6-30-2016

The Impact of Doctoral Study on the Relationship Satisfaction and Commitment Level of Doctoral Students and Doctoral Students Partners

Justin Cory Muller

The Impact of Doctoral study on the Relationship Satisfaction and Commitment Level of
Doctoral Students and Doctoral Student Partners

by

Justin Cory Muller

Bachelor of Science
University of South Carolina, 2011

Master of Science
Valdosta State University, 2013

_____

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

Counselor Education

College of Education

University of South Carolina

2016

Accepted by:

Kathy Evans, Major Professor

Ryan Carlson, Committee Member

Darren Moore, Committee Member

Jonathan Ohrt, Committee Member

Lacy Ford, Senior Vice Provost and Dean of Graduate Studies

Dedication

This dissertation is dedicated to all of my family members who are with me in spirit each and every day. I know in my heart that you don't have to physically see someone to know they are with you wherever you go. I thank you all for praying for me and for each of the sweet things you did for me. I love you all and may you all rest in peace.

I would like to thank my grandmother Mrs. Rosa Mae Moore. My grandma taught me the importance of being humble and respecting others. You always told me to "not count my chickens before they hatch." I thank you for the wonderful hugs that I will always cherish and miss. You will always be "My Favorite Rose." I love you.

I would like to thank my brother Dallas Muller. You will always be my hero. I thank you for teaching me about sports, computers, and video games. I thank you for the times now that I can talk and rap to you about any and everything. I love you and now that I have completed this dissertation, I can let everyone know once again that Dallas We Did It!

Carolina's Counselor Education PhD program because I felt that I would not get in due to my lack of clinical experience. It was you, Kristy, who told me one afternoon after church in JCPenney's that I could get accepted into this program. I will never forget how you had confidence in me even when I did not have it in myself. I love you.

I would like to say thank you to my wonderful family. My family has provided me all the encouragement, support, and love that anyone could ever ask for. Most importantly, my family has provided me with prayer. My sister Symone has a beautiful voice and my favorite song that I like to hear her sing is "Somebody Prayed for Me." I love you all.

I would like to thank all of the friends that I have made throughout my academic journey for all of the times you called me "Dr. Muller" while I was still working on my degree. I would like to thank my National Association of Black Accountants (NABA) team, Valdosta State University N.O.D team, USC Resident Mentor team, and my Intervention Services Team. I would like to thank all of my past and present supervisors, mentors, and professors at USC and all of my wonderful professors at Valdosta State University. I love you all.

I would like to thank my "Dream Team" doctoral committee. I would like to thank you Dr. Evans for believing in a 27 year old young man from Cayce, SC. I would also like to thank you Dr. Evans for your leadership, guidance, and care throughout my dissertation. Dr. Carlson, thank you for all of your assistance and insight with dyadic data. Dr. Ohrt, thank you for observing my class and providing me much insight on how to be a better counselor educator. Dr. Moore, thank you for all of your assistance both in Valdosta when you were my professor and also with my dissertation. I love you all.

Abstract

The purpose of this study was to explore the impact of doctoral study on the relationship satisfaction and commitment level of both doctoral students and partners of doctoral students. The researcher examined length of relationship, gender, financial status, and relationship status to determine if each variable is a predictor of relationship satisfaction and commitment level for both doctoral students and partners of doctoral students.

The majority of literature regarding the impact of doctoral study on relationship satisfaction has focused exclusively on the perspective of married doctoral students. From a systems perspective, it is impossible to understand a system by solely examining one part of it. Few studies have received insight from partners of doctoral students. Also, despite the trend of individuals waiting longer to get married, unmarried doctoral students and their relationship partners have not received much exploration in past studies. The lack of literature on the perceptions of unmarried doctoral student relationships and partners of doctoral students provides sufficient validation for this current study.

The present researcher utilized a quantitative research methods approach to conduct this present study. The participants of this present study were doctoral students and partners of doctoral students from American Psychological Association (APA) accredited psychology, Commission on Accreditation of Marriage and Family Therapy Education (COAMFTE) accredited marriage and family therapy, and Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited

counseling doctoral programs. The Couples Satisfaction Index and the Commitment Level subscale of the Investment Model Scale were used to measure the relationship satisfaction and commitment levels of both the doctoral students and their partners. Data was collected and analyzed from 89 couples. Hierarchical Multiple Regressions, Paired-Samples T-Tests, and a Mixed Between-Within Subjects MANOVAs were used to analyze the researcher's data.

Length of relationship, financial status, gender, and relationship status were not found to be predictors of relationship satisfaction or commitment level for doctoral students or partners of doctoral students. Also, no significant differences were found between doctoral students and their partners based on financial status, length of relationship, or relationship status. Both doctoral students and partners of doctoral students were found to have high levels of relationship satisfaction and commitment.

Table of Contents

List of Tables

Chapter 1

Introduction

The achievement of the doctoral degree takes immense focus and concentration on the part of the graduate student that may lead to high levels of stress throughout his or her degree program (Bowlin, 2013). According to Hepner & Hepner (2004), "most people who are doing a thesis or dissertation have a range of psychological and emotional barriers that can create large obstacles in their progress" (p. 7). The high attrition rates among doctoral students across all academic disciplines has been a major concern in higher education. This concern has led to numerous studies that have found several potential causes of students leaving doctoral programs. Those factors include issues with academic advisors, financial difficulties, and the failure of doctoral programs to meet students' expectations of doctoral study (Golde, 1998; Hoskins & Goldberg, 2005; Protivnak & Foss, 2009). Although the rigors of doctoral study are unique for each student, researchers have found a number of contextual factors that contribute to the positive and negative experiences of doctoral study.

Prior research has pointed to the relationship the doctoral student has with his or her family and friends while he or she is engaged in doctoral study (Protivnak & Foss, 2009; & Jairam & Kahl, 2012). Studies have shown both positive and negative experiences of support from family members of students in doctoral programs. For example, positive support may come in the form of encouragement from an significant other during stressful times or a partner listening to the doctoral student when he or she

1

needs somewhere to vent (Jairam & Kahl, 2012). Negative experiences that may result from an individual being enrolled in doctoral study include the loss of personal relationships and the lack of time available to spend with family members (Protivnak & Foss, 2009).

One of the most significant relationships in a person's life is the one he or she has with a life partner or significant other. Research exists on how doctoral study can impact student marriages (Madrey, 1983; Brannock, Litten, & Smith, 2000; Gold, 2006; Scheidler, 2008; Williams-Toliver, 2010; Thomas, 2014; and Legako & Sorenson, 2000). The aforementioned stress that is often experienced by doctoral students has been shown to negatively impact their relationship satisfaction (Scheidler, 2008). Other studies on the relationship satisfaction have highlighted several marital issues that are due to one or both partners studying for the doctorate. These factors include financial concerns, an inability to communicate effectively, sexual difficulties, and insufficient showcasing of affection (Gold, 2006; and Brannock, Litten, & Smith, 2000).

In fact, a variety of factors that may impact marital and relationship satisfaction have been explored including: length of relationship (Brannock, Litten, & Smith, 2000; Hansen, 2006; Scheilder, 2008; Bowlin, 2013; Mirecki et al., 2013), gender (Sokoloski, 1996; Cao, 2001; Faulkner, Davey, and Davey, 2005; Gold, 2006; Ayub & Iqbal, 2012; Scoy, 2012), finances (Kerkmann et al., 2000; and Dakin & Wampler, 2008), and relationship status (Juric, 2011). Research on doctoral student relationships has also shown a link between commitment level and relationship satisfaction (Sokolski, 1996; & Bowlin, 2013).

Statement of the Problem

Some researchers argue that to complete a doctoral program, it takes a systemic effort on the part of doctoral students, their academic departments and colleagues, and their social support systems, including their partners (Jairam & Kahl, 2012). According to Williams-Toliver (2010), "graduate students must often choose between quality time with family and friends or academic requirements. As a result, conflict, guilt, and other factors can compromise the quality of marital /social relationships" (p.30).

Most of the studies on this topic have focused solely on the point of view of the doctoral students themselves and not members of their support system, such as their significant other (Brannock, Litten, & Smith, 2000; Legako & Sorenson, 2000; Gold, 2006; Scheilder, 2008; and Williams-Toliver, 2010; Thomas, 2014). According to the family systems theory, it is impossible to understand an individual part of a system in isolation; one must take into account the other interconnected parts of the system (Karakurt & Silver, 2014). By concentrating solely on the doctoral students' experiences, despite research that exists on the influence of partners of doctoral students, there is a gap in the literature as to how doctoral study impacts relationships from the perspective of both male and female partners of doctoral students (Pook & Love, 2001).

According to Stanley, Rhoades, and Whitton (2010), "being committed to a relationship for the long-term has a powerful influence on individual's behaviors, promoting actions that serve the best interest of the couple rather than the short-term interest of the self" (p. 4). Past research has shown a connection between commitment and relationship satisfaction (Soloski, 1996; & Bowlin, 2013). However, much more research needs to be conducted on doctoral student relationships that focus on

commitment level. One could postulate that commitment level may impact the relationship experiences of doctoral students and their partners.

Despite the recent trend of Americans postponing marriage (Bowlin, 2013), the aforementioned studies on doctoral student relationships concentrated on married doctoral students rather than on unmarried doctoral students in committed relationships. Past research that compared married and coupled but unmarried individuals have found differences in both general well-being (Dush & Amato, 2005) and overall relationship satisfaction (Juric, 2011; & Bowlin, 2013). With that being said, one could postulate that married and unmarried but coupled doctoral students may have different relationship experiences.

The limited amount of research on the perceptions of partners of doctoral students and the absence of studies that have compared the relationship experiences of both married and coupled but unmarried doctoral students has left researchers without a full understanding of the impact of doctoral study on relationship satisfaction and commitment level. We are left with questions as to the relationship satisfaction and commitment level of the partners and whether or not partners of doctoral students differ from doctoral students in regards to their relationship satisfaction and commitment level. Also, we are left with inquiries about the relationship satisfaction and commitment level of unmarried but coupled doctoral students and their partners.

<div align="center">Nature of Study</div>

Quantitative research methods were used to address the gaps in the literature regarding the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. According to Creswell (2014), the selection of a research approach should be based on the "philosophical assumptions the researcher brings to the

<div align="center">4</div>

study; procedures of inquiry (called research designs); and specific research methods of data collection, analysis and interpretation" (p. 3). Systems theory influenced this researcher's assumption that it was necessary to compare the perceptions of both doctoral students and their partners and this comparison supports the use of a causal comparative research design. This research design allows a researcher to compare several groups by a cause that has already occurred (Creswell, 2014).

This researcher's choice of quantitative research methods was also influenced by previous research that explored the relationship satisfaction (Brannock, Litten, & Smith, 2000; and Gold, 2006) and commitment level (Sokolski, 1996; & Bowlin, 2013) of graduate students. Prior researchers have often administered some form of a marital or relationship assessment (Brannock, Litten, & Smith, 2000; Gold, 2006; Scheilder, 2008; Kaura & Lohman, 2009; and Bowlin, 2013). Measurement tools included: the Marital Satisfaction Index (MSI-R), Locke-Wallace Marital Adjustment Test, Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale, the Index of Marital Satisfaction, and the Commitment Level subscale of the Investment Model Scale (Brannock, Litten, & Smith, 2000; Gold, 2006; & Scheidler, 2008; Kaura & Lohman, 2009; & Bowlin, 2013). However, none of the aforementioned measurement scales was administered to the partners of the doctoral students in previous literature on marital or relationship satisfaction of doctoral students.

This researcher was interested in exploring two groups: doctoral students and partners of doctoral students. Each group was administered the demographic survey, Couples' Satisfaction Index, and the Commitment Level subscale of the Investment Model Scale to test their relationship satisfaction and commitment level. Hierarchical

5

Multiple Regressions, Paired-Samples T-Tests, and Mixed Between-Within MANOVAs were used to analyze the results. The results are reported in chapter 4.

The study addressed the following research questions and hypotheses:

Research Question 1: Which of the following independent variables predicts relationship satisfaction for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

H_o Length of relationship, gender, financial status, and relationship status will not predict relationship satisfaction among doctoral students and partners of doctoral students.

Research Question 2: Which of the following independent variables predicts commitment level for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

H_o Length of relationship, gender, financial status, and relationship status will not predict commitment level among doctoral students and partners of doctoral students.

Research Question 3: Are there differences in relationship satisfaction between doctoral students and partners of doctoral students?

H_o There are no differences in relationship satisfaction between doctoral students and partners of doctoral students.

Research Question 4: Are there differences in commitment level between doctoral students and partners of doctoral students?

H_o There are no differences in commitment level between doctoral students and partners of doctoral students.

Research Question 5: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status.

Research Question 6: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship.

Research Question 7: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status.

More information on the nature of the study, design, and instrument used will be discussed in chapter 3.

Purpose of the Study

The purpose of this study was to compare the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. The researcher sought to add to the current literature on the impact of doctoral study on doctoral student relationships by providing new insight on the perceptions of partners of doctoral students and any differences between the perceptions of doctoral students and their partners. As mentioned earlier, previous studies on relationship satisfaction have explored each of the independent variables of this study: length of relationship, gender, finances, and relationship status. The researcher sought to further examine each of the aforementioned variables to determine which variable, if any, predicts relationship satisfaction and commitment level of doctoral students and the partners of doctoral students. The results

of this study have implications for partners of doctoral students and doctoral students in programs accredited by the American Psychological Association (APA), Commission on Accreditation of Marriage and Family Therapy Education (COAMFTE), and Council for Accreditation of Counseling and Related Educational Programs (CACREP). The results of this study may inform counselor educators, counselors and other helping professionals on ways to assist couples who have difficulty handling issues related doctoral study.

<div align="center">Theoretical Base</div>

Systems theory is the theoretical base for this study. A system is defined as "a set of interacting units or component parts that make up a whole arrangement or organization" (Goldenberg & Goldenberg, 2013, p. 31). In a system consisting of two partners in a relationship, a change in one partner impacts the entire system as a whole. However, to fully understand how a system is impacted by the change in one partner, we must explore both of the partners that make up the system. Nichols (2010) uses a practical example of a counselor working with a young client and suggests "from a systems perspective, it would make little sense to try to understand a child's behavior by interviewing him without the rest of his family" (pg. 91). The researcher designed this study to get the perceptions of relationship satisfaction from doctoral students as well as their partners. The previous example holds true to this study in that in order to get a full understanding of how doctoral study impacts relationship satisfaction and commitment level, it would not be enough to only investigate the doctoral students.

Operational Definitions of Technical Terms

While there may be a number of definitions for the major terms used in this study, the following definitions reflect how this researcher used those terms for this dissertation. For the purposes of this study:

Doctoral Students

Doctoral students will be defined as a student enrolled in an accredited doctoral program in counselor education, counseling/clinical psychology, or marriage and family therapy programs

Partners of doctoral students/Partners

Partners of doctoral students will be defined as a relationship mate (unmarried) or spouse (married) of a doctoral student whose relationships have lasted at least one year.

Relationship

Relationship will be defined as a two-person dyad in which both individuals agree that they are committed to one another.

Length of Relationship

Length of relationship will be defined as the amount of time that the doctoral student and his or her partner have been in a relationship. For married doctoral student and partner dyads, length of relationship pertains to the amount of time they have been together in a committed relationship (including time in the marriage and prior to the marriage).

Gender

Gender will be defined in two categories: male or female

Financial Status

Financial Status will be defined in 5 categories:

Income has significantly increased since student entered doctoral program

Income has increased since student entered doctoral program

Income has remained the same since student entered doctoral program

Income has decreased since student entered doctoral program

Income has significantly decreased since student entered doctoral program.

Relationship Satisfaction

Relationship satisfaction will be defined as the couple's overall satisfaction with their relationship as evidenced by their score on the Couples Satisfaction Index.

Commitment Level

Commitment level will be the defined as the couple's commitment level to their relationship as evidenced by their score on the Commitment Level subscale of the Investment Model Scale.

Relationship Status

Relationship status will be defined in two categories: married or unmarried.

<p style="text-align:center">Assumptions, Limitations, Scope, and Delimitations</p>

Assumptions

The researcher had two major assumptions that guided his entire dissertation study. Although much research has not been conducted on the relationship satisfaction and commitment level of both doctoral students and partners of doctoral students, the researcher assumed that doctoral study has a significant impact on the relationship satisfaction and commitment level of doctoral students and partners of doctoral students .

Also, the researcher assumed that the perspectives of both doctoral students and their partners are needed to understand the impact of doctoral study on relationship satisfaction and commitment level.

Limitations

The researcher identified four limitations. The participants score on the Couples' Satisfaction Index and the Commitment Level subscale of the Investment Model Scale will be used to evaluate the relationship status and commitment level of doctoral students and partners of doctoral students. While the instruments have excellent reliability and validity, in studies that use self-report measurements, there is always the possibility of participants answering questions falsely or carelessly (Bowlin, 2013). Limitations of the dissertation also include the large number of participants needed for the study and the accessibility of the sub-populations being studied. Lastly, the recruitment of partners of doctoral students was dependent upon doctoral students recruiting their partners.

Scope

Unlike the majority of studies on this topic, the scope of the present study included the perceptions of both doctoral students and partners of doctoral students. The study also included insight from both married and unmarried doctoral student relationships. The findings of this study will have implications for coupled doctoral students enrolled in doctoral programs accredited by the APA, COAMFTE, and CACREP.

