Spring 2015

Exploring the Relationship Between Receipt of Counseling Services and College Students' Academic Success

Catherine Moss
Old Dominion University

EXPLORING THE RELATIONSHIP BETWEEN RECEIPT OF COUNSELING

SERVICES AND COLLEGE STUDENTS' ACADEMIC SUCCESS

by

Catherine Moss
B.S. May 2004, University of Mary Washington
M.S. August 2007, Old Dominion University

A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

EDUCATION

CONCENTRATION: HIGHER EDUCATION

OLD DOMINION UNIVERSITY
May 2015

Approved by:

_____
Alan M. Schwitzer (Chair)

_____
Dana Burnett (Member)

_____
Shana Pribesh (Member)

ABSTRACT

EXPLORING THE RELATIONSHIP BETWEEN RECEIPT OF COUNSELING SERVICES AND COLLEGE STUDENTS' ACADEMIC SUCCESS

Catherine Moss
Old Dominion University, 2015
Chair: Dr. Alan Schwitzer

The purpose of this study was to explore the relationship between receipt of counseling services and college student academic performance as measured by cumulative grade point average (GPA) and degree completion within six-years. Archival data was obtained from the university counseling center records of clients and institutional student records, representing those whose first session of counseling occurred between the academic years 2000-01 through 2007-08. This study was a non-experimental *ex post facto* examination of the data and used regression analyses to test the hypotheses. Gender and the Global Assessment of Functioning (GAF) rating at the intake session were used as control variables. The results revealed that the number of counseling sessions had a significant, positive relationship with GPA and degree completion. Receiving a higher number of counseling sessions predicted higher GPAS and increased the likelihood of graduation. Further, participants who had two or more courses of counseling were significantly more likely to have higher GPAs, but significantly less likely to graduate than participants who had one course of counseling. The results also showed that GAF ratings at the termination of counseling had a significant, positive relationship with GPA; however, GAF score counseling termination was not a significant predictor of degree completion. An examination of the type of treatment received, whether intake session or received treatment beyond the intake,

showed a significant negative relationship with degree completion. Participants who had counseling treatment beyond the intake session were less likely to graduate in comparison to those who had only an intake session. One explanation of this finding is that the severity of a student's issue may have resulted in the need for additional sessions and also negatively impacted degree completion. Lastly, the results showed that participants who completed treatment at the university counseling center were proportionally the most likely to graduate in comparison to those who did not complete their treatment or were referred to other services. This study provided insight into how the counseling experience may have a relationship with college students' academic success in regards to the number of counseling sessions, course of counseling, GAF ratings at counseling termination, type of treatment received, and whether treatment was completed, incomplete, or referred. Implications for practice in higher education and recommendations for future research are discussed.

ACKNOWLEDGEMENTS

I would like to express my gratitude towards the many individuals who provided assistance and support throughout this journey, for which, without them this dissertation would not be possible. First, I am exceedingly grateful to my committee for their extreme patience and guidance throughout this process. I am especially appreciative of my chair, Dr. Alan Schwitzer, for his valuable insight on this project and for sticking with me through the end. In addition, I extend many thanks to Dr. Shanna Pribesh and Dr. Dana Burnett for serving on my committee and providing excellent suggestions and recommendations for improving my paper.

I have learned that the dissertation is a process that impacts not only the writer, but all those around you. I am incredibility thankful for the show of support, concern, and understanding of Sandy Waters, Christine Ricks, and the entire team in Advising and Transfer Programs. I am equally grateful for the caring of my colleagues and friends, including special thanks to Morgan Morrison, Liz Boyd, and Erin Bunton.

In special recognition, I would like to thank my husband, Richard Moss, for the years of personal sacrifices he made to support my academic pursuits and for being my number one fan. I am especially grateful for the moments when my daughter, Sophie, would sneak into my home office for hugs, fueling my perseverance to keep writing. Overall, thank you to all the family, friends, and colleagues for sharing this great adventure with me and celebrating in the success.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Retention is a critical indictor of students' success in college settings (Kern, Fagley, & Miller, 1998) and both retention and academic success are closely related to students' ability to adjust to the complexity of university life (Tinto, 1975). Previous research has shown that poor adjustment to college may negatively impact students' retention (Gerdes & Mallinckrodt, 1994; Pascarella & Terenzini, 1979) and academic success (Mooney, Sherman, & Lo Presto, 1991; Strahan, 2003). Therefore, it is important for higher education institutions to provide student support services to encourage the academic success and retention of students.

In addition, students' adjustment difficulties could be indicators of deeper psychological issues (Skowron, Wester, & Azen, 2004; Rodgers & Tennison, 2009). The relationship between college adjustment and students' mental health suggests the importance of higher education institutions providing support services to assist students with their psychological and adjustment and difficulties. In turn, interventions to help students improve their adjustment to college may positively impact students' academic success and retention.

Previous research highlights the prevalence of depression, anxiety, and related concerns among college students (Nafziger, Couillard, & Smith, 1999; Soet & Sevig, 2006). First-year college students seem particularly vulnerable to mental health issues (Pritchard, Wilson, & Yamnitz, 2007; Sax, Bryant, & Gilmartin, 2004). Although, a large proportion of college students, regardless of their year in school, appear to experience mental health difficulties, few students actually receive treatment (Cranford, Eisenberg,

& Serras, 2008; Rosenthal & Wilson, 2008; Zivin, Eisenberg, Gollust, & Golberstein, 2009). Therefore, on-campus counseling interventions are an important service to help students cope with psychological difficulties and adjustment to college (Boyd et al., 2003; Sharf & Bishop, 1973; Stahan, 2005).

Counseling interventions, especially in the form of short-term counseling, have been shown to be successful in reducing clients' distress and psychological difficulties (Lambert & Cattani-Thompson, 1996; Minami et al., 2009; Nafziger, Couillard, & Smith, 1999; Snell, Mallinckrodt, Hill, & Lambert, 2001; Strassberg, Anchor, Cunningham, & Elkins, 1977; Vonk & Thyer, 1999). In addition, there is evidence to suggest that counseling is effective in: improving students' adjustment to college (DeStefano, Mellott, & Petersen, 2001); increasing students' GPAs (Wlazelek & Coulter, 1999); and increasing the likelihood that students' will be retained (Frank & Kirk, 1975; Illovsky, 1997; Rickinson, 1998; Schwitzer et al., 1993; Wilson, Mason, & Ewing, 1997). However, there are still some discrepancies in the literature. For example, Turner and Berry (2000) found no difference in graduation rates between counseling center clients and the general student population. Also, Wlazelek and Coulter (1999) found that the number of counseling sessions a client attended did not appear to make a difference on GPA improvement.

Significance and Purpose of the Study

University counseling centers help support the mission of the university by providing mental health prevention, treatment, and support services (Boyd et al., 2003; Wilson, Mason, & Ewing 1997). Assessment of counseling services and outcomes is needed to define the role of university counseling centers to the mission of higher

Hypothesis 1: The number of counseling sessions will significantly predict students' academic performance. The more counseling sessions, the greater improvement in participants' GPA, and the more likely they are to obtain a degree.

Question 2: Is there a significant relationship between the number of counseling courses and academic performance?

Hypothesis 2: The number of counseling courses will significantly predict students' academic performance. The more courses of counseling, the greater improvement in participants' GPA and the more likely they are to obtain a degree.

Question 3: Is there a significant relationship between clients' functioning at the conclusion of counseling and academic success?

Hypothesis 3: Clients' functioning at the conclusion of counseling will significantly predict academic performance. The higher level of functioning at the conclusion of counseling, the higher participants' GPA and the more likely they are to obtain a degree.

Question 4: Is there a significant difference between the intake-only and treatment group on the likelihood of graduating within six years?

Hypothesis 4: Participants who received counseling treatment will be more likely to graduate within six years than participants who had only an intake session.

Question 5: Is there a significant relationship between whether or not participants' completed counseling treatment and the likelihood of graduating within six years?

Hypothesis 5: Participants who complete counseling treatment will be more likely to graduate within six years than participants who do not complete counseling

treatment and those who were referred out to other University departments or community services.

Definition of Terms

The independent variables in this study were the number of counseling sessions, courses of counseling, GAF score at termination of counseling, type of treatment received, and treatment completion, which were defined as:

Number of counseling sessions was the total number of recorded counseling sessions attended by the participant, ranging from one to 19 sessions. The first session of counseling was the intake appointment.

Courses of counseling was defined as the total number of times at a different point in his or her college career that a participant sought out counseling services for intake and treatment, ranging from one to five courses of counseling treatment.

Global Assessment of Functioning (GAF) was a subjective rating of the participants' functioning recorded in the clients' counseling center records. Counselors rated clients' overall psychological condition using the Global Assessment of Functioning (GAF) scale at intake and at the conclusion of counseling. In this study, the GAF score at the termination of counseling was used as an independent variable and the GAF score at the intake of counseling was used as a control variable. The range for GAF ratings at intake were 44 to 86, with a mean score of 65.2. The range for GAF ratings at the termination of counseling was 44 to 91, with a mean score of 67.4.

Treatment received was used to identify whether participants had only an intake appointment or if they received counseling treatment beyond the intake. Participants who only had an intake appointment received one session of counseling; whereas, participants

who received treatment beyond the intake appointment experienced at least two or more sessions of counseling. For analysis, the intake only group was coded as zero and the treatment group was coded as one.

Treatment completion was used to define whether or not participants completed treatment or were referred to another University department or community resource. From the counseling center records, participants' treatment was coded as either incomplete (zero), completed (one), or referral (two).

The dependent variables in this study were cumulative grade point average (GPA) and degree completion, which were defined as:

Cumulative GPA used for this study was participants' cumulative GPA the semester counseling services were utilized, which ranged from 0.0 to 4.0 GPA.

Degree completion was defined as whether or not a participant obtained a bachelor's degree within six years of enrolling at the university. The threshold of six years was used for degree completion because it is the marker used by the university's institutional research office to calculate graduation rates. Participants were categorized as either "yes" (coded as 1) for obtaining a degree within six years or "no" (coded as 0) for not completing a degree.

Overview of Method

The design for this study was a non-experimental *ex post facto* examination of existing data representing the records of clients whose first session of counseling occurred between the academic years 2000-01 through 2007-08. Archival data was obtained from the university counseling center records of clients, which included: gender, number of counseling sessions, number of courses of counseling, Global Assessment of

Functioning (GAF) scores at intake and at the conclusion of counseling, and whether treatment was complete, incomplete, or referred. In addition, cumulative grade point average (GPA) and degree completion data were obtained university's Office of Institutional Research and Assessment.

The sample in the study consisted of 1,141 undergraduate college students who received counseling services from the university counseling center, which provides comprehensive mental health services for clients' personal, academic, and career concerns. I performed frequency statistics on gender, ethnicity, credit level, student type, type of counseling services received (intake, treatment), courses of counseling (one, two or more), treatment completion (complete, incomplete, referral) , and degree completion variables to provide exploratory data concerning the participants in the study. Among the participants, 62.1% received counseling treatment beyond the intake appointment; in addition, 52.0% of participants earned a degree within six years. Prior to performing inferential statistics, I cleaned the data, ran descriptive statistics on the continuous variables used in the study, and examined the assumptions for regression analyses.

To test research questions one through four, I used hierarchal regression analyses in order to control for gender and GAF score at the counseling intake sessions, which were entered in the second model. In addition, I used hierarchal multiple regressions when examining predictors of cumulative GPA since GPA was a continuous variable. Since degree completion was dichotomous, I used a hierarchal logistic regression when examining the predictors. The independent variables in my study were the number of counseling session received, courses of counseling (one, two or more), GAF score at the termination of counseling, type of counseling services received (intake, treatment), and

treatment completion (complete, incomplete, referral). The dependent variables were cumulative GPA the semester counseling treatment was received and six-year degree completion.

For research question one, I used a hierarchal multiple regression to examine the relationship between the number of counseling sessions and GPA, and a hierarchal logistic regression to examine the relationship between number of sessions and degree completion. To address research question two, I used a hierarchal multiple regression to explore the courses of counseling with GPA, and logistic hierarchal multiple regression to examine the relationship with degree completion. When exploring relationships with the GAF score at termination for research question three, I used a hierarchal multiple regression with GPA and a hierarchal logistic regression with degree completion. For the fourth research question, I used a hierarchal logistic regression to determine if a relationship existed between the types of counseling treatment received (intake only versus treatment) and degree completion. Lastly, for research question five, I performed a 3 x 2 chi-square test for independence to explore the proportions of participants who completed their degree among those who completed treatment, did not complete treatment, or were referred to other services.

Limitations of the Study

In the present study, archival data was used from one university counseling center for the analyses, which included 1,141 cases. While the sample was comparative to national data in regards to the distribution of gender (e.g. Reetz, Barr, & Krylowicz, 2013) and was evenly represented students from each year in undergraduate study, using data from only one university counseling center narrows the scope of this study. Another

limitation is that the large sample size of this study could have increased the likelihood of finding statistical significance (Tabachnick & Fidell, 2007). In addition, this research sample was limited to college students who received counseling services and did not have a control group or use the general student population for comparison. Further, there may be other characteristics relating to the counseling experience that were not explored in this study that may impact GPA and degree completion, such as participants' issues or reasons for seeking out counseling and whether students sought counseling on their own, due to referral from another office, or because it was mandated.

In addition, while gender and GAF intake ratings were used as covariates in this study, other preexisting characteristics that may impact GPA and degree completion were not included in the model, such as ethnicity and year in school. It was unknown if participants were attending the university full time or part time, which may have affected the time line for completing a degree. Also, for participants who did not complete a degree, it is unknown whether or not they transferred and graduated from another institution.

Another limitation is that it was assumed participants completed treatment within the semester they started counseling. Therefore, the cumulative GPA from the semester the participants had their first appointment at the counseling center was used as the GPA dependent variable. There was no record in the data for when participants attended their last counseling session, so it is possible that counseling treatment may have extended among two semesters for some participants. For those cases, the cumulative GPA from the semester counseling treatment began would not have been the best GPA to use in those cases.

Conclusion

The review of the literature suggests there is a relationship between college students' mental health and academic success. Continuous research to provide evidence of this relationship and in turn, provide evidence confirming the significance of counseling services on college campuses is needed. University counseling centers need to demonstrate the effectiveness of counseling treatment to higher education administrations (Bishop, 1990; Schwitzer, 2002; Stone & Archer, 1990). Assessment of counseling center outcomes will provide evidence for how counseling centers support the mission of higher education by contributing to the academic retention and success of students (DeStefano, Mellott, & Peterson, 2001). The goal of the present study was to expand upon current literature and to provide insight into how the counseling experience at the undergraduate level may impact students' GPA and degree completion. Included in this paper is a review of the literature, a detailed account of research methodology, listing of the results, and a discussion in regards to the major findings, implications for practice, limitations of this study, and suggestions for future research.

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, I aim to review previous research examining the effects counseling may have on college students' academic success and retention. First, I discuss the severity and prevalence of mental health symptoms among college students. Then, I explore the relationship between college student adjustment, mental health, and retention. I also review the functions of a college counseling center and previous research related to how counseling interventions may help reduce students' psychological distress and improve students' adjustment and academic success.

College Student Mental Health

Longitudinal examinations of severity and prevalence of mental health symptoms among college students over the past two decades have shown that student pathology has remained relatively steady (Cornish, Kominars, Riva, McIntosh, & Henderson, 2000; Hoeppner, Hoeppner, & Campbell, 2009; Pledge, Lapan, Heppner, Kivlighan, & Roehlke, 1998; Schwitzer, 2006). For example, findings from an examination of a university counseling center's intake records over a period of 12 years showed that there has been a long-term stability of clients' reported distress and other psychological symptoms (Hoeppner, Hoeppner, & Campbell, 2009). With the prevalence of mental health symptoms among college students remaining constant, it is important for higher education institutions to continue to provide counseling services for students.

Common symptoms experienced by college students include depression, anxiety, and coping difficulties (Grace, 1997). For example, in a three year examination of clients' psychological issues at a university counseling center, the most frequent problems

reported by clients at intake included depression, anxiety, and self-esteem (Nafziger, Couillard, & Smith, 1999). In comparison, a 2006 study by Soet and Sevig revealed that 14.9% of the college student participants reported symptoms of depression, 7.7% experienced anxiety symptoms, 5.7% suffered from symptoms of eating disorders, and 2.1% reported substance abuse. Soet and Sevig (2006) compared these statistics to current national data on college student mental health and found the results comparable. In Strahan's (2005) sample of 253 college students, 22% reported symptoms of social anxiety. In addition, Schwitzer and colleagues (1998) cited the prevalence of eating disorders and body image among female college students.

In particular, students appear to be vulnerable to mental health problems that may develop in their first year of college. Sax, Bryant, and Gilmartin (2004) examined the emotional health of first-year college students in a large nationwide sample. Sax et al.'s results revealed that students' emotional health declined over their first-year in college. These findings are consistent with a later study by Pritchard, Wilson, and Yamnitz (2007) in which students' physiological and psychological health reportedly declined in the freshman year. In addition, Pritchard et al. found that first-year students with low optimism and self-esteem were more likely to have worse physiological and psychological health.

In addition to first-year students, college students at any level of their degree program may suffer from mental health related issues. Zivin, Eisenberg, Gollust, and Golberstein (2009) measured college students' symptoms of mental disorders, self-injury, and suicidal ideation in fall 2005 and again in fall 2007. At both time points, more than half of the students reported at least one mental health symptom. In addition, 60% of

students who reported at least one symptom in the fall 2005 also reported suffering from a symptom two years later. Less than half of those students reported receiving mental health treatment within the two years. Zivin et al. concluded that mental health problems are prevalent and persistent among the college student population, but most students do not receive treatment for their symptoms. In many cases, college students may either be unaware of the counseling resources available on their campus or students are reluctant to utilize the services (Kitzrow, 2009).

Cranford, Eisenberg, and Serras' (2008) had similar findings with regard to the number of students who actually receive treatment for their mental health issues. Cranford et al.'s assessed the prevalence of college students with mental health needs. The results showed that of the 60% who reported suffering from an emotional or mental health problem, only 38% of those students actually received counseling. In addition, Rosenthal and Wilson (2008) reported that more than three fourths of college student in their sample who reported symptoms of distress had not received treatment.

