationships between a continuous outcome variable and multiple explanatory variables (Bruce, Pope, & Stanistreet, 2008). Second, multiple regression enables a researcher to analyze a phenomenon according to relationships between variables, while taking into

account effects of other variables (Bruce et al., 2008). The researcher is not limited to an investigation of linear relationships, thereby providing broader insight to investigate the phenomenon. Third, there are several distinct advantages that multiple regression provides specific to my own research. If the single linear regression is used, there is a possibility that the omission of a regressor that correlates with given predictors would confound study results. In addition, when multiple regressors are used, the researcher can analyze the "discriminatory power achieved when employing the collection of regressors" (DeMaris, 2004, p. 80). For this study, discriminatory power is the determination of average probability that the chosen studied factors are influential for students' decisions of whether to pursue CES doctoral studies.

I used regression and Spearman analyses to help me assess the influence of each of the predictor variables. As noted by Field (2013), the linear model can have several variables that may relate to an outcome. I have reviewed several examples of demographic surveys in research that are aligned with my topic (Black, 2012; Campbell, 2013; Cottledge, 2013; Flanagan, 2010; Kettler, 2012; & Schultz, 2011), which I used to develop my own survey. The survey was broken down according to the following demographic data: age, gender, income, level of parents' or primary caregivers' education, and whether the student was enrolled in a CACREP-accredited master's program. In addition, I administered the Perceived Faculty Support Scale (Shelton, 2003) to measure the level of perceived faculty support.

Setting and Sample

Participants in this study were graduate students in both CACREP and non-CACREP counseling programs. According to G*Power calculations, a medium effect sample size should be 176, so I sought to attain at a target of 200 participants. The average return rate for surveys is about 30 to 40 %. I disseminated this participation request to at least 450 students in graduate counseling programs. I determined this participant number by using the statistical test linear multiple regression: fixed model, R^2 increase with a medium effect size of $f^2 = .15$ and an error probability of alpha = .05 and a power of .80. In order to gain access to a multitude of counseling graduate students, I did not limit inclusion criteria to students in programs with any specific specializations, but I invited participation from students in any counseling program. However, in order to trust the faculty support variable or decision to enroll in doctoral studies, invited participants were only those who had completed at least one semester of graduate work. To verify these criteria, I included a question in the survey to inquire how many semesters of graduate studies each participant has completed.

Using purposive volunteer sampling, I surveyed current students in master's level counseling programs via the Internet. This method was advantageous for the current research because it allows for access to graduate students at various geographic locations. In addition, there are increasing numbers of people who have access to the Internet, which increased the number of participants that I could obtain (Frankfort-Nachmias & Nachmias, 2008). Another advantage to this research method was the quickness of responses and immediacy of results from participants (Frankfort-Nachmias & Nachmias,

2008). Finally, I chose this method due to time and expense constraints; survey and Internet research is an efficient and cost-effective means of collecting research data (Frankfort-Nachmias & Nachmias, 2008).

Although there are several advantages to using a survey method, a challenge with this type of research design was obtaining the required number of participants for the study to have adequate statistical power. However, I sought to have enough respondents to be able to attain adequate statistical power for internal validity. Survey designs often have low average return rates (Groves, 2011; Kiernan, Kiernan, Oyler & Gilles, 2005; Ziegler, 2006).

To address the weakness of the potentially low return rate, I solicited a much larger number of survey participants than what was calculated in G*Power. I sent a personal email request to approximately 600 program directors and coordinators listed on the CACREP.org website, and 111 program directors and coordinators in programs that were not CACREP-accredited, which I found through and extensive GOOGLE search, requestingsupport in forwarding my survey information to their students. I also made personal contacts with counselor educators in my Walden University CES doctoral student network to request their support by informing their students of this study, and I posted requests for support on CESnet.

Instrumentation

The following is a discussion of the survey and scale that I used for the proposed research. Researchers use surveys to collect descriptive data after a problem is identified (Orcher, 2007). Simon (2010) explained that measurements achieve the designed purpose

in attaining validity. Therefore, I conducted a pilot test for the proposed study to determine the appropriateness of questions in the demographic survey instrument, and to ensure that participants understand the questions. To do this, I administered the survey to ten graduate counseling students who do not qualify to participate in the actual survey that I used to analyze for my dissertation; these students were in their first semester of graduate studies. I also had colleagues rate the survey. To verify clarity of all questions and the amount of time needed to complete the survey, I followed up with students and my colleagues to determine whether I needed to modify the survey but did not need to do so. Simon (2010) suggested that another way of enhancing validity would be to ask a panel of experts to review a draft of the study; Creswell (2005) agreed that a panel review would help to achieve construct validity. The use of multiple regression analysis helped to ensure that I would achieve validity. I am equally interested in all variables, although I assessed the "faculty support" variable separately with the Perceived Faculty Support Scale (Shelton, 2003) instead of through the demographic survey.

Demographic Survey

The demographic survey I developed consisted of questions that relate to each of the predictor variables I assessed (See Table 1). These variables included age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether currently enrolled in a CACREP-accredited master's program. I measured faculty support via the Perceived Faculty Support Scale (Shelton, 2003) and all other variables with a demographic survey.

Table 1

Operational Definitions of Variables

Variables	Operational Definitions
Predictor Variables	
Age	Age is actual years of life as measured in the demographic survey. The scale of measurement was ratio.
Faculty Support	Level of perceived encouragement and resources provided by faculty members in students 'current master's program as measured in the Perceived Faculty Support Scale. The scale of measurement was interval.
Gender	The gender that participants self-identify as "male" or "female" as measured in the demographic survey. The scale of measurement for this dichotomous variable was nominal. I coded this variable as 0 for Male and 1 for Female.
Income	Income is the yearly household gross income as measured by the demographic survey. The scale of measurement was ordinal. I created 11 dummy variables to code this variable.
Level of Parents' or Primary Caregivers' Education	Level of parents' education is the reported highest level of education that either parent or primary caregiver has completed as measured in the demographic survey. The scale of measurement was ordinal. I created five dummy variables to code this variable.
Race	The US Census Bureau (n.d.) defines people's race is according to their own self-identity. These utilized classifications "adhere to the October 30, 1997, Federal Register Notice entitled, 'Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity' issued by the Office of Management and Budget (OMB). The OMB requires five minimum categories (White, Black or African American, American Indian and Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) for race. OMB approved a sixth category as "Some other race", which allows respondents the option of selecting one that is not specifically identified (US Census Bureau, n.d.) as measured in the demographic survey. The scale of measurement was nominal. I coded this variable as dichotomous using 0 for majority race, and 1 for minority race. For purposes of race identification, participants weree able to specify with which race they identified.
CACREP-Accreditation	Certifying organization that ensures the unity and format of academic training programs in the area of counseling, which has specific training and internship requirements of all students. Academic graduate programs indicated by response on the demographics questionnaire and verified via the CACREP website (www.cacrep.com) includes: addiction counseling, career counseling, clinical mental health counseling, marriage, couple, and family counseling, school counseling, and student affairs and college counseling as measured in

	the demographic survey. The scale of measurement was nominal. I coded this variable as 0 for non-accredited and 1 for accredited.
Outcome Variable	
Decision to Enroll in CES	Decision to enroll in a CES doctoral program is the participants' self-rated plans for enrolling within 5 years after graduating from their master's program and if so, the number of years they plan to do so as measured in the demographic survey The scale of measurement was nominal. I coded this variable as 0 for decision to enroll and 1 for no decision to enroll.

The survey included a question regarding age; participants listed their exact age at the time of completing the survey. For gender, the options were 1) male or 2) female. For level of income, the survey options were in $10,000 increments, with the first option as "less than $10,000, up to the final option of $150,000 or more." For level of parents' education, participants were instructed to only answer for the parent or primary caregiver who had the highest level of completed education, and were given six options as follows: (a) less than 12th grade, (b) high school diploma or equivalent, (c) some college credit, (d) associate degree, (e) bachelor degree, or (f) graduate degree. For CACREP accreditation, the survey had the following options: (a) yes, (b) no, or (c) do not know. Finally, for race, the survey had the following options: (a) American Indian or Alaska Native, (b) Asian, (c) Black or African American, (d) Native Hawaiian or Pacific Islander, (e) White, or (f) Other. In addition to the above-mentioned variables, the survey had a question about participants' decisions to pursue doctoral studies in CES and a follow-up question to inquire about the planned number of years after graduation to begin doctoral work (See Appendix A).

The Perceived Faculty Support Scale

The Perceived Faculty Support Scale (Shelton, 2003) was based it on self-efficacy theory as well as extant literature pertaining to teacher effectiveness and students' perceptions of caring behaviors among faculty members. Shelton's (2003) Perceived Faculty Support Scale is comprised of 24 items (See Table 2) measured through a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5), for a possible total ranging from 24 to 120. Higher scores reflected a higher perception of faculty support. Half of the items measured teachers' psychological support, and the remaining half measured functional support. Shelton randomized both psychological and functional support items to minimize response set bias. Possible scores for each item in The Perceived Faculty Support Scale ranged from strongly disagree (1) to strongly agree (5). A high level of perceived faculty support was determined with a high score (Shelton, 2003). The Perceived Faculty Support Scale had content validity, as well as internal consistency reliability of .92 when measured by Cronbach's alpha coefficient in a pilot study and reliability with internal consistency of .96 in the full-scale study (Shelton, 2003). I secured permission from Dr. Shelton to use the entire Perceived Faculty Support Scale for this study (See Appendix B).

Table 2

Items in the Perceived Faculty Support Scale

Skill
Most faculty members:
Know if students understand what is being taught.
Demonstrate respect for students.

Set challenging but attainable goals for students.

Acknowledge when students have done well.

Are helpful in new situations without taking over.

Stress important concepts.

Are approachable.

Correct students without belittling them.

Listen to students.

Can be trusted.

Give helpful feedback on student assignments.

Are open to different points of view.

Encourage students to ask questions.

Provide assistance outside of class.

Vary teaching methods to meet student needs.

Make expectations clear.

Are patient with students.

Are good role models for students.

Are realistic in expectations.

Present information clearly.

Clarify information that is not understood.

Have a genuine interest in students.

Provide study guides and written materials.

Demonstrate confidence in students.

Data Collection Procedures

I emailed participant request letters to counseling program directors and chairs listed at CACREP.org, as well as those in non CACREP-accredited programs that I found

through an extensive GOOGLE search, to request support from their graduate faculty to encourage students enrolled in their programs to participate in this survey (see Appendix C). I also requested support from teaching faculty via the CESnet network. Because I needed 200 participants for my target, I planned to send six email requests/post on CESnet to solicit support from program directors and chairs to pass this survey on to their students but received enough responses after sending only two. For each of these contacts, I provided a direct link to the survey via email, which they could then give to their students. The first email I sent out included criterion for the survey, including a direct link for the survey. I provided information about the study and procedures, voluntary participation, compensation, benefits, risks (See Appendix C), anonymity, and my contact information on the information and consent page.