Delimitations

The sample of this study was delimited to doctoral students and partners of doctoral students from various doctoral programs. Participants were enrolled in doctoral

programs in counseling, marriage and family therapy, and psychology. The respondents must have been in a relationship for at least one year. The results may not be generalizable to undergraduate or master's level students. Also, the focus of the study was on the impact of doctoral study on doctoral student marriages and committed relationships. The findings of this study may not be applicable to other relationships that doctoral students are involved, in including their relationships with their parents, friends, or children.

Significance of the Study

Knowledge Generation

According to previous research, doctoral study has an impact on marital and relationship satisfaction from the perspective of doctoral students (Brannon, Litten, & Smith, 2000; Gold, 2006; Scheidler, 2008; Bowlin, 2013; & Thomas, 2014). Prior research has also called for an examination of the perceptions of relationship satisfaction from the perspective of both graduate students and their partners (Gold, 2006). The present study is an attempt to answer that call and could generate new knowledge about the relationship satisfaction and commitment level of both doctoral students and partners of doctoral students. An examination of how each partner perceives the relationship would give a complete picture of how doctoral study impacts relationships.

A great deal of literature focuses on the differences between relationship satisfaction of males and females, in general (Faulkner, Davey & Davey, 2005; Kurdek, 2005; Wilcox & Nock, 2006; Dew & Wilcox, 2011; & Ayub and Iqbal, 2012). There is also existing research on the gender differences in relationship satisfaction of doctoral

12

students, in particular, (Cao, 2001 & Gold, 2006). However, this study included individuals who are partners of doctoral students.

The literature is currently limited on the impact of the length of relationship on the relationship satisfaction of doctoral students (Brannock, Litten, & Smith, 2000; Scheilder, 2008; & Bowlin, 2013). Past studies have yielded mixed results as it pertains to how length of relationship impacts the relationship satisfaction of doctoral students. The present study was designed to determine whether the length of the relationship can predict relationship satisfaction and commitment level as well as whether participants who have been in their relationships for longer lengths of time will report greater relationship satisfaction and commitment level than participants who have been in their relationship for shorter lengths of time.

Professional Application

The results of this study will have direct implications on potential services provided for doctoral students and their partners. Prior research on marital satisfaction of graduate students and support systems of doctoral student have suggested the need for peer support networks for students and their partners (Legako & Sorenson, 2000; Gold, 2006; & Jairam & Kahl, 2012). This researcher hoped that the findings from this study would be an impetus for further creation of networks for doctoral students and their spouses such as a social media webpages.

The findings from this study may also assist counselors in their approach to providing counseling services to couples. For example, by obtaining the perspective of both partners the result of the study may support family therapy practices for doctoral students that consider the entire system and not just the individual client. The researcher

13

hoped that the findings of this study would lead to further research on relationship

satisfaction and commitment level that explores both married and unmarried partners.

There are a variety of counseling models that each suggest ways to most

effectively work with couples. The researcher hoped to find gender differences in

relationship satisfaction that could provide practitioners with more insight on how to

conduct couples counseling that is gender-sensitive. The findings regarding the length of

the relationship and financial status variables will also assist clinicians in their work with

couples. Specifically, the results from the examination of the financial status variable

will assist clinicians with couples who report to counseling with financial concerns.

Social Change

Individuals are currently waiting longer to get married (Bowlin, 2013) which

could be a result of today's postmodern views on cohabiting and committed relationships.

The focus of this present study is on the relationship satisfaction and commitment level of

both doctoral students and the partners of doctoral students regardless of their

relationship status. The findings of this study may lead to more conversations between

partners about career and academic decisions.

An examination of each of the aforementioned variables of this present study may

lead to social changes. The length of relationship variable calls to attention the amount of

time that doctoral students and their partners have been together. The gender variable

could further highlight the differences among male and females as it pertains to

relationship satisfaction and commitment level. The results from an exploration of this

variable may lead to further awareness of the relationship needs of both males and

females. Lastly, the findings from the investigation of the financial status variable may

promote further discussions among partners about how finances will be addressed if one or both of them decide to enter into a doctoral program.

The findings of this present study could also lead to changes in the structure of doctoral programs. Institutions may begin orienting students differently to doctoral study. Doctoral student orientation may include workshops for partners of doctoral students on what to expect during their loved one's doctoral study.

Summary

This chapter provided an overview of the dissertation which included an introduction of the background of the problem, and continued with the research questions, hypotheses, and purpose of the study. The researcher was interested in providing a full picture of the impact of doctoral study on doctoral student relationships. Four possible predictors of relationship satisfaction were used: length of relationship, gender, financial status, and relationship status. The chapter concluded with a discussion of the assumptions, limitations, theoretical foundation, and significance of the present study.

Chapter 2 provides an in-depth review of the literature as well as the methodologies and limitations of prior research on the impact of doctoral study on doctoral student relationships. Chapter 2 also discusses how the present study addresses the limitations found in prior studies.

 Chapter 3 provides a discussion of the methodological procedures used in this present study. The methodology includes the research design, setting and sample, instrument, data collection and analysis, and the protective measures used to protect the rights of the participants.

Chapter 4 provides an exploration of the findings. The results of the MANOVA, Paired-Samples T-Test and Multiple regression are presented in narrative and graphical form.

Chapter 5 will provide a comprehensive discussion of the present study. The research questions will be discussed and will include how the hypotheses were supported or disproved by the findings of this study. Chapter 5 concludes with a discussion of the study's limitations, implications for social change, and future areas of research.

Chapter 2

Literature Review

This study explored the relationship satisfaction and commitment level of both doctoral students and partners of doctoral students. Specifically, the study explored predictors of relationship satisfaction as well as the differences between doctoral students and their partners. As stated in chapter one, independent variables that have been identified for this study are: length of relationship, gender, relationship status and financial status. Each of the independent variables was examined to determine which predicts relationship satisfaction and commitment level for both doctoral students and partners of doctoral students. The Couples Satisfaction Index was administered to the participants of this study to measure their relationship satisfaction. The Commitment Level subscale of the Investment Model Scale was given to the participants of this study to measure their commitment level. This chapter consists of a review of the literature from 1983-2014. The literature review examines the impact of doctoral study on doctoral student marriages and doctoral student partner's perceptions of their relationships. In addition, the impact of the following independent variables was explored: length of relationship, relationship status, gender, and financial status on relationship satisfaction. Chapter 2 also provides a summary of how the study addressed the limitations and methodological procedures found in prior research on this topic.

Strategy Used for Searching the Literature

The review of the relevant research literature was primarily conducted at the University of South Carolina's Thomas Cooper Library. The primary search engines that were used for the study were ProQuest Dissertations and Theses, EBSCO, and Google Scholar. The researcher used a variety of search phrases on the Thomas Cooper Library article and dissertation database which included: doctoral experiences, relationship satisfaction, unmarried doctoral student relationships, doctoral student committed relationships, doctoral study impact on marital satisfaction, graduate study impact on marital satisfaction, marital satisfaction of doctoral students, gender and relationship satisfaction, employment status of doctoral students, dual earner relationship satisfaction, doctoral student commitment level, single earner relationship satisfaction, duration of marriage, and length of marriage.

Doctoral Student Perceptions of Marital Satisfaction

Several studies have explored the impact of doctoral study on doctoral student marriages from the perspective of the doctoral student (Brannock, Litten, & Smith, 2000; Gold, 2006; and Scheilder, 2008). The literature on this topic highlights the negative impact of doctoral study on marriages.

Brannock, et al. (2000) explored whether or not doctoral student relationships were affected while they were enrolled in a doctoral program. The participants were 54 individuals enrolled in a university located in the Midwest who were a) just beginning their graduate study, b) midway through their graduate program, or c) nearing completion of their graduate program. One of the instruments used in this study was the Locke-Wallace Marital Adjustment Test. The Locke-Wallace Marital Adjustment Test is a 15

19

item survey that measures the couple's satisfaction with and accommodation to one another (Haque & Davenport, 2009). Brannock, et al. (2000) found that "areas of discord that affected marital satisfaction during graduate school were philosophy of life, demonstration of affection, and sexual relations" (p. 123). There were no significant differences in relationship satisfaction of doctoral students based on their year in the doctoral program. The results did, however, highlight differences in relationship satisfaction of doctoral students based on whether or not their partners were also students. The results of the study indicated that doctoral students whose spouses were also students reported higher levels of relationship satisfaction than doctoral students whose partners were not students (Brannock, et al., 2000).

There are delimitations of Brannock, et al. (2000) study that will be addressed in this present study. To participate in their study, the graduate student had to be married for a minimum of 1 year. Therefore, students who were in committed relationships for over a year were excluded from the study. Another delimitation is that Brannock et al. (2000) required participants to be currently living with their partner.

The present study addresses the populations excluded in the aforementioned delimitations of Brannock, et al. (2000) study by including unmarried doctoral students involved in committed relationships. Also, because the present study explores both married and unmarried doctoral students, the researcher did not require cohabitation with partners as a criterion for participation in the study.

In another quantitative study examining the marital satisfaction of 65 masters and doctoral graduate students, Gold (2006) found that both male and female doctoral student participants indicated relationship concerns. Gold (2006) used the Marital Satisfaction

Inventory-Revised (MSI-R) which is an extensive true-false self-report measurement of the distress inside of marriages or close relationships (Herrington et al., 2008). The male and female doctoral participants of the study reported issues in their marriage which included concerns about their communication skills, the amount of time spent together with their spouses, and dissatisfaction with their sex lives. Female participants of the study were less satisfied than male participants with their relationships' conflict solving communication skills and role orientation. Male participants were less satisfied than female participants with communication regarding finances. The participants of this study were graduate students from a single university's college of education.

The present research addresses the generalizability limitations of Gold's (2006) study. Gold suggested that the findings of his study "require replication with students in graduate programs other than those programs housed in the college of education to see if findings remain consistent across campus or where an effect exists for differing colleges" (p. 494). The present study includes doctoral students from a variety of universities which is generalizable to a larger population. Also, of the 65 participants in Gold's (2006) study, 38 were doctoral-level students and 27 were Master's-level students. The present research utilizes a larger sample size of doctoral students, only, which will also increase the generalizability of the results.

Scheidler (2008) examined the impact of stress and social support on the marital satisfaction of doctoral students. Scheidler surveyed 507 married doctoral students about their perceptions of stress and social support and their marital satisfaction. Scheidler used questions from the Index of Marital Satisfaction (IMS) to assess concerns in each participant's marriage (Scheidler, 2008). Participants' stress was measured by their scores

on the Perceived Stress Scale which assesses an individual's perceptions of the stress in his or her life (Scheidler, 2008). Social support was assessed by the Multidimensional Scale of Perceived Social Support. The results of the study showed that doctoral students who felt more stressed in their doctoral programs reported lower levels of marital satisfaction (Scheidler, 2008).

Similar to Gold (2006), Scheidler's study has a limitation regarding the participants. Ninety-five percent of the participants of this study were students from a single university. Also, participants were from an online university that offers doctoral degrees. Stressors of doctoral students taking courses in an online format may be vastly different than doctoral students attending universities with traditional classroom experiences. Therefore, generalizability of the results is limited.

Although the aforementioned literature has focused on the negative impact of doctoral study on doctoral student marriages, some research exists on marriages that have benefited from one of the partners being enrolled in doctoral study. Thomas (2014) explored the impact of doctoral study on marriage and family life. Using a qualitative, phenomenological approach, Thomas interviewed ten doctoral students who were enrolled in a doctoral program between the years of 1998-2009. Thomas collected data by conducting interviews that were face-to-face and follow-up telephone or email interviews. Six participants of the study indicated that they felt their relationship had become stronger because they were enrolled in a doctoral program.

Doctoral Student Partner Perspective on Relationship Satisfaction

Limited research exists on the perceptions of spouses or partners of doctoral students (Legako & Sorenson, 2000) despite research that suggests that the viewpoint and

perspective of spouses and partners of doctoral students is important and can have a major influence on the doctoral student. Madrey (1983) found that spouses of doctoral students provide their doctoral student partner with "financial, emotional/psychological, and basic needs support" (p. 49). Also, doctoral student partners can be influence doctoral students in other areas such as influencing the doctoral student's choice of doctoral program (Pook & Love, 2001). Research has also shown how the lack of support from a spouse can impact a doctoral student's experience in his or her program. Williams-Toliver (2010) conducted a study on the impact of stress and lack of marital or social support on female graduate students. Williams-Toliver utilized a mixed method approach utilizing data from 23 participants, including essays, demographic questionnaires, and the Perceived Stress Sscle-10 (PSS-10). In addition, there were in-depth one-on-one interviews with eight participants in the study. Williams-Toliver's (2010) study results were similar to Scheidler's (2008) in that they found a negative relationship between stress and marital support. The participants in Williams-Toliver (2010) study also highlighted a variety of marital concerns. The researcher stated:

> Participant 5 admitted that her spouse is not supportive and is somewhat impatient with understanding the demands and requirements associated with graduate study. Participant 5 found that graduate study placed a huge strain on her one year marriage. Participant 6 felt like a single parent, and Participant 8 mentioned that although she receives some level of support, her spouse complains about having to help and sometimes appears jealous of her study time (Williams-Toliver, 2010, pp. 71-72).

Williams-Tolver's (2010) study showcased solely female perceptions regarding this topic matter. The present study adds to the literature regarding both male and female doctoral students and male and female partners of doctoral students.

The majority of the research on the perceptions of doctoral student partners' relationship satisfaction is outdated. Each of the following studies that provide insight on

the point of view of doctoral student partners was conducted at least 15 years ago with the oldest being conducted in 1983 (Madrey, 1983). Another limitation of existing research on the perceptions of partners of doctoral students pertains to the limited generalizability of the findings. The present study provides up-to-date findings that will be applicable not only to doctoral students but also to a larger population of partners of doctoral students.

Sori, Wetchler, Ray, & Niedner (1996) explored the impact of marriage and family therapy graduate programs on married students and their spouses. One hundred and forty-five couples participated in their study. The majority of the 145 couples were composed of students from AAMFT accredited Master's-level graduate programs and only 17 students came from AAMFT accredited doctoral programs. Sori, Wetchler, Ray, & Niedner (`1996) found that the graduate program was more of an enhancer than a stressor for both the graduate students and their spouses. The greatest enhancers that were identified by the spouses involved their ability to take ownership of the part they play in familial concerns, awareness of problems in family life cycle, and increased ability to handle issues regarding their family of origin (Sori, Wetchler, Ray, & Niedner, 1996). The biggest stressors that were identified by the spouses pertained to time constraints, limited energy for marital and familial tasks, and the personal development of the graduate student (Sori, Wetchler, Ray, & Niedner, 1996).

A limitation of Sori, Wetchler, Ray, & Niedner (1996) pertains to its generalizability to doctoral students. As alluded to earlier, the stressors from the graduate program were not found to outweigh the enhancers of the graduate program for both the graduate student and his or her partner. However, the majority of the participants were

graduate students from Master's-level programs. Sori, Wetchler, Ray, & Niedner (1996) found that "students who were required to complete a thesis/dissertation found their experience to be more stressful" (p. 267). Based on these findings, one could postulate that spouses of students who are enrolled in a doctoral program that requires a dissertation may also experience high level of stress.

Sokolski (1996) explored the marital satisfaction of 161 graduate students from a single university. The researcher asked both the graduate student and his or her partner to complete separate questionnaires about their relationship for this study. Participants of Sokolski's study were from law, medical, or other graduate schools at the large university. Sokolski (1996) measured marital satisfaction by administering the Relationship Assessment Scale to the participants of the study. Sokolski (1996) findings indicated that marital satisfaction for both the doctoral students and their partners is impacted by a variety of factors such as each partners' views of certain aspect of themselves, each partner's perceptions of his or her spouse's views, and mutual concerns about issues such as sex and finances. The mutual concerns about sex found in Sokolski's study are supported in prior research that focuses solely on the perspective of doctoral students (Brannock, Litten, & Smith, 2000; & Gold, 2006).

Unlike the majority of studies on the marital satisfaction of graduate students, Sokolski (1996) administered a marital satisfaction instrument to both partners to determine relationship satisfaction. However, generalizability for Sokolski's study is also in question because the participants all attended the same university. As mentioned earlier, this present study was designed to be generalized to a greater population because the participants attended a variety of doctoral programs across the United States.

Legako and Sorenson (2000) explored the impact of a Christian psychology graduate school on student marriages from the perspective of the students' spouses. The researchers utilized a descriptive narrative research method and interviewed 12 spouses of clinical psychology graduate students (6 males and 6 females). Legako and Sorenson's (2000) interview guide covered several areas including the foundation of the couple's relationship, the quality of their relationship, and the impact of graduate school on marriage. The findings of Legako and Sorenson (2000) study supports the results of previous quantitative studies that showed the adverse impact of doctoral study on marriages. Participants in Legako and Sorenson's (2000) study indicated that graduate study had a "detrimental effect in their marriage due to the accumulated stress of graduate school. Many participants linked the detriment to the long hours required for study which pulled the student-spouse outside of marital relationship" (p. 216). Other issues mentioned were financial concerns due to school and concerns about the graduate student prioritizing "psychological explanations over theological or spiritual ones" (Legako and Sorenson, 2000, p. 217). Legako and Sorenson (2000) used a qualitative approach with a very specific population to examine the perceptions of the partners of doctoral students which cannot be generalized. The present study adds to the literature on doctoral student partners' perceptions of their relationships by utilizing a quantitative approach with a diverse population for more generalizability.