Adjustment to College

In additional to mental health issues, college students may also experience challenges with adjusting to college. Students' ability to adjust to the complexity of university life is closely related to retention and academic success (Tinto, 1975). Four categories of adjustment are identified in previous research: academic, social, personal-emotional, and institutional adjustment (Baker et al., 1985; Baker & Siryk, 1984). Academic adjustment concerns students' ability to adapt to the learning process and academic requirements associated with being a college student. Social adjustment involves students' adaptation to the interpersonal demands of college, such as forming

relationships. Personal-emotional adjustment relates to students' experiences with physical and psychological distress. Institutional adjustment measures students' attachment or goal commitment to a particular institution.

Previous studies have shown a relationship between retention and students' adjustment to college (Gerdes & Mallinckrodt, 1994; Pascarella & Terenzini, 1979). According to Pascarella and Terenzini (1979), social isolation is a significant indictor of college student dropout rates after controlling for the effects of academic performance variables. Additionally, Gerdes and Mallinckrodt's (1994) longitudinal study examined the social and emotional adjustment of freshmen college students in their first semester of college and followed their academic standing for a six-year period. The results showed that social and emotional adjustment predicted whether or not students remained in college as well as or better than academic adjustment. College students were less likely to be retained when they experienced difficulties with social or emotional adjustment in their first semester. Based on the outcome of the study, Gerdes and Mallinckrodt concluded that social and emotional adjustment may be a key factor in predicting college student retention.

In addition, college students' adjustment may be closely related to academic success (Mooney, Sherman, & Lo Presto, 1991; Strahan, 2003). For example, Strahan's (2003) two-year longitudinal study revealed that academic, social, and institutional adjustment predicted students' GPA in the first two years of college. Also, Mooney, Sherman, and Lo Presto (1991) found that beliefs in having personal control over academic outcomes in college and students' self-esteem were positively related to the four dimensions of college adjustment.

Poor adjustment to college may indicate mental health problems among students. In one study, Skowron, Wester, and Azen (2004) examined the relationship between differentiation of self, college-related stress, and personal adjustment. According to Skowron et al., differentiation is related to how well individuals manage their emotions, demonstrate rational reasoning, and exhibit autonomy while also maintaining relationships with others. Individuals who are differentiated tend to have better coping skills for dealing with psychological distress. The results of the study showed that differentiated students were less likely to display college-related stress and more likely have successful personal adjustment. The researchers concluded that their findings demonstrate an association between college-related stress and personal adjustment as regulated by students' ability to manage their emotions and maintain close relationships with others.

In a sample of 426 first-year college students, Rodgers and Tennison (2009) found that a large portion of students claimed to experience symptoms of adjustment disorder. For example, 47% of the students reported experiencing emotional symptoms, such as depression, anxiety, and homesickness. In addition, 26% of students reported difficulties with their academics, such as problems with low grades, workload, motivation, and time management. Rodgers and Tennison concluded that students' stress and difficulties experienced during the first year of college could lead to symptoms of adjustment disorder. The relationship between college adjustment and students' mental health suggests the importance of higher education institutions providing support services to assist students with their psychological and adjustment and difficulties. Research

studies are needed to explore the relationship between counseling interventions, adjustment and college student mental health.

To provide support for college students, counseling interventions help students cope with mental health related issues and their adjustment to college (Stahan, 2005). In a comparison of counseled and non-counseled college students, Sharf and Bishop (1973) found that counseled students had significantly lower social and emotional adjustment than students who had not utilized counseling services. Boyd et al. (2003) found that college counseling center clients had greater severity of well-being, psychological symptoms, life functioning, and global mental health than the general student population. The results of Sharf and Bishop's study and Boyd et al.'s study demonstrate that mental health counseling provided by a higher education institution can be beneficial for college students.

Counseling Services

The function of counseling centers is to support the mission of the university by providing mental health prevention, treatment, and support services (Boyd et al., 2003; Wilson, Mason, & Ewing 1997). University counseling centers support the mission of higher education by providing individual and group counseling, crisis intervention, outreach programs, consultation and referrals, training, teaching in academic programs, and conducting research and program evaluation (Boyd et al., 2003; Sharkin, 2004). O'Keefee (2013) states that college counseling centers serve a valuable purpose by treating mental health issues that place students at risk for attrition and allowing students to develop a sense of belonging with the institution. Counseling centers provide students

with effective decision-making and problem solving skills, which should help improve students' academic performance (Wilson, Mason, & Ewing 1997).

Students may seek out counseling for a variety of mental health or academic issues. For some college students, concerns about career could be related to mental health issues (Glickauf-Hughes & Campbell, 1991; Hinkelman & Luzzo, 2007). For example, Pace and Quinn (2000) found that an overlap exists between mental health counseling and career counseling in some cases. In Pace and Quinn's study, 20% of clients who originally sought out counseling for mental health related issues also received career counseling. In turn, 11% of those who sought out counseling for career issues also received mental health counseling. In addition, Lucas and Berkel (2005) found a positive relationship between vocational difficulties and psychological distress, especially among white college students.

The primary role of university counseling centers is to aid students experiencing personal issues that hinder their academic success with counseling interventions (Sharkin, 2004). Assessment of counseling services and outcomes is needed to define the role of university counseling centers to the mission of higher education institutions (DeStefano, Mellott, & Peterson, 2001). It is important for counselors to demonstrate that their services improve academic performance and retention in college in order to provide evidence that university counseling centers help facilitate the goals of institutions of higher education (Illovsky, 1997). After a review of the literature related to counseling and college student retention, Sharkin (2004) concluded that academic and psychological counseling can positively impact the retention of students.

Effectiveness of Counseling

Previous research supports the notion that counseling treatment helps improve functioning and in addition, demonstrates a relationship between the number of sessions and the effectiveness of counseling interventions. In a comprehensive literature review of counseling research, Lambert and Cattani-Thompson (1996) concluded that counseling is effective for improving mental health in comparison to not receiving therapy services. In addition, Lambert and Cattani-Thompson concluded that short-term counseling for about five to 10 sessions is effective for at least 50% of clients.

The effectiveness of counseling on reducing clients' psychological distress has been demonstrated within university counseling centers. For example, Nafziger, Couillard, and Smith (1999) examined college counseling clients' college adjustment and psychological, social, and academic problems before therapy and after completing six sessions of therapy. Nafziger et al. found that clients' psychological, social, and academic problems significantly decreased after receiving six sessions of counseling. The results of Vonk and Thyer's (1999) study showed that short-term counseling was effective in decreasing the psychological symptoms of clients at a university counseling center. In a recent study, Minami et al. (2009) examined a university counseling center's archival data from 1999 to 2007 and found that counseling services was effective in reducing clients' psychology distress.

Snell, Mallinckrodt, Hill, and Lambert (2001) examined college students' change in symptom severity and overall functioning 10 months after receiving mental health services from a university counseling center. Snell et al. found that a large proportion of clients' mental health had improved. In addition, Snell et al. examined the impact of the

number of counseling sessions on improvement rates and found that clients showed improvement after receiving only a few therapy sessions. Rates of improvement in functioning leveled off for those who received four to seven sessions and then rates increased again with seven to 10 sessions. For those who received 12 or more sessions, the rate of improvement leveled off again. Snell et al.'s study indicates that there is a positive relationship between the number of counseling sessions and improvement in functioning, with students who attend either a few sessions or seven to 10 sessions gaining the most proportional improvement. Snell et al.'s results regarding the number of counseling sessions is similar to an earlier study by Strassberg, Anchor, Cunningham, and Elkins (1977). Strassberg et al. found that as the number of counseling sessions increased, the more clients' mental health improved. However, receiving 20 or more sessions was not associated with an increase in improvement.

While previous research supports a positive relationship between the number of counseling sessions and the effectiveness of counseling interventions, these studies did not further explore the relationship between the number of counseling sessions and how college students performed academically. To expand upon previous research examining the number of counselling sessions, the present study explored whether a relationship existed between the number of counseling sessions participants received and their academic success, as measured by their GPA and degree obtainment.

Counseling Services and Adjustment

Counseling services may provide students with help related to their adjustment and academic needs. In a comparison of counseled and non-counseled students, DeStefano, Mellott, and Petersen's (2001) findings revealed that students who utilized

the university counseling center had significantly lower adjustment to college than students who did not seek out counseling services. These students appeared to be experiencing difficulty coping with the demands of college in regards to academic, social, and personal-emotional adjustment. This finding indicates that adjustment issues may be an important reason why some students seek out the services of university counseling centers.

In addition, DeStefano, Mellott, and Petersen (2001) compared students' adjustment scores before and after counseling. The results showed that students' adjustment to college significantly increased after receiving counseling services. DeStefano et al. concluded that counseling services may have a positive impact on students' academic, social, and personal-emotional adjustment. Based on the results of their study, DeStefano et al. (2001) suggested that the services offered by university counseling centers provide a valuable intervention for students experiencing challenges with adjusting to college.

Martin, Swartz-Kulstad, and Madson (1999) examined the relationship between adjustment and psychosocial factors among first-year college students. The findings showed that 44% of students reported difficulties with adjusting to college in the first semester negatively impacted their academic performance. In addition, Martin et al. (1999) demonstrated that successful predictors of college adjustment included academic self-confidence, faculty and peer support, and positive attitudes toward the university. Martin et al. concluded that counseling can help improve students' success in college by helping students develop vital academic and social skills. With previous research indicating that counseling may help improve students' adjustment to college, there is a

need to further explore the relationship between counseling and academic success and retention of college students.

Counseling and Academic Success

There is ample evidence to suggest that psychological problems may impact college students' academic success and retention. For example, Brackney and Karabenick (1995) found that students with higher psychological distress tended to exhibit higher test anxiety, lower academic self-efficacy, and less effective academic skills, such as time management and learning strategies. Bray, Braxton, and Sullivan (1999) studied the relationship between stress and retention among first-year college students and found that students with better coping strategies were more likely to express their intent to reenroll at the university. In addition, Svanum and Zody's (2001) study revealed that students with substance abuse disorders were more likely to have lower GPAs. Also, Turner and Berry (2000) found that about 70% of counseling center clients reported that their academic performance was negatively affected by their personal problems and an average of 19% were considering withdrawing from the university at the time of their intake session. With previous research indicating that college students' mental health may impact their academic success, in the present study, I aimed to further analyze the relationship between utilizing counseling services and students' academic performance.

In self-reported measures, there is evidence to suggest that students find counseling interventions helpful for improving their academic success in college (Turner & Berry, 2000; Rickinson, 1998). For example, Turner and Berry (2000) found, on average, about 61% of counseling center clients reported that counseling was beneficial for improving academic performance and almost half reported that counseling helped

them decide to continue enrollment at the university. Additionally, Rickinson (1998) asked 43 first-year students who were identified as at-risk and received counseling services about their experiences before and after counseling. In the self-report measure, 95% of the students reported that their academic performance was negatively affected by the distress they were experiencing prior to seeking out counseling services and 91% reported that counseling helped improve their academic performance. With evidence to suggest that students perceive counseling as beneficial, counseling services may be an important campus resource to address and help improve students' academic performance and retention in college. For the present study, I sought to analyze objective measures of grade point average and six-year degree completion to determine if there is a relationship between counseling and academic success.

Retention and GPA

Several studies have explored the relationship between counseling interventions on students' and college retention with mixed results. Some research supports the success of counseling interventions on improving retention and graduation. For example, an early study by Frank and Kirk (1975) compared counseled and non-counseled students in regards to graduation rates. According to their study, counseled students had a 10% increase in graduation rates in relation to non-counseled students. In another study comparing counseled and non-counseled students by Lee et al. (2009), there was no difference in GPA between counseled and non-counseled students. In addition, Schwitzer et al. (1993) examined the effect of counseling on at-risk college students' academic success using a sample of sophomore students who earned a freshman GPA below 2.3 and received financial aid. These students were mandated to attend one counseling

session to explore their academic and personal concerns. The results of Schwitzer et al.'s study revealed that students' who voluntarily sought out counseling after the mandated counseling session were less likely to have improved GPAs but more likely to graduate.

In another study, Illovsky (1997) compared the retention rates of students who received counseling with those in the general college student population. Retention rates were measured at the beginning of the semester the student received counseling and at end of the next semester following counseling. Illovsky's findings revealed that 75% of counseled students were retained, whereas 68% of students in the general population were retained. While the results showed that counseling positively impacted semester retention, Illovsky did not examine graduation rates.

Further, Rickinson (1998) examined the relationship between counseling and degree completion among 43 at-risk freshmen who agreed to receive services from the university counseling center. These students were provided with an initial counseling session to explore issues related to adjustment, a group workshop to provide students with success skills, and a follow-up counseling session to review students' progress and to determine if additional counseling is needed. The results showed that at-risk students experiencing difficulty in academic and social adjustment. In addition, all 43 students who had utilized counseling services all had successful degree completion.

In comparison to earlier studies that showed a positive relationship between counseling and retention (Frank & Kirk, 1975; Illovsky, 1997; Rickinson, 1998; Schwitzer et al., 1993), Turner and Berry's (2000) research found varying results. Turner and Berry (2000) compared counseled students with the general student population over a six year period from 1991 to 1996 to determine how counseling services affects student

retention and graduation rates. An analysis of the retention rates revealed that 70.9% of counseling clients reenrolled in the following fall semester in comparison to 58.6% of the general student population. However, there were no significant differences between counseling center clients and the general student population in regards to graduation rates. With the relationship between counseling and graduation unclear in the research, I aimed to use degree completion within six years as a dependent variable for the present study. Additionally, most of the prior research focused on the relationship between counseling interventions and retention and gradation, rather than GPA. Like Schwitzer et al.'s (1993) study, I also examined the relationship between counseling and students' GPA after the conclusion of counseling treatment.

Number of Counseling Sessions

Previous research examining the relationship between the number of counseling sessions students receive and their academic success shows varying results. For example, Wlazelek and Coulter (1999) utilized a sample of college students in academic jeopardy to examine the impact of academic counseling and the number of sessions of counseling on GPA. These students were directed to the university counseling center for academic counseling. Several groups emerged based on the students' utilization of counseling services: students who did not seek out counseling as directed, students who had one academic counseling session, and students who had more than one academic counseling session. Wlazelek and Coulter calculated the difference between students' cumulative GPA when they were placed on academic jeopardy and their GPA at the end of the subsequent semester to measure the change in GPA before and after counseling. Overall, Wlazelek and Coulter's study showed that counseling was significantly related to

improving academic performance; however, the number of counseling sessions did not appear to make a difference on GPA improvement. Students in academic jeopardy who attended academic counseling sessions demonstrated significantly greater improvement in GPA than non-counseled students, regardless of whether students attended one or more than one session counseling.

Similar to Wlazelek and Coulter's (1999) study, for the present study, I examined the relationship between cumulative GPA and counseling variables, such as the number of sessions. However, whereas Wlazelek and Coulter focused on academic counseling, the present study examined the relationship of mental health counseling services and academic success. Additionally, unlike previous studies that supported the positive relationship between number of counseling sessions and the effectiveness of counseling (e.g. Lamber & Cattani-Thompson, 1996; Snell et al., 2001; Strassberg et al., 1977), Wlazelek and Coulter's (1999) research did not find a relationship with the number of counseling sessions and GPA improvement. Due to the inconsistencies in the research regarding the number of counseling sessions, for the present study, I further examined whether a relationship existed between the number of counseling sessions and GPA.

Another study by Wilson, Mason, and Ewing (1997) examined whether the number of counseling sessions impacted retention. Wilson et al. focused on students who received counseling for psychotherapy, rather than for academic issues. Students were grouped according to the amount of counseling sessions received: 1-7 sessions, 8-12 sessions, and 13 or more sessions. The researchers divided these groups to represent the average number of sessions (1-7), the number of sessions their center is considering as a cut-off for treatment (8-12), and the group using a disproportionate number of sessions

for treatment (13 or more). The fourth comparison group for this study included students who requested counseling services, but had not received any. Retention was measured as whether or not students had graduated or were still enrolled at the university two years following counseling. The retention rates for the four groups after two years were: 83% who had 1-7 sessions, 79% who had 8-12 sessions, 79% who had 13 or more sessions, and 65% of students who did not receive counseling. Wilson et al. concluded that students who received counseling services were more likely to be retained than those who did not receive counseling, with counseling students having a 14% retention advantage. However, additional counseling sessions beyond six did not appear to have an impact on increasing retention. Thus, Wilson et al. concluded that the retention gains from counseling seem to occur after only a few counseling sessions. Because the relationship between the number of counseling sessions and academic success is inconclusive, for the present study, I examined the number of counseling sessions as a continuous variable. In addition, I also examined the differences between those who attended the intake session only and those who received counseling beyond the intake appointment.

Gender and Academic Success

Recent trends in higher education have shown a gender difference in enrollment in college and degree attainment (Buchmann, DiPrete, McDaniel, 2008). Historically, males were more likely to earn bachelor degrees; however, the number of females both enrolling in college and earning degrees has continued to rise. According to 2012 national data, 61% of females earned a degree within six years compared to 56% of males among those students who enrolled in universities in 2006 as first-time, full-time students (U.S. Department of Education, 2014). In addition, the gender gap in degree completion is

prevalent across racial backgrounds, with females consistently earning a higher percentage of degrees than males (Buchmann & DiPrete, 2006). Dwyer, Hodson, and McCloud (2013) cite possible reasons for the gender discrepancy, such as the salary differences among gender is greater for those without a college degree and that traditional female-stereotyped occupations, like teaching, require a bachelor degree. Because recent trends show a gender gap related to graduation from college, for the present study, I controlled for gender when testing the hypotheses.

Conclusion

The review of the literature illustrates the connection between college students' mental health and academic success. University counseling centers help support the mission of the university by providing mental health prevention, treatment, and support services (Boyd et al., 2003; Wilson, Mason, & Ewing 1997). With the high demand for counseling services on a college campus, it is important to determine the most effective number of therapy sessions needed to help alleviate clients' symptoms. University counseling centers need to demonstrate the effectiveness of counseling treatment to higher education administrations (Bishop, 1990; Schwitzer, 2002; Stone & Archer, 1990). Therefore, research and assessment of counseling center practices and outcomes is important to highlight the ways in which counseling centers support the mission of higher education by contributing to the academic retention and success of students (DeStefano, Mellott, & Peterson, 2001). Providing further evidence that counseling services positively impacts students' academic performance and retention in college will showcase how university counseling centers facilitate the goals of institutions of higher education (Illovsky, 1997).