I provided a direct link for participants to access the survey in Survey Monkey, which included the demographic questionnaire and The Perceived Faculty Support Scale. Completion of the survey was evidence of implied consent. The information and implied consent form provided information about the study, procedures, voluntary participation in the study, compensation, benefits and risks, anonymity, an option to save/print the form for their records, and my contact information (see Appendix D). Participants initially saw this form when they entered the link, and I informed them they were implying consent if they chose to move forward to complete the survey. I requested participation from students who had completed at least one semester of graduate studies in a counseling program to complete the demographic questionnaire and survey. The demographic

questionnaire included questions about age, gender, income, level of parents' or primary caregivers' education, number of years after graduate school, and CACREP-accreditation.

Unless there were University limitations on the amount, I planned to send at least six requests for participation if needed in order to obtain my target of 200 participants. I did not need any identifying information for the purpose of this study, so did not require the participants to share their names or contact information. Survey Monkey assigned a unique identifier for each survey. I informed participants to allow 10-15 minutes to complete the survey, also stating that it needed to be completed in one attempt. I used Survey Monkey, a free online survey provider, to administer the survey (Survey Monkey, 2014). However, since the free services of Survey Monkey are limited only to 100 respondents per survey, I purchased a one-month subscription to allow enough time to achieve the target number of 200 participant responses.

I checked Survey Monkey regularly and officially closed the survey when I had over the targeted amount of 180 participants (See Appendix C). I provided an informed consent form as the first page of the online survey (See Appendix D). I informed participants that it would take approximately 10-15 minutes to complete, and they needed to complete the survey in one sitting. Participants needed to answer all questions in order to move on, but I included an option for participants to select "don't know" for some of the questions in the demographic survey.

I only included completely answered surveys in my analysis results, but I also discussed answers for any surveys that had missing data. I included all of the documents in Appendices C and D as one document, but students did not see them until they

complete each one. Survey Monkey created a unique identifier code for each participant, maintaining anonymity. After completion of the study, the data was downloaded to SPSS via a password-protected computer.

Data Analysis

It is important to establish statistical power or the probability of not making a type II error in research. Troachim (2006) suggested the following four components of statistical power: sample size, effect size, alpha level, and power. G*Power is a software package that simplifies the determination of statistical power, based on the type of statistical model required for analyzing the research hypotheses (Balkin & Sheparis, 2011). A medium effect size is commonly accepted, and the value of alpha is typically set at .05 in the social sciences (Troachim, 2006). Additionally, a growing tradition is to try to achieve a statistical power of at least .80, which I used to select for my data analyses in this study.

The use of the G*Power allows for determination of the sample size based on the input of alpha level, effect size, and power. Research Question 1 calculation was based on linear multiple regression: fixed model, R^2 deviation from zero, selecting effect size of .15, alpha level .05, power .80, and 7 predictors. Research question 2 for *t*-test analysis calculation was based on Means: Difference between two independent means (two groups) then selecting two-tail test, effect size .50, power .80, and allocation ratio 1. Research Question 2 for chi-squared calculation was based upon goodness of fit tests: Contingency tables, selecting effect size of .3, alpha level .05, power .98, and 1 degree of freedom. Research Question 3 calculations were based upon Mann-Whitney U test (two

groups). Since the largest calculated medium effect sample size required 176 participants (*N*=176), the target sample size for this study was 200 (*N*=200). Cohen (1988) described the medium effect size as having a medium effect or half the size of the within-group error variance. The effect size quantified the size of difference between the groups, which in this study was represented by graduate students in counseling programs who identified as majority culture and those who identified as minority culture.

I calculated an analysis of survey data scores using descriptive statistics (frequency, percent, mean, standard deviation, and range) to examine the sample of counseling students who respond to the survey. I used SPSS software to conduct multiple regression analysis. Depending on the hypothesis, I tested each with regression, Spearman, *t*-test, Chi Squared, or Mann Whitney U analyses after the results were analyzed in SPSS.

Research Questions

RQ1a: To what extent do the following factors predict decision to enroll in doctoral CES programs for White students in master's level programs - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

RQ1b: To what extent do the following factors predict decision to enroll in doctoral CES programs for minority students in master's level programs - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

RQ2: Are there differences between majority White and minority culture groups in the extent of the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program?

RQ3: To what extent are there differences between majority White and minority racial groups of students in master's level counseling programs for decision to enroll in doctoral CES studies?

Hypotheses

$H_0$1a: None of the following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict (α=.05) White students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression analysis.

H_a1a: The following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict White students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression analysis.

$H_0$1b: None of the following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict (α=.05) minority students' decision to enroll in doctoral CES programs. I tested this hypothesis through regression analysis.

H_a1b: The following factors or set of factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program - predict minority students' decision to enroll in doctoral CES programs for students. I tested this hypothesis through regression analysis.

$H_0$2: There is no significant (α=.05) difference between groups of majority White students and minority students in the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program. I tested this analysis through *t* tests and Chi Squared analyses.

H_a2: There are differences between groups of majority White students and minority students in the following factors - age, faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program. I tested this hypothesis through *t*-tests and chi squared analyses.

$H_0$3: There is no significant (α=.05) difference between groups of majority White students and minority students for decision to enroll in CES doctoral programs. I tested this hypothesis through Mann Whitney U analysis.

H_a3: There are differences between groups of majority White students and minority students for decision to enroll in CES doctoral programs. I tested this hypothesis through Mann Whitney U analysis.

Limitations

Threats to external validity to this study were interaction of selection and treatment, interaction of setting and treatment, and interaction of history and treatment (Creswell, 2009). Because I had no way to determine response rate, this study does not have external validity. Another limitation was that due to the narrow criteria for participants via convenience sampling, the findings would not be generalizable. It may be appropriate to conduct future research at different levels of completed years of graduate studies for counseling students. In addition, this study needs to be replicated later to determine whether the same results would occur.

Limitations of the survey design included the challenge to obtain the required number of participants for the study to have adequate statistical power. Orcher (2007) stated that email surveys have high nonresponse rates. Another limitation was that this study was a correlational one, so no causality for the outcome could be determined. Yet another limitation was that the sample was a convenience instead of random sample. Because the convenience sample was with graduate students in counseling programs, readers cannot assume that findings would be similar for graduate students in other disciplinary studies.

Ethical Protection of Participants

Study participants were informed (Appendix C) of the purpose of the research and importance of their participation. I informed participants that they would not be exposed to any harm, and that their privacy would in no way be comprised because of participation. As mentioned earlier, no identifying information was required from

participants, thereby further increasing privacy. The ethical considerations with this plan emphasized information to be kept confidential. I ensured that this population understood potential risks of participating in this study, and I made guidelines clear. To ensure that participants were clear on the intent of the study, all information provided was kept confidential except by which was used in the study. This population was not vulnerable by definition, and therefore did not require additional ethical considerations.

The participants were a volunteer sample of graduate counseling students whom I contact through the Program Director at their academic institution. If participants wished to participate, they entered the provided link in the invitational email. The implied consent form was the first document that participants reviewed. This document included the purpose of the study, procedures, voluntary nature of the study, risks and benefits, confidentiality, and my contact information. Participants who chose to participate in the study continued via the link, thereby providing consent. The consent specifically stated that participation was voluntary and participants could decide to cease their participation at any time. The participants then began the survey.

The names of all participants were not requested or collected, therefore, maintaining anonymity. Since I used implied consent, participants did not enter any personal data. When the study was complete, I downloaded responses to a password-protected computer into SPSS and Excel. Survey Monkey permanently deleted all responses from the storage after the collection of data. Finally, before actual collection of participants began, the IRB application was completed, reviewed, and approved. I considered my own bias going into this study as I selected my design. I believe there are

resource disparities for minority populations, which stem from systemic issues that need to be changed. The disparity of these resources may influence academic persistence. I also believe that when students perceive a high level of faculty support, they are more likely to persist in academia. Because of these biases, an objective quantitative methodology was the best approach to protect the integrity of my research.

Summary

The proposed study was quantitative in nature based on the rationale that quantitative inquiry enables analysis that will lead to the generalization of results. The survey questionnaire was the primary instrument for this research, which was the most suitable design for the proposed study because surveys are cost-effective, have less potential for errors and biases associated with qualitative studies, and enable the investigation of a large pool of participants. Two instruments were used for this study, namely the Perceived Faculty Support Scale and a demographic survey. Data collection was completed through Survey Monkey, and it was analyzed using multiple regression analysis. This statistical method provided a number of advantages, including enabling the researcher to analyze the interactions between two or more independent variables at the same time. Measures were undertaken to protect the privacy of the participants as well as to ensure that no harm comes to them, so that the study was conducted in an ethical manner.

Chapter 4: Results

Introduction

The purpose of this study was to determine the extent of individual and systemic factors that may predict whether students decide to pursue doctoral studies in CES, as well as a comparison between graduate students who represent White and minority racial groups. Haizlip (2012) noted that although racial minority representation is increasing in psychology and counseling programs, it is not increasing in the counselor education field. The present study was a step in unraveling the complexity of possible systemic factors that may be specific to racial minority student groups, thus influencing the decision to pursue doctoral studies; this can then provide information to CES program directors so they may consider for programmatic policies and procedural changes that may better empower and support these students.

After approval of the IRB application, I opened the survey link in Survey Monkey and sent out participation requests as approved. I exceeded my target data collection within 2 weeks, so I only had to send out two requests. In this chapter, I discuss my pilot study, the data collection process, and a summary of the research results and impacts on the hypotheses. I then include the analyses results, including statistical assumptions. Finally, I provide a summary to answer research questions based on results of my analyses.

Pilot Study

I conducted a pilot test to determine the appropriateness of questions in my demographic survey. An additional objective was to ensure that participants understood

each of the questions. To do this, I obtained IRB approval at the university that my potential participants were enrolled in, followed by permission from a faculty member who teaches in the school counseling graduate program to inform students in one of her current courses about my study. This faculty member granted me permission to attend the last 5 minutes of a class meeting time to request participation for my pilot. All potential participants met inclusion criteria for the full study. I introduced myself to these students and informed them of my intent for requesting their consent to review the demographic survey I created to determine whether all questions were clear and understandable and not to collect specific data for answers at this point. I then passed out the informed consent forms to every student, telling them they could keep it after their review. I then gave students a copy of the demographic survey and instructed them to first review each question and to provide feedback on whether they understood each. Upon the review, no participants were uncertain about the clarity of any of the questions. I reminded them that their participation in completing the survey was voluntary and answers were anonymous. As was stated on the consent form, I reiterated that I was not analyzing any data from the pilot, but will keep the demographic surveys securely filed because the intent for this pilot study was to ensure clarity of questions prior to conducting the full-scale study. I thanked students for their consideration of volunteering to participate, instructing them to return the completed surveys to my office in a sealed envelope that I left for them. I picked up the surveys the following day and scanned them into a pdf document on a personal secure computer and then destroyed the hard copies by shredding them.