<div align="center">Doctoral Student Commitment Level</div>

As mentioned earlier, there has been limited research on the impact of doctoral study on the commitment level of doctoral students. As with the relationship satisfaction construct, limited attention has also been given to the perspective of partners of doctoral student's commitment level.

Soloski (1996) explored the impact of a variety of factors including marital commitment on marital satisfaction of graduate students. Soloski's administered the Marital Commitment Scale to the 161 couples who participated in her study to determine each partner's level of commitment to one another. Soloski found marital commitment level to be an important factor in predicting the marital satisfaction of couples. However, this study was published in 1996 (20 years ago) which may limit its generalizability to current doctoral students and partners of doctoral students.

Bowlin (2013) explored the impact of the commitment level construct on relationship satisfaction of doctoral students. For the purposes of her study, Bowlin assessed commitment level by asking participants to select from 5 categories: recently exclusive, exclusive but not committed, exclusive and committed, engaged, and married (Bowlin, 2013). Bowlin (2013) found that commitment level was an important component of relationship satisfaction. Bowlin (2013) results "indicate that 32.1 % (partial eta squared) of relationships can be explained by whether participants perceive their relationships as 'committed,' or 'not committed'"(p. 51). The study also suggested that couples who indicated some level of commitment to their relationship reported greater levels of relationship satisfaction than those who did not endorse a level of commitment (Bowlin, 2013).

Bowlin (2013) recorded the commitment levels of her participants by asking them to select from 5 categories and suggested that future research use more objective measurements of the variables of her study. The present researcher utilized an objective measure, Commitment Level subscale of the Investment Model Scale, to determine the level of commitment of each participant.

27

Length of Relationship Impact on Relationship Satisfaction

The length of the relationship between two partners has been a variable used in a variety of studies on relationship satisfaction. Research currently exists that suggests that couples who have been together for longer lengths of time report greater marital satisfaction (Hansen, 2006; Bowlin, 2013). Hansen (2006) explored the correlation between the length of married couples' courtship before marriage with their marital satisfaction and stability. Hansen's administered a 25-question demographic survey that addressed the marital couple's premarital courtship. The 952 participants of this study were also given the Kansas Marital Satisfaction Scale and a form of the Edmonds Marital Conventionalization Scale. Hansen (2006) found that the couples who had longer courtships reported greater marital satisfaction. The study also validated Hansen's initial hypothesis that suggested that couples who had longer courtships were less likely to be divorced.

Mirecki et al. (2013) explored the factors that impact the relationship satisfaction of partners in both first and second marriages. The researchers obtained a variety of general demographic information from the participants of the study as well as additional information that focused on the length of their current and previous marriage and the length between their marriages. The researchers also administered the Locke-Wallace Marital Adjustment Scale to the 1607 participants in the study. Length of marriage was found to be a significant influence of marital satisfaction of the participants who were in their first marriage. According to Mirecki et al., (2013) "participants who had been married between 7 and 19.9 years were found to have significantly lower satisfaction compared to their first-married counterparts who were at other points in their marriage"

(p. 87). The researchers suggested that participants who had been married between 7 and 19.9 years who reported the highest levels of marital satisfaction may be staying together because of their children still being in their home. However, length of marriage was not found to significantly influence marital satisfaction of participants of the study who were in their second marriage. One limitation of this study that was noted by the authors pertained to the lack of diversity of the participants. Of the 1607 participants, only 15 % of them did not identify as Caucasian. The present study sought a more racially diverse sample of participants by recruiting from programs with higher levels of diversity as well as historically black colleges and universities.

Several researchers have explored length of relationship as a variable on their study about doctoral student perceptions of their relationship satisfaction (Brannock, Litten, & Smith, 2000; Scheidler, 2008; Bowlin, 2013). However, each of the following studies that explored the length of relationship variable focused solely on the perspective of the doctoral students and not their partners. The homogeneity of the samples used and the mixed findings on the impact of the length of relationship variable on doctoral student marital satisfaction of the previous studies cannot be generalized to doctoral student partners who were included in the present study.

Brannock, Litten, and Smith (2000) explored the impact of the length of marriage on marital satisfaction of graduate students. Their study compared the length of the doctoral students' relationships with the participants' scores on the Lock Wallace Marital Adjustment Test and the Index of Marital Satisfaction. Brannock, et al. (2000) found no significant relationship between length of marriage and the two marital satisfaction scales used.

Scheilder (2008) examined the length of marriage variable in her study on the impact of social support and stress on marital satisfaction of doctoral students. Scheilder (2008) hypothesized that marital satisfaction and the number of years that the doctoral student was married would have a curvilinear relationship. However, the number of years that the doctoral student was married was not found to be significant (Scheilder, 2008).

Bowlin (2013) explored the length of relationship variable in a quantitative study on the relationship satisfaction of married and unmarried graduate students. Unlike Brannock, Litten, & Smith's (2000) findings, Bowlin (2013) study suggests that "partners who have been in a relationship for a greater period of time are likely to have greater relationship satisfaction" (p. 83).

The contradictory findings on this variable leads one to question the importance of the length of the relationship on marital satisfaction. In this study, the length of the relationship, of both married and unmarried couples from a national sample was explored to reach more clarity on the impact of this variable.

<div align="center">Gender Impact on Relationship Satisfaction</div>

Past literature has explored the impact of gender on relationship satisfaction. Ayub and Iqbal (2012) explored the gender differences in marital satisfaction of 300 Pakistanian couples. Ayub and Iqbal utilized the Marital Satisfaction Scale (MSS) to measure the overall marital satisfaction of the married couples in Pakistan. The Marital Satisfaction Scale is a 40 item survey that consists of 12 subscales to measure marital satisfaction of partners. According to Ayub and Iqbal (2012), the "MSS has an internal consistency coefficient of =.696." (p. 65). Ayub and Iqbal (2012) found gender

differences in male and female partners and indicated that from the "wives' point of view, factors that predict marital satisfaction were understanding, communication, in-laws relationship, compromise, and dual earning"(p. 70). Ayub and Iqbal's sample was selected from large cities in Pakistan. The researchers suggest that their results may not be generalizable to rural cities. The present study's sample will consist of individuals from many different cities throughout the United States of America.

Scoy (2012) utilized a marital satisfaction instrument to explore the impact of a variety of variables including gender on marital satisfaction. The Dyadic Adjustment Scale (1976) was used to explore the martial satisfaction of the participants. Scoy (2012) findings suggest gender differences in marital satisfaction between husbands and wives over time. The results showed a negative relationship between length of relationship and dyadic adjustment on behalf of the wives. However, a negative relationship did not exist between length of relationship and dyadic adjustment on behalf of the husbands. Scoy (2012) results support Peleg's (2008) findings regarding the negative relationship between duration of marriage and marital satisfaction of wives.

Faulkner, Davey, and Davey (2005) explored the predictors of change in marital satisfaction and marital conflict based on gender. The researchers utilized longitudinal data for male and female partners in first time-marriages over a 5 year span. The researchers found that husbands who held more conventional gender role attitudes reported decreases in marital satisfaction over time. Faulkner, et al. (2005) suggested that the previous finding may be a result of traditional male gender roles that restrict men from openly expressing their emotions and feelings which may have ultimately caused them to feel less satisfied in their marriage. Faulkner, et al. (2005) utilized secondary data

from the National Survey of Families and Households. Faulkner et al. acknowledges limitations in the use of secondary data which "led to the use of indirect measures to assess gender role influence, as there was not a direct measure of gender role attitudes and behaviors included in the original NSFH study" (p. 78). The researcher will not be relying on secondary data for present dissertation.

Some research exists of gender differences in relationship satisfaction of doctoral students (Sokoloski, 1996; Cao, 2001; & Gold, 2006). However, only one of the studies found by the researcher focused on gender differences in marital satisfaction of both doctoral students and partners of doctoral students (Sokoloski, 1996). Sokoloski found no differences in relationship satisfaction of male and female doctoral students. However, as mentioned earlier, the results from Sokoloski (1996) are nearly 20 years old and may not be applicable to current and future doctoral students and partners of doctoral students.

Cao (2001) explored the similarities and differences of male and female doctoral students' experiences of their doctoral program. The researcher conducted interviews with male doctoral students and compared the results with findings from a similar study that explored female doctoral students. The researcher found that both male and female students believed there studying impacted the amount of time and energy they could give to their families. The results of this study also indicated that male doctoral students were more supported by their spouses than females were.

Gold (2006) explored the relationship satisfaction of graduate students and found gender differences exist between males and females as it pertains to conflict solving issues and financial concerns. Gold (2006) found that female graduate students reported

more concerns surrounding problem solving issues in their relationships than males. Male graduate students reported more concerns about finances in their relationships than females (Gold, 2006).

Scheilder (2008) found gender differences in her exploration of the effect of perceived stress and perceived social support on marital satisfaction. Scheilder findings suggested gender differences in the amount of stress felt by male and female doctoral students. A negative relationship was found between perceived stress and marital satisfaction with female students reporting higher levels of stress and lower levels of relationship satisfaction than males.

<div align="center">Financial Status Impact on Relationship Satisfaction</div>

Research currently exists on the impact of finances on relationship satisfaction (Kerkmann, Lee, Lown, & Allgood ,2000; Gold, 2006; Dakin and Wampler, 2008). Dakin and Wampler (2008) examined the differences in marital satisfaction, psychological distress, and demographics between low and middle income couples. The sample of 51 low income couples (income below $10,000) and 61 middle income couples (income above $30,000) used for this study were selected from clients at a university-based clinic. The researchers used the Dyadic Adjustment Scale to measure marital satisfaction and the Brief Symptom Inventory to measure the psychological stress of the couple. Dakin and Wampler (2008) found "low-income predicted less marital satisfaction and more psychological distress than couples with more adequate means." (p. 307). Kerkmann et al. (2000) explored the impact of finances on the marital satisfaction of 218 Utah State University student couples and found that "15% of marital satisfaction was predicted by financial factors" (p. 55).

Although studies have been conducted on the impact of finances on relationship satisfaction, literature that focuses on the impact of finances on relationships that involve one or both partners being enrolled in a doctoral program is limited. The prior research that does exist (Legako and Sorenson, 2000; & Gold 2006) suggests that doctoral study has a negative impact on a couples finances and supports exploration of the financial status of doctoral students and partners of doctoral students since the program began. Legako and Sorenson (2000) explored the relationship satisfaction of psychology graduate student spouses and found that the participants' relationships were impacted by a variety of concerns which included finances due to graduate school tuition. Gold (2006) explored the marital satisfaction of graduate students and his findings pointed to finances also as a concern for the male graduate students. However, neither of the aforementioned studies that identified financial concerns in doctoral student relationships specifically showed the level of impact that doctoral study had on the couples' finances. The present researcher is utilizing 5 categories to measure the level of impact that doctoral study has on a couples' finances: Income has significantly increased since student entered doctoral program, income has increased since student entered doctoral program, income has remained the same since student entered doctoral program, income has decreased since student entered doctoral program, and income has significantly decreased since student entered doctoral program.

Relationship Status Impact on Relationship Satisfaction

Past literature that has explored relationship status has highlighted differences between married and unmarried but coupled partners. Dush and Amato (2005) explored the impact of relationship status and quality on an individual's well-being. Dush and

Amato (2005) found that married individuals reported higher levels of subjective well-being than individuals who were not married to one another. Singh (2012) explored unmarried and married couples and found that in regards to variables of love (passionate love, romantic love, and romantic obsession), unmarried partners reported greater levels of passionate love than married couples.

Juric (2011) explored the impact of relationship status on general relationship satisfaction. Juric (2011) measured the relationship satisfaction of two hundred and sixty five heterosexual married and unmarried but cohabitating couples by administering to them the Experience in Close Relationship-Revised and the Kansas Marital Satisfaction Scale assessments. Juric (2011) found that married couples reported higher levels of relationship satisfaction than cohabiting couples. However, a limitation is found in Juric's sample which consisted of two hundred and sixty five couples with 79% of the couples being married. The discrepancy between the number of married and unmarried but cohabitating couples limits the generalizability of the findings.

The majority of studies on the impact of doctoral study on doctoral students' relationships are focused on doctoral students who are married (Gold, 2006; Legako & Sorenson, 2000, Madrey 1983, Williams-Toliver 2010; Brannock, Litten, & Smith, 2000; and Scheidler, 2008). Consequently, limited research exists on the impact of doctoral study on unmarried doctoral student relationships. Rhoades et al. (2011) explored the impact of unmarried relationship break-ups on a partner's psychological distress and overall life satisfaction. In regards to unmarried partners, the researchers suggested that "experiencing a break-up was associated with an increase in psychological distress and a decline in life satisfaction (from pre-to post-dissolution)", (p. 366).

The present researcher only found one study that explored the impact of doctoral study on relationship satisfaction that included unmarried but coupled doctoral students. Bowlin (2013) explored potential links between graduate student stress levels and the relationship satisfaction of unmarried and married graduate students. Statistical analyses were conducted on 64 graduate students. Of the 64 students, 52 were unmarried and (12) were married. In a mixed methods study, Bowlin examined the interaction of the variables through the use of the Perceived Stress Scale, the Dydactic Satisfaction Subscale of the Dydactic Adjustment Scale, as well as additional qualitative and quantitative items about the couple's perception of the link between stress and relationship satisfaction

Bowlin's first hypothesis was that graduate students would report high levels of stress that would be negatively correlated with their relationship satisfaction. However, this hypothesis was not supported; she found no relationship between perceived stress and relationship satisfaction. Also, the psychology graduate students did not report high levels of stress. The researcher's second hypothesis was that graduate students would believe that their perceived stress level and relationship would impact each other. The findings of the study supported the second hypothesis.

Bowlin (2013) found that "comparisons between married and unmarried participants in terms of relationship satisfaction resulted in a non-significant finding" (p. 50). However, only 12 of the 64 participants were married doctoral students compared to 52 participants who were unmarried. The discrepancy between the two groups may have impacted the comparison of the married and unmarried doctoral student's relationship satisfaction. Another limitation of Bowlin's study pertains to the gender of the

participants. The majority of the participants in this study were females (56 out of the 64 participants). Also, a generalizability limitation exists due to the limited number of students explored. The present study had a more even distribution of married and unmarried couples and a larger sample.

Summary

The present study was designed to add to literature on doctoral student relationships in a variety of areas. The current literature generally focuses on the perceptions of relationship satisfaction from the perspective of doctoral students. Gold's (2006) recommendation that future research needs to be conducted on both doctoral students and their partners was carried out in this study. Next, the present study provides insight regarding the impact of doctoral study on relationships of both married and unmarried doctoral students while much of the current literature on this topic is centered on married doctoral students. Many previous studies have focused on doctoral students enrolled in one specific graduate program or university whereas the present study explored the relationships of doctoral students from a variety of academic disciplines and universities. Although research currently exists on the impact of gender, length of relationship, finances, and relationship status on a couple's relationship satisfaction, research is limited that thoroughly explores the influence on doctoral students and doctoral student partners' relationship satisfaction using each of the variables that were addressed in this study.

Chapter 2 provided an in-depth literature review of the variables of the present study and explored past studies that have concentrated on these variables.Chapter 3 focuses on the methodology of the present study and provides insight on the participants,

the quantitative method used, and the data analysis of this study. Chapter 4 provides the results and findings of the study and Chapter 5 provides a comprehensive discussion of the findings of this study. Chapter 5 concludes with implications of the research and an examination of areas where future research can be conducted on this topic.

Chapter 3

Methodology

This study is designed to compare doctoral students and their partners on their relationship satisfaction and commitment level as well as to discover which independent variables predict these factors. The researcher has identified four independent variables: length of relationship, gender, financial status, and relationship status that may influence relationship satisfaction and commitment. Previous research has focused on the doctoral student perceptions almost exclusively but this research includes the doctoral students' partners. The purpose of this chapter is to describe and explain the methodology used in the study. According to Hepner & Hepner (2004), "evaluating the design and methodological issues within each study are almost always thought to be sound practice and can be effective in assessing the quality of the research findings in a particular area" (p. 94). In this chapter the research design and approach chosen for this study will be discussed first. Next, the setting and sample will be addressed which will include a discussion of the population, sampling method, sample size, and eligibility criteria for the study. Three instruments were used: a demographic survey, Couple's Satisfaction Index, and the Commitment Level subscale of the Investment Model Scale. Each instrument will all be discussed in detail as well as data collection methods and analyses of the data. Lastly, chapter 3 will conclude with a discussion about how participants were protected in this study, and a summary of the main points of chapter 3.

Research Design and Approach

A quantitative research method was chosen for this study over a qualitative research design, in part, because past research approaches on this topic were quantitative and because it best answered the research questions. Most importantly the goal of the study was to discover the impact of the various independent variables on relationship satisfaction and commitment level, something a qualitative study would not answer satisfactorily.