The ways in which counseling interventions may help improve retention and academic success is still unclear and warrants further investigation. In this study, I aimed to expand upon previous research in this area with regard to students' GPAs and degree completion. When exploring the relationship between counseling interventions and academic success, previous research has focused on comparing counseled versus non-counseled populations (e.g. Frank & Kirk, 1975; Illovsky,1997). However, for this study, I focused on specific variations within the counseling treatment, which included the total number of sessions received, participants' Global Assessment of Functioning (GAF) score at the termination of counseling, whether or not participants attend only the intake session or further treatment sessions, and whether or not participants received one or two or more courses of counseling. I controlled for participants' gender and GAF score at the intake of counseling. In addition, I examined the proportion of degree completion within six-years among those who completed counseling treatment, those who did not complete treatment, and those who were referred to other services. The goal of this study was to explore the effect of counseling services on college student academic performance and expand upon similar research related to the effectiveness of counseling interventions.

CHAPTER III

METHOD

For the present study, I utilized archival data from a university counseling center's records and institutional student data to examine the effect of counseling services participation on college students' academic performance. In this chapter, I have described the setting and data collection for this study, identified the research questions and hypotheses, defined the participants and measures, and conducted the preliminary analyses.

Setting

The setting for this study is the Office of Counseling Services at a large southeastern university. The counseling center is located in a central building on the campus, along with other student services, including: health center, advising/major exploration, career services, student conduct, ombudsperson services, student activities, and cafeteria/dining options. Within the building, the counseling center is privately located in a far corner on the first floor. The Office of Counseling Services provides comprehensive mental health services related to clients' personal, academic, and career concerns in the form of individual, couple, and group counseling. Prior to beginning counseling, an intake appointment is required to complete paperwork and meet with a counselor to discuss the need of services. Following the intake, an initial session is scheduled. The initial session is a 50 minute interview to determine clients' concerns and the type of service needed to resolve clients' issues. If more sessions are needed, the counseling center will provide short-term services for 10 sessions or less. In some cases, clients may be referred to local community resources for subsequent treatment.

Data Collection

Data were collected from the university counseling center's records from August 2007 to December 2008 by a graduate student employed in the counseling center as a Clinical Associate. The data were stored in a secure location within the university counseling center. The data represented the records of clients whose first session of counseling occurred between the academic years 2000-01 through 2007-08. From the counseling center data, I used the following variables for analyses: gender, number of counseling sessions, courses of counseling, type of treatment received (in-take only or counseling treatment), whether or not treatment was completed, and Global Assessment of Functioning (GAF) scores at intake and at the conclusion of counseling.

The Office of Institutional Research provided data regarding participants' academic performance, which included cumulative grade point averages (GPA) per semester and degree completion. I matched the data from the two sources based on participants' university identification number and then merged into one dataset. Following the merging of data, I deleted the university identification number of participants and assigned each case with a code number.

Research Design

The design I used for this study is a non-experimental *ex post facto* examination of existing data at a large southeastern university. Among the data collected, two groups emerged that experienced different degrees of counseling: those who received only an intake appointment (37.9%) and those who received additional counseling treatment beyond the intake session (62.1%). Additionally, participants varied according to whether or not counseling treatment was completed, with 24.3% completing treatment, 48.5%

with incomplete treatment, and 27.1% who were referred to other services. I developed research questions four and five to assess whether differences in the number of participants who graduated within six years existed between these groups.

To test the hypotheses, I used hierarchal regression analyses with two models. In the first model, I entered the primary predictor variable of interest for the research question. For the second model, I added the control variables of gender and GAF score at counseling intake. Gender was dummy coded as zero for female and one for male. To explore the relationship between predictor variables and cumulative GPA, I used multiple regression analyses because the dependent variable of cumulative GPA was continuous. When examining the relationship between predictors and degree completion, I used logistic regression analyses because the dependent variable of degree completion is dichotomous. Degree completion was dummy coded as zero for did not complete and 1 for completed degree within six-years.

Research Questions and Hypotheses

In this study, I examined the effect of mental health counseling on undergraduate students' academic success in college. The following research questions were considered to achieve this goal:

Question 1: Is there a significant relationship between the number of counseling sessions and academic performance?

Question 2: Is there a significant relationship between the number of courses of counseling and academic performance?

Question 3: Is there a significant relationship between clients' improvement in functioning at the conclusion of counseling and academic success?

Question 4: Is there a significant difference between the intake-only and treatment group on the likelihood of graduating within six years?

Question 5: Is there a significant relationship between whether or not participants' completed counseling treatment and the likelihood of graduating within six years?

The following hypotheses correspond with the research questions respectively:

Hypothesis 1: The number of counseling sessions will significantly predict students' academic performance. The more counseling sessions, the greater improvement in participants' GPA, and the more likely they are to obtain a degree.

Hypothesis 2: The number of counseling courses will significantly predict students' academic performance. The more courses of counseling, the greater improvement in participants' GPA and the more likely they are to obtain a degree.

Hypothesis 3: Clients' functioning at the conclusion of counseling will significantly predict academic performance. The higher rating functioning at the conclusion of counseling, the higher participants' GPA and the more likely they are to obtain a degree.

Hypothesis 4: Participants who received counseling treatment will be more likely to graduate within six years than participants who had only an intake session.

Hypothesis 5: Participants who complete counseling treatment will be more likely to graduate within six years than participants who do not complete counseling treatment and those who were referred out to other University departments or community services.

Participants

The sample for this study consisted of 1,141 (794 females and 347 males) undergraduate students who received counseling services either during an intake appointment or follow-up sessions from the university counseling center at a large southeastern university. All participants received their first session of counseling between the academic years 2000-01 through 2007-08. Refer to Table 1 for the demographic distributions of participants. Among the participants, 62.1% received counseling treatment beyond the intake appointment. The majority of participants (71.3%) enrolled in the University as freshman, whereas 28.7% entered the University as transfer students. Among the participants, 52.0% completed a degree within six years.

The proportion of females (69.6%) and males (30.4%) in this sample is comparable to the service utilization by gender found in the 2013 annual survey of college counseling center directors in which 65.3% females and 33.5% males on average utilized the services of college counseling centers (Reetz, Barr, & Krylowicz, 2013). In comparison with this national survey data, the sample from this study had more African American students and fewer Caucasian students who utilized counseling services. In the national data reported by counseling center directors, on average 10.3% of the students served by centers were African American and 66.7% were Caucasian. For this study, the sample had 27.7% African Americans and 58.7% Caucasian, which was reflective of the institutional demographics in which about 23% of the student population is African American and 54% is Caucasian (Institutional Research, 2015). Additionally, this sample was evenly distributed among the percentage of freshman (28.7%), sophomore (25.6%), junior (25.6%), and senior (20.1%) level undergraduate students.

Table 1

Demographic Characteristics of Participants (N = 1,141)

Characteristic	*n*	%
Gender		
Female	794	69.6
Male	347	30.4
Ethnicity		
African American	309	27.2
Asian American	50	4.2
Caucasian	668	58.7
International Student	17	1.5
Latina/Latino	57	5.0
Multiracial	24	2.1
Native American	1	0.1
Other	12	1.1
Credit level at time of intake		
Freshman (0-26 credits)	323	28.7
Sophomore (27-58 credits)	288	25.6
Junior (59-90 credits)	288	25.6
Senior (91-120 credits)	226	20.1

Table 1 Continued

Demographic Characteristics of Participants (N = 1,141)

Characteristic	*n*	%
Student Type		
Freshman	814	71.3
Transfer	327	28.7
Counseling Services Received		
Intake Only	431	37.9
Counseling Treatment	706	62.1
Courses of Counseling		
One Course	777	68.3
Two or more courses	361	31.7
Treatment Completion		
Complete	269	24.3
Incomplete	536	48.5
Referral	300	27.1
Degree Completion		
Yes	593	52.0
No	548	48.0

Note. Totals of percentages are not 100 for every characteristic because of rounding.

Ethical Protection of Participants

The data were collected confidentially by a graduate student in the Counseling Center and was stored in a secure location at the university. Data were only collected from the records of participants who agreed to sign an informed consent form upon their visit to the counseling center. The informed consent form indicated that counseling center records may be used for evaluation and research purposes. To ensure anonymity, I assigned each individual record from the counseling center a code number. After the GPA and degree obtainment data were merged to create the final dataset, I deleted any sensitive identifying information, including participants' counseling center record number and university identification number. This study was approved by the College of Education Human Subjects Review Committee (see Appendix A) and a follow-up email was sent by the lead investigator to confirm approval of the research (see Appendix B). All ethical guidelines established by the committee were maintained.

Measures

To address the research questions, I used the following variables for statistical analyses: cumulative GPA, degree completion, number of counseling sessions, courses of counseling, Global Assessment of Functioning (GAF), type of treatment received, and level of treatment completion. The continuous variables were cumulative GPA, the number of counseling sessions, and GAF scores. The remaining variables were categorical.

The independent variables in this study were the number of counseling sessions, courses of counseling, GAF score at termination of counseling, type of treatment received, and treatment completion, which were defined as:

Number of counseling sessions was the total number of recorded counseling sessions attended by the participant, ranging from one to 19 sessions. The first session of counseling was the intake appointment.

Courses of counseling was defined as the total number of times at a different time point in his or her college career that a participant sought out counseling services for intake and treatment, ranging from one to five courses of counseling treatment.

Global Assessment of Functioning (GAF) was a subjective rating of the participants' functioning recorded in the clients' counseling center records. Counselors rated clients' overall psychological condition using the Global Assessment of Functioning (GAF) scale at intake and at the conclusion of counseling. In this study, the GAF score at the termination of counseling was used as an independent variable and the GAF score at the intake of counseling was used as a control variable.

A GAF score is a subjective rating used by mental health counselors to measure the adaptive functioning of clients on a scale of 0 through 100, with higher numbers representing better overall functioning of the client (American Psychiatric Association, 2000). The score is based on the client's symptom severity and functional impairment related to psychological, social, and occupational functioning. Clients with GAF scores of 81 to 90 are considered to have good psychological functioning and minimal symptoms; whereas, those with scores 91 and above represent superior functioning and no symptoms.

In previous research, the GAF scale has been demonstrated to maintain good concurrent validity and interrater reliability (Bacon, Collins, & Plake, 2002; Startup, Jackson, & Bendix, 2002). For example, when comparing participants' GAF score with

the ratings for symptoms and social behavior, Startup et al. (2002) found that the variables were significantly correlated when measured at follow-up assessments for patients with schizophrenia. In addition, Bacon, Collins, and Plake (2002) examined clinicians' reasons for their GAF ratings and found kappa statistics of .65, .70, and .69. Bacon et al. (2002) concluded that there was good interrater reliability and stated that clinicians "consider both symptom severity and functional impairment when making their ratings" (p. 209). In a study by Piersma and Boes (1997), GAF ratings of clients admitted for psychiatric treatment were higher at discharge than at intake, indicating clients' improvement in functioning after receiving treatment. In the present study, GAF at intake was used as a control variable to account for the expected increase in GAF scores at the termination of counseling. The range for GAF ratings at intake were 44 to 86, with a mean score of 65.2. The range for GAF ratings at the termination of counseling was 44 to 91, with a mean score of 67.4.

Treatment received was used to identify whether participants had only an intake appointment or if they received counseling treatment beyond the intake. Participants who only had an intake appointment received one session of counseling; whereas, participants who received treatment beyond the intake appointment experienced at least two or more sessions of counseling. For analysis, the intake only group was coded as zero and the treatment group was coded as one.

Treatment completion was used to define whether or not participants completed treatment or were referred to another University department or community resource. From the counseling center records, participants' treatment was coded as incomplete (zero), completed (one), or referral (two).

The dependent variables in this study were cumulative grade point average (GPA) and degree completion, which were defined as:

Cumulative GPA used for this study was participants' cumulative GPA the semester counseling services were utilized, which ranged from 0.0 to 4.0 GPA.

Degree completion was defined as whether or not a participant obtained a bachelor's degree within six years of enrolling at the university. The threshold of six years was used for degree completion because it is the marker used by the university's institutional research office to calculate graduation rates. Participants were categorized as either "yes" (coded as 1) for obtaining a degree within six years or "no" (coded as 0) for not completing a degree.

Preliminary Analyses and Assumptions

To provide exploratory data concerning students who utilized counseling services, I performed frequencies on gender, ethnicity, credit level, student type, type of treatment received, and degree completion. I conducted descriptive statistics for the continuous variables, including: number of counseling sessions, cumulative GPA, and GAF scores at intake and termination of counseling. Using the descriptive statistics of these variables, I checked for skewness and kurtosis. Prior to conducting inferential statistics, I addressed the limitations and assumptions for analyses, which are discussed later in this section. In my preliminary review of the data, I ran frequencies on the initial sample size of 1,141 participants. Of the 1,141 participants, 814 (71.3%) were admitted to the University as a freshman and 327 (28.7%) were admitted as a Transfer student.

The categorical variables included in data analyses were gender, courses of counseling, treatment received, treatment completion, and graduation within six years. I

ran frequencies on the number of courses of counseling, which showed that only 27 cases had more than two counseling courses. Of those 27 cases, 24 participants had three courses of counseling, two had four courses, and one had five courses. In addition, 190 cases were recorded as re-entry by the counseling center without specifying the actual number of counseling courses. Thus, a participant coded as re-entry could have two or more courses of counseling. As a result, I recoded the courses of counseling variable into two groups: one course of counseling and two or more courses. The majority of participants (68.3%) had one course of counseling; whereas, 31.7% of participants had two or more courses of counseling.

Prior to performing inferential statistics and testing the hypotheses, I addressed the assumptions for regression analyses, which included: the ratio of cases to the independent variables; absence of outliers; absence of multicolinearity; the normality, linearity, and homoscedasticity of residuals; the independence of errors (Tabachnick & Fidell, 2007).

Ratio of Cases

One assumption of regression analysis is that there is a satisfactory number of cases relative to the independent variables in the study. Tabachnick and Fidell (2007) suggest a ratio of 40 cases to each predictor variable. I examined the 1,141 cases in this study in comparison to the six independent variables, or total predictors used for analyses. There are about 190 cases per independent variable in this study, so I concluded that the assumption of the ratio of cases was met.

Absence of Multicollinearity

To check for the absence of multicollinearity, I ran Pearson's r correlations on all independent variables and used the r value of 0.9 as the threshold to determine if two variables were highly correlated (Tabachnick & Fidell, 2007). As shown in Table 2, the independent variables were not highly correlated and had correlations less than .09. Thus, I concluded there was an absence of multicollinearity among the independent variables.

Table 2

Correlations of Independent Variables

Variable	1	2	3	4	5	6
1. Gender	-					
2. Courses of Counseling	-.02	-				
3. Counseling Sessions	-.03	.02	-			
4. Treatment Received	-.05	.00	.59***	-		
5. GAF at Intake	.03	.01	.09**	.04	-	
6. GAF at Termination	.01	-.02	.35***	.26***	.78***	-

**$p < .01$. ***$p < .001$.

Although I concluded an absence of multicollinearity, there was a significant positive correlation between GAF at intake and GAF at termination, $r(1071) = .78$, p < .001. Because GAF and intake and termination were moderately correlated with a .78 r value, I decided to further explore these two variables to ensure they were different. GAF

score at the termination of counseling is used as a predictor and GAF at intake is used as a control variable in the third research question of this study. To determine if there was a significant difference between the intake and termination GAF scores, I performed a dependent samples t-test. The result of the dependent samples t-test revealed that there was a significant difference between the GAF score at intake and the GAF score at the termination of counseling, $t(1071) = -15.49$, $p < .001$, CIs = -2.43 to -1.89. GAF scores at the termination of counseling ($M = 67.38$, $SD = 7.25$) were significantly higher than the GAF scores at counseling intake ($M = 65.22$, $SD = 6.14$). Therefore, I concluded that GAF at the intake session versus GAF at the termination of counseling were two unique variables and warranted including in the study.

Absence of Outliers

To identify outliers, I calculated z-scores for the continuous variables. I considered scores greater than or equal to the absolute value of 3.29 as outliers (Tabachnick & Fidell, 2007). There were no outliers present for the cumulative GPA the semester counseling services were received. Outliers represented less than 1% of the cases for GAF score at intake, GAF score at termination of counseling, and the number of counseling sessions. The GAF scores at intake and termination of counseling included four outliers for each variable. The z-scores for the number of counseling sessions showed that there were 11 outliers, representing between 15 and 19 sessions. After a review of the outliers, it appeared that these cases were valid. Because the regression analyses are sensitive to outliers, these values were changed to one unit higher or lower than the next most extreme score in order to make the score less deviant (Tabachnick &

Fidell, 2007). For the number of counseling sessions, I recoded the 11 outliers to represent 15 or more counseling sessions.

Normality, Linearity, and Homoscedasticity of Residuals

I performed descriptive statistics on the continuous variables to check for normality of the distribution (see Table 3). Skewness and kurtosis statistics equaling the absolute value of two or greater were considered violating the assumption of normal distribution (Tabachnick & Fidell, 2007). The continuous variables examined included GAF at intake, GAF at termination of counseling, cumulative GPA the semester of counseling, and the number of counseling sessions.

Table 3

Descriptive Statistics for Continuous Variables

Characteristic	*M*	*SD*	*Skewness*	*Kurtosis*
GAF at Intake	65.25	6.14	-.21	.86
GAF at Termination	67.41	7.23	.13	.75
Cumulative GPA Semester of Counseling	2.50	.97	-1.07	.86
Counseling Sessions	3.44	3.21	1.53	1.64

While none of the variables were above the threshold for determining skewness and kurtosis, the number of counseling sessions did appear to be slightly positively skewed and kurtotic. Further analysis using the Shapiro-Wilk statistic to test normality for the number of counseling sessions was significant. I examined the histogram for the

number of counseling sessions, which showed that there were a larger position of sessions ranging between one and three. Therefore, in this study, I had two research questions related to the number of sessions. In research question one, I used the number of sessions as a continuous variable. In research question four, I compared two groups: those who had the intake session only (one session) and those who had counseling treatment (two or more sessions).

For the multiple regression analyses, I examined the residual statistics to check for the assumptions of linearity and homoscedasticity for the regression. I reviewed the scatterplot of residuals against the predicted values of the dependent variable, cumulative GPA the semester of counseling treatment. I used the examples of residual plots provided by Tabachnick and Fidell (2007) to compare the scatterplots for this study and concluded that there was a linear relationship and homoscedasticity between the independent and dependent variables.