I also had five colleagues review and rate the survey for clarity. Because one of the demographic questions inquires about income level, I informed my colleagues that they only need to review each question to provide feedback instead of completing the survey. I intended to revise any questions that were unclear based upon the recommendations from these faculty members. However, neither student participants nor faculty reviewers reported any ambiguity for clarity of any of the questions. Therefore, I made no revisions on the demographic survey for the full-scale study.

Data Collection

I sent the survey to program directors and designees of CACREP-accredited program directors listed on the CACREP website and to directors of programs that were not CACREP-accredited, which I found in an extensive online search in GOOGLE. I also posted requests for participation on CESNET. To increase my response rate, I followed the Dillman et al. (2009) recommendation for mailings, I requested participation as follows:

1. Day 1, I e-mailed the survey and also posted it on CESNET.
2. Day 7, I e-mailed and posted an additional request for participation.

I set up the survey during April 2015, sending out the two requests for participation (see Appendix C). I requested program directors to ensure the approval and follow-through of their school protocol for research and then forwarded the survey to their students in a blind carbon copy e-mail. Some of the program director names I had obtained were outdated, so I revisited those school websites to update and contact the

appropriate directors as the previous e-mails bounced back as undeliverable. Following is a summary of program directors contact:

- Directors for 600 CACREP-accredited and 111 non-CACREP-accredited programs received the initial survey participation request.
- Seven of the e-mail contacts were no longer valid, so those names were deleted from my spreadsheets and updated if I was able to find that information.
- Four program directors responded that I needed approval from their college IRB, sharing instructions for how I could proceed directly with the board.
- Two program directors had an automated e-mail reply that directed me to a different contact person because they were unavailable, so I then sent the participation requests to those contact persons.
- Twelve program directors replied in an e-mail that they had forwarded my e-mail on to students as requested or had posted it in Blackboard. I responded with a personal thank you to each of these directors.
- One program director responded that there were no CES doctoral programs in their area that students could attend, so there was no reason to have them complete the survey. I replied back inquiring if possibly some students may be considering an online CES doctoral program. She responded that none were, so I did not send a second request to that director.

- Two hundred and eighty nine students participated in the survey, but six participants disclosed that they were currently in a doctoral program, and 48 participants omitted at least one question. I analyzed the 235 participant surveys that met the criteria and found no missing data.

The survey invitation provided instructions to participants to review the consent form, which informed them of the criteria for participating in the survey, and then to select yes or no to authorize consent. If participants selected yes for the consent, they were advanced to the survey questions. If participants selected no, they could not advance to the survey questions with implied anonymity. Participants were able to skip questions or cease participating at any time throughout the survey. The final sample size was 235 participants, which I reached after sending two of my invitation letters.

After exceeding my target participation, I transferred the answered surveys into SPSS and coded the variables to begin analysis. I conducted multiple regression analysis for Research Questions 1a and 1b, and because this planned analyses checked for significance with the variables collectively, I conducted a Spearman analysis to check for individual significance with any of the variables. For Research Question 2, I conducted *t* tests and chi-squared analyses, and I conducted a Mann-Whitney U analysis for Research Question 3.

Characteristics of the Sample

I used a purposive volunteer sampling strategy for this study because graduate students in counseling programs compose the majority of students who would consider continuing on to CES doctoral studies. Because students in their first quarter or semester

of graduate studies would not have been in their program long enough to assess the variable of perceived faculty support, an inclusion criterion was that participants have completed at least one quarter or semester of graduate studies in their current counseling program. The potential data sample included students enrolled in 600 CACREP-accredited programs and 111 programs that were not CACREP-accredited. Because the survey was anonymous, I do not know which programs any of the participants attended and any other identifiable personal information.

Results

Research Question 1

In order to assess the extent to which age, perceived faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a student was a graduate of a CACREP-accredited master's program predicted the decision to enroll in a CES doctoral program for White students and minority students, multiple regression analyses and Spearman's analyses were conducted.

Research Question 1a. Regression and Spearman rho analyses were conducted to determine the extent to which the six above mentioned variables predicted the decision to enroll in a CES doctoral program for White students. It was hypothesized that this set of variables would predict the decision to enroll for White students. According to study results, none of the variables, individually or collectively, significantly predicted the decision to enroll; therefore, the null hypothesis was not rejected. Results specific to each analysis are presented in the following subsections.

Regression analysis and descriptive statistics. Descriptive statistics for White students for each of the variables of interest are presented in Table 3. The histogram of standardized residuals indicated that the data approximately followed a normal distribution (Appendix E), as did the P-P plot of the standardized residuals (Appendix F).

Table 3

Descriptive Statistics for White Students (n =195)

Variable	*M*	*SD*
Age	30.75	9.42
Gender	1.84	0.37
Perceived Faculty Support	102.07	17.19
Household Income	5.00	3.57
Parent or Caregiver Education	4.37	1.55
CACREP-accreditation	1.11	0.31
CES PhD	2.29	.97

Note. Gender (1= Male, 2=Female); Perceived Faculty Support (24 = Min; 125=Max); Household Income (1 = Less than 10,000, 2 = 10,000-19,999, 3 = 20,000-29,999, 4 =30,000-39,999, 5 = 40,000-59,999, 6 = 60,000-69,999, 7 = 70,000-79,999, 8 = 80,000-89,999, 9 = 90,000-99,999, 10 = 100,000-149,999, 11= 150,000 and above); Parent or Caregiver Education (1 = Less than 12^{th} grade, 2 = High school graduate or equivalent, 3 = Some college, 4 = Associate's degree, 5 = Bachelor's degree, 6 = Graduate degree)' CACREP-accreditation (1 = Yes, 2 = No); Decision to enroll in CES doctoral program (CES PhD) (1 = No, 2 = Maybe, 3 = No).

Pearson's correlations. Examination of the Pearson's correlation output from the regression analysis indicated that none of the six variables of study significantly correlated with the decision to enroll in a CES doctoral programs for White students. Significant relationships were only observed between perceived faculty support and level of parent's or primary caregiver's education (r = .15, p = .02), CACREP-accreditation and

age (r = .15, p = .02), CACREP-accreditation and gender (r = -.30, p < .001), gender and level of parent's or primary caregiver's education (r = .12, p < .05), and income and age (r = .32, p < .001). In addition, the relationship between CACREP-accreditation and perceived faculty support approached significance (r = .11, p = .06). See correlational analyses presented in Table 4.

Table 4

Pearson Correlations Table for White Students (n = 195)

Variables	1	2	3	4	5	6
1. Age	-					
2. Perceived faculty support	-.02	-				
3. Gender	-.12*	.07	-			
4. Income	.32**	-.03	.04	-		
5. Parent or caregiver education	-.04	.15*	.12*	.06	-	
6. CACREP-accreditation	.15*	.11	-.30**	-.01	-.07	-
7. CES-PhD	.08	.03	-.03	-.05	-.09	-.05

Note. * p < .05, ** p < .01

Regression model summary. According to the results of the regression analysis, the six variables of study collectively explained 2.8% of the variance in the decision to enroll in CES doctoral programs, R^2 = .03, F (6, 188) = 0.89, p = .51. However, the F change value failed to reach significance (F_{change} = 0.89, p = .51). As a result, the null was not rejected, indicating that these variables did not significantly predict the likelihood to enroll in CES doctoral programs for White students. The power for this analysis was more than adequate (power = .99), which provides confidence in not rejecting the null. A

summary of the regression model is presented below in Table 5. Also, see model coefficients and ANOVA summary in Appendix G.

Table 5

Summary of Regression Model with Variables Predicting Decision to Enroll in CES Doctoral Program for White Students

	R^2	F change	df	*P*
Model	.03	0.89	6,188	.51

Note: Predictor variables include age, perceived faculty support, gender, income, level of parents' or primary caregivers' education, ad whether or not a student was enrolled in a CACREP-accredited master's program.

Spearman's rho. After examination of the multiple regression, it was determined that Spearman's rho would be a more appropriate analysis to understand the individual relationships among each of the variables. Results of the Spearman's rho analyses indicated that none of the six variables individually predicted the decision to enroll in a CES doctoral program for White students. The only significant relationships were observed between age and income ($r_s = .38$, $p < .001$), age and CACREP accreditation ($r_s = .14$, $p < .05$), and gender and CACREP accreditation ($r_s = .30$, $p < .001$).

Research Question 1b. Regression and Spearman rho analyses were conducted to determine the extent to which the six, above mentioned variables, predicted the decision to enroll in a CES doctoral program for minority students. It was hypothesized that this set of factors would predict the decision to enroll for minority students. Results indicated that none of the variables significantly predicted the decision to enroll in CES doctoral studies; therefore the null hypothesis was not rejected. Results are presented in the following subsections.

Regression analysis.

Descriptive statistics. Descriptive statistics for minority students for each of the variables of interest are presented in Table 6. The histogram of standardized residuals indicated that the data approximately followed a normal distribution (Appendix H), as did the P-P plot of the standardized residuals (Appendix I).

Table 6

Descriptive Statistics for Minority Students (n = 40)

Variable	*M*	*SD*
Age	30.53	9.75
Gender	1.88	.33
Perceived Faculty Support	99.50	20.07
Household Income	4.33	3.20
Parent or Caregiver Education	4.08	1.76
CACREP-accreditation	1.18	0.38
CES PhD	2.53	1.11

Note. Gender (1= Male, 2=Female); Perceived Faculty Support (24 = Min; 125=Max); Household Income (1 = Less than 10,000, 2 = 10,000-19,999, 3 = 20,000-29,999, 4 =30,000-39,999, 5 = 40,000-59,999, 6 = 60,000-69,999, 7 = 70,000-79,999, 8 = 80,000-89,999, 9 = 90,000-99,999, 10 = 100,000-149,999, 11= 150,000 and above); Parent or Caregiver Education (1 = Less than 12th grade, 2 = High school graduate or equivalent, 3 = Some college, 4 = Associate's degree, 5 = Bachelor's degree, 6 = Graduate degree); CACREP-accreditation (1 = Yes, 2 = No); Decision to enroll in CES doctoral program (CES PhD) (1 = Yes, 2 = Maybe, 3 = No).