Interestingly, researchers who have used qualitative approaches, generally using personal interviews, have been responsible for the limited research on the perceptions of partners of doctoral student's relationship satisfaction (Madrey, 1983; & Legako & Sorenson, 2000; Thomas, 2014). According to Patton (2002), "Interview data limitations include possibly distorted responses due to personal bias, anger, anxiety, politics, and simple lack of awareness since interviews can be greatly affected by the emotional state of the interviewee" (p. 307). Also, the researcher was aware of the possible biases that would have been present if he interviewed a doctoral student and his or her partner at the same time. The researcher felt that doctoral students and their partners may be less honest about their true feelings about their relationship if they both were present for the interview and would have prevented him from getting an accurate picture of the impact of doctoral study on relationship satisfaction. Finally, qualitative studies, though rich in the data, are not designed for the kind of specificity that this researcher is interested in obtaining.

Quantitative research designs have been the most frequently used approach on this topic (Brannock, Litten, & Smith, 2000; Gold, 2006; Scheidler, 2008; & Bowlin,

2013). Generally in quantitative studies on this topic, participants were administered some type of relationship satisfaction instrument. According to Johnson & Christensen (2008), "quantitative researchers usually describe the world by using variables, and they attempt to explain and predict aspects of the world by demonstrating the relationships among variables" (p. 38). As discussed in the nature of the study section of chapter 1, the researcher sought to determine which of the independent variables (length of relationship, gender, financial status, and relationship status) predicts relationship satisfaction and commitment level for doctoral students and partners of doctoral students. As mentioned earlier, the researcher was concerned about the possibility of the relationship partners impacting one another's answers. The researcher felt that administering an instrument to the participants separately could reduce this concern.

As stated in chapter one, the impact of doctoral study on relationship satisfaction has been limited to the perspective of doctoral students (Legako & Sorenson, 2000; Gold, 2006, Brannock, Litten, Smith, 2000; Scheilder, 2008; Williams-Toliver, 2010; & Thomas, 2014). To uncover the perceptions of both doctoral students and partners of doctoral students, a causal-comparative approach was chosen. Both correlational analysis (Hierarchal Multiple Regression) as well as a comparative analyses (Paired-Samples T-Test and MANOVA) were employed to compare and contrast the relationship satisfaction and commitment level of doctoral students and partners of doctoral students.

A causal-comparative research design is a quantitative research method that is used to explore the differences between two pre-existing groups (Schenker & Rumrill, 2004). The pre-existing groups for this study are doctoral students and partners of doctoral students. The purpose of using the causal-comparative research design was that

the independent variables of interest were pre-existing and could not be manipulated. According to Schenker & Rumrill (2004), "without the ability to manipulate the independent variable or randomly assign participants to groups, the causal-comparative researcher cannot conclude with certainty what effect the independent variable had on the dependent variable" (p. 118) but such an approach can be used to explore differences of pre-existing independent variables.

Causal-comparative research designs generally have categorical independent variables (Schenker & Rumrill, 2004) which can be defined as variables that separate participants into categories, such as male and female (Moore, Notz, & Fligner, 2011). The independent variables used in this study include length of relationship, gender, relationship status, and financial status. The dependent variables used in causal-comparative research designs are generally continuous variables (Schenker & Rumrill, 2004). Continuous variables are variables that measure some type of characteristic of the participants of a study (Moore, Notz, & Fligner, 2011). The dependent variables of this study are relationship satisfaction and commitment level which will be measured by the participants score on the Couple's Satisfaction Index and the Commitment Level subscale of the Investment Model Scale.

<div align="center">Setting and Sample</div>

Population

According to Gliner & Morgan (2000), the target population "includes all of the participants of the theoretical interest to the researcher and to which he or she would like to generalize" (p. 146). The sample for this study was drawn from the targeted population of doctoral students and partners of doctoral students from psychology, marriage and

family therapy, and counseling programs.   The sample was selected from a variety of academic universities across the United States of America. The doctoral students were all enrolled in programs accredited by the APA, COAMFTE, or CACREP. Although enrolled in doctoral programs that address mental health, the doctoral student participants of this study varied in a variety of ways including: academic discipline, year in doctoral program, age, gender, length of relationship, and financial status. The partners of doctoral student participants of this study also differed in several ways including: age, gender, length of relationship, and financial status.

Sampling Method

The researcher desired to explore the relationship satisfaction of doctoral students and partners of doctoral students. The researcher used a variety of approaches to recruit a national (USA) sample participants because there is no general list of all doctoral students and partners of doctoral students from psychology, marriage and family therapy, and counseling programs.

The researcher used convenience sampling to identify the male and female doctoral students. Convenience sampling is a non-probability research approach where participants are chosen due to their accessibility and willingness to participate (Gravetter & Forzano, 2012). The researcher was confident that he could use convenience sampling through academic listservs and social media doctoral student groups to find potential male and female doctoral student participants. However, the researcher was worried that recruiting the partners of doctoral students through the same strategy would be less likely to yield a high number of participants.

The researcher used snowball sampling to recruit the male and female partners of doctoral students. Snowball sampling is a nonprobability sampling approach where participants are asked to identify other potential participants (Babbie, 2010). Due to the difficulty in identifying partners of doctoral students, the researcher relied on the doctoral students themselves to get their partners to complete the informed consent, demographic survey, Couples Satisfaction Index, and Commitment Level subscale of the Investment Model Scale.

Sample Size

According to Hepner & Hepner (2004), individuals generally have three ways of determining sample size for a study: "general rules of thumb, past studies, and power analysis" (p. 115). Due to the limited number of studies exploring the impact of doctoral study on relationship satisfaction of both doctoral students and partners of doctoral students, the researcher could not rely on past studies to determine sample size for the study. According to Hepner and Hepner (2004), "the purpose of the power analysis is to determine how many participants are needed to detect the effects due to the independent variable, if differences in fact exist" (p. 116). The G*Power 3.1 software program was used to determine the sample for this study. The researcher found the number of participants needed for the MANOVA statistical test to be greater than the number of participants needed for the Multiple Regression statistical test. The researcher used the following parameters for the MANOVA statistical test: effect size (.25), error of probability (.025), power (.80), number of groups (2), number of measurements (2). The results of the power analysis indicated that 155 participants were needed for this study.

Eligibility Criteria

The researcher found two limitations in eligibility requirements of past studies on the impact of doctoral study on marital or relationship satisfaction that will be addressed in this study. First, several studies on this topic required doctoral students to be married to their partners (Gold, 2006; Brannock, Litten, & Smith, 2000; & Scheidler, 2008). Another limitation of past research on this topic pertains to the academic discipline of doctoral students. Past studies on the impact of doctoral study on marital and relationship satisfaction have selected participants from a specific graduate program or university (Madrey, 1983; Brannock, Litten, & Smith, 2000;Legako & Sorenson, 2000;& Gold, 2006).

As it pertains to the eligibility criteria for this study, doctoral student participants were required to be currently enrolled in a APA, COAMFTE, CACREP counseling doctoral program. Both married and unmarried doctoral students who were in a relationship for at least one year were eligible to participate in this study.

Instrumentation and Materials

Past studies on the impact of doctoral study on marital or relationship satisfaction have utilized a quantitative instrument such as the Lock-Wallace Marital Adjustment Test and the Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale to assess the marital or relationship satisfaction of doctoral students (Brannock, Litten, & Smith, 2000 & Bowlin, 2013). However, some research suggests that the Locke-Wallace Marital Adjustment Test and the Dyadic Adjustment Scale have "relatively poor levels of precision in assessing satisfaction, particularly given the length of those scales" (Funk and Rogge, 2007, p. 572)

The Couple's Satisfaction Index was selected for this study. The Couple's Satisfaction Index is a 32-item self-report instrument that measures an individual's overall satisfaction with his or her relationship. The Couple's Satisfaction Index is made up of one 7-point Likert scale question and thirty-one 6-point Likert scale questions. The instrument measures a variety of areas that could impact relationship satisfaction including overall happiness, areas of agreement and disagreement between partners, and specific feelings about the relationship.

The researcher selected the Couples Satisfaction Index for the study for a variety of reasons. First, the Couples Satisfaction Index has been shown in prior research to be an effective measurement of relationship satisfaction (Funk & Rogge, 2007). Funk and Rogge (2007) explored a variety of marital and relationship satisfaction instruments including the Locke-Wallace Marital Adjustment Test and the Dyadic Adjustment Scale. The researchers suggested that compared to the Dyadic Adjustment Scale and the Locke Wallace Marital Adjustment Scale, "the Couples Satisfaction Index scales were shown to have higher precision of measurement (less noise) and correspondingly greater power of detecting differences in levels of satisfaction" (p. 572). Research has also shown the reliability of the Couple's Satisfaction Index to be "moderately high, with an average Cronbach's alpha of .940" (Graham, Diebels, and Barnow, 2011).

Secondly, The Couples Satisfaction Index was developed from a wide variety of marital assessments including the Dyadic Adjustment Scale, Locke-Wallace Marital Adjustment Test, Kansas Marital Satisfaction Scale, The Quality of Marriage Index, Relationship Assessment Scale, and the Semantic Differential Measure" (Graham, Diebels, & Barnow, 2011). The researcher discovered that several of the aforementioned

scales were used in prior research on this topic. Funk and Rogge (2007) suggest that the Couples Satisfaction Index has exceptional internal consistency and convergent validity with other scales including the Marital Adjustment Test and the Dyadic Adjustment Scale.

As married and unmarried doctoral student relationships were being studied, the instrument used needed to measure general relationship satisfaction rather than marital satisfaction. According to Graham, Diebels, and Barnow (2011), some studies have attempted to use marital satisfaction instruments on unmarried partners by changing the words of the survey. However, the aforementioned researchers suggest that the psychometric properties of a measure may be altered by modifying the wording of the instrument. The Couple's Satisfaction Index can be administered to both married and unmarried but coupled individuals without having to alter its wording.

The Commitment Level subscale of the Investment Model Scale was selected for this study, as well, which is a seven-item, self-report instrument that measures an individual's overall commitment to his or her relationship. The Commitment Level subscale of the Investment Model Scale is made up of seven 8-point Likert scale questions. Higher scores on the Commitment Level subscale of the Investment Model Scale show great commitment levels in a relationship (Kaura & Lohman, 2009).

Although Commitment Level is a subscale of the Investment Model Scale, past research suggests that it can be used independently to measure level of commitment (Rubsult, Martz, & Agnew, 1998). It has been found to be a highly reliable instrument with Cronbach Alpha scores ranging "from .91 to .95" (Rubsult, Martz, and Agnew, p. 24).

Participants in the study were also asked to complete a demographic survey. The demographic survey which asked participants to provide their: age, race, sex, sexual orientation and other demographical information. Additionally, participants were asked to disclose: the length of their relationship, financial status, relationship status, and if they were a doctoral student, a partner of a doctoral student, or both.

Data Collection

The researcher utilized internet data-collection procedures for this study. Hepner & Hepner (2004) suggest several benefits of the use of Internet data-collection procedures:

> (a) Access to a much larger, more diverse sample; (b) data collection can be completed online, coded, and saved to data files greatly saving the researcher time; (c) greater potential inclusion of difficult-to-access samples through specialized Web sites; (d) data can be collected at any time day or night; (e) increased access to cross-cultural samples that may reside in other countries where actual travel may be prohibited. (p. 126).

The informed consent notice, demographic survey, Commitment Level subscale of the Investment Model Scale, and the Couple's Satisfaction Index were uploaded to the online Survey Monkey survey tool. After identifying accredited programs from APA, COAMFTE, and CACREP, the researcher sent out invitations to the study to 170 doctoral program directors requesting that they share the study with their students. The researcher also used social media (Facebook) to identify doctoral students and partners of doctoral students. In the invitation for participation that described the purpose and nature of the study, the researcher provided a Survey Monkey link to the informed consent form, demographic survey, Commitment Level subscale of the Investment Model Scale, and the Couples Satisfaction Index. For the purposes of recruiting partners of doctoral students to participate in the study, the initial invitation to the doctoral students also

requested that they share the link with their partners or spouses. The participants of the study were also asked to provide their email to enter into a raffle to win either a free (member or student member) registration to their choice of ACA, AAMFT, or APA 2016 conference or a $400 pre-paid MasterCard.

Data Analysis

IBM Statistical Package for the Social Sciences 23 (IBM SPSS Statistics 23) was used to perform the inferential analysis of the data collected in this study. After the participants of the study completed the Couples Satisfaction Index, Commitment Level subscale of the Investment Model Scale, and the demographic survey, the researcher conducted a Mixed Between-Within subjects multivariate analysis of variance (MANOVA), a Paired-Samples T-Test and Multiple Regression of the data collected. A Mixed Between-Within Subjects MANOVA allows a researcher to explore variables that are both between and within subjects (Pallant, 2013). Three Mixed Between-Within Subjects MANOVA's were conducted with the between factor for each MANOVA being financial status, length of relationship, or relationship status and the within subjects factor being the doctoral student and partner dyad. Dummy variables were created for the length of relationship continuous variable.

A Paired-Samples T-Test is generally used to compare data from two different occasions (Pallant, 2013). For the purposes of analyzing dyadic data, the two different "occasions" were data from doctoral students (occasion 1) and partners of doctoral students (occasions 2). The researcher conducted two Paired-Samples T-Tests on the relationship satisfaction of doctoral students and partners of doctoral students and the commitment level of doctoral students and partners of doctoral students.

49

A Multiple Regression is a correlational statistic used to predict a dependent variable from multiple independent prediction variables (Gliner & Morgan, 2000). The Hierarchical Multiple Regression method was chosen for this study. Dummy variables were created for the financial status variable for purposes of conducting the Hierarchical Multiple Regression.

The following research questions and hypotheses were addressed:

Research Question 1: Which of the following independent variables predicts relationship satisfaction for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

H_o Length of relationship, gender, financial status, and relationship status will not predict relationship satisfaction among doctoral students and partners of doctoral students.

Research Question 2: Which of the following independent variables predicts commitment level for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

H_o Length of relationship, gender, financial status, and relationship status will not predict commitment level among doctoral students and partners of doctoral students.

Research Question 3: Are there differences in relationship satisfaction between doctoral students and partners of doctoral students?

H_o There are no differences in relationship satisfaction between doctoral students and partners of doctoral students.

Research Question 4: Are there differences in commitment level between doctoral students and partners of doctoral students?

H$_o$ There are no differences in commitment level between doctoral students and partners of doctoral students.

Research Question 5: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status.

Research Question 6: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship.

Research Question 7: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status?

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status.

Protection of Participants Rights

Protective Measures

Participants of this study were informed about the main objectives and goals of the current study through the informed consent document. The informed consent document was the first page of the link that was issued through email to the participants of this study. The informed consent document notified participants that their participation in this study was completely voluntary and they could decline to participate in the study at any time. Lastly, participants were informed that all of their answers would be reported in the results section of the dissertation in aggregate form.

The researcher utilized the secure online Survey Monkey survey tool to collect data for the study. Survey Monkey is a password protected online website that allows users to create surveys and offers both the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) technologies that "ensures that user data in transit is safe, secure, and available only to intended recipients"(Survey Monkey, 2013). Data collected in this study were stored on the researcher's password protected personal computer that only he has access to.

Risks and Benefits/IRB

Before the study was conducted, it was reviewed by the University of South Carolina's Institutional Review Board (IRB). The researcher felt confident that participants had minimal risks for participating in this study due to no identifiable information being collected and data being reported in aggregate form. However, there was the potential for doctoral students and their partners to discuss their answers to the study with one another which might have positive or negative effects.

It was believed that both doctoral students and partners of doctoral students would benefit from participating in this because it provides an opportunity for them to evaluate their marital or relationship satisfaction and commitment level. Also, participation highlights areas in their relationships that are impacted by doctoral study.

Summary

The goal of comparing doctoral students and partners of doctoral students' perceptions of relationship satisfaction and level of commitment to one another supported the use of a causal-comparative research design. The study was designed with the interest of generalizing the results to doctoral students in mental health professions and their

partners. The researcher used both convenience and snowball sampling to select

participants for the study. Both unmarried and married doctoral students and their

partners were eligible to participate in the study. Couples Satisfaction Index was used to

measure the relationship satisfaction of both doctoral students and partners of doctoral

students. The Commitment Level subscale of the Investment Model Scale was used to

measure the commitment level of both doctoral students and partners of doctoral

students. Doctoral students and partners of doctoral students from APA, COAMFTE,

and CACREP accredited counseling doctoral programs were identified by academic

listservs, professional organizations and social networking support groups. The data

collected from the Couples Satisfaction Index, the Commitment Level subscale of the

Investment Model Scale and the demographic survey will be analyzed by the researcher

using a MANOVA, a Paired-Samples T-Test, and a Hierarchical Multiple Regression.

The researcher has identified minimal risks for participation in this study due to the

manner in which data will be collected and reported.

The next chapter of the dissertation will report the findings from each of the two

identified groups of this study: doctoral students and partners of doctoral students.

Chapter 4 will provide a discussion of the preliminary analysis procedures conducted by

the researcher including how the dyadic data was set up in SPSS. Chapter 4 will also

provide graphical data analysis procedures that were conducted for this study. Chapter 4

will conclude with a summary of the results of this study and a transition to the final

chapter of the dissertation.

Chapter 5 of the dissertation will provide an in-depth discussion of the results and

findings of the study. Chapter 5 will consist of a reexamination of the study's research

questions and how the results validated or rejected the researcher's hypotheses. Chapter 5 will conclude with a discussion of the limitations of this study, an overview of the implications of this study for social change, and suggestions of areas where future research can be conducted.