Independence of Errors

To test the assumption of the independence of errors, I examined the Durbin-Watson statistics for the analyses (Tabachnick & Fidell, 2007). I used a Durbin-Watson statistic of two as the threshold for determining independence of errors. For this study, the Durbin-Watson statistics ranged from 1.19 to 1.22, which indicated the possibility of the increase of Type I error.

<div align="center">

Description of Analyses

</div>

I used SPSS statistical software to analyze the data. Using inferential statistics, I tested the research questions and hypotheses for this study. I used an alpha significance level of .05 for all analyses. In addition, I used gender and the GAF Score at intake as

control variables for research questions one through four. Refer to the Appendix for a summary list of independent and dependent variables and statistical analyses used to examine the research questions.

For the first research question, I performed a hierarchical multiple regression to determine if there was a significant relationship between the number of counseling sessions and cumulative GPA, using gender and GAF-intake score as covariates. The independent variable was the number of counseling sessions and the dependent variable was cumulative GPA. I also performed a standard logistic regression to determine if there was a significant relationship between the number of counseling sessions and degree completion. The independent variable was the number of counseling sessions and the dependent variable was degree completion.

To address the second research question, I performed a hierarchical multiple regression to determine if there was a significant relationship between the courses of counseling and cumulative GPA, using gender and GAF-intake score as covariates. The independent variable was the course of counseling (one and two or more) and the dependent variable was cumulative GPA. I also performed a standard logistic regression to determine if there was a significant relationship between courses of counseling and degree completion. The independent variable was the courses of counseling and the dependent variable was degree completion.

For the third research question, I performed a hierarchical multiple regression to determine if there was a significant relationship between the GAF score at the termination of counseling and cumulative GPA. The independent variable was the GAF score and the dependent variable was cumulative GPA. I also performed a standard

logistic regression to determine if there was a significant relationship between the GAF score and degree completion. The independent variable was the GAF score and the dependent variable was degree completion. Gender and GAF score at intake were used as covariates in the analyses.

To address the fourth research question, I performed a hierarchical logistic regression to determine if there was a significant relationship between the type of treatment participants' received and degree completion. The independent variable was the type of treatment (intake only or treatment) and the dependent variable degree completion. I used gender and GAF-intake score as covariates.

For the fifth research question, I performed at 3 x 2 chi-square test for independence to determine if a significant relationship exists between whether treatment was completed, incomplete, or referred to another service and degree completion. The independent variable was treatment completion (complete, incomplete, referral) and the dependent variable was degree completion. Refer to Table 3 for a review of the independent and dependent variables and analyses used to test each research question and hypothesis.

Table 4

Variables and Statistical Analyses for Research Questions

Question	Independent Variables	Dependent Variables	Analysis
1	Number of Counseling Sessions	Cumulative GPA	Hierarchical Multiple Regression
	Number of Counseling Sessions	Degree Completion (Yes, No)	Hierarchical Logistic Regression
2	Courses of Counseling (One, Two or more)	Cumulative GPA	Hierarchical Multiple Regression
	Courses of Counseling (One, Two or more)	Degree Completion (Yes, No)	Hierarchical Logistic Regression
3	GAF score at Termination	Cumulative GPA	Hierarchical Multiple Regression
	GAF score at Termination	Degree Completion (Yes, No)	Hierarchical Logistic Regression
4	Treatment Received (Intake Only, Treatment)	Degree Completion (Yes, No)	Hierarchical Logistic Regression
5	Treatment Completion (Complete, Incomplete, Referral)	Degree Completion (Yes, No)	Chi-Square Test for Independence

CHAPTER IV

RESULTS

I used archival data from a university counseling center's records and institutional student data to examine the relationship of counseling services participation with college students' academic performance. In this chapter, I have reviewed the results from the inferential statistics used to test the five research questions and hypotheses.

Counseling Sessions and Academic Success

To address research question one, I performed a hierarchical multiple regression to assess whether the number of counseling sessions were related to participants' cumulative GPA after receiving counseling treatment. The dependent variable was participants' cumulative GPA. I used gender and GAF score at intake as covariates. I entered the independent variable, number of counseling sessions, for Step 1.
In Step 2 of the analysis, I entered gender and GAF intake score in order to control for these variables.

The overall hierarchical multiple regression for Step 1 was significant, $F(1,1094)$ $= 15.15, p < .001, R^2 = .01$ and Adj. $R^2 = .01$ (see Table 5). The number of counseling sessions ($\beta = .12, p < .001$) was a significant positive predictor of cumulative GPA following counseling treatment. In addition, the regression for Step 2 was significant, $F(3,1092) = 24.78, p < .001, R^2 = .06$ and Adj. $R^2 = .06$. In Step 2, counseling sessions (β $= .10, p < .01$) and GAF intake ($\beta = .12, p < .001$) were significant positive predictors of cumulative GPA, the semester of counseling treatment. The more counseling sessions attended, the higher the cumulative GPA. The higher the GAF score at intake, the higher participants' cumulative GPA. Gender ($\beta = -.19, p < .001$) was a significant negative

predictor of cumulative GPA, with males more likely to earn a lower cumulative GPA than females.

Table 5

Multiple Regression Analyses Predicting GPA with Sessions (N = 1,095)

Step and predictor variable	B	SE B	β	R^2	ΔR^2
Step 1				.01	.01***
Counseling Sessions	.04	.01	.12***		
Step 2				.06	.06***
Counseling Sessions	.03	.01	.10**		
Male (Female Omit)	-.41	.06	-.19***		
GAF Intake	.02	.00	.12***		

Note. **$p < .01$. ***$p < .001$.

I performed a hierarchical logistic regression to assess if the number of counseling sessions was related to whether or not participants' graduated within six years. For Step 1, I entered counseling sessions as the independent variable and degree completion as the dependent variable. In Step 2, I added gender and GAF at intake as covariates. The overall hierarchical logistic regression for Step 1 was significant, X^2 (1) = 13.36, p <.001, R^2 = .01 (see Table 6). Model one explained 1.6% of the variance (Nagelkerke R^2) and correctly classified 54% of the cases. Number of counseling sessions was a significant positive predictor of whether or not students completed a degree within six years. For

every one unit increase in the number of counseling sessions, the odds of degree completion increased by 7%.

For Step 2, the overall hierarchical logistic regression was significant, X^2 (2) = 53.68, $p < .001$, $R^2 = .06$ (see Table 6). Nagelkerke R^2 indicated that model two accounted for 7.9% of the variance and correctly classified 60.4% of the cases. The number of counseling sessions, gender, and intake GAF score were significant positive predictors of degree completion. Participants were 6% more likely to earn a degree with a one unit increase in the number of counseling sessions. Being male increased the odds of earning a degree by 128% in comparison to being female. Participants were 5% more likely to earn a degree with a one unit increase in the GAF rating at the intake session.

Table 6

Logistic Regression Predicting Degree Completion with Sessions (N = 1,096)

Variable	B	SE	Wald statistic	OR	95% CI
Step 1					
Counseling Sessions	.07	.02	12.92***	1.07	[1.03, 1.12]
Step 2					
Counseling Sessions	.06	.02	9.73**	1.06	[1.02, 1.11]
Male (Female Omit)	.83	.14	35.94***	2.28	[1.74, 1.11]
GAF Intake	.04	.01	18.52***	1.05	[1.02, 1.07]

Note. CI = confidence interval for odds ratio (*OR*).
Note. **$p < .01$.***$p < .001$.

Courses of Counseling and Academic Success

To address research question two, I performed a hierarchical multiple regression to assess whether the courses of counseling (one course and two or more courses) were related to participants' cumulative GPA the semester of receiving counseling treatment. The dependent variable was participants' cumulative GPA. Gender and GAF score at intake were used as control variables. For Step 1, I entered the independent variable, courses of counseling. I controlled for gender and GAF rating at intake by entering these variables in Step 2 of the model.

The overall hierarchical multiple regression for Step 1 was significant, $F(1,1094)$ = 6.85, $p < .01$, $R^2 = .01$ and Adj. $R^2 = .00$ (see Table 7). The courses of counseling (β = .16, $p < .01$) was a significant positive predictor of cumulative GPA following counseling treatment. In addition, the regression for Step 2 was significant, $F(3,1092) = 22.76$, $p <$ .001, $R^2 = .06$ and Adj. $R^2 = .06$. In Step 2, courses of counseling ($\beta = .07, p < .05$) was significant positive predictor of cumulative GPA the semester of counseling treatment, after controlling for gender and GAF intake score. Participants who had two or more course of counseling were significantly more likely to have higher cumulative GPAs. GAF intake ($\beta = .13, p < .001$) was also a significant positive predictor of GPA, with higher GAF intake ratings indicating higher GPAs. Gender ($\beta = -.19, p < .001$) had a significant negative relationship with cumulative GPA, with males more likely to earn a lower cumulative GPA than females.

Table 7

Multiple Regression Analyses Predicting GPA with Courses (N = 1,095)

Step and predictor variable	B	$SE\ B$	β	R^2	ΔR^2
Step 1				.01	.01**
Counseling Courses	.16	.06	.08**		
Step 2				.06	.06***
Counseling Courses	.15	.06	.07*		
Male (Female Omit)	-.41	.06	-.19***		
GAF Intake	.02	.00	.13***		

Note. $*p < .05.$ $**p < .01.$ $***p < .001.$

I performed a hierarchical logistic regression to assess if the number of courses of counseling was related to whether or not participants' graduated within six years. For Step 1, I entered the courses of counseling as the independent variable and degree completion as the dependent variable. In Step 2, I added gender and GAF at intake as covariates. The overall hierarchical logistic regression for Step 1 was significant, X^2 (1) = 8.25, $p<.01$, $R^2 = .01$ (see Table 8). Model one explained 1.0% of the variance (Nagelkerke R^2) and correctly classified 53.1% of the cases. Counseling courses was a significant negative predictor of whether or not students completed a degree within six years. Participants with two or more courses of counseling were 31% less likely to graduate within six years.

For Step 2, the overall hierarchical logistic regression was significant, X^2 (2) = 57.14, $p < .001$, $R^2 = .06$ (see Table 8). Model two predicted 7.7% of the variance (Nagelkerke R^2) and correctly classified 60.5% of cases. The number of courses of counseling was a significant negative predictor of degree completion. Having two or more courses of counseling decreased the odds of earning a degree within six years by 31%. Gender and GAF at intake were significant positive predictors of degree completion. For gender, being a male significantly increased the odds of earning a degree by 131% in comparison to being female. Participants were 5% more likely to have completed a degree with every one unit increase in the GAF rating at the intake counseling session.

Table 8

Logistic Regression Predicting Degree Completion with Courses (N = 1,096)

Variable	B	SE	Wald statistic	OR	95% CI
Step 1					
Counseling Courses	-.38	.13	8.17**	.69	[.53, .88]
Step 2					
Counseling Courses	-.37	.13	7.56**	.69	[.53, .90]
Male (Female Omit)	.84	.14	36.90***	2.31	[1.76, 3.02]
GAF Intake	.05	.01	20.97***	1.05	[1.03, 1.07]

Note. CI = confidence interval for odds ratio (*OR*).
Note. **$p < .01$.***$p < .001$.

GAF Score at Termination and Academic Success

To address the third research question, I performed a hierarchical multiple regression to assess whether the GAF score at the termination of counseling was related to participants' cumulative GPA the semester of receiving counseling treatment. The dependent variable was participants' cumulative GPA. I used gender and GAF score at intake as covariates. For Step 1, I entered the independent variable, GAF score at the termination of counseling. For Step 2, I entered gender and GAF intake score as control variables.

The overall hierarchical multiple regression for Step 1 was significant, $F(1,1069) = 25.05, p < .001, R^2 = .02$ and Adj. $R^2 = .02$ (see Table 9). The GAF score at the termination of counseling ($\beta = .15, p < .001$) was a significant positive predictor of cumulative GPA following counseling treatment. In addition, the regression for Step 2 was significant, $F(3,1067) = 23.68, p < .001, R^2 = .06$ and Adj. $R^2 = .06$. In Step 2, GAF score at counseling termination ($\beta = .11, p < .05$) were significant positive predictor of cumulative GPA the semester of counseling treatment, with higher GAF ratings at the termination of counseling predicting higher GPAs. Being male ($\beta = -.20, p < .001$) was a significant negative predictor of cumulative GPA the semester of counseling treatment. Males were more likely to earn a lower cumulative GPA than females. In Step 2, GAF score at counseling intake was not a significant predictor.

Table 9

Multiple Regression Analyses Predicting GPA with GAF Term (N = 1,070)

Step and predictor variable	B	$SE\ B$	β	R^2	ΔR^2
Step 1				.02	.02***
GAF Termination	.02	.00	.15***		
Step 2				.06	.06***
GAF Termination	.01	.01	.11*		
Male (Female Omit)	-.42	.06	-.20***		
GAF Intake	.01	.01	.05		

Note. *p* < .05. ***p* < .001.

I performed a hierarchical logistic regression to assess if the GAF score at the termination of counseling was related to whether or not participants' graduated within six years. For Step 1, I entered the GAF score at termination of counseling as the independent variable and degree completion as the dependent variable. In Step 2, I added gender and GAF score at intake as covariates. The overall hierarchical logistic regression for Step 1 was significant, X^2 (1) = 18.05, *p*<.001, R^2 = .02 (see Table 10). Model one accounted for 2.2% of the variance (Nagelkerke R^2) and correctly classified 57.2% of cases. The GAF score at termination of counseling was a significant positive predictor of degree completion. With every one unit increase in the GAF score at counseling termination, the odds of completing a degree increased by 4%.

For Step 2, the overall hierarchical logistic regression was significant, X^2 (2) = 40.79, $p < .001$, $R^2 = .05$ (see Table 10). Model two accounted for 7.1% of the variance (Nagelkerke R^2) and correctly classified 60.1% of cases. Gender and GAF score at intake were significant positive predictors of degree completion; whereas, GAF at termination was no longer a signification predictor. For gender, being a male significantly increased the odds of earning a degree by 126% in comparison to being female. Participants were 4% more likely to have completed a degree with every one unit increase in the GAF rating at the intake counseling session.

Table 10

Logistic Regression Predicting Degree Completion with GAF Term (N = 1,071)

Variable	*B*	*SE*	Wald statistic	*OR*	95% CI
Step 1					
GAF Termination	.04	.01	17.49***	1.04	[1.02, 1.05]
Step 2					
GAF Termination	.01	.01	.50	1.01	[.98, 1.04]
Male (Female Omit)	.82	.14	34.56***	2.26	[1.72, 2.97]
GAF Intake	.04	.02	6.76**	1.04	[1.01, 1.08]

Note. CI = confidence interval for odds ratio (*OR*).
Note. **$p < .01$.***$p < .001$.

Treatment Received and Degree Completion

To address the fourth research question, I performed a hierarchical logistic regression to assess whether or not received treatment was related to degree completion within six years. For Step 1, I entered the treatment received (intake only or treatment) as the independent variable and degree completion as the dependent variable. In Step 2, I added gender and GAF at intake as covariates. The overall hierarchical logistic regression for Step 1 was significant, X^2 (1) = 5.80, $p<.05$, R^2 = .00 (see Table 11). Model one predicted .7% of the variance (Nagelkerke R^2) and correctly classified 54.1% of cases. The type of treatment received (intake session only or treatment sessions beyond intake) was a significant negative predictor of degree completion. Having received treatment sessions beyond the intake appointment decreased the odds by 26% of earning a degree.

For Step 2, the overall hierarchical logistic regression was significant, X^2 (2) = 55.20, $p < .001$, R^2 = .05 (see Table 11). Model two accounted for 7.2% of the variance (Nagelkerke R^2) and correctly classified 60.1% of cases. Type of treatment received was a significant negative predictor of earning a degree within six years. Participants who received treatment sessions beyond the intake appointment were 23% less likely to complete a degree in comparison to those who only attended the intake session. Gender and GAF at intake were significant positive predictors of degree completion. Being male increased the likelihood of graduating by 127% in comparison being female. Every one unit increase in the GAF score at the intake session increased the likelihood of six year degree completion by 5%.

Table 11

Logistic Regression Predicting Degree Completion with Treatment Received (N = 1,096)

Variable	B	SE	Wald statistic	OR	95% CI
Step 1					
Treatment Received	-.30	.12	5.79*	.74	[.58, .95]
Step 2					
Treatment Received	-.25	.13	3.95*	.77	[.60, 1.00]
Male (Female Omit)	.82	.14	35.62***	2.27	[1.74, 2.98]
GAF Intake	.05	.01	20.37***	1.05	[1.03, 1.07]

Note. CI = confidence interval for odds ratio (*OR*).
Note. *$p < .05.$***$p < .001.$

Treatment Completion Type and Degree Completion

To address the fifth research question, I performed a Chi-square Test for Independence to assess whether a significant relationship exists between the type of treatment completion (complete, incomplete, referral) and degree completion within six years. The analysis revealed that there was a significant relationship between the type of treatment completion and whether participants' earned a degree within six years, X^2 (2) = 14.41, $p < .01$ (see Table 12). Participants who complete counseling treatment were the most likely to complete their degree in comparison to those who did not complete treatment or were referred to other services. Participants who were referred to other

services were the least likely to complete their degree in comparison to those who

completed treatment and those who started treatment but did not complete it.

Table 12

Chi-Square Analyses Predicting Degree and Treatment Completion (N = 1,105)

| | Degree Completion | | | |
| | No | | Yes | |
Treatment Completion	n	%	n	%
Incomplete	262	48.90%	274	51.10%
Complete	102	37.90%	167	62.10%
Referral	160	53.30%	140	46.70%

CHAPTER V

DISCUSSION

The purpose of this study was to explore the effect of counseling services on college student academic performance. As measures of academic performance, I used participants' cumulative GPA the semester after beginning counseling treatment and whether or not a degree was completed within six years of enrollment. As research questions, I was interested in whether a significant relationship exists between the number of counseling sessions, counseling courses (one versus two or more), and GAF score at the termination of counseling and academic performance. In addition, I explored the relationship between the type of counseling treatment (treatment versus intake only) and the type of treatment completion (complete, incomplete, referral) with degree completion. In this chapter, I reviewed the major findings and addressed the limitations of this study. Additionally, I discussed implications for practice and provided suggestions for future research.

Major Findings

The results of this study yielded significant results for each research question. In this section, I reviewed the major findings of the research.