Pearson's correlations. Examination of the Pearson's correlation output from the regression analysis indicated that none of the six variables of study significantly correlated with the decision to enroll in a CES doctoral programs for minority students. However, the relationship between CACREP-accreditation and likelihood to enroll in a CES doctoral program approached significant (r = .26, p = .053). Significant relationships were only observed between level of parent's or primary caregiver's

education and income (r = .27, p = .04) and gender with age (r = -.27, p < .05). Additionally, the relationship between income with age approached significance (r = .26, p =.053). See correlational analyses presented in Table 7.

Table 7

Pearson Correlations Table for Minority Students (n = 40)

Variables	1	2	3	4	5	6
1. Age	-					
2. Perceived faculty support	-.22	-				
3. Gender	-.27*	.04	-			
4. Income	.26	.22	-.22	-		
5. Parent or caregiver education	-.20	.15	.10	.27*	-	
6. CACREP-accreditation	.15	.02	-.22	.04	-.02	-
7. CES-PhD	-.08	.06	-.16	.09	.12	.26

Note: * p < .05

Regression model summary. According to the results of the regression analysis, the six variables of study collectively explained 11.7 % of the variance in the decision to enroll in CES doctoral programs, R^2 = .12, F (6, 33) = 0.73, p = .63. However, the F change value failed to reach significance (F_{change} = 0.73, p = .63) As a result, the null was not rejected, indicating that these variables did not significantly predict the likelihood to enroll in CES doctoral programs for minority students. The power of this analysis was low (power = .34); thus, detecting a relationship, if one was present between the

variables, would have been difficult. A summary of the regression model is presented in Table 8. Also, see model coefficients and ANOVA summary in Appendix J.

Table 8

Summary of Regression Model with Variables Predicting Decision to Enroll in CES Doctoral Program for Minority Students

	R^2	F change	df	p
Model	.12	0.73	6,33	.63

Note. Predictor variables include age, perceived faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a student was enrolled in a CACREP-accredited master's program.

Spearman's rho. Additionally, according to results of the Spearman's rho analysis, none of the six variables individually predicted the decision to enroll in a CES doctoral program for minority students. The only significant relationship observed was between the variables of age and income (r_s = .37, p = .02).

Research Question 2

In order to examine whether or not there were differences between White and minority culture groups in regards to the following variables - age, perceived faculty support, gender, income, level of parents' or primary caregivers' education, and whether or not a graduate of a CACREP-accredited master's program, multiple *t*-tests and chi square analyses were performed. It was hypothesized that there would be differences between the White and minority students within the aforementioned variables. However, no significant differences were observed between White or minority students on any of the variables of interest. Therefore the null was not rejected for any of the variables. Results for each individual variable are presented in the following subsections.

Age. According to results of an independent samples *t*-test, there was no significant difference [t (233) = -0.14, p =0.89] in the age of White students (M = 30.75, SD = 9.42) and minority students (M = 30.53, SD = 9.75).

Perceived faculty support. According to results of an independent sample *t*-test, there was no significant difference [t (233) = 0.84, p =0.40] in the amount of perceived faculty support between White (M = 102.07, SD = 17.19) and minority students (M = 95.50, SD = 20.07).

Gender. According to results of a chi-square test of independence, the relationship between race and gender was not significant [$x^2(1, N = 235) = 0.30$, $p = .59$]. Expected counts, observed counts, and percentages for each gender are presented in Appendix K.

Income. In order to conduct a chi-square test of independence on income it was necessary to collapse the variable into four categories. The categories used were as follows: 0-29,999, 30,000-59,999, 60,000-89,999 and 90,000-above. According to results, the relationship between race and income was not significant [$x^2(3, N = 235) = 2.04$, $p = .57$]. Expected counts, observed counts, and percentages for each of the levels of income are presented in the Appendix L.

Parent or primary caregiver level of education. Similarly, in order to conduct a chi-square test of independence on level of education it was necessary to collapse the variable into four categories. The categories used were as follows: high school or less, some college or Associate's degree, Bachelor's degree, and Graduate degree. Results indicated that the relationship between race and parent or primary caregiver level of

education was not significant [$x^2(3, N = 235) = 0.72, p = .87$]. Expected counts, observed counts, and percentages for each of the levels of education are presented in the Appendix M.

Enrollment in CACREP accredited master's program. Upon analysis of the chi-square test of independence output, I found that over 20% of the cells had an expected count of less than five thus violating an assumption of the chi-square test. As a result, the Fischer's exact test was used. Results indicated that the relationship between race and enrollment in CACREP accredited programs was not significant ($p = .28$). Expected counts, observed counts and percentages for CACREP accreditation are presented in the Appendix N.

Research Question 3

In order to examine whether or not there were differences between White and minority culture groups in regards to the decision to enroll in a CES doctoral program, a Mann-Whitney U test was performed. I hypothesized that there would be differences between the White and minority students in intentions to enroll. According to results of the test, no significant difference in decision to enroll in CES doctoral programs between minority or White students ($U = 3425, Z = -1.27, p = .21$). Minority students ($n = 40$) had a mean rank of 129.88 and White students ($n = 140$) had a mean rank of 115.56. The null was not rejected.

Summary

Overall, the data obtained indicated no statistically significant difference between minority students and White students with respect to age, income, gender, enrollment in

CACREP-accredited programs, and parent or primary caregiver's education level and the decision to enroll in CES doctoral program. Further, the variables of interest neither individually nor collectively predicted the decision to enroll in a CES doctoral program.

In Chapter 5, I further elaborate upon comparing the study's results to previous research and drawing conclusions from the data. Additionally, the chapter includes study limitations, recommendations for future research, and social change implications.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to examine bioecological factors that may be influential in predicting graduate students' decisions to pursue CES doctoral studies and to have a comparison between White and racial minority graduate student groups for the selected systemic factors in this study. Using a cross-sectional design, multiple regression, spearman, chi square, *t* tests, and Mann-Whitney U analyses, I analyzed the influence of six factors on graduate students in graduate counseling programs' decision to enroll in CES doctoral studies. The analyzed factors included age, gender, CACREP-accreditation, current household income, level of parents' or primary caregivers' education, and perceived faculty support.

According to the results of the study, none of the analyzed factors, individually or collectively, were significant predictors for the decision to enroll in CES doctoral studies. However, for White students, there were significant relationships between perceived faculty support and level of parents' or primary caregiver's education (p =.02), CACREP accreditation and age (p = .02), CACREP accreditation and gender (p< .001), gender and level of parent's or primary caregiver's education (p < .05), and income and age (p <.0001). For minority students, the scores neared significance between CACREP accreditation and likelihood to enroll in CES doctoral studies (p = .053). In addition, there were significant relationships between the level of parent's or primary caregiver's education and income (p = .04) and gender with age (p = .05). The relationship between income with age also approached significance (p = .053).

In this chapter, I will discuss the results presented in Chapter 4. First, I will interpret the findings in relation to the theoretical framework and in comparison with previous study findings. Next, I present the limitations of the study, followed with recommendations for continued research. Finally, I will discuss the implications relating to social change and conclude with a summary of key findings.

Interpretation of the Findings

I designed this study to determine the influence of individual and systemic bioecological influences on students' decision to enroll in CES doctoral studies. I used two theories: Bronfenbrenner's bioecological model and TPB. I analyzed factors that represented each systemic level in Bronfenbrenner's model, but because this model did not include a decision-making process, I used TPB as the main theoretical framework to determine whether any of the chosen factors predicted decision to pursue CES doctoral studies. Ajzen (1991) designed TPB to measure behavioral intentions; therefore, TPB and Bronfenbrenner's model aligned well for this study to determine predictor variables that may attribute to the disparity of racial diversity in CES.

There were 195 participants who were White, and 40 participants who identified as a racial minority students in this study. In the first research question, I examined whether several factors were similar or different between White students and racial minority students. The factors I chose to analyze for this study were age, gender, income, level of parent's or primary caregiver's education, perceived faculty support, and CACREP accreditation. In a multiple regression analysis, the results were consistent with

the null hypothesis that there would be no differences in these factors between White and racial minority students.

Because I found no significance when I looked at any of the above factors collectively in the planned multiple regression analysis, I also conducted a Spearman analysis so I could analyze each of them individually. However, I also found no significance between White and racial minority students with any of these factors individually. It was surprising to find no significant differences for the variables of income and level of parent's or primary caregiver's education, especially in light of the overall economic variance between Whites and minority racial populations. According to the U.S. Census Bureau (2015), income percentages by race were as follows: Whites made 73.7% of the total per capita income in the United States; Blacks or African Americans made 12.6%; American Indians and Alaska Natives made 0.8%; Asians made 5.1%; Native Hawaiians and Other Pacific Islanders made 0.2%; and those who identified as Other made 4.7%. These findings align with the acknowledgement of the disparity of minority racial groups who obtain higher-level education; income levels are often determined by educational levels.

It was also surprising to find no significant difference between White and minority racial groups for perceived faculty support considering that the majority of counselor educators are White, so there may be embedded distrust of the motives or intentions of White instructors toward racial minority students. I had speculated that racial minority students would feel like they were not as supported as White students were. However, in future studies, researchers may find contradictory results for any of

these chosen variables if there is a larger sample size of racial minority participants. One reason for a potential increase of participants in future studies is that enrollment of master's level racial minority students in counseling and psychology programs is increasing (Haizlip, 2012). Another reason for a potential larger participant pool may be that more students who identify as racial minority may choose to participate in different studies, whereas they chose not to participate in this study.

For the second research question, I used chi-square and *t*-test analyses to investigate whether any of the chosen factors were predictors for the decision to enroll in CES doctoral studies. I found no significance for any of the chosen factors to predict White students' decision to enroll in CES doctoral studies. The power for this analysis was high (power = .99), so I can report this finding with confidence. I had no previous speculation about how the results would conclude for students who experience White privilege and may have a high self-concept regardless of whatever concrete resources they may have. I did find it interesting that although CACREP accreditation appears to be a significant for predicting the acquisition of licensure, it was not a significant factor for predicting a decision to pursue doctoral CES studies. A decision does not necessarily imply competence, but may be about a number of possible variables. For example, students of any race may want to teach or supervise counselor trainees. Another possibility is that some graduate students may feel that their calling is specifically for the counseling profession, which requires licensure to practice instead of a doctoral degree. Dik, Duffy, and Eldridge (2009) suggested that counselors explore meaning making with clients regarding what they may feel called to pursue that is work-related. Haney-

Loehlein et al. (2015) also acknowledged how a person's perception of experiences influences feeling called toward a certain profession. If racial minority students have positive and encouraging experiences in counseling academia, it may influence their feeling of a calling to the CES profession.