Chapter 4

Results

The researcher was interested in exploring the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. This chapter reports the findings of the research. This chapter presents the demographic information of the study's participants. Also addressed in this chapter are each of the research questions that were proposed by the researcher and detailed tables describing the results of the data analysis procedures.

Research Questions

The researcher identified seven research questions to explore the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. The research questions that were examined by the researcher are listed below.

Research Question 1: Which of the following independent variables predicts relationship satisfaction for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

Research Question 2: Which of the following independent variables predicts commitment level for doctoral students and partners of doctoral students: length of relationship, gender, financial status, or relationship status?

Research Question 3: Are there differences in relationship satisfaction between doctoral students and partners of doctoral students?

Research Question 4: Are there differences in commitment level between doctoral students and partners of doctoral students?

Research Question 5: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status?

Research Question 6: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship?

Research Question 7: Are there differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status?

Demographics

A total of 205 completed surveys was received. Due to the researcher's desire to compare the relationship satisfaction and commitment level of doctoral student dyads, the researcher analyzed only the surveys that both the doctoral student and his or her partner completed. This delimitation resulted in 178 completed surveys being analyzed (89 couples).

Doctoral Program

The participants of this study were doctoral students and partners of doctoral students who were enrolled in accredited doctoral programs from APA, COAMFTE, and CACREP. Table 4.1 illustrates the number of participants identified as doctoral students in this study from each program. Forty-five or 50.6% of the participants were from APA accredited psychology programs, 31.5% of the participants were from CACREP accredited counseling programs, and 16.9% of the participants were from COAMFTE accredited marriage and family therapy programs.

Table 4.1

Doctoral Student Program

	Frequency	Percent
Counseling	28	31.5%
Psychology	45	50.6%
MFT	15	16.9%

Gender

      Table 4.2 illustrates the gender of the doctoral student participants of this study. 80.9% of the doctoral student participants identified themselves as female and 19.1 % of the participants identified themselves as male.

Table 4.2

Doctoral Student Gender

	Frequency	Percent
Male	17	19.1%
Female	72	80.9%

      Table 4.3 illustrates the gender of the partner of doctoral student participants of this study. 77.5% of the partner of doctoral student participants identified themselves as male and 22.5% of the partner of doctoral student participants identified themselves as female.

Table 4.3

Partner of Doctoral Student Gender

	Frequency	Percent
Male	69	77.5%
Female	20	22.5%

Sexual Orientation

Table 4.4 illustrates the sexual orientation of doctoral student participants of the study. 82% of doctoral student participants identified themselves as heterosexual, 10.1% of the doctoral student participants identified themselves as bisexual, and 7.9% of the doctoral student participants identified themselves as gay or lesbian.

Table 4.4

Doctoral Student Sexual Orientation

	Frequency	Percent
Heterosexual	73	82.0%
Gay or Lesbian	7	7.9%
Bisexual	9	10.1

Table 4.5 illustrates the sexual orientation of partner of doctoral student participants of the study. 84.3% of partners of doctoral student participants identified themselves as heterosexual, 9.0% of the partners of doctoral student participants identified themselves as gay or lesbian, and 5.6% of the partners of doctoral student participants identified themselves as gay or lesbian.

Table 4.5

Partner of Doctoral Student Sexual Orientation

	Frequency	Percent
Heterosexual	75	84.3%
Gay or Lesbian	8	9.0%
Bisexual	5	5.6%

Race/Ethnicity

Table 4.6 illustrates the race of the doctoral student participants of this study. 80.9% of the doctoral student participants identified themselves as White/Caucasian, 7.9% of the doctoral student participants identified themselves as Black/African

American, and 5.6 % of the doctoral student participants identified themselves as being Asian/Pacific Islander. 3.4% of the doctoral student participants identified themselves as having multiple ethnicities and 2.2% of the doctoral student participants identified themselves as Hispanic/Latino/Latina.

Table 4.6

Doctoral Student Race/Ethnicity

	Frequency	Percent
Multiple Ethnicity	3	3.4%
Asian/Pacific Islander	5	5.6%
Black or African American	7	7.9%
Hispanic/Latino/Latina	2	2.2%
White/Caucasian	72	80.9%

Table 4.7 illustrates the race of the partner of doctoral student participants of this study. 77.5% of the partner of doctoral student participants identified themselves as White/Caucasian, 9.0% of the doctoral student participants identified themselves as Black/African American, 4.5 % of the partner of doctoral student participants identified themselves as being Asian/Pacific Islander, 3.4% of the partner of doctoral student participants identified themselves as having multiple ethnicities, 3.4% of the partner of doctoral student participants identified themselves as Hispanic/Latino/Latina, and 2.2% of the partner of doctoral student participants identified themselves as American Indian/Alaskan Native.

Table 4.7

Partner of Doctoral Student Race/Ethnicity

	Frequency	Percent
Multiple Ethnicity	3	3.4%

	Frequency	Percent
Asian/Pacific Islander	4	4.5%
Black or African American	8	9.0%
Hispanic/Latino/Latina	3	3.4%
White/Caucasian	69	77.5%
American Indian or Alaskan	2	2.2%

Highest Level of Education Completed

Table 4.8 illustrates the highest level of education completed by the doctoral

student participants of this study. 89.9 % of the doctoral student participants indicated

they had a master's degree, 6.7% of the doctoral student participants indicated they had a

bachelor's degree, and 3.4% of the doctoral student participants indicated they already

had a doctorate degree.

Table 4.8

Doctoral Student High Level of Education Completed

	Frequency	Percent
Bachelor's Degree	6	6.7%
Master's Degree	80	89.9%
Doctorate Degree	3	3.4%

Table 4.9 illustrates the highest level of education completed by the partners of

doctoral students participants of this study. 41.6% of the participants indicated they had a

bachelor's degree, 36% of the participants indicated they had a master's degree, 12.4% of

the participants indicated they had a high school diploma, 7.9% of the participants

indicated they had a doctorate degree, and 2.2 % indicated they had an associate's degree.

Table 4.9

Partner of Doc Student Highest Level of Education

	Frequency	Percent
High School	11	12.4%
Associate's Degree	2	2.2%
Bachelor's Degree	37	41.6%
Master's Degree	32	36.0%
Doctorate Degree	7	7.9%

Descriptive Statistics of Independent Variables'

The researcher identified 4 independent variables for this study: length of relationship, gender, relationship status, and financial status. Below, the researcher has provided the descriptive statistics for length of relationship, relationship status, and financial status. See table 4.2 and table 4.3 for descriptive statistics of gender for this study.

Length of Relationship

Table 4.10 illustrates the length of relationship for the participants of the study. 48.3% of the participants indicated they have been in a relationship for 1-5 years, 34.8% indicated they have been in a relationship for 6-10 years, 6.7% indicated they have been in a relationship for 11-15 years, 4.5% indicated they have been in a relationship for 31 years or greater, 3.4% indicated they have been in a relationship for 21-25 years, and 2.2% indicated they have been in a relationship for 16-20 years.

Table 4.10

Length of Relationship

	Frequency	Percent
1-5 Years	43	48.3%
6-10 Years	31	34.8%

61

11-15 Years	6	6.7%
16-20 Years	2	2.2%
21-25 Years	3	3.4%
31 Years or Greater	4	4.5%

Financial Status

Table 4.11 illustrates the financial status of the doctoral student participants of the study. Of all the participants, 29.2% indicated that their income has decreased since entering the doctoral program, 24.7 % indicated their income has remained the same since entering the doctoral program, 23.6% indicated that their income has significantly decreased since entering the doctoral program, 14.6% indicated that their income has increased since entering the doctoral program, and 7.9% indicated that their income has significantly increased since entering doctoral program.

Table 4.11

Doctoral Student Financial Status

	Frequency	Percent
Significantly Increased	7	7.9%
Increased	13	14.6%
Remained the Same	22	24.7%
Decreased	26	29.2%
Significantly Decreased	21	23.6%

Table 4.12 illustrates the financial status of the partner of doctoral student participants of the study and shows that 27.0 % of the participants indicated that their income has remained the same since doctoral study began, 20.2% indicated that income has decreased since doctoral study began, 18 % indicated that their income has increased since doctoral study began, 7.9 % indicated that income has significantly decreased since doctoral study began, and 7.9% indicated that their income has significantly increased since doctoral study began.

Table 4.12

Partner of Doctoral Student Financial Status

	Frequency	Percent
Significantly Increased	7	7.9%
Increased	16	18.0%
Remained the Same	24	27.0%
Decreased	18	20.2%
Significantly Decreased	7	7.9%

Relationship Status

Table 4.13 illustrates the relationship status for the participants of this study. 48.3% of the participants indicated they were married and 50.6% of the participants indicated they were unmarried but in a relationship for at least 1 year.

Table 4.13

Relationship Status

	Frequency	Percent
Married	43	48.3%
Unmarried	45	50.6%

Preliminary Analysis

The researcher conducted preliminary analysis of the data once all of the data were collected from the survey. Although 205 completed surveys were received, 27 of surveys could not be analyzed because one of the partners of the dyad did not complete the survey. Ultimately, the researcher analyzed 178 surveys (89 couples). To improve the accuracy of the results, the researcher downloaded the data directly from Survey Monkey rather than manually entering them into SPSS. The researcher coded each of the items collected from the survey on SPSS. The researcher had to reverse the scores of items 3 and 4 of the Commitment Level subscale of the Investment Model Scale to

63

accurately analyze the data using SPSS. Also, to conduct the multiple regression, the

researcher created dummy variables for the categorical financial status variable.

After cleaning up the data, the researcher set it up in dyadic form for the purposes

of conducting the Mixed Between-Within Subjects MANOVA. Due to the researcher's

desire to explore the relationship satisfaction and commitment level of doctoral student

dyads, the researcher could not simply explore and analyze each participant's responses

separately. Also, the researcher could not average the scores of each dyad due to the

possibility of misleading data (Cook & Kenny, 2005). In dyadic research, dyads are

generally categorized as being distinguishable or indistinguishable dyads (Kenny, Kashy,

& Cook, 2006). The researcher distinguished the partners of each dyad by categorizing

one individual as the doctoral student and the other individual as the partner of a doctoral

student. Each row of the data set had both the doctoral student and partner of doctoral

student results from the survey.

The researcher conducted an analysis on the reliability of both the Couples

Satisfaction Index and the Commitment Level subscale of the Investment Model Scale.

Below are the results of the preliminary analysis of the scales.

Table 4.14

Couples Satisfaction Index Reliability Stats

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.961	.964	64

Commitment Level subscale of Investment Model Scale Reliability Stats

Table 4.15

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.704	.848	14

According to Graham, Diebels, and Barnow (2011), the Couples Satisfaction Index has been shown to be a reliable instrument with an average Cronbach Alpha of .940. Similarly, Rubsult, Martz, and Agnew (1998) suggest that the Commitment Level subscale of the Investment Model Scale is a reliable scale with a Cronbach Alpha exceeding .90. In this study, the Couples Satisfaction Index was found to have a Cronbach alpha of .961 which is consistent with prior research. The Commitment Level subscale of the Investment Model Scale was found in this study to have a Cronbach Alpha coefficient of .70 which is lower than the Cronbach Alpha coefficient found in previous studies. However, Pallant (2013) says that scores greater than .70 are sufficient.

<div align="center">Assumptions</div>

Hierarchical Multiple Regression

Pallant (2013) suggests 7 assumptions of a Hierarchical Multiple Regression: sample size, normality, outliers, multicollinearity or singularity, linearity, homoscedasticity, and independence of residuals.

To fulfill the sample size assumption of multiple regressions in social sciences, a study must have at least 15 participants for each of the predictor variables (Stevens, 1996; as cited in Pallant, 20013). The researcher had more than 15 participants for each predictor variable in all 4 of the multiple regressions conducted. There was no violation of the sample size assumption in any of the multiple regressions.

The assumption of normality was explored by looking at the Normal P-P Plot of each of the independent variables used in the study. The points on each of the Normal P-P Plots lied in a sensibly straight diagonal line which suggested no violation of normality.

Outliers were checked by inspecting the Mahalanobis distances of the data produced by the multiple regressions. The critical value for the dependent variables entered into SPSS was 27. 88. For the Multiple Regression that explored the impact of the 4 variables on the relationship satisfaction of doctoral students, the Mahalanobis distance maximum score found was 38.67 which indicated a significant outlier existed. The researcher removed the one outlier from the data set. For the Multiple Regression conducted on relationship satisfaction of partners of doctoral students, the Mahalanobis distance maximum score found was 23.80 which resulted in no cases being removed. For the Multiple Regression conducted on the commitment level of doctoral students, the Mahalanobis Distance maximum score found was 33. 976 which indicated a significant outlier existed. The researcher removed the one outlier from the data set. For the Multiple Regression conducted on commitment level of partners of doctoral students, the Mahalanobis Distance maximum score found was 23.71 which suggested no outliers existed and no cases needed to be deleted.

The assumption of multicollinearity was explored by looking first at the correlations between the variables. None of the correlations between the independent variables and the dependent variable in all 4 regressions was too high. Next, the researcher performed collinearity diagnostics for each of the 4 regressions and found no multicollinearity as evidenced by no tolerance value less than .10 or any Variance Inflation Factor greater than 10.

66

The assumption of linearity was assessed by the researcher's scatterplot. The assumption of linearity occurs when the residuals have a straight-line association with the forecasted dependent variables (Pallant, 2013). Only 1 of the 4 multiple regressions conducted violated the linearity assumption (partners of doctoral students commitment level). However, according to Tabachnick & Fidell (2007), the "failure of linearity of residuals in regression does not invalidate an analysis as much as weaken it" (p. 127).

According to Tabachnick & Fidell (2007), the assumption of homoscedasticity suggests that "the standard deviations of errors of prediction are approximately equal for all predicted DV scores" (p. 127). Based on the scatterplots from each multiple regression, the researcher did not notice a violation of homoscedasticity in any of the multiple regressions.

The assumption of independence of errors was assessed by the Durbin-Watson statistic. No significance was found in any of the multiple regressions conducted by the researcher which suggests that the independence of errors assumption was not violated.

Mixed Between-Within Subjects MANOVA

Pallant (2013) suggests 7 assumptions of a MANOVA: sample size, normality, outliers, linearity, homogeneity of regression, multicollinearity and singularity, and homogeneity of variance-covariance matrices.

To fulfill the sample size assumption, data in each cell must be greater than the number of dependent variables (Pallant, 2013). The researcher did not violate the assumption of sample size for this study.

The assumption of normality was explored by measuring the univariate and multivariate normality of the data collected. The researcher first explored the skewness of the distribution scores. The skewness scores ranged from -1.311 to -.909. Each of the

67

dependent variables was shown to have negative skewness which suggests grouping of scores at the right high end of the graph (Pallant, 2013). The Kurtosis scores ranged from .692 to 2.322. Each of the dependent variables was shown to have positive kurtosis values which suggest that the distribution is "clustered at the center" (Pallant, 2013, p. 59). Each of the variables was further explored by the Kolmogorov-Smirnov statistic. The results of the Kolmogorov-Smirnov statistic indicated that none of the dependent variables met normality. However, the violation of normality assumption is very common with large samples of data (Pallant, 2013). Also, according to Pallant (2013), "many scales and measures used in social sciences have scores that are skewed, either positively or negatively". This does not necessarily indicate a problem with the scale, but rather reflects the underlying nature of the construct being measured" (p. 66).

The researcher utilized Mahalanobis distances to explore the multivariate outliers. The critical value for 4 dependent variables entered into SPSS (doctoral student relationship satisfaction, partner of doctoral student relationship satisfaction, doctoral student commitment Level, and partner of doctoral student commitment level) is 18.47. The Mahalanobis distance maximum score found was 26.69 which indicated a multivariate outlier existed. After further analysis, the researcher found another outlier with a Mahalanobis distance of 20.03 which was also greater than the multivariate critical value score of 18.47. The researcher conducted an analysis of the data both with and without the outliers and found extreme differences in the findings. Due to the outliers having a major impact on the findings, the researcher decided to remove both of the outliers from the data set.

A boxplot was use by the researcher to explore univariate outliers. Outliers were found in each of the dependent variables. The researcher used the 5% Trimmed Mean to determine the impact of each of the outliers found for each variable. The researcher found no major difference between the 5% Trimmed Mean of doctoral students (136.40) and the original mean of doctoral students (135.53). The researcher also found no major difference between the 5% Trimmed Mean of partners of doctoral students (138.27) and the original mean of partners of doctoral students (137.28). Due to the similarities found in the 5% Trimmed Mean and the average mean scores, the outliers for doctoral students and partners of doctoral students were kept in the data file. Next, the researcher explored the commitment level variables. The researcher did not find a major difference between the 5% Trimmed Mean of doctoral students (53.77) and the original mean of (53.26). Also, the researcher did not find a major difference between the 5% trimmed mean of partners of doctoral students (53.61) and the original mean of (53.21). Due to the similarities found in the 5% Trimmed Mean and average mean scores, the outliers were kept in the data file.

The assumption of linearity was explored by the use of a matrix of scatterplots. The researcher did not find any significant evidence of non-linearity between the dependent variables explored which suggested there was no violation of the linearity assumption.

According to Pallant (2013), the assumption of homogeneity of regression "is important only if you are intending to perform a stepdown analysis" (p. 300). The researcher did not perform a stepdown analysis for this study so the assumption of homogeneity of regression did not apply to this study.