Number of Counseling Sessions

To address the first research question, I analyzed the data to determine whether a significant relationship existed between the number of counseling sessions and academic performance variables, as measured by cumulative GPA after counseling treatment and degree completion within six years, while controlling for gender and GAF score at intake. The results yielded a significant positive relationship between the number of counseling

sessions with GPA and degree completion and supported the first hypothesis. Having a higher number of counseling sessions increased the likelihood of having a higher GPA the semester counseling was received. In addition, those who completed a degree within six-years were more likely to have a higher number of counseling sessions. Interestingly, these findings might potentially extend the knowledgebase. For example, in a previous study, Wlazelek and Coulter's (1999) research that found no relationship between the number of sessions and GPA when comparing students who attended one session and those who attended more than one session of academic counseling. Likewise, Lee et al. (2009) found no relationship between the number of sessions and third semester retention among college students who received counseling services. The findings in the current study, therefore, may break new ground. I believe the findings have uncovered these relationships because the number of sessions was used as a continuous variable and the sample included students seeking counseling for various reasons, rather than only for academic reasons as in Wlazelek and Coulter's study. Further, retention was measured as graduation within six years rather than semester retention as in Lee et al.'s study.

Courses of Counseling

For the second research question, I examined whether the courses of counseling, one versus two or more, was significantly related to cumulative GPA after counseling treatment and degree completion within six years. After controlling for gender and GAF score at intake, the analyses revealed that there was significant positive relationship between the courses of counseling with GPA and a significant negative relationship between the courses of counseling and degree completion. Those who had two or more courses of counseling were more likely to have higher GPAs; however, they were less

likely to graduate. The findings partially supported the hypothesis in which I predicted that having two or more courses of counseling would increase GPA. However, the second part of the hypothesis, which stated the courses of counseling would have a positive relationship with degree completion, was not supported.

Schwitzer, Grogan, et al.'s (1993) early research also examined the relationship between the courses of counseling and college GPA and retention. They found that returning for additional courses of counseling had a negative relationship with GPA and a positive relationship with graduation. In comparison with the present study, Schwitzer et al.'s methodology differed in that they used change in GPA after one year post counseling and the sample was comprised of students who participated in mandated counseling treatment. The differences in methodology may explain why Schwitzer et al.'s results conflicted with the findings from this study. Additional research is needed to further explore the relationship between the courses of counseling with GPA and degree completion.

One possible explanation for this study's finding is that having two or more courses of counseling could suggest that those students were experiencing either multiple needs for counseling or having deeper, reoccurring mental health issues that could not be resolved with one course of counseling treatment. Previous research suggests that college students' academic success and retention could be negatively impacted by poor adjustment to college (e.g. Martin et al., 1999) and psychological problems (e.g. Brackney & Karabenick, 1995; Svanum & Zody, 2001). In turn, further investigation is warranted to explore if the longevity of students' psychological programs, as

demonstrated by students returning to the university counseling center for additional counseling treatments, has a negative relationship with retention.

GAF at the Termination of Counseling

As the third research question, I explored whether a significant relationship existed between the GAF score at the termination of counseling and academic performance variables, including cumulative GPA after counseling and degree completion. After controlling for gender and GAF score at intake, the results revealed that the GAF score at the termination of counseling was a significant positive predictor of GPA, with higher GAF ratings at termination indicating higher GPAs. This finding partially supported the hypothesis that GAF score at termination would be positively related to GPA. While a review of the literature found no studies using GAF ratings as a predictor for academic success, there is evidence to suggest that the majority of students perceive counseling as beneficial for improving their grades (e.g. Rickinson, 1998; Turner & Berry, 2000).

When examining the relationship between the GAF score at the termination of counseling and degree completion, a significant positive relationship between the two variables existed. However, when covariates were added into the model, the GAF score at the termination of counseling was no longer a significant predictor of degree completion. Whereas, the GAF score at the intake of counseling continued to show a significant positive relationship with degree completion. Higher GAF ratings at the intake session increased the likelihood of participants graduating. Thus, the hypothesis that GAF termination ratings would have a significant positive relationship with degree completion was not supported. One possible explanation for the non-significance of GAF ratings at

the termination of counseling on retention could be that while clients' psychological functioning is likely to improve with counseling, the effects may be short term and thus, do not extend to increasing the likelihood of degree completion.

Type of Treatment Received

The purpose of the fourth research question was to investigate whether a significant relationship existed between the type of treatment a client received, either counseling treatment or an intake appointment only, and degree completion. There was a significant negative relationship between treatment type and degree completion, with the odds of completing a degree within six years being less likely for participants who had counseling treatment in comparison to only an intake session. The findings did not support the hypothesis that those who received two or more sessions would be more likely to graduate. When reversing the odds, the results showed that students who had one session had a greater likelihood of graduating in comparison to those with two or more sessions. The findings from research question four are inconsistent with the results from the first research question in which the number of sessions was positively related to degree completion, indicating that the higher number of sessions received, the more likely a student would complete a degree within six years.

I explored the differences between those who had received an intake appointment (one session) and those who received treatment (two sessions or more) because frequency data on the number of counseling sessions showed that close to 40% of the sample only received one counseling session; thus, the differences between these two groups warranted investigation. It is important to note that, like the treatment group, clients received counseling intervention during the intake session by meeting with a counselor

and discussing their reasons for seeking counseling. Perhaps, for some students, reaching out to a campus resource and receiving assistance, even for one session, is enough to have a positive impact on their academics and perseverance to stay in college. Additionally, the discrepancy between the findings may be related to group differences among students who receive a few sessions, an average number, and a large amount of sessions.

Snell, Mallinckrodt, Hill, and Lambert's (2001) study offered some evidence of a difference between the rates of improvement in functioning based on the number of sessions. Snell et al.'s (2001) found that clients' improvement in functioning leveled off between four and seven sessions, with clients' gaining the most improvement in the earlier sessions (one to four) or from seven to 10 sessions. A possible explanation for the results in this study could be that clients with minor challenges may only need a few sessions to resolve their issues, whereas those needing many sessions could be the group that is persisting and completing their counseling treatment. It is possible that the middle group could include clients who needed additional session, but dropped out before completing treatment. In other words, a curvilinear relationship whereby students with the fewest and most sessions benefited from counseling, but a mid-level group with greater needs but less follow through did not benefit. Additional research is needed to explore the group differences between clients' who received a few sessions, a mid-range number of sessions, and who received a higher number of sessions.

Type of Treatment Completion

To address the fifth research question, I analyzed the relationship between the type of treatment completion (complete, incomplete, or referral) and degree completion

within six years. The results showed that degree completion was significantly dependent on the type of treatment completion. In particular, proportionally more participants graduated within six years with a degree when they completed counseling treatment, as opposed to participants who did not complete counseling treatment or were referred to other services. This finding supported hypothesis five. In addition, proportionally fewer participants graduated within six years when they were referred to another service in comparison to those who either completed or did not complete treatment at the university counseling center.

Summary of Findings

The findings from this study suggest three outcomes regarding counseling in the university setting. First, the overall results indicated that receiving treatment through a college counseling center has a positive relationship with students' GPAs. Higher GPAs after counseling interventions were related to having a higher number of sessions, two or more counseling courses, and higher GAF ratings at the termination of counseling. Thus, the students who were the most frequent users of counseling services and those with the better psychological functioning at the termination of counseling were the most likely to also have improvement in their GPAs, as measured at the end of the semester they began counseling.

Second, the results indicated that while GPA improvement may be a positive and immediate outcome from receiving counseling interventions, the relationship between counseling interventions and degree completion is complex. One possible explanation for this complexity may be that the relationship between counseling and degree completion is moderated by the severity and longevity of students' mental health concerns. In this

study, the decreased likelihood of degree completion was related to having two or more counseling courses and having two or more sessions of counseling. It is possible that students who need more than one counseling course or a larger number of sessions are experiencing more challenging issues; thus, even with counseling treatment, the severity of the issues may be continuing and play some role in the student not finishing their degree. Further, the GAF rating at the termination of counseling had no relationship with degree completion. This finding suggests that for those students who had improved functioning as the result of counseling, as evidenced by improved GPA, the eventual effects on degree completion were less clear or are more complex. Additional research is needed to explore the relationship between the severity of psychology problems and degree completion among college students receiving services from a university counseling center.

Third, the findings from this study suggest that clients should persist with their counseling interventions until treatment is concluded in order to have a positive influence on the likelihood of graduating. The present study found that those who completed counseling were the most likely to graduate. Meanwhile, students who were referred to other offices were proportionally the least likely to complete a degree within six years of enrollment. One reason for this may be that students who are referred to other resources are not utilizing the services and thus, not receiving the treatment needed to improve their psychological functioning.

Implications for Practice

The research findings have several implications for practice. One of this study's important results was that students who had an intake session had a greater likelihood of

graduating in comparison to those with two or more sessions. In practice, this information is valuable for university counseling centers to make decisions regarding the number of sessions required in order to improve efficiency when additional funding is not an option. The counseling center from this study allowed up to 10 sessions of counseling for students. Identifying the minimum threshold of counseling sessions needed to help students would allow university counseling centers to potentially decrease the number of allotted sessions in an effort to increase efficiency and make time for other office initiatives. For example, when there is no funding for additional positions, it would be helpful to decrease the number of sessions required so that staff could see more clients, be free to address immediate or emergency situations, and offer programs and outreach to the general student population. Another option would be to base the total number of sessions allowed by the reason the student is seeking counseling, while still allowing up to 10 sessions for certain psychological problems.

In addition, outreach programs and partnerships with other campus offices could help reduce the strain on services provided by the counseling center. Dykes-Anderson (2013) recommends that counseling centers outreach to target specific groups and develop partnerships with other campus offices and programs to assist students. In particular, counseling centers can coordinate with these partnerships to help identify and assist at-risk students. For example, Schwitzer et al. (1998) emphasize the importance of counseling centers collaborating with the health center and residence halls to support students' health care needs. In addition to health centers, university counseling centers should also develop strong partnerships with academic advising and other academic

resources on campus, such as tutoring and peer mentoring, to help refer students for academic concerns.

The results from the present study revealed that those who were referred to other resources were proportionally the least likely to complete a degree within six years. For this study, it was unknown whether these students were referred to other campus resources or to services in the community. The findings from this study indicate that the students who are referred may be a particularly vulnerable population for attrition. In practice, university counseling centers should consider having an effective means to track the students who are referred to determine if they following up with the referrals and receiving the services they need.

Another finding from this study revealed that students who completed counseling treatment were proportionally more likely to graduate. This finding suggests the importance of retaining clients of university counseling centers in relation to the overall goal of degree completion among higher education institutions. Additionally, about 48% of the participants in this study did not complete their counseling treatment as reported by the university counseling center. University counseling centers should explore the reasons why students are dropping out during the counseling treatment and have a strategy for encouraging students to remain in treatment. In the literature, clients' who express more satisfaction with the counseling experience are less likely to discontinue the services (Kleinpeter, Potts, & Bachmann, 2013; Pekarik, 1992). Therefore, it may be beneficial for university counseling centers to provide ways for clients to self-assess and anonymously report their satisfaction with the counseling experience throughout

treatment. Further, university counseling centers could use the assessments of satisfaction to determine ways to modify or improve certain services.

Overall, the findings of this study suggested that short term counseling may help students succeed in college by both improving their GPAs and graduating within six-years of enrollment. For example, this study showed that increased psychological functioning at the termination of counseling was related to higher GPAs. It is important for university counseling centers continue to keep accurate records and have an assessment plan in order to provide data demonstrating the benefits of the counseling interventions. In turn, university counseling centers can use this data to help lobby for additional funding and resources among the institutional administration.

Limitations of the Study

This was a limited study using archival data from a university counseling center for the analyses. One major limitation of the research is that there was no control group, or a comparison among the student population who did not seek out counseling treatment. There may be differences between students who seek out college counseling services versus those who do not when examining GPA and degree completion. For example, Illovsky (1997) compared the retention rates and grades of students who received counseling with those in the general college student population and found that counseled students were more likely to be retained than students in the general population. In addition, Locke et al. (2012) reviewed of previous research related to college student mental health and concluded that the results suggest students being treated by counseling services are more distressed than students who are not in treatment.

A second limitation is that the models used in the study accounted for less than 8% of the variance. One explanation for the low variance could be that the large sample size used in this research increased the likelihood of finding statistical significance (Tabachnick & Fidell, 2007). Due to the low variance explained by the models, there may be other variables worthy of examination in regards to how the counseling experience may predict GPA and degree completion. For example, this study did not examine the reasons that participants sought out counseling. A previous study by Illovsky (1997) showed the grade improvement depended on the type of issues discussed in counseling. Counseled students who experienced an improvement in their grades sought out counseling for the following problems: academic, family, accused of misconduct, physical problems, and problems with self; whereas there was no improvement in GPA for counseled students with problems related to career exploration, abuse, psychiatric, relationships, and victimization. In another study, Polansky, Horan, and Hanish (2001) examined the impact of career counseling among a sample of students who were at-risk for dropping out of college and found that there was no relationship between career counseling and GPA and semester retention. Thus, further research is needed to improve upon the models used in this study. Further, the type of sessions were unknown and thus, not controlled for and could potentially impact the results. For example, Lee et al. (2009) found those who had both individual and group counseling were more likely to have higher GPAS in comparison to those who experienced individual and psychiatric services.

In this study, retention was measured as graduation within six years of enrollment as opposed to semester retention. Previous research has found that counseled students had

higher semester retention rates than the general population (Illovsky, 1997; Turner & Berry, 2000). As a result, a major limitation in this study was the potential time lapse between participants' counseling treatment and degree completion. For example, a participant may have experience counseling treatment in their sophomore year, and thus, have at least two more years of course work to complete in order to earn a degree. Participants may have experienced other factors that hindered degree completion in that time. When examining the relationship between counseling interventions and retention, enrollment in the following semester or year may be a better measure of retention.

Another limitation of this study is that GPA may not be an accurate measure to determine if there is a relationship between counseling treatment and academic performance. In this study, I used participants' cumulative GPA the semester they began counseling treatment as a measure for analysis. Other factors may have impacted participants' GPA during the semester they were in counseling treatment, such as the difficulty of the courses they were enrolled in. In addition, in the archival data, only the semester the counseling treatment began was recorded. As a result, it was unknown whether or not the counseling treatment extended into the next semester, and thus, the GPA the semester counseling treatment began may have not been the best time point for GPA to use.

Recommendations for Future Research

Further research is needed to expand upon the present study in order to improve upon the models for using the counseling experience to predict college students' academic success. In particular, I suggest examining the reasons students seek out counseling, which previous research (e.g. Illovsky, 1997; Polansky et al., 2001) has

shown may have a varying impact on GPA and retention. In the present study, it was unknown whether participants received counseling through individual or group sessions, and also, whether counseling was voluntary or mandated, such as by the student conduct office. Future research should explore the type of treatment sessions (individual or group) and voluntary versus mandated counseling in the model for predicting academic success.

Further, this study showed that those who were referred to other services were proportionally the least likely to graduate. Additional research is needed explore this particular population to determine if they indeed are seeking out the referral services, receiving the appropriate treatment, and extended exploration to determine the unique characteristics of this population that may contribute to a decreased likelihood of succeeding in college.

A third suggestion for future research is to explore the reasons why students do not obtain their degree. The findings from the present study suggest that the severity and longevity of mental health concerns could be a contributor to the reasons a student does not graduate. Future research studies could focus on the attrition group to help better understand the degree to which mental health issues may or may not contribute to participants' decision to leave the university.

In this study, a major limitation was the use of GPA and degree completion as measures of academic performance. Future research should compare using GPA and degree completion with other measures of students' persistence and academic success in college. For example, Choi, Buskey, and Johnson (2010) measured academic functioning using the academic and institutional adjustment subscales of the Student Adaptation to College Questionnaire (SACQ). In a follow up study, Lockard and colleagues (2012) also

used the academic and institution adjustment subscales from the SACQ to measure participants' level of academic distress. When studying the relationship between counseling and retention, future research should use both semester retention and degree completion as dependent variables.

Another suggestion for future research is to investigate other ways that counseling centers help support the mission of the higher education institution beyond retention. For example, Bishop (2010) proposes that new students and families may be evaluating their choice of institution not only by academic merit, but also by the resources and services available. With an increased number of prospective students who have a history of utilizing counseling prior to coming to college (Bishop, 2002), the services provided by college counseling center may be used to help make an enrollment decision (Bishop 2010).

Conclusion

In a recent qualitative study by Watkins, Hunt, and Eisenberg (2011), campus mental health administrators reported that the demand for counseling services has increased and as a result, resources are needed to hire more counseling staff to support the demand. Based on interviews of counseling administrators, Watkins and colleagues also noted that recent tragedies on college campuses have led to the pressure of college mental health counselors to predict student behavior. College counseling centers can serve as a resource to help avoid violence and address risk management issues on campuses (Dykes-Anderson, 2013). However, college counseling centers need financial resources from the higher education administration to support the increased service demands. Higher education administers must prioritize which offices and programs

receive funds by reviewing the cost and value of the service (Bishop, 2010). According to Dykes-Anderson (2013), institutions should allocate resources to hire more professional counselors.

To continue to provide services, research is needed to investigate the ways that counseling centers benefit institutions of higher education, especially in regards to retention and degree completion, as state funding is often tied to these rates. O'Keeffe (2013) explains that funding a counseling service may have economic benefits to an institution by helping retain students and thus, decreasing the lost revenue for the institution. In addition, Bishop (2010) argues that counseling centers play a role in recruitment, retention, and risk-management for institutions of higher education. The present study aimed to evaluate the relationship between specific outcomes of counseling interventions and academic success and degree completion in order to provide implications for practice among university counseling centers.

Based on the results of this study, I outlined three major conclusions in regards to the relationship between counseling and academic success and degree completion. First, college students who utilize counseling treatment appear to academically benefit from counseling, such as by earning higher GPAs. Second, the relationship between counseling interventions and degree completion is complex and may be moderated by the severity and longevity of students' mental health concerns and additionally by the incompletion or dropout in treatment. Third, college students should persist with their counseling interventions until treatment is concluded in order to have a positive influence on the likelihood of graduating. It is important to note that this study examined the relationship

between variables and not causation; as a result, additional research is needed to support these conclusions.