Although I did not find a statistical significance for any of the factors to predict minority students' decision to enroll in CES doctoral studies, these results may not be accurate given the low number of participants in this study. However, because the power for racial minority students was low (power = .34), this provides additional evidence for the disparity of racial minority students in graduate counseling programs. It is also evidence of the need for researchers to seek confidence in the results or to continue acknowledging and addressing the issue of racial disparity in the CES profession. The variable of CACREP accreditation approached significance in predicting racial minority students' decision to enroll in CES doctoral studies (p = .053); therefore, it is likely that CACREP accreditation may actually be a significant predictor if the number of racial minority participants was higher.

I found that the statistical significance for the CACREP accreditation factor in a student's decision to enroll in CES doctoral studies to be interesting. The significance of this relationship aligns with the proposition that CACREP accreditation best prepares students for licensure, but this finding also may lead to the speculation that racial minority graduate students feel more empowered to pursue doctoral studies if their program is CACREP accredited. On the other hand, racial minority students who are not in CACREP-accredited programs may not believe they are adequately prepared for

higher-level learning. Other possibilities for why students in programs that are not CACREP-accredited do not choose to pursue CES doctoral studies may be due to any differing instructional methods, educational training, or encouragement from faculty in programs that are not CACREP accredited compared to those that are. Because the 2015 CACREP mandate now requires instructors in CACREP-accredited programs to have a doctorate specifically in CES, these professionals may encourage their students to pursue similar doctoral education. Contrarily, instructors in programs that are not accredited may have professional degrees in psychology or other areas than in CES; therefore, they may be less likely to encourage students to pursue CES doctoral studies.

In the third research question, I used Mann-Whitney U analysis to determine whether there were differences between whether White and racial minority graduate counseling students decided to continue their education at the higher doctoral level in CES. Again, I found no statistically significant differences between these two groups. Although no statistical significance was determined, there was not enough racial minority participation to have confidence in making this definitive assertion. Because I had a low number of racial minority participants, I did not have an equitable group comparison. Therefore, I cannot speculate on any conclusions from the analysis for this research question. I would like to believe that these results are indicative of an equitable interest in diverse students who would like to pursue doctoral level education, hence no significant difference in this finding between White and racial minority students. I am skeptical of this assumption, and I believe there should be additional comparative studies in order to continue advocacy efforts for racial minority students.

Analysis in Context of TPB

I used TPB as the main theoretical framework for this study. Ajzen (1991) developed TPB to explain intentions; one of my main premises was to look at decision-making influences of master's level students to pursue enrollment in doctoral CES programs. Since decisions begin with intent, TPB was the best choice of theory to help understand this process; the decision to pursue doctoral studies in CES begins with intention to apply (Jakopec, Krecar, & Susanj, 2013).

Analysis in Context of Bronfenbrenner's Bioecological Model

I used Bronfenbrenner's bioecological model as a supportive theory to TPB for this study. The premise of Bronfenbrenner's model is that there are systemic variables that influence developmental outcomes (Ceci & Hembrooke, 1995). I used the model at a taxonomy level, which was to provide "an orderly schema for classification and description" (Frankfort-Nachmias & Nachmias, 2008, p. 34). I was intrigued with Bronfenbrenner's model prior to beginning my study as I became increasingly aware through personal observation and conversations with peers who noticed the disparity of racial diversity in CES, and in higher education in general. In order to fully reference this model, I analyzed potential influential variables for people that may affect self-concept and decisions based on self-concept. Because Bronfenbrenner's model begins with the individual, I assessed potential individual factors as well as systemic factors. The representative variables from each level of Bronfenbrenner's model were as follows: age, faculty support, gender, income, level of parent's or primary caregiver's education, and whether enrolled in CACREP-accredited master's program.

Although I was able to use Bronfenbrenner's model as a starting point for my research, it did not sufficiently explain a decision-making process according to any individual or systemic relationships. However, it complimented the concepts of TPB well, as any possible hypothetical factor that can be categorized within Bronfenbrenner's systemic model may affect a student's intentions, thus decision to enroll in a doctoral CES program of study.

Limitations of the Study

There were multiple limitations for this study. First, the sampling method was convenience sampling, which affected external validity and generalizability. This study only included master's level students who had completed at least one quarter or semester of graduate studies in a counseling program. In addition, I only inquired as to whether participants intended to pursue doctoral studies in CES. Therefore, I cannot generalize the results for undergraduate students, for master's level students in disciplines other than counseling, or for students who may decide to pursue doctoral studies in something other than CES.

Another limitation was access to the participant population; I requested support from program directors to forward the research invitation after ensuring that their IRB protocols were followed and approved. Although this research contributed to literature in CES, some program directors may not have forwarded the request for participation to their students because they were uninterested in the study results. In addition, each program director had to follow the unique policy and procedural guidelines of their institutions, which may have prevented them from disseminating the request for

participation. An additional limitation may have been the timing of my survey request. I e-mailed my request around the time that students were preparing for their final exams that quarter or semester, so many students might not have participated due to the timing of the request.

Yet another limitation to this study is that I used self-reported surveys, so I had to rely on honest answers from participants. An additional limitation was the selection process. I relied on the snowball technique and potential participants' Internet access; therefore, I relied on program directors getting approval to have their students participate in this study, as well as their willingness to make the time and efforts to do so ethically. If the surveyed population of graduate students did not commonly use Internet for communication, they would not have had the opportunity to participate.

In addition to the above limitations, I relied on a volunteer sample; therefore, those who consented to participate may not represent the entire population of graduate students in counseling programs. One possible example of this would be if any students were skeptical about whether their answers would be shared with their instructors or program director and thus chose not to participate or answer questions honestly, and because it was anonymous, there was no way to confirm that only participants who met the inclusion criterion completed the survey. This concern applied regarding answering questions on the Perceived Faculty Support Scale. In addition to possible skepticism about whether the researcher would inform instructors or program directors of students' personal answers, some may not have honestly answered because they did not want that information shared. A potential with any type of assessment is that participants may rate

responses according to personal biases. Shelton (2003) designed this scale to assess perception of faculty support, which may or may not be actual but is important to help understand graduate students' academic experiences that may influence academic persistence.

The inclusion criteria for this study required participants to be master's level students who had completed at least one quarter or semester of studies in their graduate programs. I had a few students who recorded that they were doctoral students. I mitigated this limitation by eliminating those surveys from the analyses. These inclusion criteria also reduced the potential number of potential participants since even master's level students qualified to participate only if they were only in their first quarter or semester of studies.

Recommendations

This study is a foundation to inspire additional research in the area of diversity within the CES profession, as well as other professional disciplines. As noted by Worthington (2012), there is minimal research that focuses on diversity inquiry and strategic planning. As the necessity for diversity in the CES profession becomes increasingly apparent, it is important for researchers to consider assessment strategies to seek how to minimize the disparity. Although my research did not confirm my speculations regarding possible predictors for whether students decide to pursue doctoral level work, it still contributed to the deficit of research within the CES field. Brooks and Steen (2010) ascertained that Blacks are not progressively pursuing the CES profession. If none of the variables I studied were predictors, it would be beneficial for alternate

possible factors to be explored in research. Future research could also be done qualitatively to explore unique personal reasons pertaining to the decision to enroll in doctoral studies.

In order to increase racial diversity in the CES profession, program administrators, faculty, and professional must first determine possible internal or external barriers and then find ways to maximize diversity in CES doctoral programs. Johnson, Bradley, Knight, and Bradshaw (2007) acknowledged the necessity for additional research regarding how Blacks make vocational decisions. In addition, more research should focus on how to retain current faculty who identify as minority. As discussed in Chapter 2, there is an under-representation of minority faculty in training programs, as well as a deficit of recruiting and retention strategies for minority faculty (Bryant et al., 2005; Holcomb-McCoy, 2003; Reynolds et al., 2010; Worthington, 2012; Young & Brooks, 2008; Ziomek-Daigle & Bailey, 2009). Diversity is rapidly increasing in the United States (Kreuter et al., 2011; US Census Bureau, 2011), but the minority population represents only 20 % of counselors (ACA, 2012; Kreuter et al, 2011).

Another recommendation for future research regards ways to increase potential participation by getting approval to post requests on organizational websites of which graduate students are members. For example, I had permission to request participation from program directors on the CESNET listserv, but researchers could design surveys that participants can directly access instead of via a snowball technique. For example, a possible organizational website to post future research requests is the American Counseling Association at counseling.org. Many graduate students become members of

the American Counseling Association, and frequently reference this organizational website for resources. LinkedIn is also a potential forum to request direct research participation..

Yet another recommended study that could assess decisions to pursue doctoral level studies would involve inquiry about how well students feel prepared for higher level learning because a possible conclusion from this study is that racial minority students who are not in CACREP-accredited programs may not believe they are adequately prepared for higher-level learning. I recommend a study that would compare students' perceptions of preparedness in both CACREP and non-CACREP accredited programs, as well as a comparison between majority and minority racial groups of students.

Finally, since one speculation drawn from this study is the likelihood that instructors in programs that are not accredited may have professional degrees in psychology or areas other than CES, another recommended study would involve exploring what instructors encourage students to do post-graduation from both CACREP and non-CACREP accredited programs.

Because the findings from this research are new according to the factors and theories I used, I recommend that other researchers replicate this research in similar ways. It is possible that any or all of the chosen factors in this study are influential in predicting whether racial minority students decide to enroll in CES doctoral programs, but studies are needed that have a higher power to be able to make that assertion. White and minority students do not seem to differ significantly on any of the variables of interest at this point in schooling (master's level). Therefore, although it is possible that

race does not play a role in either of the studied factors for decision to enroll in doctoral studies, perhaps researchers should focus on the transition from bachelors to masters. The small number of minority graduate students I was able to find for my study supports this assumption.

Because there is no recent demographic data regarding race in graduate counseling, CES programs, or within the CES profession, continued studies with graduate students may reveal more evidence of either the disparity of racial diversity or other differences that may account for decision to enroll in CES doctoral studies. It is also imperative that the Association for Counselor Educators and Supervisors (ACES) consistently conduct survey data analyses to verify demographic data of CES professionals. In addition to quantitative studies, researchers should consider a qualitative approach to explore reasons for the disparity of racial diversity in CES.

Qualitative research can help us understand *why* more racial minority students are not deciding to pursue doctoral studies in CES. Phenomenological research could increase awareness and understanding of unique experiences that racial minority students have, which may influence the decision for doctoral studies. Grounded theory research can be utilized to determine existing societal problems that block decision to pursue doctoral studies, and reported case study analyses can reveal in-depth experiences that racial minority students have that may influence the decision of whether or not to pursue doctoral studies. Another recommendation for a future qualitative study is for researchers to explore how professional identities of students that may influence the decision to pursue CES doctoral studies. As the terminal clinical degree in the field of counseling is a

master's degree, there may be no apparent professional benefit to earning a doctorate in counselor education. As students move from master's to doctoral level programs, there is a shift in professional identity and professional roles, which may influence a student's decision of whether to pursue doctoral studies more-so than cultural or systemic influences

Finally, a recommendation for future research regards the timing for participation requests; researchers may get a higher participation rate if the request is by mid-quarter or semester as opposed to the end when they are focusing on preparing for final exams.