The Pearson Correlation statistic was conducted to test the assumption of Multicollinearity and singularity. The highest correlation found was .492 between doctoral student relationship satisfaction and partner total relationship satisfaction. The assumption of multicollinearity or singularity was not violated.

The final assumption tested for the MANOVA was the homogeneity of variance-covariance matrices. This assumption was tested by the Box's M Test of Equality of Covariance Matrices. For Research question 5 and 6 that explored the relationship satisfaction and commitment level of doctoral students and their partners due to financial status and length of relationship, the homogeneity of variance-covariance matrices was not violated. Research question 7 explored the relationship satisfaction and commitment level of doctoral students and their partners due to relationship status. The homogeneity of variance-covariance matrices assumption was violated for research question 7. However, Box's M Test of Equality of Covariance Matrices can be too stringent when large data samples of equal group sizes are used (Tabachnick and Fidell, 2013; As cited in Pallant, 2013).

<center>Results by Hypotheses</center>

Hypothesis 1

H_o Length of relationship, gender, financial status, and relationship status will not predict relationship satisfaction among doctoral students and partners of doctoral students.

A hierarchical multiple regression was used to determine if the four identified independent variables were predictors of relationship satisfaction for doctoral students and partners of doctoral students.

<center>70</center>

Doctoral Students

To control for the dyadic nature of the data, partner total relationship satisfaction was entered in step 1, explaining 27% of the variance in relationship satisfaction for doctoral students. In step 2, financial status was entered explaining 34% of the variance in relationship satisfaction. In step 3, length of relationship was entered, explaining 35% of the variance in relationship satisfaction. In step 4, gender was entered, explaining 35% of the variance in relationship satisfaction. Finally, in step 5, relationship status was entered, which explained the total variance of the significant model as a whole which was 29%, $F(8, 78)=5.358$, $p<.05$. The .4% change from step 1 to step 5 was not statistically significant, R square change = .004, F Change $(1,78)=.466$, $p=.497$. For doctoral students, statistical significance was only found in the "income has significantly decreased since entering the doctoral program" category of the financial status predictor (beta =.269, p <.05). However, the significant decrease in income entered in step 2 was not a significant contribution to the model (p=.068) which suggests that the financial status variable is not a true predictor of relationship satisfaction for doctoral students. These findings are highlighted in table 4.16, 4.17, & 4.18.

Partners of Doctoral Students

To control for the dyadic nature of the data, doctoral student total relationship satisfaction was entered in Step 1, explaining 25.7% of the variance in relationship satisfaction. In step 2, financial status was entered explaining 33.2% of the variance in relationship satisfaction. In step 3, length of relationship was entered, explaining 34.1% of the variance in relationship satisfaction. In step 4, gender was entered, explaining 34.3% of the variance in relationship satisfaction. Finally, in step 5, relationship status

71

Table 4.16

Pearson Correlations for Doctoral Relationship Satisfaction, Partner Relationship Satisfaction, Doctoral Student Financial Status, Doctoral Student Length of Relationship, Doctoral Student Gender, and Doctoral Student Relationship Status

	Doc RS	Partner RS	Doc Income Sig. Increased	Doc Income Increase	Doc Income Remained Same	Doc Income Decreased	Doc Income Sig. decrease	Doc LOR	Doc Gender	Doc Relationship status
Doc RS	1.0									
Partner RS	.518	1.0								
Doc Income Sig. Increase	.032	.110	1.0							
Doc Income Increase	.111	.028	-.124	1.0						
Doc Income Remained the Same	-.187	-.064	-.172	-.244	1.0					
Doc Income Decrease	-.146	-.045	-.183	-.259	-.359	1.0				
Doc Income Sig. Decrease	.230	.019	-.167	-.236	-.328	-.348	1.0			
Doc LOR	.044	.042	.112	-.043	.056	-.163	.078	1.0		
Doc Gender	-.016	-.124	.031	.033	-.133	.094	-.010	-.006	1.0	
Doc Relationship Status	.120	.088	-.052	.018	.086	.030	-.100	-.535	.195	1.0

Table 4.17

Doctoral Student Relationship Satisfaction Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	ΔR^2	F Change	Sig. F Change
1	.518	.269	.260	14.40	.269	31.234	.000
2	.585	.343	.302	13.99	.074	2.273	.068
3	.591	.349	.300	14.00	.007	.816	.369
4	.592	.351	.293	14.07	.002	.198	.658
5	.596	.288	.288	14.12	.004	.466	.497

Table 4.18

Doctoral Student Relationship Satisfaction Coefficients

Model	B	T	p
Constant	56.698	3.527	.001
Partner RS	.505	5.317	.000
Doc Income Sig. Increase	2.816	.456	.650
Doc Income Increase	7.325	1.502	.137
Doc Income Remained the Same	-.820	-.190	.850
Doc Income Sig. Decrease	10.46	2.448	.017
Doc LOR	-.136	-.364	.716
Doc Gender	.996	.240	.811
Doc Relationship Status	2.60	.682	.497

was entered, which explained the total variance of the significant model as a whole which was 34.4%, $F_{(9, 76)}=4.44$, $p<.05$). The .2% change from step 1 to step 5 was not statistically significant, R square change = .002, F Change $(1, 76)=.222$, $p =.69$. No statistical significance was found in any of the predictor variables of relationship satisfaction for partners of doctoral students. The results of the hierarchical multiple regression fail to reject the null hypothesis. These findings are highlighted in table 4.19, 4.20, and 4.21.

Hypothesis 2

H_o Length of relationship, gender, financial status, and relationship status will not predict commitment level among doctoral students and partners of doctoral students.

A hierarchical multiple regression was used to determine if the four identified independent variables were predictors of commitment level for doctoral students and partners of doctoral students.

Doctoral Students

To control for the dyadic nature of the data, partner total commitment level was entered in Step 1, explaining 17.3% of the variance in commitment level. In step 2, financial status was entered explaining 21.7% of the variance in commitment level. In step 3, length of relationship was entered, explaining 21.7% of the variance in commitment level. In step 4, gender was entered, explaining 21.7% of the variance in commitment level. Finally, in step 5, relationship status was entered, which explained the total variance of the significant model as a whole which was 21.8%, $F_{(8, 78)}=2.713$, $p<.05$. The 3.1% change from step 1 to step 5 was not statistically significant, R square change= .031, F Change $(1,78)=.0000$, $p=.862$.

Table 4.19

Pearson Correlations for Partner Relationship Satisfaction, Doctoral Student Relationship Satisfaction, Partner Financial Status, Partner Length of Relationship, Partner Gender, and Partner Relationship Status

	Partner RS	Doc RS	Partner Income Sig. Increased	Partner Income Increase	Partner Income Remained Same	Partner Income Decreased	Partner Income Sig. decrease	Partner LOR	Partner Gender	Partner Relationship status
Partner RS	1.0									
Doc RS	.507	1.0								
Partner Income Sig. Increase	.182	.049	1.0							
Partner Income Increase	.013	-.065	-1.31	1.0						
Partner Income Remained the Same	.132	.028	-.170	-.297	1.0					
Partner Income Decrease	-.165	.073	-.131	-.229	-.297	1.0				
Partner Income Sig. Decrease	-.024	.111	-.082	-.142	-.185	-.142	1.0			
LOR	-.147	-.036	.093	-.054	-.146	.243	.068	1.0		
Gender	-.033	.053	.065	.161	-.158	.161	.138	.015	1.0	
Partner RelationStatus	.125	.091	-.176	-.049	.118	-.108	.049	-.466	-.152	1.0

Table 4.20

Partner of Doctoral Student Relationship Satisfaction Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	ΔR^2	F Change	Sig. F Change
1	.507	.257	.249	14.99	.257	29.114	.000
2	.576	.332	.281	14.66	.074	1.757	.131
3	.584	.341	.282	14.65	.009	1.119	.293
4	.585	.343	.274	14.73	.001	.161	.689
5	.587	.344	.267	14.80	.002	.222	.69

Table 4.21

Partner of Doctoral Student Relationship Satisfaction Coefficients

Model 5	B	t	p
Constant	57.015	3.450	.001
Doc RS	.586	5.327	.000
Partner Income Sig. Increase	12.515	1.708	.092
Partner Income Increase	3.256	.603	.548
Partner Income Remained the Same	4.090	.859	.393
Partner Income Decreased	-4.684	-.847	.400
Partner Income Sig. Decrease	-3.344	-.480	.632
Partner LOR	-.201	-.737	.464
Partner Gender	-1.372	-.333	.740
Partner Relationship Status	1.757	.471	.639

No statistical significance was found in any of the predictor variables on commitment

level. These findings are reported table 4.22, table 4.23, and table 4.24

Partners of Doctoral Students

To control for the dyadic nature of the data, doctoral student total commitment

level was entered in Step 1, explaining 11.1% of the variance in commitment level. In

step 2, financial status was entered explaining 16.3% of the variance in commitment

level. In step 3, length of relationship was entered, explaining 17.4% of the variance in

commitment level. In step 4, gender was entered, explaining 17.6% of the variance in

commitment level. Finally, in step 5, relationship status was entered, which explained

the total variance of the nonsignificant model as a whole which was 18.7%, $F(9,$

$76)=1.941$, $p=.058$). The 1% change from step 1 to step 5 was not statistically significant,

R square change = .011, F Change $(1,76)=1.025$, $p=.315$. No statistical significance was

found in any of the predictor variables on commitment level. Results of the hierarchical

multiple regression fail to reject the null hypothesis. Results of the hierarchical multiple

regression are highlighted in table 4.25, table 4.26, and table 4.27.

Hypothesis 3

H_o There are no differences in relationship satisfaction between doctoral students and

partners of doctoral students.

Table 4.22

Pearson Correlations for Doctoral Student Commitment Level, Partner Commitment Level, Doctoral Student Financial Status, Doctoral Student Length of Relationship, Doctoral Student Gender, and Doctoral Student Relationship Status

	Doc CL	Partner CL	Doc Income Sig. Increased	Doc Income Increase	Doc Income Remained Same	Doc Income Decreased	Doc Income Sig. decrease	Doc LOR	Doc Gender	Doc Relationship status
Doc CL	1.0									
Partner CL	.416	1.0								
Doc Income Sig. Increase	-.004	-.004	1.0							
Doc Income Increase	-.091	.000	-.124	1.0						
Doc Income Remained the Same	.004	.012	-.172	-.244	1.0					
Doc Income Decrease	-.168	-.141	-.183	-.259	-.359	1.0				
Doc Income Sig. Decrease	.249	.138	-.167	-.236	-.328	-.348	1.0			
Doc LOR	.079	.139	.112	-.043	.056	-.163	.078	1.0		
Doc Gender	-.124	-.305	.031	.033	-.133	.094	-.010	-.006	1.0	
Doc Relationship Status	-.112	-.211	-.052	.018	.086	.030	-.100	-.535	.195	1.0

Table 4.23

Doctoral Student Commitment Level Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	ΔR^2	F Change	Sig. F Change
1	.416	.173	.163	4.25	.173	17.79	.000
2	.466	.217	.169	4.23	.044	1.145	.341
3	.466	.217	.159	4.25	.000	.001	.978
4	.466	.217	.148	4.28	.000	.003	.959
5	.467	.218	.137	4.31	.000	.031	.862

Table 4.24

Doctoral Student Commitment Level Coefficients

Model	B	t	p
Constant	32.094	4.598	.000
Partner CL	.382	3.558	.001
Doc Income Sig. Increase	.829	.441	.660
Doc Income Increase	-.135	-.091	.928
Doc Income Remained the Same	.898	.682	.497
Doc Income Sig. Decrease	2.459	1.866	.066
Doc LOR	-.013	-.120	.905
Doc Gender	.112	.086	.931
Doc Relationship Status	-.201	-.175	.862

Table 4.25

Pearson Correlations for Partner Commitment Level, Doctoral Student Commitment Level, Partner Financial Status, Partner Length of Relationship, Partner Gender, and Partner Relationship Status

	Partner CL	Doc CL	Partner Income Sig. Increased	Partner Income Increase	Partner Income Remained Same	Partner Income Decreased	Partner Income Sig. decrease	Partner LOR	Partner Gender	Partner Relationship status
Partner CL	1.0									
Doc CL	.333	1.0								
Partner Income Sig. Increase	.176	.121	1.0							
Partner Income Increase	.107	.074	-1.31	1.0						
Partner Income Remained the Same	.026	.019	-.170	-.297	1.0					
Partner Income Decrease	.018	-.026	-.131	-.229	-.297	1.0				
Partner Income Sig. Decrease	-.080	-.032	-.082	-.142	-.185	-.142	1.0			
LOR	.166	.160	.093	-.054	-.146	.243	-.068	1.0		
Gender	.035	-.104	.065	.161	-.158	.161	.138	.015	1.0	
Partner RelationStat	-.224	-.177	-.176	-.049	.118	-.108	.049	-.466	-.152	1.0

Table 4.26

Partner of Doctoral Student Commitment Level Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	ΔR^2	F Change	Sig. F Change
1	.333	.111	.100	4.16	.111	10.450	.000
2	.404	.163	.100	4.16	.052	.991	.429
3	.417	.174	.100	4.16	.011	1.025	.314
4	.419	.176	..090	4.18	.002	.183	.670
5	.432	.187	.091	4.18	.011	1.025	.315

Table 4.27

Partners of Doctoral Students Commitment Level Coefficients

Model 5	B	t	p
Constant	38.596	6.034	.000
Doc CL	.282	2.514	.014
Partner Income Sig. Increase	3.514	1.699	.093
Partner Income Increase	2.437	1.591	.116
Partner Income Remained the Same	1.815	1.352	.180
Partner Income Decreased	1.658	1.072	.287
Partner Income Sig. Decrease	.808	.416	.679
Partner LOR	.034	.444	.658
Partner Gender	-.642	-.551	.583
Partner Relationship Status	-1.065	-1.012	.315

A Paired-Samples T-Test was administered to measure the impact of doctoral study on the relationship satisfaction of doctoral students and partners of doctoral students. According to Pallant (2013), paired samples t-tests are used when a researcher is interested in exploring data from participants on "two different occasions or under two different conditions" (p. 252). Because the data was set up in dyadic form, the researcher was able to consider doctoral students and partners of doctoral students as two different conditions that were measured on relationship satisfaction and commitment level. Table 4.28 illustrates the mean scores and standard deviations of both doctoral students (M=134.53, SD=16.57) and partners of doctoral students (M=136.83, SD=17.26). Table 4.29 illustrates that there was no significant differences found in relationship satisfaction of doctoral students and partners of doctoral students (t(88)=-1.27, p=.207). The results failed to reject the null hypothesis.

Table 4.28

Doc Student and Partner of Doc Student Relationship Satisfaction Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Doc RS	134.53	89	16.57	1.76
Partner RS	136.83	89	17.26	1.83

Table 4.29

Doc Student and Partner of Doc Student Relationship Satisfaction Paired Samples T-Test

Pair	t	df	Sig. (2Tailed)
Doc Student RS-Partner RS	-1.272	88	.207

Hypothesis 4

H$_o$ There are no differences in commitment level between doctoral students and partners of doctoral students.

A Paired-Samples T-Test was administered to measure the impact of doctoral study on the commitment level of doctoral students and partners of doctoral students. Table 4.30 illustrates the means scores and standard deviations of doctoral students (M=52.99, SD=4.61) and partners of doctoral students (M=52.82, SD=4.63). Table 4.31 illustrates that there was no significant differences found in commitment level of doctoral students and partners of doctoral students (t (88)=.319, p=.750). The results failed to reject the null hypothesis

Table 4.30

Doc Student and Partner of Doc Student Commitment Level Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Doctoral Student Commitment Level	52.99	89	4.61	.48876
Partner of Doctoral student Commitment Level	52.82	89	4.63	.49087

Table 4.31

Doc Student and Partner of Doc Student Commitment Level Paired Samples Test

Pair	t	df	Sig. (2Tailed)
Doc Student Commitment Level-Partner of Doc Student Commitment Level	.319	88	.750

Hypothesis 5

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to financial status.

A Mixed Between-Within Subjects MANOVA was conducted to assess the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and their partners due to financial status. Due to the researcher's violation of Levene's Test of Equality of Error Variances, the researcher utilized a lower alpha level of .025 (as cited in Pallant, 2013). Table 4.32 illustrates that there was no main effect for doctoral partner dyads, Wilks' Lambda = .925, F (2, 48)=1.06, p=.356, partial eta squared = .042 and there was no significant interaction found with financial status and doctoral dyads, Wilks' Lambda = .596, F (26, 96) = 1.09, p = .367, partial eta squared =.228. The main effect comparing the relationship satisfaction of doctoral students and their partners based on financial status was not significant, F (13, 49)=.782, p=.675, partial eta squared=.172. Table 4.33 illustrates the main effect comparing the commitment level of doctoral students and their partners based on financial status was not significant, F (13, 49)=1.143, p=.348, partial eta squared = .233. The results cannot reject the null hypothesis.