Further, I used the findings of this study to identify five recommendations for university counseling centers to consider for practice. First, university counseling centers should develop strategies to reduce the number of counseling sessions included in treatment, which would allow staff to serve more students and offer other programs or initiatives. Second, university counseling centers should develop strong partnerships with other campus resources and offices to streamline student referrals. Third, it is important for university counseling centers to track student referrals and follow up with this group to ensure they received the appropriate services needed. Fourth, university counseling centers should strive to retain students within the counseling interventions and encourage completion of treatment. Lastly, in an effort to highlight the value of university counseling centers to higher education institutions, these centers should have quality assessment plans and provide data in regards to the role counseling plays with college students' academic success and retention. Such data might confirm, extend, or revise the findings of this study.

REFERENCES

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Washington, DC: Author.

Bacon, S. E., Collins, M. J., & Plake, E. V. (2002). Does the global assessment of functioning assess functioning? *Journal of Mental Health Counseling, 24*(3), 202-212.

Baker, R. W., McNeil, O. V., & Siryk, B. (1985). Expectation and reality in freshman adjustment to college. *Journal of Counseling Psychology, 32*(1), 94-103.

Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*(2), 179-189.

Bishop, J. B. (2002). Students with histories of counseling: Implications for counseling centers and other administrative units. *Journal of College Student Development, 43*, 130-133.

Bishop, J. B. (2010). The counseling center: An undervalued resource in recruitment, retention, and risk management. *Journal of College Student Psychotherapy, 24*, 248-260.

Bishop, J. S. (1990). The university counseling center: An agenda for the 1990s. *Journal of Counseling & Development, 9*, 6-19.

Boyd, V., Hattauer, E., Brandel, I. W., Buckles, N., Davidshofer, C., Deakin, S., … Steel, C. M. (2003). Accreditation standards for university and college counseling centers. *Journal of Counseling & Development, 81*, 168-177.

Brackney, B., & Karabenick, S. (1995). Psychopathology and academic performance: The role of motivation and learning strategies. *Journal of Counseling Psychology, 42*(4), 456-465.

Bray, N. J., Braxton, J. M., & Sullivan, A. S. (1999). The influence of stress-related coping strategies on college student departure decisions. *Journal of College Student Development, 40*(6), 645-657.

Buchmann, C., & DiPrete, T. A. (2006). The growing female advantage in college completion: The role of parental resources and academic achievement. *American Sociological Review, 71,* 515-541.

Buchmann, C., DiPrete, T. A., & McDaniel, A. (2008). Gender inequalities in education. *Annual Review of Sociology, 34*(3), 319-337.

Choi, K., Buskey, W., & Johnson, B. (2010). Evaluation of counseling outcomes at a university counseling center: The impact of clinically significant change on problem resolution and academic functioning. *Journal of Counseling Psychology, 57*(3), 297-303.

Cornish, J. A., Kominars, K. D., Riva, M. T., McIntosh, S., & Henderson, M. C. (2000). Perceived distress in university counseling center clients across a six-year period. *Journal of College Student Development, 41,* 104-109.

Cranford, J. A., Eisenberg, D., & Serras, A. M. (2008). Substance use behaviors, mental health problems, and use of mental health services in a probability sample of college students. *Addictive Behaviors, 34,* 134-145.

DeStefano, T. J., Mellott, R. N., & Petersen, J. D. (2001). A preliminary assessment of the impact of counseling on student adjustment to college. *Journal of College Counseling, 4*, 113-121.

Dwyer, R. E., Hodson, R., & McCloud, L. (2013). Gender, debt, and dropping out of college. *Gender & Society, 27*(1), 30-55.

Dykes-Anderson, M. (2013). The case for comprehensive counseling centers at community colleges. *Community College Journal of Research and Practice, 37*, 742-749.

Frank, A. C., & Kirk, B. A. (1975). Differences in outcomes for users and nonusers of university counseling and psychiatric services: A 5-year accountability study. *Journal of Counseling Psychology, 22*(3), 252-258.

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling and Development, 72*, 281-288.

Glickauf-Hughes, C., & Campbell, F. L. (1991). Character style and career educational concerns in college students. *Journal of College Student Psychotherapy, 5*(4), 23-44.

Grace, T. W. (1997). Health problems of college students. *Journal of American College Health, 45*, 243-250.

Green, J. L., Lowry, J. L., & Kopta, S. M. (2003). College students versus college counseling center clients: What are the differences? *Journal of College Student Psychotherapy, 17*(4), 25-37.

Hinkelman, J. M., & Luzzo, D. A. (2007). Mental health and career development of

college students. *Journal of Counseling Development, 85,* 143-147.

Hoeppner, B. B., Hoeppner, S. S., & Campbell, J. F. (2009). Examining trends in intake

rates, client symptoms, hopelessness, and suicidality in a university counseling

center over 12 years. *Journal of College Student Development, 50*(5), 539-550.

Illovsky, M. E. (1997). Effects of counseling on grades and retention. *Journal of College

Student Psychotherapy, 12*(1), 29-44.

Institutional Research. (2015). *Old Dominion University Student Headcount.*

[Institutional data file]. Retrieved from http://odu.edu/ira

Kern, C. W., Fagley, N. S., & Miller, P. M. (1998). Correlates of college retention and

GPA: Learning and study strategies, testwiseness, attitudes, and ACT. *Journal of

College Counseling, 1,* 26-34.

Kitzrow, M. A. (2009). The mental health needs of today's college students: Challenges

and recommendations. *NASPA Journal, 46*(4), 646-660.

Kleinpeter, C. B., Potts, M., & Bachmann, R. (2013). The coping skills and satisfaction

levels of college students receiving mental health services. *The International

Journal of Health, Wellness, and Society, 3,* 69-79.

Lambert, M. J., & Cattani-Thompson, K. (1996). Current findings regarding the

effectiveness of counseling: Implications for practice. *Journal of Counseling &

Development, 74,* 601-608.

Lee, D., Olson, E. A., Locke, B., Michelson, S. T., & Odes, E. (2009). The effect of

college counseling services on academic performance and retention. *Journal of

College Student Development, 50*(3), 305-319.

Lockard, A. J., Hayes, J. A., McAleavey, A. A., & Locke, B. D. (2012). Change in academic distress: Examining differences between a clinical and nonclinical sample of college students. *Journal of College Counseling, 15*, 233-246.

Locke, B. D., Bieschke, K. J., Castonguay, L. G., & Hayes, J. A. (2012). The center for collegiate mental health: Student mental health through an innovation research infrastructure that brings science and practice together. *Harvard Review of Psychiatry, 20*(4), 233-245.

Lucas, M. S., & Berkel, L. A. (2005). Counseling needs of students who seek help at a university counseling center: A closer look at gender and multicultural issues. *Journal of College Student Development, 46*(3), 251-266.

Martin, W. E., Swartz-Kulstad, J. L, & Madson, M. (1999). Psychosocial factors that predict the college adjustment of first-year undergraduate students: Implications for college counselors. *Journal of College Counseling, 2*, 121-133.

Minami, T., Davies, D. R., Tierney, S. C., Bettmann, J. E., McAward, S. M., Averill, L. A., ... Wampold, B. E. (2009). Preliminary evidence on the effectiveness of psychological treatments delivered at a university counseling center. *Journal of Counseling Psychology, 56*(2), 309-320.

Mooney, S. P., Sherman, M. F., & Lo Presto, C. T. (1991). Academic locus of control, self-esteem, and perceived distance from home as predictors of college adjustment. *Journal of Counseling & Development, 69*, 445-448.

Nafziger, M. A., Couillard, G. C., & Smith, T. B. (1999). Evaluating therapy outcome at a university counseling center with the college adjustment scales. *Journal of College Counseling, 2*, 3-13.

O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal, 47*(4), 605-613.

Pace, D., & Quinn, L. (2000). Empirical support of the overlap between career and mental health counseling of university students. *Journal of College Student Psychotherapy, 14*(3), 41-50.

Pascarella, E. T., & Terenzini, P. T. (1979). Interaction effects in Spady's and Tinto's conceptual models of college dropout. *Sociology of Education, 52,* 197-210.

Pekarik, G. (1992). Relationship of clients' reasons for dropping out of treatment to outcome and satisfaction. *Journal of Clinical Psychology, 48,* 91-98.

Piersma, H. L., & Boes, J. L. (1997). The GAF and psychiatric outcome: A descriptive report. *Community Mental Health Journal, 33,* 35-41.

Pledge, D. S., Lapan, R. T., Heppner, P. P., Kivlighan, D., & Roehlke, H. J. (1998). Stability and severity of presenting problems at a university counseling center: A 6-year analysis. *Professional Psychology: Research & Practice, 29,* 386-389.

Polansky, J., Horan, J. J., & Hanish, C. (2001). Experimental construct validity of the outcomes of study skills training and career counseling as treatments for the retention of at-risk students. *Journal of Counseling & Development, 71,* 488-492.

Pritchard, M. E., Wilson, G. S., & Yamnitz, B. (2007). What predicts adjustment among college students? A longitudinal panel study. *Journal of American College Health, 56*(1), 15-21.

Reetz, D. R., Barr, V., & Krylowicz, B. (2013). *Association for University and College Counseling Center Directors Annual Survey.* Retrieved from http://files.cmcglobal.com/AUCCCD_Monograph_Public_2013.pdf

Rickinson, B. (1998). The relationship between undergraduate student counseling and

successful degree completion. *Studies in Higher Education, 23*(1), 95-102.

Rodgers, L. S., & Tennison, L. R. (2009). A preliminary assessment of adjustment

disorder among first-year college students. *Archives of Psychiatric Nursing,

23*(3), 220-230.

Rosenthal, B., & Wilson, C. (2008). Mental health services: Use and disparity among

diverse college students. *Journal of American College Health, 57*(1), 61-67.

Sax, L. J., Bryant, A. N., & Gilmartin, S. K. (2004). A longitudinal investigation of

emotional health among male and female first-year college students. *Journal of

the First-Year Experience, 16*(2), 39-65.

Schwitzer, A. M. (1997). Utilization-focused evaluation: Proposing a useful method of

program evaluation for college counselors and student development

professionals. *Measurement and Evaluation in Counseling and

Development, 30*(1), 50-61.

Schwitzer, A. M. (2002). Using a chain-of-effects framework to meet institutional

accountability demands. *Journal of American College Health, 50,* 183-187.

Schwitzer, A. M. (2006). Are college students more disturbed today? Stability in the

acuity and qualitative character of psychopathology of college counseling center

clients: 1992-1993 through 2001-2002. *Journal of American College Health,

54*(6), 327-337.

Schwitzer, A. M., Bergholz, K., Dore, T., & Salimi, L. (1998). Eating disorders among

college women: Prevention, education, and treatment responses. *Journal of

American College Health, 46*(5), 199-207.

Schwitzer, A. M., Grogan, K., Kaddoura, K., & Ochoa, L. (1993). Effects of brief mandatory counseling on help-seeking and academic success among at-risk college students. *Journal of College Student Development, 34,* 401-405.

Sharf, R. S., & Bishop, J. B. (1973). Adjustment differences between counseled and noncounseled students at a university counseling center. *Journal of Counseling Psychology, 20*(6), 509-512.

Sharkin, B. (2004). College counseling and student retention: Research findings and implications for counseling centers. *Journal of College Counseling, 7,* 99-108.

Skowron, E. A., Wester, S. R., & Azen, R. (2004). Differentiation of self mediates college stress and adjustment. *Journal of Counseling and Development, 82,* 69-78.

Snell, M. N., Mallinckrodt, B., Hill, R. D., & Lambert, M. J. (2001). Predicting counseling center clients' response to counseling: A 1-year follow-up. *Journal of Counseling Psychology, 48*(4), 463-473.

Soet, J., & Sevig, T. (2006). Mental health issues facing a diverse sample of college students: Results from the college student mental health survey. *NASPA Journal, 43*(3), 410-431.

Startup, M., Jackson, M. C., & Bendix, S. (2002). The concurrent validity of the Global Assessment of Functioning (GAF). *British Journal of Clinical Psychology, 41,* 417-422.

Stone, G. L., & Archer, J. (1990). College and university counseling centers in the 1990s: Challenges and limits. *The Counseling Psychologist, 18,* 539-607.

Strahan, E. Y. (2003). The effects of social anxiety and social skills on academic performance. *Personality and Individual Differences, 34,* 347-366.

Strassberg, D. S., Anchor, K. N., Cunningham, J., & Elkins, D. (1977). Successful outcome and number of sessions: When do counselors think enough is enough? *Journal of Counseling Psychology, 24*(6), 477-480.

Svanum, S., & Zody, Z. (2001). Psychopathology and college grades. *Journal Counseling Psychology, 48*(1), 72-76.

Tabachnick, B., & Fidell, L. (2001). *Computer-assisted research design and analysis.* Boston, MA: Allyn and Bacon.

Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Allyn and Bacon.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.

Turner, A. L., & Berry, T. R. (2000). Counseling center contributions to student retention and graduation: A longitudinal assessment. *Journal of College Student Development, 41*(6), 627-636.

U.S. Department of Education, National Center for Education Statistics. (2014). The condition of education 2014 (NCES 2014-083), Institutional Retention and Graduation Rates for Undergraduate Students. Retrieved from http://nces.ed.gov/programs/coe/indicator_cva.asp

Vonk, M. E., & Thyer, B. A. (1999). Evaluating the effectiveness of short-term treatment at a university counseling center. *Journal of Clinical Psychology, 55*(9), 1095-1106.

Watkins, D. C., Hunt, J. B., & Eisenberg, D. (2011). Increased demand for mental health services on college campuses: Perspectives from administrators. *Qualitative Social Work 11*(3), 319-337.

Wilson, S. B., Mason, T. W., & Ewing, M. (1997). Evaluating the impact of receiving university-based counseling services on student retention. *Journal of Counseling Psychology, 44*(3), 316-320.

Wlazelek, B. G., & Coulter, L. P. (1999). The role of counseling services for students in academic jeopardy: A preliminary study. *Journal of College Counseling, 2,* 33-41.

Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders, 117,* 180-185.

APPENDIX A

Application for Exempt Research

Proposal Number:_____
(To Be Assigned by the College Committee or IRB)

**APPENDIX B
OLD DOMINION UNIVERSITY
APPLICATION FOR EXEMPT RESEARCH**

Note: For research projects regulated by or supported by the Federal Government, submit 10 copies of this application to the Institutional Review Board. Otherwise, submit to your college human subjects committee.

Responsible Project Investigator (RPI)		
The RPI will be a member of ODU faculty or staff who will serve as the project's supervisor and be held accountable for all aspects of the project. Students cannot be listed as a RPI.		
First Name: Alan	Middle Initial: M.	Last Name: Schwitzer
Telephone: 757-683-3251	Fax Number: 757-683-5756	E-mail: aschwitz@odu.edu
Office Address: EDUC 251-6		
City: Norfolk	State: VA	Zip: 23529-0157
Department: ELC	College: Education	
Complete Title of Research Project: Effects of college counseling on university students' academic success		Code Name (One word): ACCA
Investigators		
Individuals who are directly responsible for any of the following: the project's design, implementation, consent process, data collection and data analysis. If more investigators exist than lines provided, please attach a separate list.		
First Name: Dana	Middle Initial:	Last Name: Burnett
Telephone: 757-683-3287	Fax Number: 757-683-5756	Email: dburnett@odu.edu
Office Address: EDUC 110		
City: Norfolk	State: VA	Zip: 23529-0157
Affiliation: _X_Faculty ___Graduate Student ___ Undergraduate Student ___Staff ___Other		
First Name: Claudine	Middle Initial:	Last Name: Evangelista
Telephone: 757-683-3221	Fax Number: 757-683-5756	Email: cevangel@odu.edu
Office Address: EDUC 110		
City: Norfolk	State: VA	Zip: 23529-0157
Affiliation: ___Faculty _X_Graduate Student ___ Undergraduate Student ___Staff ___Other		
List additional investigators on attachment and check here: ___		
Type of Research		

1

Revised 4/05

Proposal Number:_____
(To Be Assigned by the College Committee or IRB)

---

1. This study is being conduced as part of (check all that apply):

X_ Faculty Research   __ Non-Thesis Graduate Student Research
__ Doctoral Dissertation   __ Honors or Individual Problems Project
__ Masters Thesis   __ Other_____

Funding

2. Is this research project externally funded or contracted for by an agency or institution which is independent of the university? Remember, if the project receives ANY federal support, then the project CANNOT be reviewed by a College Committee and MUST be reviewed by the University's Institutional Review Board (IRB).

_X_Yes (If yes, indicate the granting or contracting agency and provide identifying information.)
___No

Agency Name: American College Counseling Association (ACCA)
Mailing Address: C/O Dr. Roxane L. Dufrene, University of New Orleans, NOLA 70148
Point of Contact: Dr. Roxane L. Dufrene
Telephone: 540-280-1278

Research Dates

3a. Date you wish to start research (MM/DD/YY)   _10_ / _16_ / _07_
3b. Date you wish to end research (MM/DD/YY)   _10_ / _16_ / _08_

Human Subjects Review

4. Has this project been reviewed by any other committee (university, governmental, private sector) for the protection of human research participants?
___Yes
_X_No

4a. If yes, is ODU conducting the primary review?
_X_Yes
___No (If no go to 4b)

4b. Who is conducting the primary review?

5. Attach a description of the following items:

_X_Description of the Proposed Study PLEASE SEE ATTACHMENT 1
__Research Protocol PLEASE SEE ATTACHMENT 2
_X_References PLEASE SEE ATTACHMENT 1
_X_Any Letters, Flyers, Questionnaires, etc. which will be distributed to the study subjects or other study participants PLEASE SEE ATTACHMENT 3
_X_If the research is part of a research proposal submitted for federal, state or external funding, submit a copy of the
    FULL proposal PLEASE SEE ATTACHMENT 4

Note: The description should be in sufficient detail to allow the Human Subjects Review Committee to determine if the study can be classified as EXEMPT under Federal Regulations 45CFR46.101(b).

Exemption categories

6.   Identify which of the 6 federal exemption categories below applies to your research proposal and explain why the proposed research meets the category. Federal law 45 CFR 46.101(b) identifies the following EXEMPT categories. Check all that apply and provide comments.