Implications

Several implications can be derived from this research. Although my primary intent for this study was to discover systemic variables that may reveal reasons for why there is minimal diversity in CES doctoral programs, thus within CES faculty, this research did not reveal significance with any of the chosen factors as being influential in graduate students' decisions to enroll in doctoral studies in CES. This may imply that there are no systemic factors that influence students' decisions for higher-level education, but that is unlikely. Another implication is that although none of the variables I chose to analyze are influential, others are; therefore, it is imperative to consider alternative factors. Yet another implication is that any or all of the chosen factors in this current study influence students' decision to pursue CES doctoral studies, but I found no significance due solely to the low number of racial minority participants.

Positive Social Change

The findings from this study can provide information that leads to additional research to benefit positive social changes toward empowering and encouraging minority students to pursue doctoral studies, thus increasing diversity in CES. It is evident that although minority student representation appears to be increasing in counselor-trainee programs, there continues to be a disparity of racial diversity in doctoral CES programs, thus the CES profession (Holcomb-McCoy & Bradley, 2003). CACREP (2009) mandates diversified faculty in CACREP-accredited institutions (Section I. U., p. 5). Racial diversity in the CES profession is essential as society becomes increasingly diverse, yet there continues to be a disparity of racial diversity in higher- level education (Bowen et al., 2009; Keels, 2013; Robinson et al., 2009; Worthington et al., 2010). Diversity benefits not only the profession itself, but also students and the general population. Some researchers have asserted that adequate representation of minority faculty motivates minority students to enroll in similar doctoral programs (Brooks & Steen, 2010; Henfield et al., 2011). Just as the potential counseling clients may prefer to seek professional services from someone who is similar in race or other ways, graduate students benefit from having instructors who represent racial minority groups.

Young and Brooks (2008) emphasized that commitment to race consciousness begins with persistent commitment to address the disparity of graduate students and faculty racial diversity, further asserting the necessity for race conscious students and faculty members so racial minority students feel supported in their worldviews. White faculty and students alike can learn how to be more culturally sensitive and aware of

unique cultural issues through professional and academic relationships with racial minority faculty. The more we can learn about racial minority cultures, the more we can advocate for ways to empower them toward attaining doctoral level education. Because my study did not confirm significance, it is even more essential that researchers continue to inquire about alternative reasons for the disparity of racial diversity in CES, as well as considering ways to minimize this diversity. Ideally, the diversity within our CES profession should equitably reflect the demographic diversity of the general population. Furthermore, the CES profession should lead efforts toward increasing diversity, providing substantial research for professionals in other disciplines to replicate for similar efforts.

One important way that researchers can explore possible unique systemic variables for racial minority faculty members is to converse directly with minority CES professionals to inquire about their personal experiences of what it is like for them to work in the CES profession and note introspective thoughts about suggestions to explore ways to increase racial diversity in doctoral CES programs. There is increased likelihood for broadened understanding as minority faculty share their personal experiences with students; likewise, the CES profession itself benefits from the knowledge of minority faculty members.

Creating a supportive environment for both racial minority faculty and master's level graduate students can be integral for encouraging students to consider pursuing the CES profession. Implications of this and continued research to support racial diversity efforts in CES benefits not only the counseling and CES professions, but also academia

as a whole and society. With additional studies, comes increased awareness of unique perspectives and challenges of racial minority students. With this awareness, researchers can consider ideas for how to develop supportive academic and personal resources that may encourage minority students to seek higher-level education toward the CES profession. The necessity for increased racial diversity rises as society is increasing in racial diversity. Counseling and CES professionals should be at the forefront of advocacy efforts for increasing racial diversity in these respective fields, paving the way for professionals in other academic disciplines to do likewise.

Conclusions

Although age, gender, perceived faculty support, and CACREP-accreditation were not statistically significant, neither individually nor collectively, in predicting students' decisions to enroll in CES doctoral studies, it is vital to explore other factors that may be influential. It is essential to continue to seek strategies for how to increase diversity in the CES profession. Researchers ascertained that minorities become motivated to enroll in doctoral programs when there is adequate representation of minority faculty (Brooks & Steen, 2010; Henfield et al., 2011). Therefore, future studies should not only focus on how to increase racial diversity, but also on factors that influence recruitment and retention of current racial minority faculty in master's degree programs in counseling areas. In the absence of data on predictive factors, perhaps a way to proceed would be to increase the size of the pool of potential minority students for CES programs by recruiting more minority students into MS programs. Another approach could be to encourage more minority CES graduates to pursue faculty positions.

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Appendix A: Demographic Survey

Age: What is your age?

_____

Gender

1. Male
2. Female

Current Household Income

1. Less than $10,000
2. $10,000 to $19,999
3. $20,000 to $29,999
4. $30,000 to $39,999
5. $40,000 to $49,999
6. $50,000 to $59,999
7. $60,000 to $69,999
8. $70,000 to $79,999
9. $80,000 to $89,999
10. $90,000 to $99,999
11. $100,000 to $149,999
12. $150,000 or more

Parent's (or Primary Caregiver's) Education Level: What is the highest education level completed by either parent or primary caregiver?

1. Less than 12th grade
2. High school graduate, diploma or the equivalent (for example: GED)
3. Some college credit, no degree
4. Associate's degree
5. Bachelor's degree
6. Graduate degree

Are you enrolled in a CACREP accredited Master's Program?

1. Yes
2. No
3. Do not know

Race

1. American Indian or Alaska Native
2. Asian
3. Black or African American
4. Native Hawaiian or other Pacific Islander
5. White
6. Other

Within the following 5 years after you graduate from your master's program, how likely are you to enroll in doctoral studies in CES?

1. Very unlikely

2. Unlikely
3. Likely
4. Very likely

If you answered "likely" or "very likely" in the preceding question, how many years after graduation do you intend to enroll in doctoral studies in CES?

_____

How many credit hours does your program require?

_____

How many credit hours have you completed-to-date?

_____

Appendix B: Permission to Use Perceived Faculty Support Scale

Hello Ms. Webb,
Please excuse the delay in responding to your message. I was out of the country. You have permission to use the Perceived Faculty Support Scale. It is attached. Please let me know if you have any questions.

Best regards,
Elisabeth Shelton
Elisabeth N. Shelton, PhD, RN, CNE, ANEF
Associate Dean for Undergraduate Programs
School of Nursing
West Virginia University
PO Box 9630
Morgantown, WV 26506-9600
Office: 304-293-6650
Fax: 304-293-6826
eshelton@hsc.wvu.edu

Appendix C: Invitation to Participate: Day 1

Email Subject Line: Survey Request of Graduate Counseling Students

Dear (Name of CACREP Program Director),

I am writing to ask your assistance with a research project designed to explore the relationship between selected individual and systemic variables and master's level graduate student intentions to pursue doctoral studies in Counselor Education and Supervision (CES). As a counseling program director, I am asking if you would forward this invitation to students enrolled in your master's program if this request is in accordance with your university's requirements for research recruitment. If needed, I would be happy to speak with anyone at your program directly to facilitate compliance. Please confirm any necessary steps and email me directly at Sharon.Webb@waldenu.edu if there is any specific school approval protocol I need to follow in order to request participation. If no further steps are needed and you agree to forward this invitation to students, please blind carbon copy (BCC) the request at the bottom of this email, which includes a link to the survey. If you want to talk with me or have any questions, you can contact me at Sharon.Webb@waldenu.edu. I would greatly appreciate your assistance. Please distribute the following request to your students:

Dear Graduate Counseling Student,

I invite you to participate in a research study by completing a survey on individual and systemic factors that may influence master's level student intentions to pursue Counselor Education and Supervision (CES) doctoral studies. This study is anonymous, therefore, I will not know what you said and no one in your program will know what you said. Your participation is voluntary and you may stop at any time while taking the survey.

It will take approximately 10-15 minutes to complete the survey. If you are a current graduate counseling student who has completed at least one quarter or semester of studies and are willing to volunteer for this study, please click on the following link, (I will insert a direct link to the Survey Monkey survey here) https://www.psychdata.com/s.asp?SID=154182, which will take you to the survey. You will not be able to save the survey to return later, so will need to complete in once you log in. For any questions or concerns, please email me at Sharon.Webb@waldenu.edu or call XXXXX.

Thank you in advance for considering this study. I appreciate your time.

Sincerely Yours,

Sharon Webb

Second Request Invitation to Participate: Day 5

Subject: Student Survey for Graduate Counseling Students

Dear (Name of CACREP Program Director/Program Designee),

Last week I sent you a link to a survey regarding a study about master's level counseling students' decisions to pursue doctoral education in the future. If you sent the email request to your students, thank you for taking the time to do that. Even if you did send the message last week, it would help increase response rates if you would please send it again by forwarding this message via BCC. If you did not send it last week, it would still be helpful if you would send it now. Please confirm any necessary steps and email me directly at Sharon.Webb@waldenu.edu if there is any specific school approval protocol I need to follow in order to request participation. If no further steps are needed and you agree to forward this invitation to students, please blind carbon copy (BCC) the request at the bottom of this email, which includes a link to the survey. If you want to talk with me or have any questions, you can contact me at Sharon.Webb@waldenu.edu..

Dear Graduate Counseling Student,

I invite you to participate in a research study by completing a survey on individual and systemic factors that may influence graduate students' intent to pursue Counselor Education and Supervision (CES) doctoral studies. This study is anonymous, therefore, I will not know what you said and no one in your program will know what you said. Your participation is voluntary and you may stop at any time while taking the survey.

It will take approximately 10-15 minutes to complete the survey. If you are a current graduate counseling student who has completed at least one quarter or semester of studies and are willing to volunteer for this study, please click on the following link, (I will insert a direct link to the Survey Monkey survey here)https://www.psychdata.com/s.asp?SID=154182, which will take you to the survey. You will not be able to save the survey to return later, so will need to complete in once you log in. For any questions or concerns, please email me at Sharon.Webb@waldenu.edu or call XXXXX.

Thank you in advance for considering this study. I appreciate your time.