Table 4.32

Within Subjects Statistics for Financial Status

		Value	F	Sig.	η^2
Partners	Wilks' Lambda	.958	1.056	.356	.042
Financial Status Doc	Wilk's Lambda	.907	.598	.778	.047
Financial Status Partner	Wilk's Lambda	.933	.421	.906	.033
Partners*Financial Status Doc*Financial Status Partner	Wilk's Lambda	.596	1.091	.367	.228

Table 4.33

Between Subjects Statistics for Financial Status

	Measure	df	f	p	η^2
Intercept	RS	1	3665.06	.000	.987
	CL	1	11248.309	.000	.996
Financial Status Doc	RS	4	1.576	.196	.114
	CL	4	1.282	.290	.095
Financial Stat	RS	4	.334	.854	.027
Partner	CL	4	1.423	.240	.104
Financial Status	RS	13	.782	.675	.172
Doc*	CL	13	1.143	.348	.233
Financial Status Part					

Hypothesis 6

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to the length of their relationship.

A Mixed Between-Within Subjects MANOVA was conducted to assess the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and their partners due to length of relationship. Table 4.34 illustrates that there was no significant interaction found between length of relationship and doctoral dyads. There was no main effect for doctoral partner dyads, Wilks' Lambda = .994, F (2, 74)=.216, p=.807, partial eta squared = .006. Table 4.35 illustrates that the main effect comparing the relationship satisfaction of doctoral students and their partners based on length of relationship was not significant. The main effect comparing the commitment level of doctoral students and their partners based on length of relationship was also not significant. The researcher cannot reject the null hypothesis.

Hypothesis 7

H$_o$: There are no differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status.

A Mixed Between-Within Subjects MANOVA was conducted to assess the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and their partners based on relationship status. Table 4.36 illustrates that there was no significant interaction found between relationship status and doctoral dyads and there was no main effect for doctoral partner dyads, Wilks' Lambda = .973, F (2, 81)=973, p=.382, partial eta squared = .023. Table 4.37 illustrates that the main effect comparing the relationship satisfaction of doctoral students and their partners based on

Table 4.34

Within Subjects Statistics for Length of Relationship

		Value	F	Sig.	η^2
Partners	Wilks' Lambda	.994	.216	.807	.006
LOR Doc	Wilk's Lambda	.981	.183	.993	.010
LOR Partner	Wilk's Lambda	.943	.441	.924	.029
Partners*LOR Doc*LOR Partner	Wilk's Lambda	1.0			

Table 4.35

Between Subjects Statistics for Length of Relationship

	Measure	*df*	*f*	*p*	η^2
Intercept	RS	1	1849.65	.000	.961
	CL	1	5556.045	.000	.987
LOR Doc	RS	4	.265	.899	.014
	CL	4	.315	.867	.017
LOR Partner	RS	5	1.361	.249	.083
	CL	5	1.256	.292	.077
LOR Doc*	RS	0			
LOR Partner	CL	0			

Table 4.36

Within Subjects Statistics for Relationship Status

		Value	F	Sig.	η^2
Partners	Wilks' Lambda	.977	.973	.382	.023
Relationship Status Doc	Wilk's Lambda	.984	.672	.514	.016
Relationship Status Partner	Wilk's Lambda	.987	.550	.579	.013
Partners* Relationship Status Doc* Relationship Status Partner	Wilk's Lambda	1.0			

88

Table 4.37

Between Subjects Statistics for Relationship Status

	Measure	df	f	p	η^2
Intercept	RS	1	1961.193	.000	.960
	CL	1	5784.212	.000	.986
Relationship Status Doc	RS	1	.068	.795	.001
	CL	1	5.697	.019	.065
Relationship Status Partner	RS	1	.258	.613	.003
	CL	1	3.675	.059	.043
Relationship StatusDoc* RelationStatusPart	RS	0			

relationship status was not significant. Also, table 4.37 illustrates that the main effect comparing the commitment level of doctoral students and their partners based on relationship status was not significant. The researcher cannot reject the null hypothesis.

Summary

This chapter provided an overview of the findings of the dissertation. This chapter began with a discussion of the preliminary analyses conducted by the researcher. This chapter reported the findings for each of the researcher's research questions. This chapter showcased detailed tables describing the demographical information collected and the results of the MANOVA, Paired-Samples T-Test, and Hierarchical Multiple regression. Chapter 5 of the dissertation will provide interpretations of each of the findings of this study. Chapter 5 continues with an in-depth discussion of the implications for social change. Chapter 5 concludes with the study's limitations and future areas of research that need to be conducted.

Chapter 5

Discussion

This chapter provides an overview of the study and an interpretation of the findings reported in Chapter 4 of the dissertation. In addition, the implications for social change, the limitations of the study, and areas where future research may be conducted will be covered.

Past research on doctoral student relationships has mostly showed the negative effect that doctoral study has on marital satisfaction (Brannock, Litten, & Smith, 2000; Gold, 2006; and Scheilder, 2008). Researchers have explored several factors that may impact the doctoral student's relationship satisfaction: length of relationship (Branock, Litten, and Smith, 2000; Scheilder, 2008, & Bowlin, 2013), gender (Gold, 2006; & Scheilder, 2008), finances (Legako and Sorenson, 2000; & Gold, 2006) and relationship status (Bowlin, 2013). However, the majority of the aforementioned studies primarily focused on married doctoral students and not the perspective of doctoral student partners. The present study explored the relationship satisfaction and commitment level of both doctoral students and partners of doctoral students. The researcher identified 4 variables to explore relationship satisfaction and commitment level of the doctoral student couples: length of relationship, gender, financial status, and relationship status.

Interpretation of Findings

Research question number 1 asked if length of relationship, gender, financial status, and relationship status were predictors of relationship satisfaction for doctoral

students and partners of doctoral students. None of the aforementioned variables was found to be a true predictor of relationship satisfaction or commitment level for doctoral students or partners of doctoral students. Similar results were found for research question number 2 which asked if length of relationship, gender, financial status, and relationship status were predictors of commitment level for doctoral students and partners of doctoral students. For both doctoral students and partners of doctoral students, none of the variables were shown to be true predictors of commitment level.

The researcher's choice of the four independent variables for research questions number 1 and 2 was based on prior research. The impact of length of relationship on doctoral student couples has had mixed results in past research on this topic. Brannock, Litten, & Smith (2000) & Schielder (2008) did not find a significant relationship between length of relationship and marital satisfaction of doctoral students in their studies, which support the findings of this dissertation. However, Bowlin (2013) suggested that doctoral students who are in relationships for greater lengths of time are more likely to have greater relationship satisfaction. The findings of this study may have been impacted by the concentration of participants who belonged to each length of relationship group. 83.1% of the participants were in a relationship for either 1-5 years or 6-10 years. The remaining 16.9% of participants comprised the other length of relationship categories: 11-15 years, 16-20 years, 21-25 years, 26-30, or 31 years or greater. Also, the findings of this study revealed that participants had a high level of satisfaction which may also account for the lack of significance for length of relationship.

Sokoloski (1996) explored the marital satisfaction of doctoral students and their partners and found no differences between the marital satisfaction of male and female

doctoral students. Although the majority of doctoral student participants of this dissertation were female (81%), the findings of this study support Sokoloski (1996) and no differences were found in relationship satisfaction or commitment level of doctoral students due to gender. In regards to partners of doctoral students, no relationship existed between gender and relationship satisfaction or commitment level.

Relationship status has been identified as a predictor of relationship satisfaction in past research that did not focus on doctoral students (Juric, 2011). However, not much research has been geared toward exploring relationship satisfaction or commitment level of doctoral students with a relationship status other than "married". Relationship status was not shown to be a predictor of relationship satisfaction or commitment level for neither doctoral students nor partners of doctoral students. This finding may be partially due to the high level of relationship satisfaction and commitment for both married and unmarried doctoral students and partners of doctoral students. The lack of significance found regarding the relationship status predictor variable was supported by Bowlin (2013) who also did not discover a significant relationship between relationship status and relationship satisfaction.

Past research on doctoral student relationships has identified finances as a source of concern for doctoral students (Legako and Sorenson, 2000; & Gold, 2006). However, in this study, there was no significant relationship between financial status and relationship satisfaction or commitment level. One would have assumed that based on past studies that have highlighted financial concerns in doctoral student relationships, relationship satisfaction and commitment level of doctoral students of this study who had significant decreases in income would be much lower than doctoral students whose

income remained the same or increased since entering doctoral study. However, doctoral students who reported significant decreases in income since entering their doctoral program had relationship satisfaction scores that were above the relationship distress score of the Couples Satisfaction Index (Funk and Rogge, 2007). A positive correlation was found between significant decreases in income and relationship satisfaction (see table 4.16) which suggests that as doctoral student income decreases, their relationship satisfaction increases. The researcher was very surprised by the finding and further explored past research on relationship satisfaction of doctoral students. In Gold (2006), male doctoral students identified finances as more of a concern than female doctoral students. The majority of the doctoral student participants of this study were female (81%). One could conclude from the findings of this study that decreases in income is not as big of a concern for female doctoral students as it is for male doctoral students.

The researcher sought to explore only the 4 independent variables of this study: length of relationship, gender, financial status, and relationship status. However, due to the nature of dyadic data, an interesting finding was discovered thru the multiple regressions that were conducted. As mentioned in chapter 4, the researcher had to control for relationship satisfaction or commitment level of the doctoral student or his or her partner in each of the multiple regressions. The relationship satisfaction of doctoral students was found to be a predictor of the relationship satisfaction of partners of doctoral students and the relationship satisfaction of partners of doctoral students was found to be a predictor of the relationship satisfaction of doctoral students. Also, the commitment level of doctoral students was found to be a predictor of the commitment level of partners of doctoral students and the commitment level of partners of doctoral students was found

to be a predictor of the commitment level of doctoral students. The manner in which doctoral students and partners of doctoral students impact each other's relationship satisfaction and commitment level supports the notion of interdependence between the two groups. This finding is important as it relates to how doctoral student couples should be researched. As mentioned earlier, research in the past on this topic has generally been focused on the relationship experiences of the doctoral student without taking into consideration the relationship experiences of his or her partner. Due to the interdependence found in this study between doctoral students and their partners, one could argue that research on doctoral couples should be conducted on both partners of the dyad to gain a complete understanding of their relationship.

Research question number 3 explored the differences in relationship satisfaction of doctoral students and partners of doctoral students. In a Paired Samples T-Test of the relationship satisfaction of doctoral students and partners of doctoral students, no significant statistical differences were found. The researcher did not have many studies to compare his findings to due to the dearth of research reporting on the relationship satisfaction of doctoral students and partners of doctoral students. In the studies that have explored each group separately, research has shown the negative impact that doctoral study has had on relationship satisfaction which is contrary to the results found. The average relationship satisfaction score of both the doctoral students (M=134.53) and partners of doctoral student's (M=136.83) were vastly higher than the couples distress cut-off score of the Couples Satisfaction Index (104.5). Doctoral students and partners of doctoral students were not found to be dissatisfied with their relationships. This finding contradicts previous research on doctoral students that have mostly highlighted areas of

dissatisfaction in doctoral student relationships. Due to the majority of studies on this topic highlighting the adverse impact of doctoral study on marital satisfaction, one is left with questions regarding why the findings from this dissertation are different. One could argue that the lack of relationship discord reported by doctoral students and their partners may be a result of the unique communication skill set of the doctoral students from helping profession disciplines. Others may argue that doctoral programs are developing new strategies such as the creation of workshops (Legako and Sorenson, 2000) to assist doctoral students and partners of doctoral students with relationship stressors brought on by doctoral study.

In research question number 4, differences in commitment level of doctoral students and partners of doctoral students were explored. In a Paired Samples T-Test of the commitment level of doctoral students and partners of doctoral students, no significant statistical differences were found. Limited research has also been conducted on the commitment level of both doctoral students and partners of doctoral students. Doctoral students (M=52.99) and partners of doctoral students (M=52.82) had very similar average scores on the commitment level measurement. Both doctoral students and partners of doctoral students had high average commitment level scores on the Commitment Level subscale of the Investment Model Scale. One could make the same argument that was made earlier regarding relationship satisfaction. The communication training that most mental health professionals are afforded may assist them in having more committed relationships.

Research question number 5 addressed differences in relationship satisfaction and commitment level between doctoral students and their partners based on financial status.

Statistically significant differences were not found in relationship satisfaction or commitment level of doctoral students and their partners due to financial status. There have not been many studies that have explored doctoral student relationships from the perspective of both partners. However, Sokolski (1996) found that both doctoral students and their partners experience stress over finances. The findings of this study suggest that doctoral students and their partners have the tools needed to withstand the financial stress that is brought on by doctoral study. One could also argue that the doctoral students in this study who experienced significant decreases in their income had the economic, mental, and physical support of their spouses (Madrey, 1983).

In research question number 6, the researcher asked if there were differences in relationship satisfaction and commitment level between doctoral students and their partners due to length of relationship. In a Mixed Between-Within Subjects MANOVA of the relationship satisfaction and commitment level of doctoral students and their partners, no statistically significant differences were found between doctoral students and their partners based on length of relationship. These findings are supported by Brannock, Litten, & Smith, 2000 as well as Scheilder, 2008 who suggested that no relationship exists between relationship satisfaction and length of relationship.

Research Question number 7 asked if there were differences in relationship satisfaction and commitment level between doctoral students and their partners due to relationship status. In a Mixed Between-Within Subjects MANOVA of the relationship satisfaction and commitment level of doctoral students and their partners, no statistically significant differences were found in relationship satisfaction and commitment level between doctoral student couples due to relationship status. The findings of this

dissertation were supported by Bowlin (2013) who did not find a relationship between relationship status and relationship satisfaction. The researcher assumed that differences would exist between married and unmarried but coupled doctoral dyads as it pertains to relationship satisfaction and commitment level. The findings, however, suggest that both married and unmarried but coupled doctoral student dyads have similar relationship satisfaction and commitment level. Although the findings of the present dissertation and the one study found by the researcher that explored unmarried doctoral students suggest that relationship status does not impact relationship satisfaction or commitment level, one can argue that sufficient research has not been conducted on the relationship status variable and much more is needed in the future. An interesting finding was found in the Mixed Between-Within Subjects MANOVA that supports the need for future research on this topic. When examining solely doctoral students, significant differences were found in commitment due to relationship status (see table 4.37). Married doctoral students were found to have greater commitment to their partners than unmarried doctoral students.

<div align="center">Social Change</div>

Although the results of the study did not highlight many differences between the relationship satisfaction and commitment level of doctoral students and their partners based on the identified variables, some findings were very pertinent and may help bring about social change in a variety of areas.

As mentioned in the introduction of this chapter, past literature has mostly highlighted the negative impact of doctoral study on doctoral student relationships (Brannock, Litten, & Smith, 2000; Gold, 2006; and Scheilder, 2008). These findings suggest that individuals who are currently married or in a committed relationship need to

seriously consider if they want to deal with the relationship issues that are likely to occur in their relationship once doctoral study begins. Based on previous literature, one could predict that these unavoidable relationship concerns could lead many doctoral students to leave their doctoral programs and add to the high attritions rates among doctoral students.

However, the findings of this study do not suggest an adverse impact of doctoral study on relationship satisfaction and commitment level of doctoral students and partners of doctoral students. In fact, the relationship satisfaction and commitment level of doctoral students and partners of doctoral students of this study was high which suggests that doctoral student couples are coping well with the adjustment to doctoral study. This finding brings hope to doctoral students and partners of doctoral students who are worried about the plausible time constraints, lengths of time apart, and other problems that doctoral student couples are often faced with. Doctoral students and doctoral student partners can find reassurance by the findings of this study that their relationship is not destined for failure due to doctoral study.

The findings of this study add to previous literature that has focused primarily on the how the doctoral student's experience of doctoral study is impacted by their relationship with his or her partner (Scheidler, 2008; Protivnak & Foss, 2000; Williams-Toliver, 2010; & Jairam & Kahl, 2012). However, few studies have considered the perspective of doctoral student partners and their relationship experiences while their partner is in school. The lack of previous insight on the perspective of partners of doctoral students supported the researcher's decision to explore doctoral student dyads instead of only doctoral students. The relationship satisfaction of partners of doctoral students was found in this study to be a predictor of the relationship satisfaction of

98

doctoral students.   If the previous literature that suggests that doctoral study is impacted by the relationship satisfaction of doctoral students is true and the results of this study has shown that relationship satisfaction of doctoral students is predicted by the relationship satisfaction of their partner, one could argue that greater attention should be awarded to assisting partners of doctoral students.

Better assisting partners of doctoral students may begin with the creation of programs and support groups for partners or spouses of doctoral students. Programs for partners of doctoral students may provide them with knowledge of what to expect during doctoral study, tips on how to best assist their partners, and copings strategies for times during doctoral study where the program may become stressful on the relationship. Legako and Sorenson (2000) and Gold (2006) support the notion of the development of support groups for partners of students. The researcher believes that the formation of groups for partners of doctoral students would help normalize the feelings and emotions that many experience. Also, the researcher believes that partners of doctoral students could benefit from connecting with and sharing stories with individuals who also have a partner working on their doctorate.