SPECIAL NOTE: The exemptions at 45 CFR 46.101(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization. The exemption at 45 CFR 46.101(b)(2), for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

____(6.1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
Comments:

____(6.2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; AND (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.
Comments:

____(6.3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if
(i) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
Comments:

__X__(6.4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
Comments:
Investigators will collect existing data using archival documents and records already secured in the Old Dominion University Counseling Services. Archival data will be collected from existing records pertaining only to students who, upon visiting the counseling services, agreed to sign an informed consent form which indicated that existing documents and records might be used "for the purpose of evaluating [the office's] services, gathering valuable research information, ...". The investigator who will directly collect the data is a graduate student hired and employed in the Counseling Services as a Clinical Associate. The investigator will record all information is such a manner that participant identity cannot be obtained or suggested based on the research dataset. Further, generally speaking, all data will be stored securely; collected confidentially; and analyzed and reported strictly in anonymous, group format.

____ (6.5) Does not apply to the university setting; do not use it

____(6.6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U S Department of Agriculture.
Comments:

PLEASE NOTE:

1.   You may begin research when the College Committee or Institutional Review Board gives notice of its approval
2.   You MUST inform the College Committee or Institutional Review Board of ANY changes in method or procedure that may conceivably alter the exempt status of the project.

Responsible Project Investigator (Must be original signature)   Date

Application for Exempt Research

Schwitzer & Burnett

Effects of college counseling on university students' academic success

<u>ATTACHMENT 1</u>

<u>Description of the Proposed Study</u>

<u>References</u>

Effects of College Counseling on University Students' Academic Success

Alan M. "Woody" Schwitzer

Dana Burnett

Department of Educational Leadership and Counseling
Darden College of Education
Old Dominion University
Norfolk, VA 23529-0157
(Office) 757-683-3221
(Fax) 757-683-5756
(email) aschwitz@odu.edu

MAJOR RESEARCH PROJECT

Dr. Alan M. "Woody" Schwitzer is Associate Professor of Educational Leadership & Counseling. Previously, he worked in college counseling centers for over 10 years. His ongoing research program examining college student counseling, adjustment, development, and learning includes about 30 published articles in journals such as *Journal of Counseling & Development, Journal of College Counseling, Measurement and Evaluation in Counseling and Development, Counselor Education & Supervision, Journal of College Student Development, Journal of American College Health, Journal of College Student Psychotherapy,* and *Journal of the First-Year Experience and Students in Transition.*

Dr. Dana Burnett is Professor and Department Chair of Educational Leadership and Counseling. Previously, he worked in Divisions of Student Affairs for over 20 years. During that time, in his roles as Director, Dean of Students, and Vice President for Student Affairs, he has designed, evaluated, and provided leadership for college student services including mental health counseling, career counseling, academic support, multicultural student services, health centers, and women's centers.

Statement of Need

The purpose of the proposed funded research is to complete a comprehensive study investigating the effects of university counseling on college students' academic success. For nearly two decades, college and university accreditation bodies, state legislatures, upper administrators, and other institutional constituencies have required greater accountability from student service providers. Increasingly, college counseling centers and other offices have been asked to demonstrate intended student outcomes as part of their planning and funding process (Giddan & Weis, 1990; Osborne & House, 1995).

College counselors have been responding to these longstanding demands that they become more accountable, conduct better assessments of service outcomes, and do more to demonstrate the contributions they make to their institutions' missions. (Bishop, 1990, 2006; Schwitzer, 1997, 2002; Stone & Archer, 1990). For example, researchers have examined various aspects of college counseling, including student help-seeking patterns and utilization of services (Sharkin, Plageman, & Coulter, 2005; Levy, Thompson-Leonardelli, Smith, & Coleman, 2005), client problem severity (Beamish, 2005), and the clinical dynamics associated with psychotherapeutic outcomes (Rochlen, Rude, & Baron, 2005; Wolgast, Rader, Roche, Thompson, von Zuben, & Goldberg, 2005). However, recent reviews continue to call for new research that extends the college counseling knowledge base by using solid methodological designs to carefully examine student factors (Sharkin & Coulter, 2005) and institutional outcomes (Bishop, 2006; Schwitzer, 2002) associated with college counseling.

Background Review

The proposed funded investigation will extend an existing research program examining the outcomes of college counseling services on student adjustment, development, learning, and

academic success. For example, the primary investigator has evaluated outcomes of mandated individual college counseling (Schwitzer, Grogan, Kaddoura, & Ochoa, 1993), group counseling and psychoeducational workshops (Schwitzer & Metzinger, 1998), peer mentoring programs (Schwitzer & Thomas, 1998), and first-year "college 101" seminars (Schwitzer, McGovern, & Robbins, 1991). An important emphasis of this existing research program has been an attempt to evaluate the effects of counseling and developmental interventions on student academic performance, retention, and graduation.

Schwitzer et al. (1993) investigated whether participation in mandatory counseling improved students' academic performance and, in turn, their likelihood of successfully completing their bachelor's degree. Participants in the study were 113 low achieving students receiving financial aid who were mandated by their institution to participate in one initial college counseling center session. Because earlier research showed that previous positive experience with mental health services was an important predictor of psychological help-seeking among college students, the study measured voluntary use of counseling subsequent to the mandatory meeting, as well as the relationships between voluntary use of services after the mandated meeting, improvement in grade point average (GPA), and retention through graduation Schwitzer et al. found that those students who made greater overall use of voluntary counseling (ie., attended more sessions) and made greater use of counseling at different time-points during their college experience (ie., returned to the counseling center more often over the years) were more likely to improve their GPAs above the threshold for academic risk, and were more likely to persist and then graduate, than those who declined services following the mandated meeting.

Looking at counseling center services beyond individual psychotherapy, Schwitzer & Thomas (1998) investigated whether voluntary participation in an intensive peer mentor program

implemented by the counseling center would result in better academic performance and higher retention rates among first-year African American matriculants at a predominantly White institution. According to findings of the study, program participants has comparable grades, but better overall first-year adjustment and higher two-year retention rates, than their African American peers who declined the program.

In an earlier study, Schwitzer, McGovern, & Robbins (1991) investigated whether voluntary participation in a first-year seminar, offered as a one-credit academic course designed to orient participants to the university and bolster students' academic, social, personal-emotional, and institutional adjustment, would result in better adjustment, grades, and retention. In this study, students in the intervention reported better than usual first-year adjustment, successful academic performance, and extremely high retention into the second year.

Along similar lines, Schwitzer and Metzinger (1998) illustrated a plan they designed for evaluating university counseling outcomes using Patton's (1997) utilization-focused evaluation model. These researchers demonstrated how to show successful implementation, gains in student learning (in the form of increased topical knowledge and increased self-understanding), and improved student adjustment or development (in the form of applications of learning to life situations, skills, relationships, or improved sense of self) resulting from counseling center psychoeducational workshops (including alcohol education, assertiveness, dealing with difficult people, improving self-esteem, relaxation techniques, and sexual assault prevention) and group counseling. Although this study did not explicitly measure the impact of these services on academic success and retention, the evaluation model was successfully used to communicate about counseling services with external constituencies such as the State Council on Higher Education.

.

In turn, the goal of the proposed funded study is to substantially extend this research by conducting a straightforward project that examines the effects of voluntarily participation in individual counseling on student GPA, credits completed, retention, and graduation.

Research Design and Analysis

Client Participants and Comparison Group

All voluntary Old Dominion University counseling center clients seen during the past 5 years (and for whom a signed consent is on record) will be included in the study. In addition, a 5-year comparison group will be included comprising students who declined a documented suggestion to visit the counselor center was made by a student affairs staff member.

Design, Research Questions, and Variables

The proposed research will be an archival study of existing counseling center client data and institutional student data. Multiple sets of statistical analyses will be used to answer research questions about participation in counseling and academic outcomes, and to compare academic outcomes of students using counseling services versus students who declined a documented student affairs staff member's suggestion to visit the counseling center. Research questions asked will include whether making a counseling center visit, and whether greater utilization of counseling services [independent variables will be (a) referral source, (b) overall number of sessions from 0 upward, (c) number of returns to counseling at different points in time, and (d) concern identified as describing the nature of the client's counseling concerns], are associated with greater academic success [dependent variables will be change in GPA, credits completed, retention rate, and graduation rate after 5 years]; and whether different types of client concerns are associated with different outcomes. Counseling center data describing referral source, counseling sessions, and nature of concerns will be collected. Institutional student data

concerning student affairs contacts, grades, enrollment, credits completed, and graduation will be collected.

Preliminary Steps

The study will be use data which already are available. The investigators already have laid the necessary groundwork with the counseling center director, vice president for student affairs, and other key personnel. A proposal to the institution's human subject review board already is in progress. Counseling center clients at the university already are routinely asked to give written permission for their records to be used for research purposes and members of the university community consent to use of their institutional records for research purposes.

Funding Needs

The attached budget application is for funding for a graduate student researcher to be employed in the university counseling center to collect, compile, and assist in analyzing data directly from student records. We anticipate needing 1 graduate assistant, 20 hours per week, for 2 semesters to complete the study. We are applying for $4800 to fund a graduate assistant for 1 academic semester. If the proposal is funded, the institution will match this funding to support the graduate assistant for 1 additional semester.

Plans for Dissemination

We expect to collect and compile the data in Fall 2007, and analyze the data and prepare written products reporting our findings in Spring 2008. Assuming the results merit publication, we will submit a manuscript to the JCC, JCD, or similar journal by June 2008. We also expect to submit a proposal to present our findings at the next possible ACA Convention or ACCA Convention. (Please note that because the lead investigator works closely with the JCC, an extraordinary review process might be ethically necessary for a submission to this journal).

98

References

Beamish, P. M. (2005). Introduction to the special section – Severe and persistent mental illness on college campuses: Considerations for service provision. *Journal of College Counseling 8,* 138-139.

Bishop, J.S. (1990). The university counseling center: An agenda for the 1990s. *Journal of Counseling & Development, 68,* 408-413.

Bishop, J. S. (2006). College and university counseling centers: Questions in search of answers. *Journal of College Counseling, 9,* 6-19.

Giddan, N. S., & Weis, S. J. (1990). Costs and effectiveness of counseling center dropout prevention. *Journal of College Student Development, 31,* 100-107.

Levy, J. J., Thompson-Leonardelli, K., Smith, N. G., & Coleman, M. N. (2005). Attrition after intake at a university counseling center: Relationship among client race, problem type, and time on a waiting list. *Journal of College Counseling, 8,* 107-118.

Osborne, J. L., & House, R. M. (1995). Evaluation of counselor education programs: A proposed plan. *Counselor Education and Supervision, 34,* 253-269.

Patton, M. P. (1997). *Utilization-focused evaluation: The new century text, Edition 3.* Sage Publications: Thousand Oaks, CA.

Rochlen, A. B., Rude, S. S., & Baron, A. (2005). The relationship of client stages of change to working alliance and outcome in short-term counseling. *Journal of College Counseling, 8,* 52-64.

Schweitzer, A. M. (1997). Utilization-focused evaluation: Proposing a useful method of program

evaluation for college counselors and student development professionals. *Measurement and Evaluation in Counseling and Development, 30,* 50-61.

Schwitzer, A. M. (2002). Using a chain-of-effects framework to meet institutional accountability demands. *Journal of American College Health, 50,* 183-187.

Schwitzer, A. M., Grogan, K., Kaddoura, K., & Ochoa, L. (1993). Effects of brief mandatory counseling on help-seeking and academic success among at-risk college students. *Journal of College Student Development, 34,* 401-405.

Schwitzer, A. M., McGovern, T. V., & Robbins, S. B. (1991). Adjustment outcomes of a freshman seminar: A utilization-focused approach. *Journal of College Student Development, 32,* 484-489.

Schwitzer, A. M., & Metzinger, T. (1998). Applying the *Student Learning Imperative* to counseling center outcome evaluation. *Journal of College Student Psychotherapy, 13,* 71-92.

Schwitzer, A. M., & Thomas, C. (1998). Implementation, utilization, and outcomes of a minority freshman peer mentor program at a predominantly white university. *Journal of The Freshman Year Experience & Students in Transition, 10,* 31-50.

Sharkin, B. S., & Coulter, L. P. (2005). Empirically supporting the increasing severity of college counseling center client problems: Why is it so challenging? *Journal of College Counseling, 8,* 165-171.

Sharkin, B. S., Plageman, P. M., & Coulter, L. (2005). Help-seeking and non-help-seeking students' perceptions of own and peers' mental health functioning. *Journal of College Counseling, 8,* 65-73.

Stone, G. L., & Archer, J., Jr. (1990). College and university counseling centers in the 1990s:

Challenges and limits. *The Counseling Psychologist, 18,* 539-607.

Wolgast, B. M., Rader, J. Roche, D., Thompson, C. P., Zuben, F. C., & Goldberg, A. (2005). I

nvestigation of clinically significant change by severity level in college counseling center

clients. *Journal of College Counseling, 8,* 140-152.

Application for Exempt Research

Schwitzer & Burnett

Effects of college counseling on university students' academic success

<u>ATTACHMENT 2</u>

<u>Research Protocol</u>

Research Protocol

Setting

The proposed study will be conducted at Old Dominion University, a public four-year university in the Commonwealth of Virginia. Specifically, the proposed study will be conducted in the ODU Counseling Services, Division of Student Affairs.

Participants

All students who sought services at the ODU Counseling Services from AY 2000 to present – and agreed upon intake at the center to allow their confidential archival data to used for future evaluation and research purposes – will be included in the study.

Method/Data Collection Procedures

The primary researcher responsible for collecting the data will be a graduate student in counseling who has been hired and is working in the ODU Counseling Services as a Clinical Assistant. This hands-on investigator will be an employee of the counseling center. He or she will have access to archives and records normally according staff members. He or she will meet specified qualifications regarding confidentiality and other professional and ethical behaviors pertaining to the worksite and student information. Additional training will be provided regarding ethical considerations; the clinical assistant will be under direct supervision of the counseling services director; and received close consultation from the primary investigators.

The clinical associate leading the data collection will collect information from written files and electronically stored data files containing information about use of counseling services, as covered by the informed consent. The clinical associate also will collect written or electronic information from closely linked student affairs data pertaining to counseling and academic success.

Once the research information is collected, the files and e-files will be returned intact to their original storage. Data will be collected and recorded in the research dataset using a coding system that will protect student-participant identities, and ensure anonymity in the analysis and reporting.

It is expected that data collection will be completed during Fall 2007.

Measures

The following pieces of information will be collected from the archival files: basic demographic information; utilization of services, including number of sessions attended and number of different returns to counseling; categorical data about purpose for counseling, divided by academic/career needs versus personal/emotional needs; specific types of problems presented and addressed; and termination disposition, such as mutual,

counselor initiated/time limit, and student-initiated; referral sources, such as self, faculty, student affairs office, family, etc.; and academic progress information (including academic status over time, such as enrolled, academic at-risk, graduation) and academic performance information (including grade point average, credits completed).

Analysis of Data

Organization, entry, and analysis of data will occur under the direction of ODU faculty and staff. Accepted descriptive, correlational, and predictive analytic procedures will be conducted using the SPSS package.

Report of Findings

All reports of findings (technical reports, journal articles, etc.) will be written to report data in aggregate form to emphasize confidential collection and anonymity of participants. It is expected that findings primarily will be shared to advance the college counseling knowledge base and to inform the day to day practice of professional counseling in the college and university context.

Application for Exempt Research

Schwitzer & Burnett

Effects of college counseling on university students' academic success

ATTACHMENT 3

Old Dominion University Counseling Services Informed Consent

Old Dominion University Counseling Services

C O N F I D E N T I A L

Informed Consent

Regarding Our Information Forms and Service

The purpose of the following informational questionnaires is to obtain as comprehensive a picture of your background and concerns as possible so that we may best serve your needs. Please answer the questions as honestly and accurately as you can. All records at the Counseling Services are confidential.

Regarding Confidentiality

We realize that the concerns you bring to our office are highly personal in nature. We assure you that all information shared--both verbally and in writing, will be managed within the legal and ethical conditions of confidentiality. This means that information will not be released to anyone except under the following conditions:

1. When our counseling staff feel the need to seek supervision, we may consult with professional colleagues within our agency. This will aid us in our work with you.

2. If we believe that you pose a life-threatening risk to yourself or someone else, we must notify responsible individuals to prevent any harm from occurring.

3. If you are under 18 years of age and a victim of physical or sexual abuse, we are required to report relevant information to child protective services to prevent further abuse from occurring. Additionally, if you disclose information regarding the physical or sexual abuse of a minor, we are also required to report relevant information to child protective services.

4. If you are involved in a legal action and a judge determines that clinical information will provide evidence bearing significantly on the case, he or she may subpoena or legally compel the therapist to release information from your records.

5. In case of any malpractice action against counselors on staff, the counselor may disclose information from the case that is relevant or necessary to the counselor's defense.

6. When your counselor is receiving supervision, a consent form to discuss your case with their supervisor will be fully discussed and signed giving your consent to this.

7. For the purpose of evaluating our services, gathering valuable research information, and designing future programs, the counseling center staff may utilize your clinical information; however, your anonymity will be maintained through use of a client identification number, which is different from any identifying data such as a social security number.

8. All communications between you and the counselor are part of your clinical record. You may also obtain a copy through formal request, signed and indicating the information and to who the information is to.

9. All case files are the property of Counseling Services.

In all other situations, information may be release to appropriate individuals or agencies **ONLY UPON YOUR WRITTEN REQUEST.**

I have read and understand that the conditions of confidentiality apply to those identified as a client, as well as any information shared verbally, or related to my records file.

Date _____   Signature _____

If you have any questions about this form, your intake counselor will be glad to discuss this information with you.

Application for Exempt Research

Schwitzer & Burnett

Effects of college counseling on university students' academic success

ATTACHMENT 4

Full Proposal for External Support by the

American College Counseling Association (ACCA)

ACCA

March 17, 2007

Roxane L. Dufrene, Ph.D.
Assistant Professor
University of New Orleans
New Orleans, LA 70148

Dr. Alan M. Schwitzer
4509 Colonial Avenue
Norfolk, VA 23508

and

Dr. Dana Burnett
114 East Road
Portsmouth, VA 23707

Dear Drs. Schwitzer and Burnett

Congratulations, we are delighted to inform you that the ACCA research committee has chosen your proposal for ACCA's Research Award for $4,800.00! We received several qualified proposals this year for the Research Grant. Thank you for the submission of your proposal to the American College Counseling Association. We wish you great success in completion of your research project entitled: *Effects of College Counseling on University Students' Academic Success.* We look forward to the submission of your research at ACCA's conference and/or your publication in the *Journal of College Counseling*.