Sincerely yours,

Sharon Webb

Third Request Invitations to Participate

Subject: Please complete the Graduate Counseling Student Survey

Dear (Name of CACREP Program Director/Program Designee),

I appreciate you taking the time to consider forwarding this survey request to students in your graduate program. I know this time of year is quite busy. If you would be willing to forward this survey request to your students via blind carbon copy, I would greatly appreciate it. It will help increase the response rate and increase the value of the data I am collecting. Please confirm any necessary steps and email me directly at Sharon.Webb@waldenu.edu if there is any specific school approval protocol I need to follow in order to request participation. If no further steps are needed and you agree to forward this invitation to students, please blind carbon copy (BCC) the request at the bottom of this email, which includes a link to the survey. If you want to talk with me or have any questions, you can contact me at Sharon.Webb@waldenu.edu.
Dear Graduate Counseling Student,

If you have already completed the survey, I want to thank you. I appreciate the time that you took to respond to it, as I know how valuable your time is. If you have not yet responded, I still hope you will take 10 – 15 minutes hope you will do so. Your input is very important in helping us identify important information that can help counseling students make their decisions about pursuing doctoral level education in the future.

I invite you to participate in a research study by completing a survey on individual and systemic factors that may influence graduate students' intent to pursue Counselor Education and Supervision (CES) doctoral studies. This study is anonymous, therefore, I will not know what you said and no one in your program will know what you said. Your participation is voluntary and you may stop at any time while taking the survey.

The total duration to complete the necessary information will take approximately 10-15 minutes. If you are a current graduate counseling student who has completed at least one quarter or semester of studies and are willing to volunteer for this study, please click on the following link, (I will insert a direct link to the Survey Monkey survey here)https://www.psychdata.com/s.asp?SID=154182, which will take you to the survey. For any questions or concerns, please email me at Sharon.Webb@waldenu.edu or call XXXXX. Thank you in advance for considering this study. I appreciate your time.

Thank you in advance for considering this study. I appreciate your time.

Sincerely yours,

Sharon Webb

Final Request Invitation to Participate

Subject: Graduate Counseling Student Survey Participation Final Request

Dear (Name of CACREP Program Director/Program Designee),

Thank you for your assistance over these past few weeks. I know your time is valuable and I appreciate your help. This is my final email request and I appreciate all your help with my study and hope you can find the time for one more prompt to your students. Please confirm any necessary steps and email me directly at Sharon.Webb@waldenu.edu if there is any specific school approval protocol I need to follow in order to request participation. If no further steps are needed and you agree to forward this invitation to students, please blind carbon copy (BCC) the request at the bottom of this email, which includes a link to the survey. If you want to talk with me or have any questions, you can contact me at Sharon.Webb@waldenu.edu. Thank you for all your help!

Dear Graduate Counseling Student,

If you have already completed the survey, I want to thank you. I appreciate the time that you took to respond to it, as I know how valuable your time is. If you have not yet responded, I still hope you will take 10 – 15 minutes hope you will do so. Your input is very important in helping us identify important information that can help counseling students make their decisions about pursuing doctoral level education in the future.

I invite you to participate in a research study examining individual and systemic variables that may influence graduate students' intent to pursue Counselor Education and Supervision (CES) doctoral studies. Past research has focused on recruiting and retaining diverse students in higher education. Research has not addressed if there is a relationship between individual and systemic variables for graduate students' intent to pursue CES doctoral studies. The purpose of this research is determine what variables, if any, have a relationship with the decision to pursue doctoral studies. One potential result could be increased awareness and understanding to resources needed for advocacy effort toward increasing diversity in the CES profession.

The total duration to complete the necessary information will take approximately 10-15 minutes. If you are a current graduate counseling student who has completed at least one quarter or semester of studies and are willing to volunteer for this study, please click on the following link, (I will insert a direct link to the Survey Monkey survey here)https://www.psychdata.com/s.asp?SID=154182, which will take you to the survey. For any questions or concerns, please email me at Sharon.Webb@waldenu.edu or call XXXXX. Thank you in advance for considering this study. I appreciate your time.

Sincerely yours,
Sharon Webb

Appendix D: Study Information Document

Graduate Counseling Student Study Overview

This researcher invites you to participate in a research study examining individual and systemic variables that may influence graduate students' intent to pursue CES doctoral studies. The researcher solicited you for this study because you are a current student in a graduate counseling program, and have completed at least one semester of your graduate studies. Please read the following information and ask any questions that you may have prior to agreeing to be in the study.

Sharon Webb, who is a Licensed Professional Counselor, National Certified Counselor, and doctoral student at Walden University, is conducting this study.

STUDY BACKGROUND:
Past research has focused on recruiting and retaining diverse students in higher education. Research has not addressed if there is a relationship between individual and systemic variables for graduate students' intent to pursue CES doctoral studies. The purpose of this research is to determine what variables, if any, have a relationship with the decision to pursue doctoral studies. One potential result could be increased awareness and understanding to resources needed for advocacy effort toward increasing diversity in the CES profession.

PROCEDURES:
After reading this form, if you wish agree to volunteer to be in the study, you will be asked to complete the following information that will take 10-15 minutes:

1. Complete an initial anonymous data survey that will include background demographics and inclusion criteria for the study.
2. Complete survey: the survey will ask for you to rate your intentions to pursue doctoral studies in Counselor Education and Supervision.
3. In order to preserve your anonymity and confidentiality, you will not put any identifying information on any survey.

VOLUNTARY NATURE OF THE STUDY:
This study is voluntary, which means that under no circumstance are you required to participate. I will respect your decision whether you choose to participate in the study or elect not to participate. If you choose to volunteer for the study, you may opt to discontinue participation at any time. If you feel uncomfortable or stressed at any point during the study, you may stop. If there is a question that you feel is too personal, you may skip the question. Finally, if you need any further assistance following the study, your academic program provides counseling services to all students. Please contact them for additional services.

BENEFITS AND RISKS OF BEING IN THE STUDY:
There are no foreseeable risks to this study. The benefits of this research to you may include availability of increased academic support resources for Master's level counseling students as findings in this study may reveal specific individual or systemic barriers for academic persistence.

COMPENSATION:
There will be no compensation for participating in this study.

ANONYMITY:
This study is strictly anonymous. You will not disclose any identifying information on the survey as a part of this survey. In addition, no one will know if you chose to participate in the study or not. I will collect data from this survey to use it for the purpose of this research, keeping it for potential research analysis until my dissertation study is complete. Finally, since you will not include any identifying information in the study, there will be no identifying information in the reports of this study. I will store the surveys electronically in a secure password protected file on a password-protected computer that is solely accessible to me.

CONTACT AND QUESTIONS:

If at any time you have any questions, the researcher's name is Sharon Webb. Her faculty advisors are Dr. Laura Haddock and Dr. William Barkley. You may wish to direct any questions to either the researcher or the faculty advisors. You may contact the researcher, Sharon Webb, via telephone at XXXXX or email at Sharon.Webb@waldenu.edu. You may contact Dr. Laura Haddock via email at Laura.Haddock@waldenu.edu. You may also contact Dr. William Barkley via email at William.Barkley@waldenu.edu. In addition, if you have questions regarding your rights as participants, you may contact the University's Research Participant Advocate at 612-312-1210 or via email at irb@waldenu.edu.

STATEMENT OF CONSENT:
I have read the above information and have received answers to any questions that I might have at this time. I am 18 years of age or older and consent to participating in this study. To protect your privacy, the researcher requests no consent signature. Instead, you may click on the link below to indicate your consent and begin the survey. Please feel free to print or save this consent form for your records.

Appendix E: Figure E1 Histogram of the Likelihood to Enroll in CES Doctoral Program for White Students

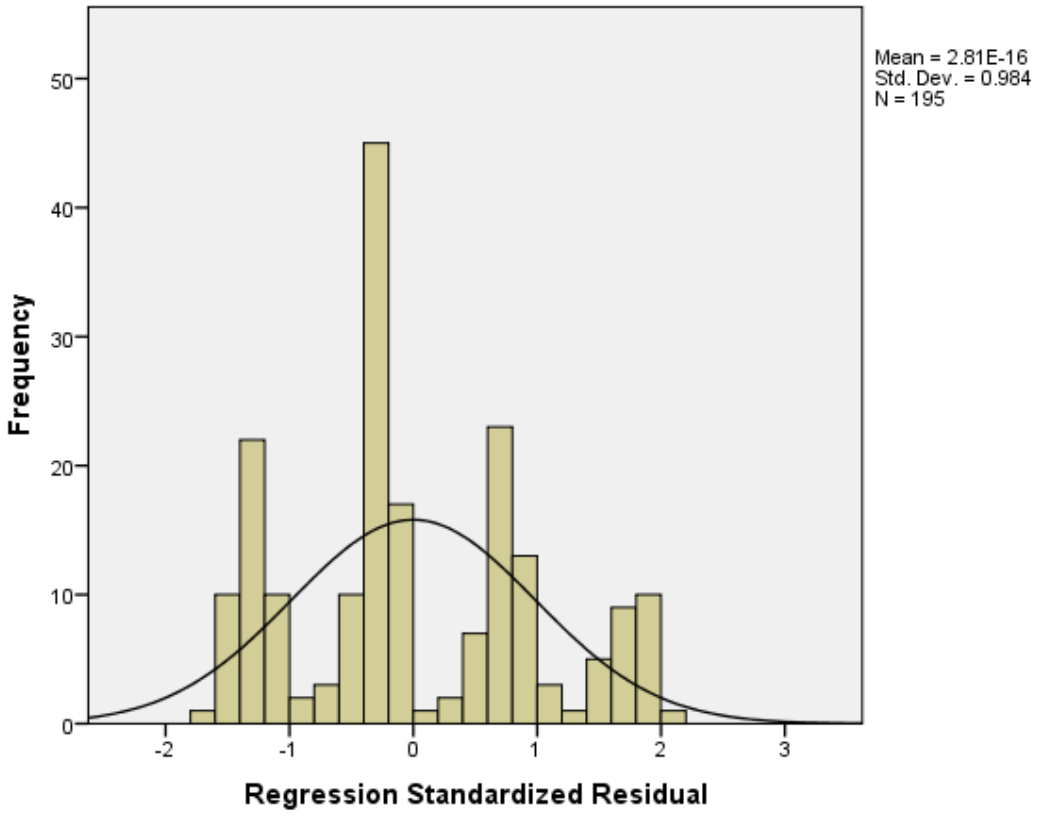

Figure E1. Histogram of the likelihood to enroll in CES doctoral program for White students

Appendix F: Figure F1 Normal P-P Plot of the Likelihood to Enroll in CES Doctoral Program for White Students

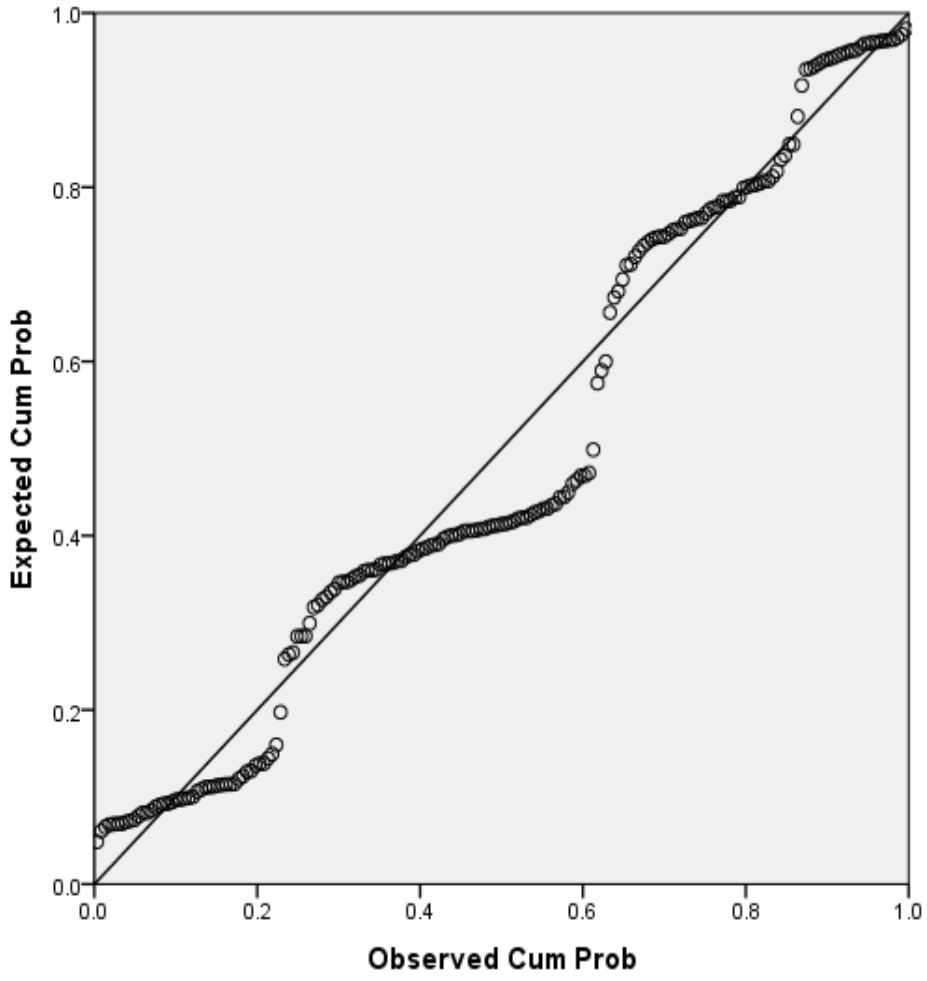

Figure F1. Normal P-P Plot of the likelihood to enroll in CES doctoral program for White students

Appendix G: Table G1 ANOVA Summary of Model for White Students and Coefficients of the Model for White Students

Table G1

ANOVA Summary of Model for White Students

	SS	*df*	*MS*	*F*	*p*
Model	5.01	6	.83	0.89	.51

Table G2

Coefficients of the Model for White Students

Variable	B	SE *B*	*B*
Perceived Faculty Support	.003	.004	.05
CACREP-accreditation	-.29	.24	-.09
Parent or Caregiver Education	-.06	.05	-.09
Household Income	-.02	.02	-.07
Gender	-.09	.20	-.03
Age	.01	.01	.11

Note: R^2 =.03, *ns*

Appendix H: Figure H1 Histogram of the Likelihood to Enroll in CES Doctoral Program for Minority Students

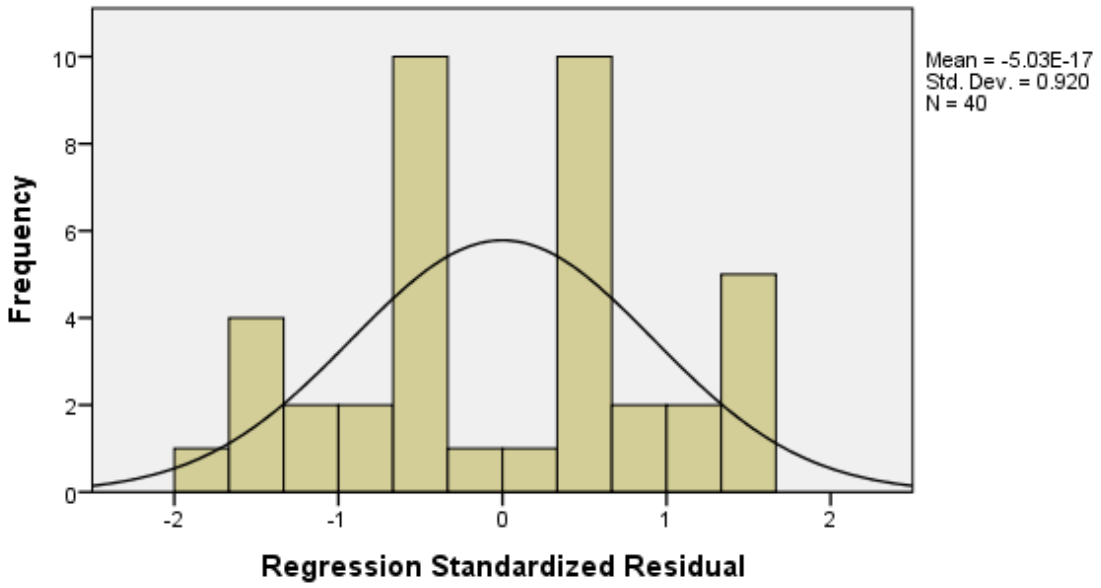

Figure H1. Histogram of the likelihood to enroll in CES doctoral program for minority students

Appendix I: Figure I1 Normal P-P Plot of the Likelihood to Enroll in CES Doctoral Program for Minority Students

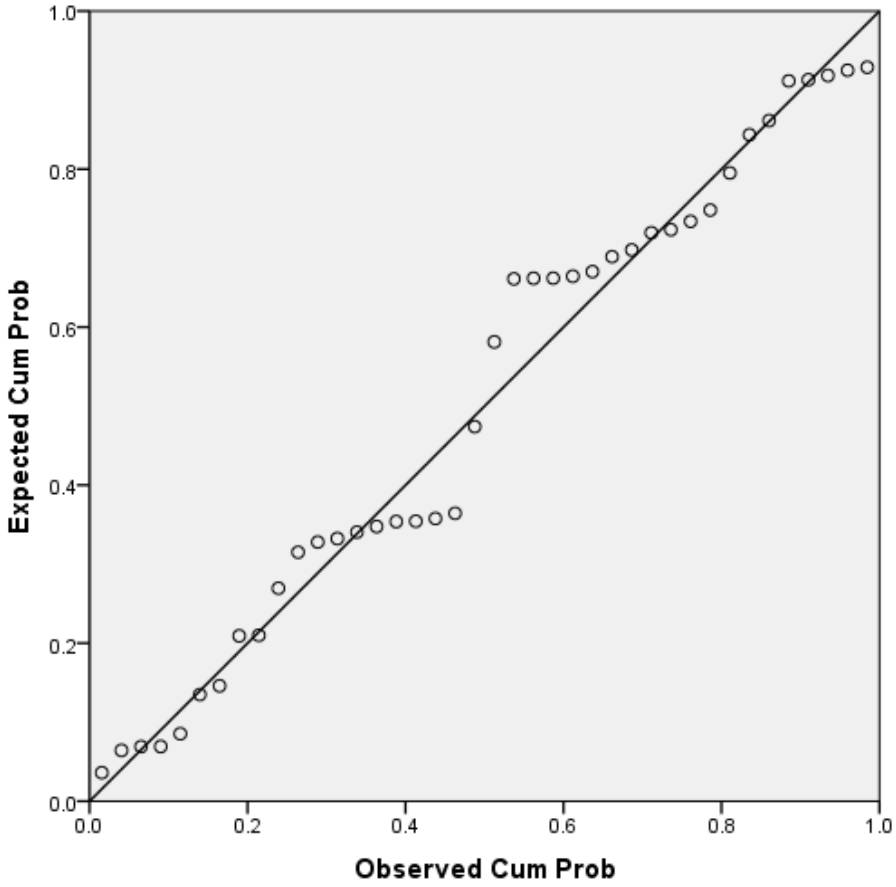

Figure I1. Normal P-P plot of the likelihood to enroll in CES doctoral program for minority students

Appendix J: Table J1 ANOVA Summary of Model for Minority Students and Coefficients of the Model for Minority Students

Table J1

ANOVA Summary of Model for Minority Students

	SS	*df*	*MS*	*F*	*p*
Model	5.63	6	.94	0.73	.63

Table J2

Coefficients of the Model for Minority Students

Variable	B	SE *B*	*B*
Perceived Faculty Support	.00	.01	.01
CACREP-accreditation	.72	.49	.25
Parent or Caregiver Education	.06	.11	.10
Household Income	.02	.07	.06
Gender	-.48	.59	-.15
Age	-.02	.02	-.15

Note: $R^2 = .12$, *ns*

Appendix K: Table K1 Chi Square Analysis for Gender by Race

Table K1

Chi Square Analysis for Gender by Race

Gender	White Students			Minority Students		
	Expected Count	Observed Count	%within Race	Expected Count	Observed Count	%within Race
Male	31	29.9	15.9	5	6.1	13.9
Female	164	165.1	84.1	35	33.9	87.5

Appendix L: Table L1 Chi Square Analysis for Household Income by Race

Table L1

Chi Square Analysis for Household Income by Race

	White Students			Minority Students		
Household Income	Expected Count	Observed Count	%within Race	Expected Count	Observed Count	%within Race
29,999- Less	90.4	87	44.6	18.6	22	55.0
30,000-59,999	49.0	50	25.6	10.0	9	22.5
60,000-89,999	24.1	24	12.3	4.9	5	12.5
90,000-Above	31.5	34	14.5	6.5	4	1.7

Appendix M: Table M1 Chi Square Analysis for Parent or Caregiver Education by Race

Table M1

Chi Square Analysis for Parent or Caregiver Education by Race

		White Students			Minority Students	
Household Income	Expected Count	Observed Count	%within Race	Expected Count	Observed Count	%within Race
High school or less	7.5	8	20	7.5	36	18.5
Some College or Associate's Degree	44.8	44	22.6	9.2	10	25
Bachelor's Degree	53.9	53	27.2	11.1	12	30
Graduate Degree	59.7	62	31.8	12.3	10	25

Appendix N: Table N1 Chi Square Analysis for CACREP Accredited Master's Program (CACREP-Accreditation) by Race

Table N1

Chi Square Analysis for CACREP Accredited Master's Program (CACREP-Accreditation) by Race

	White Students			Minority Students		
CACREP-Accreditation	Expected Count	Observed Count	%within Race	Expected Count	Observed Count	%within Race
Yes	174	171.8	89.2	33	35.2	82.5
No	21	23.2	10.8	7	4.8	17.5