The ACCA President will announce your award at ACA's conference in Detroit. I hope you will be at the conference where you will have an opportunity to meet some of the members and leaders in the organization. Please contact Cynthia Bing, ACCA's Treasurer. She will need your social security numbers and contact information. This information is needed for imbursement purposes.

Again, the members of ACCA wish you great success with your research and professional work experiences related to college students.

Sincerely

Roxane L. Dufrene, Ph.D., LMFT, LPC, NCC

cc: Paul Fornell, ACCA President
    Cynthia Bing, Treasurer

American College Counseling Association
ANNUAL RESEARCH PROPOSAL APPLICATION

Submit ONLINE (email to: rdufren1@uno.edu) to:
Dr. Roxane L. Dufrene, University of New Orleans
New Orleans, LA 70148
Application Deadline: March 1, 2007

Researcher(s) Name: Alan M. Schwitzer (CONTACT PERSON) Date: March 1, 2007

Address: 4509 Colonial Avenue

           Norfolk, VA   Zip: 23508

Phone: (home)757-489-7572 (work)757-683-3251

E-Mail: aschwitz@odu.edu

Researcher Name: Dana Burnett

Address: _____

                    Zip: _____

Phone: (home)_____ (work)_____

E-Mail: _____

University or College: Old Dominion University

Department: Educational Leadership and Counseling

Address: EDUC 110, Darden College of Education

           Norfolk, VA   Zip: 23529-0157

Faculty X   Center Director _____   Student _____   Other _____

Note: Student's Faculty Support information (if applicable, same as above for faculty)

Note: Co-Researcher(s) Information (if applicable, same as above for each co-researcher)

CHOOSE SOURCE OF FUNDING: Please check the research award you are applying for (i.e. $250 Grant or $5000 Funded Research).

  X $5000 (Up to $5000 will be awarded)

Purpose: The purpose of this financial support is to fund research efforts supporting outcome research highlighting *the effects of college counseling practices on college student retention*

YOUR ACCA MEMBERSHIP NUMBER Schwitzer: 6154600, Burnett: _____
Note: Your ACCA Membership Number is required for your proposal to be considered.)

American College Counseling Association
ANNUAL RESEARCH PROPOSAL APPLICATION

TITLE OF PROPOSED RESEARCH:

Effects of College Counseling on University Students' Academic Success

HOW DID YOU HEAR ABOUT THE RESEARCH OPPORTUNITIES

____X_ listserve   ___X_ conference   _____ colleague   _____ other

APPROXIMATE TIMELINE of RESEARCH: Start Date: 08/2007 Completion Date: 06/2008

BUDGET (please describe each item in detail – If needed, one additional page is allowed:

Advertisement		= _____
Clerical support	_____ hrs X _____ per hour	= _____
Compensation for Participants	_____	= _____
Conference Expenses	_____	= _____
Copying/Printing	_____ # of Copies ____ Cost per copy	= _____
Postage	_____	= _____
Salaries		
Researcher(s)	_____	= _____
Graduate Student(s)	1 graduate research assistant for 1 semester	= $4800.00
Statistical Consultant	_____	= _____
Supplies	_____	
	_____	
	Subtotal Supplies	= _____
Telephone	_____	= _____
Travel	_____	= _____
Web Services	_____	= _____
Writing Consultant	_____	= _____
Other	_____	= _____
	Sub-Total:	$4800.00
	subtract any other funding you have received:	See note below
	Financial Support Request – Total:	$4800.00

Note: Counseling center graduate research assistant needed 2 semesters to complete this project. If the research is funded via this grant, the university will provided funding for semester 2 (i.e., the institution will match the funding).

THANK YOU

Effects of College Counseling on University Students' Academic Success

Alan M. "Woody" Schwitzer

Dana Burnett

Department of Educational Leadership and Counseling
Darden College of Education
Old Dominion University
Norfolk, VA 23529-0157
(Office) 757-683-3221
(Fax) 757-683-5756
(email) aschwitz@odu.edu

GRANT PROPOSAL
MARCH 1, 2007

MAJOR RESEARCH PROJECT

Dr. Alan M. "Woody" Schwitzer is Associate Professor of Educational Leadership & Counseling. Previously, he worked in college counseling centers for over 10 years. His ongoing research program examining college student counseling, adjustment, development, and learning includes about 30 published articles in journals such as *Journal of Counseling & Development*, *Journal of College Counseling*, *Measurement and Evaluation in Counseling and Development*, *Counselor Education & Supervision*, *Journal of College Student Development*, *Journal of American College Health*, *Journal of College Student Psychotherapy*, and *Journal of the First-Year Experience and Students in Transition*.

Dr. Dana Burnett is Professor and Department Chair of Educational Leadership and Counseling. Previously, he worked in Divisions of Student Affairs for over 20 years. During that time, in his roles as Director, Dean of Students, and Vice President for Student Affairs, he has designed, evaluated, and provided leadership for college student services including mental health counseling, career counseling, academic support, multicultural student services, health centers, and women's centers.

Statement of Need

The purpose of the proposed funded research is to complete a comprehensive study investigating the effects of university counseling on college students' academic success. For nearly two decades, college and university accreditation bodies, state legislatures, upper administrators, and other institutional constituencies have required greater accountability from student service providers. Increasingly, college counseling centers and other offices have been asked to demonstrate intended student outcomes as part of their planning and funding process (Giddan & Weis, 1990; Osborne & House, 1995).

College counselors have been responding to these longstanding demands that they become more accountable, conduct better assessments of service outcomes, and do more to demonstrate the contributions they make to their institutions' missions. (Bishop, 1990, 2006; Schwitzer, 1997, 2002; Stone & Archer, 1990). For example, researchers have examined various aspects of college counseling, including student help-seeking patterns and utilization of services (Sharkin, Plageman, & Coulter, 2005; Levy, Thompson-Leonardelli, Smith, & Coleman, 2005), client problem severity (Beamish, 2005), and the clinical dynamics associated with psychotherapeutic outcomes (Rochlen, Rude, & Baron, 2005; Wolgast, Rader, Roche, Thompson, von Zuben, & Goldberg, 2005). However, recent reviews continue to call for new research that extends the college counseling knowledge base by using solid methodological designs to carefully examine student factors (Sharkin & Coulter, 2005) and institutional outcomes (Bishop, 2006; Schwitzer, 2002) associated with college counseling.

Background Review

The proposed funded investigation will extend an existing research program examining the outcomes of college counseling services on student adjustment, development, learning, and

academic success. For example, the primary investigator has evaluated outcomes of mandated individual college counseling (Schwitzer, Grogan, Kaddoura, & Ochoa, 1993), group counseling and psychoeducational workshops (Schwitzer & Metzinger, 1998), peer mentoring programs (Schwitzer & Thomas, 1998), and first-year "college 101" seminars (Schwitzer, McGovern, & Robbins, 1991). An important emphasis of this existing research program has been an attempt to evaluate the effects of counseling and developmental interventions on student academic performance, retention, and graduation.

Schwitzer et al. (1993) investigated whether participation in mandatory counseling improved students' academic performance and, in turn, their likelihood of successfully completing their bachelor's degree. Participants in the study were 113 low achieving students receiving financial aid who were mandated by their institution to participate in one initial college counseling center session. Because earlier research showed that previous positive experience with mental health services was an important predictor of psychological help-seeking among college students, the study measured voluntary use of counseling subsequent to the mandatory meeting, as well as the relationships between voluntary use of services after the mandated meeting, improvement in grade point average (GPA), and retention through graduation. Schwitzer et al. found that those students who made greater overall use of voluntary counseling (ie., attended more sessions) and made greater use of counseling at different time-points during their college experience (i.e., returned to the counseling center more often over the years) were more likely to improve their GPAs above the threshold for academic risk, and were more likely to persist and then graduate, than those who declined services following the mandated meeting.

Looking at counseling center services beyond individual psychotherapy, Schwitzer & Thomas (1998) investigated whether voluntary participation in an intensive peer mentor program

implemented by the counseling center would result in better academic performance and higher retention rates among first-year African American matriculants at a predominantly White institution. According to findings of the study, program participants has comparable grades, but better overall first-year adjustment and higher two-year retention rates, than their African American peers who declined the program.

In an earlier study, Schwitzer, McGovern, & Robbins (1991) investigated whether voluntary participation in a first-year seminar, offered as a one-credit academic course designed to orient participants to the university and bolster students' academic, social, personal-emotional, and institutional adjustment, would result in better adjustment, grades, and retention. In this study, students in the intervention reported better than usual first-year adjustment, successful academic performance, and extremely high retention into the second year.

Along similar lines, Schwitzer and Metzinger (1998) illustrated a plan they designed for evaluating university counseling outcomes using Patton's (1997) utilization-focused evaluation model. These researchers demonstrated how to show successful implementation, gains in student learning (in the form of increased topical knowledge and increased self-understanding), and improved student adjustment or development (in the form of applications of learning to life situations, skills, relationships, or improved sense of self) resulting from counseling center psychoeducational workshops (including alcohol education, assertiveness, dealing with difficult people, increasing self-esteem, relaxation techniques, and sexual assault prevention) and group counseling. Although this study did not explicitly measure the impact of these services on academic success and retention, the evaluation model was successfully used to communicate about counseling services with external constituencies such as the State Council on Higher Education.

In turn, the goal of the proposed funded study is to substantially extend this research by conducting a straightforward project that examines the effects of voluntary participation in individual counseling on student GPA, credits completed, retention, and graduation.

Research Design and Analysis

Client Participants and Comparison Group

All voluntary Old Dominion University counseling center clients seen during the past 5 years (and for whom a signed consent is on record) will be included in the study. In addition, a 5-year comparison group will be included comprising students who declined a documented suggestion to visit the counselor center was made by a student affairs staff member.

Design, Research Questions, and Variables

The proposed research will be an archival study of existing counseling center client data and institutional student data. Multiple sets of statistical analyses will be used to answer research questions about participation in counseling and academic outcomes, and to compare academic outcomes of students using counseling services versus students who declined a documented student affairs staff member's suggestion to visit the counseling center. Research questions asked will include whether making a counseling center visit, and whether greater utilization of counseling services [independent variables will be (a) referral source, (b) overall number of sessions from 0 upward, (c) number of returns to counseling at different points in time, and (d) categorical data describing the nature of the client's counseling concerns], are associated with greater academic success [dependent variables will be change in GPA, credits completed, retention rate, and graduation rate after 5 years]; and whether different types of client concerns are associated with different outcomes. Counseling center data describing referral source, counseling sessions, and nature of concerns will be collected. Institutional student data

concerning student affairs contacts, grades, enrollment, credits completed, and graduation will be collected.

Preliminary Steps

The study will be use data which already are available. The investigators already have laid the necessary groundwork with the counseling center director, vice president for student affairs, and other key personnel. A proposal to the institution's human subject review board already is in progress. Counseling center clients at the university already are routinely asked to give written permission for their records to be used for research purposes and members of the university community consent to use of their institutional records for research purposes.

Funding Needs

The attached budget application is for funding for a graduate student researcher to be employed in the university counseling center to collect, compile, and assist in analyzing data directly from student records. We anticipate needing 1 graduate assistant, 20 hours per week, for 2 semesters to complete the study. We are applying for $4800 to fund a graduate assistant for 1 academic semester. If the proposal is funded, the institution will match this funding to support the graduate assistant for 1 additional semester.

Plans for Dissemination

We expect to collect and compile the data in Fall 2007, and analyze the data and prepare written products reporting our findings in Spring 2008. Assuming the results merit publication, we will submit a manuscript to the *JCC*, *JCD*, or similar journal by June 2008. We also expect to submit a proposal to present our findings at the next possible ACA Convention or ACCA Convention. (Please note that because the lead investigator works closely with the *JCC*, an extraordinary review process might be ethically necessary for a submission to this journal).

References

Beamish, P. M. (2005). Introduction to the special section – Severe and persistent mental illness on college campuses: Considerations for service provision. *Journal of College Counseling 8*, 138-139.

Bishop, J.S. (1990). The university counseling center: An agenda for the 1990s. *Journal of Counseling & Development, 68*, 408-413.

Bishop, J. S. (2006). College and university counseling centers: Questions in search of answers. *Journal of College Counseling, 9*, 6-19.

Giddan, N. S., & Weis, S. J. (1990). Costs and effectiveness of counseling center dropout prevention. *Journal of College Student Development, 31*, 100-107.

Levy, J. J., Thompson-Leonardelli, K., Smith, N. G., & Coleman, M. N. (2005). Attrition after intake at a university counseling center: Relationship among client race, problem type, and time on a waiting list. *Journal of College Counseling, 8*, 107-118.

Osborne, J. L., & House, R. M. (1995). Evaluation of counselor education programs: A proposed plan. *Counselor Education and Supervision, 34*, 253-269.

Patton, M. P. (1997). *Utilization-focused evaluation: The new century text, Edition 3*. Sage Publications: Thousand Oaks, CA.

Roehlen, A. B., Rude, S. S., & Baron, A. (2005). The relationship of client stages of change to working alliance and outcome in short-term counseling. *Journal of College Counseling, 8*, 52-64.

Schwitzer, A. M. (1997). Utilization-focused evaluation: Proposing a useful method of program

evaluation for college counselors and student development professionals. *Measurement and Evaluation in Counseling and Development, 30,* 50-61.

Schwitzer, A. M. (2002). Using a chain-of-effects framework to meet institutional accountability demands. *Journal of American College Health, 50,* 183-187.

Schwitzer, A. M., Grogan, K., Kaddoura, K., & Ochoa, L. (1993). Effects of brief mandatory counseling on help-seeking and academic success among at-risk college students. *Journal of College Student Development, 34,* 401-405.

Schwitzer, A. M., McGovern, T. V., & Robbins, S. B. (1991). Adjustment outcomes of a freshman seminar: A utilization-focused approach. *Journal of College Student Development, 32,* 484-489.

Schwitzer, A. M., & Metzinger, T. (1998). Applying the *Student Learning Imperative* to counseling center outcome evaluation. *Journal of College Student Psychotherapy, 13,* 71-92.

Schwitzer, A. M., & Thomas, C. (1998). Implementation, utilization, and outcomes of a minority freshman peer mentor program at a predominantly white university. *Journal of The Freshman Year Experience & Students in Transition, 10,* 31-50.

Sharkin, B. S., & Coulter, L. P. (2005). Empirically supporting the increasing severity of college counseling center client problems: Why is it so challenging? *Journal of College Counseling, 8,* 165-171.

Sharkin, B. S., Plageman, P. M., & Coulter, L. (2005). Help-seeking and non-help-seeking students' perceptions of own and peers' mental health functioning. *Journal of College Counseling, 8,* 65-73.

Stone, G. L., & Archer, J., Jr. (1990). College and university counseling centers in the 1990s:

Challenges and limits. *The Counseling Psychologist, 18,* 539-607.

Wolgast, B. M., Rader, J. Roche, D., Thompson, C. P., Zuben, F. C., & Goldberg, A. (2005). Investigation of clinically significant change by severity level in college counseling center clients. *Journal of College Counseling, 8,* 140-152.

APPENDIX B

Approval Follow-up Email

RE: Schwitzer Burnett Research Dataset Update
Remley, Theodore P.
Sent: Thursday, November 21, 2013 1:39 PM
To: Schwitzer, Alan

Hi Woody:

I received your update. This update was not necessary according to our procedures. Once an exempt application has been approved, there is no expiration date. Only substantial changes from the original application must be reported to the college Human Subjects Committee.

Best wishes with this research project.

Ted

Theodore P. Remley, Jr., J.D., Ph.D.
Department of Counseling and Human Services
Professor and Batten Endowed Chair
110 Education Building
Old Dominion University
Norfolk, Virginia 23529
tremley@odu.edu
(757) 683-3326 (department office)
(757) 683-6695 (office)

From: Schwitzer, Alan
Sent: Thursday, November 21, 2013 1:27 PM
To: Remley, Theodore P.
Subject: Schwitzer Burnett Research Dataset Update

TO: Ted Remley
FROM: Alan M. "Woody" Schwitzer
RE: Schwitzer Burnett Research Dataset Update

Ted: I am emailing to provide you with an update regarding an existing dataset collected as part of a research project previously awarded Exempt status by the DCOE research committee. The original project description is attached. The project involved collection of archival data from ODU counseling and health center records and institutional data. The data were collected; all participant identifiers were removed; and there is no way at all to connect any of the data with student identities. My update in this email is that we are continuing to conduct new analyses using this now-archival, now-pre-existing dataset.

At your convenience, would you please confirm this update so I'll have the acknowledgement for our records? Thanks, Ted!
Woody

Alan M. "Woody" Schwitzer, Ph.D.
Editor, In Practice Department, *About Campus Magazine*
Past Editor, *Journal of College Counseling*
Licensed Psychologist & Professor of Counseling
Department of Counseling & Human Services
Old Dominion University, Norfolk, VA 23529-0157
(Office) 757-683-3251 (Fax) 757-683-5756
http://www.odu.edu/~aschwitz/

CURRICULUM VITAE

Catherine Blair Moss

EDUCATION

Doctor of Philosophy in Education, Higher Education concentration   May 2015
Old Dominion University, Norfolk, VA

Master of Science in Psychology   August 2007
Old Dominion University, Norfolk, VA

Bachelor of Science in Psychology   May 2004
University of Mary Washington, Fredericksburg, VA

EXPERIENCE

Coordinator, Sophomore Success and Continuance   November 2011 – Present
Advising and Transfer Programs, Old Dominion University

Adjunct Faculty, Psychology   January 2009 – October 2013
Division of Languages, Mathematics, and Sciences, Tidewater Community College

College Advisor   October 2010 – October 2011
College of Health Sciences, Old Dominion University

AWARDS

Outstanding New Advisor Certificate of Merit, NACADA National award   2014

Outstanding New Advisor Award, Old Dominion University   2013-2014

RECENT PRESENTATIONS

Moss, C., & Howard, F. (2014, March). *Earning a doctorate and working full time.* Presented at NACADA Region 2 Conference, Lancaster, PA.

Moss, C., & Boyd, B. E. (2013, November). *All hands on deck: A collaborative effort to support sophomore success.* Presented at the SACSA Annual Conference, Norfolk, VA.

Moss, C., Morrison, M., & Ferrara, K. (2010, October). *Building an advising network: Elevating professional development at your institution.* Presented at the NACADA Annual Conference, Salt Lake City, Utah.