Although no statistically significant differences were found between relationship satisfaction or commitment level of doctoral students and their partners due to financial status, there was a high number of doctoral students who reported decreases in income (53%). Depending on the intensity of the doctoral program, both the doctoral student and his or her partner may have to make changes regarding employment which may cause significant changes to their income. For instance, the doctoral student may be overwhelmed with doctoral study and unable to continue working a full-time job. The

change in the doctoral student's employment status may cause the partner to take on more financial responsibilities to try to compensate for the loss of income. The decrease in income for the doctoral student could lead to feelings of either appreciation or guilt because of his or her partner having to potentially get a new job or work longer hours to make up for the decrease in income. It, therefore, seems counterintuitive that a decrease in income would not negatively affect the relationship especially since previous research by Dakin and Walmper (2008) supports the notion that income influences marital satisfaction. Future research is needed regarding this discrepancy. This difference may, in part be explained by the fact that the participants were overwhelmingly female, and may not have felt societal pressure to provide for their families. Or perhaps the fact that these participants were involved in mental health programs helped with communication with their spouses over financial issues. Another explanation may be that they were involved in financial planning before doctoral study began. In fact, it would be beneficial to couples who may experience changes in income due to doctoral study to do so and it could also lead to more doctoral students and their partners participating in couples financial therapy.

The follow up analysis conducted by the researcher found a significant positive relationship between doctoral student relationship satisfaction and doctoral student commitment. Also, a significant positive relationship was found between partner of doctoral student relationship satisfaction and partner of doctoral student commitment level. This finding supports research that suggests that commitment level is a predictor of marital satisfaction (Sokolski, 1996). The commitment level construct was not found by the researcher to be a major factor in past studies that have highlighted some of the

negative effects of doctoral study on marital satisfaction. This finding would suggest that more attention may need to be geared towards exploring commitment level of doctoral students and their partners.

<center>Limitations</center>

There were several limitations of the dissertation that impact the generalizability of the results. One limitation of the study pertains to the doctoral program disciplines being explored in the doctoral study. The researcher explored doctoral student dyads from counseling, marriage and family therapy, and psychology doctoral programs. Although participants of this study were almost equally distributed between the three doctoral programs, the results may not be applicable to programs outside of helping professions. Due to the communication and helping skills training afforded to doctoral students in helping professions, one could argue that students from psychology, marriage and family therapy, and counseling programs are better equipped to handle the impact of doctoral study on their relationship than doctoral students in other academic disciplines. The skills learned by the doctoral students in their training may have an impact on how their partners communicate with them. In a study on the impact of a marriage and family therapy program on married students and their families, spouses of graduate students suggested that their relationships were enhanced by some of the skills that their partners learned in their marriage and family therapy program (Sori, Wetchler, Ray, & Niedner, 1996).

Another limitation of the study pertains to other variables of doctoral study that were not controlled for in this study that may also impact the relationship satisfaction of doctoral students and their partners. A factor such as the doctoral student's year in the

<center>101</center>

program could potentially play a factor in how doctoral study is impacting his or her relationship. One could postulate that the relationship satisfaction of doctoral students in their first year of doctoral study may differ from doctoral students in their final year of the program and currently working on their dissertation. The stress from a dissertation may cause a student to have psychological or emotional concerns (Hepner and Hepner, 2004) which may lead to issues within his or her relationship.

Another limitation of the study pertains to the self-report measure of the relationship satisfaction and commitment level of each of the participants. Although both of the measurements used have been previously shown to be highly reliable scales, there is always a risk taken by researchers when they rely on self-report measures (Bowlin, 2013). The risks include the reliance on the perceptions of the participants instead of observable behaviors or facts. Participants who complete self-report measurements may be unprepared to accurately assess the items being measured. Also, there is always a risk of participants purposively falsifying their answers to yield certain results (Bowlin, 2013). The researcher was originally concerned that doctoral students and partners of doctoral students may show their scores to one another which may cause them to answer them in a certain way and this is another factor that was not able to be controlled.

Future Research Directions

Further research is needed on the perspective of partners of doctoral students. As mentioned earlier, the interdependence that was found in regards to the relationship satisfaction of doctoral students and partners of doctoral students should lead to more studies geared towards understanding the experiences of both partners. The researcher noted that relying on the doctoral student to recruit his or her partner for this study as a

limitation before conducting the study. The researcher was initially concerned that many doctoral students would not share his study with their partners. However, the high number of completed surveys and the speed in which the both partners completed the survey makes the researcher feel confident about future research focused on the perceptions of partners.

Future research is also needed on the relationship satisfaction and commitment level of doctoral students and partners of doctoral students using other dyadic data analysis approaches. According to Wittenborn, MacNab, & Keiley (2012), dyadic research designs allow researchers to explore similarities and differences among individual partners in a dyad. The Actor-Partner Interdependence Model (APIM) is a specific two-sided standard dyadic data analysis approach that could potentially be used in future studies. In the APIM, researchers are able to explore how an individual characteristic of someone impacts and outcome variable that they are measured on which is known as the actor effect (Wittenborn, MacNab, & Keiley, 2012). Also, in the APIM, a researcher is able to explore how an individual characteristic of someone impacts the measured outcome variable of his or her partner which is known as the partner effect (Wittenborn, MacNab, & Keiley, 2012). Future researchers may also explore how doctoral study impacts other doctoral student dyadic relationships including: doctoral student-child, doctoral student-mother, and doctoral student-father.

Future research could also be conducted on the relationship satisfaction and commitment level of doctoral students based on their doctoral program. It was suggested earlier that the communication skills of doctoral students in helping professions may assist them in handling possible conflicts in their relationships. In a follow up analysis of

the relationship satisfaction of doctoral students based on program, marriage and family therapy doctoral students reported the greatest level of relationship satisfaction. This is supported by Sori, Wetchler, Ray, & Niedner (1996) who found that graduate student marriages benefited from the student partner of the dyad being enrolled in a marriage and family therapy graduate program.

Future research is also needed on the relationship satisfaction and commitment level of minority doctoral students and their partners. According to Henfield, Owens, and Witherspoon (2011), research suggests that African American doctoral students who are enrolled in predominately white institutions are confronted with a variety of challenges that their Caucasian classmates do not have to deal with. Nearly 81% of the doctoral students who participated in this study were Caucasian, therefore generalizing to the African American population is not possible. One could postulate that doctoral study may impact the relationship satisfaction and commitment level of minority doctoral students differently that Caucasian doctoral students. The added challenges that African American and other minority doctoral students face during doctoral study may lead to added stress on their personal relationships. Researchers may also be interested in exploring the relationship satisfaction and commitment level of minority doctoral students who are enrolled in colleges that are not predominately white institutions such as historically black colleges.

Conclusion

Doctoral study is a unique educational experience that can potentially foster superior research and scholarship, close knit relationships among students and faculty, and ultimately the achievement of a doctorate degree. One could also argue that doctoral

study presents challenges that not only impact the student but also his or her personal relationships. The relationship between the doctoral student and his or her partner may be tested by doctoral study as evidenced by the number of concerns found in prior research on this topic.

The researcher's goal of this study was to compare and contrast the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. The researcher utilized 4 factors to explore the relationship satisfaction and commitment level of doctoral students and partners of doctoral students: length of relationship, gender, financial status, and relationship status. Unlike previous research on this topic, the researcher found doctoral study to not have a negative impact on relationship satisfaction or commitment level of doctoral students and partners of doctoral students. Both doctoral students and partners of doctoral students were both greatly satisfied with their relationships and highly committed to their partners. It was also clear that the systems theory that suggests we cannot understand one part of a system without taking into consideration the other interrelated parts (Karakurt & Silver, 2014) holds true for doctoral students and their partners

References

Ayub, N. & Iqbal, S. (2012). The factors predicting marital satisfaction: A gender

difference in Pakistan. *The International Journal of Interdisciplinary Social*

*Sciences, 6(*7), 63-73.

Babbie, E. (2009). *The basics of social research.* Belmont, CA: Cengage

Bland, A. (2013). *Unemployment and marital quality in single-and two-earner*

marriages, (Doctoral dissertation). Retrieved from the ProQuest Dissertations

and Theses. (3558137).

Bowlin, C. (2013). *The interaction between relationship satisfaction and perceived stress*

in graduate psychology students (Doctoral dissertation). Retrieved from the

ProQuest Dissertations & Theses. (3560060).

Brannock, R., Litten, M., & Smith, J. (2000). The impact of doctoral study on marital

satisfaction. *Journal of College Counseling, 3*(2), 123-130.

Cao, W. (2001). How male and female doctoral students experience their doctoral

programs similarly and differently. Paper presented at the Annual Meeting of the

American Educational Research Association, Seattle, WA. Research Association.

Caudill, C. (2012). *Gender and employment status: The impact on marital satisfaction*

(Doctoral dissertation). Retrieved from the ProQuest Dissertations and Theses.

(3523097).

Cook, W., & Kenny, D. (2005). The actor-partner interdependence model: A model of

bidirectional effects in developmental studies. *International Journal of*

*Behavioral Development, 29(*2), 101-109.

Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Productions.

Dakin, J., & Wampler, R. (2008). Money doesn't buy happiness, but it helps: Marital satisfaction, psychological distress, and demographic differences between low- and middle-income clinic couples. *The American Journal of Family Therapy, 36*(4), 300-311.

Dew, J. & Wilcox, W. If momma ain't happy: Explaining declines in marital satisfaction among new mothers. *Journal of Marriage and Family, 73*(1), 1-12.

Doumas, D., Margolin, G., & John, R. (2007). Work, self-care, and the marital relationship. *Journal of Family & Economic Issues, 29*, 55-73.

Dush, C., & Amato, P. (2005). Consequences of relationship status and quality for subjective

well-being. *Journal of Social and Personal Relationships, 22*(5), 607-627.

Faulkner, R., Davey, M., & Davey, A. (2005). Gender-related predictors of change in marital satisfaction and marital conflict. *The American Journal of Family Therapy, 33*(1), 61-83.

Funk, J. & Rogge, R. (2007). Testing the ruler item response theory: Increasing precision of measurement for relationship satisfaction with the couples satisfaction index. *Journal of Family Psychology, 21*(4), 572-583.

Gliner, J., & Morgan, G. (2000). *Research methods in applied settings: An integrated approach to design and analysis*. Mahwah, NJ: Lawrence Erlbaum Associates.

Gold, J. (2006). Profiling marital satisfaction among graduate students: An analysis of the perceptions of masters and doctoral-students. *Contemporary Family Therapy, 28*, 485-495.

Golde, C. (1998). Beginning graduate school: Explaining first-year doctoral attrition. *New Directions for Higher Education, 101,* 55-64.

Goldenberg, H. & Goldenberg, I. (2013). *Family therapy: An overview.* Belmont, CA: BrooksCole

Graham, J., Diebels, K., & Barnow, Z. (2011). The reliability of relationship satisfaction: A reliability Generalization Meta-Analysis. *Journal of Family Psychology, 25*(1), 39-48.

Gravetter, F. & Forzano, L. (2012). Research methods for the behavioral sciences. Stanford, CT: Cengage.

Hansen, S. (2006). *Courtship duration as a correlate of marital satisfaction and stability,* (Doctoral dissertation). Retrieved from the ProQuest Dissertations & Theses. (3211756).

Haque, A., & Davenport, B. (2009). The assessment of marital adjustment with muslim populations: A reliability study of the locke-wallace marital adjustment test. *Contemporary Family Therapy, 31*, 160-168.

Henfield, M., Owens, D., & Witherspoon, S. (2011). African american students in counselor education programs: Perceptions of their experiences. *Counselor Education and Supervision, 50*(4), 226-242.

Hepner, P., & Hepner, M. (2004). *Writing and publishing your thesis, dissertation, and research: A guide for students in the helping professions.* Belmont, CA: Thomas/Cole Thomas Learning.

Herrington, R., Mitchell, A., Castellani, A., Joseph, J., Snyder, D., & Gleaves, D. (2008). Assessing disharmony and disaffection in intimate relationships: Revision of the marital satisfaction inventory factor scales. *Psychological Assessment, 20*(4), 341-350.

Hoskins, C., & Goldberg, A. (2005). Doctoral student persistence in counselor education programs: Student-program match. *Counselor Education & Supervision, 44*, 175-188.

Jackson, J., Miller, R., Oka, M., & Henry, R. (2014). Gender differences in marital satisfaction: A meta-analysis. *Journal of Marriage and Family, 76(*1), 105-129.

Jairam, D., & Kahl, D. (2012). Navigating the doctoral experience: The role of social support in successful degree completion. *International Journal of Doctoral Studies, 7*, 311-330.

Johnson, B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches.* Thousand Oaks, CA: Sage Publications

Judy, B. (2006). Understanding the contribution of relative commitment to the link between romantic attachment and jealousy. (Doctoral dissertation). Retrieved from the ProQuest Dissertations & Theses. (3232515)

Juric, S. (2011). Difference in relationship satisfaction and adult attachment in married and cohabitating couples. *Antropos, 43* (1/2), 51-69.

Karakurt, G., & Silver, K. (2014). Therapy for childhood sexual abuse survivors using attachment and family systems theory orientations. *The American Journal of Family Therapy, 42*, 79-91.

Kaura, S., & Lohman, B. (2009). Does acceptability of violence impact the relationship between satisfaction, victimization, and commitment levels in emerging adult dating relationship? *Journal of Family Violence, 24,* 349-359.

Kenny, D., Kashy, D., & Cook, W. (2006). Dyadic data analysis: Methodology in the social sciences. New York, NY: Guilford Press.

Kerkmann, B., Lee, T., Lown, J., & Allgood, S. (2000).Financial management, financial

    problems and marital satisfaction among married university students. *Association*

    for Financial Counseling and Planning Education, 11(2), 55-65.

Kurdek, L. (2005). Gender and marital satisfaction early in marriage: A growth curve

    approach. *Journal of Marriage and Family, 67*, 68-84.

Legako, M. & Sorenson, L. (2000). Christian psychology graduate school's impact on

    marriage: Nonstudent spouses speak. *Journal of Psychology and Theology, 28*(3),

    212-220.

Madrey, F. (1983*). The effects of enrollment on full-time married doctoral students: An*

    ethnographic study. Paper presented at the Association for the Study of Higher

    Education, Washington D.C.

Maxwell, J. (2013). *Qualitative research design: An interactive approach.* Thousand

    Oaks, CA: Sage Productions.

Mirecki, R., Chou, J., Elliot, M., & Schneider, C. (2013). What factors influence marital

    satisfaction? Differences between first and second marriages. *Journal of Divorce*

    & Remarriage, 54(1), 78-93.

Moore, D., Notz, W., & Fligner, M. (2011). *The basic practice of statistics.* New York,

    NY: Freeman.

Nichols, M. (2010). *Family therapy: Concepts and methods*. Boston, MA: Ally & Bacon.

Peleg, O. (2008). The relation between differentiation of self and marital satisfaction:

    What can be learned from married people over the course of life? *The American*

    Journal of Family Therapy, 36(5), 388-401.

Pook, M., and Love, P. (2001). Factors influencing the program choice of doctoral

    students in higher education administration. *Journal of Student Affairs and*

    Research Practice, 38(2), 183-203.

Pallant, J. (2013). *SPSS survival manual: A step by step guide to data analysis using IBM spss.* New York, NY: McGraw.

Protivnak, J., & Foss, L. (2009). An exploration of themes that influence the counselor education doctoral student experience. *Counselor Education & Supervision, 48,* 239-256.

Rhoades, G., Dush, C., Atkins, D., Stanley, S., & Markman, H. (2011). Breaking up is hard to do: The impact of unmarried relationship dissolution on mental health and life satisfaction. *Journal of Family Psychology, 25*(3), 366-374.

Rusbult, C., Martz, J., & Agnew, C. (1998). The investment model scale: Measuring commitment level, satisfaction level, and quality of alternatives, and investment size. *Personal Relationships, 5,* 357-391.

Scheidler, J. (2008). *Effects of perceived stress and perceived social support on marital satisfaction in doctoral students* (Doctoral dissertation). Retrieved from the ProQuest Dissertations & Theses. (3297181).

Scheinkman, M. (1988). Graduate student marriages: An organizational/interactional view. *Family Process, 27*, 351-368.

Schenker, J., & Rumrill, P. (2004). Causal-comparative research designs. *Journal of Vocational Rehabilitation, 21*, 117-121.

Scoy, B. (2012*). Length of marriage, duration of faith commitment, and religious coping: Effects of marital functioning*. (Doctoral dissertation). Retrieved from the ProQuest Dissertations & Theses. (3605011).

Security statement (September 9, 2013). In *Survey Monkey*. Retrieved April 17, 2015 from https://www.surveymonkey.com/mp/policy/security/

Singh, A. (2012). The psychology of love: Exploring the gender differences in unmarried and married couples. Social Science Research Network.

111

Sokolski, D. (1996). A study of marital satisfaction in graduate student marriages.
(Doctoral dissertation). Retrieved from the

Sori, F., Wetchler, J., Ray, R., & Niedner, D. (1996). The impact of marriage and family
therapy graduate training programs on married students and their families. *The
American Journal of Family Therapy, 24*(3), 259-268.

Tabachnick, B., & Fidell, L. (2007). Using multivariate statistics. Boston, MA: Allyn &
Bacon.

Thomas, T. (2014). *Daddy, can we play beatles rock band? The lived experiences of a
married student with children in a cohort-based education doctoral program.*
(Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses
(3617946).

Wilcox, W., & Nock, S. (2006). What's love got to do with it? Equality, equity,
Commitment and Women's Marital Quality. *Social Forces, 84*(3), 1321-1345.

Williams-Toliver, S. (2010). *Understanding the experiences of women, graduate student
stress, and lack of marital/social support: A mixed method inquiry* (Doctoral
dissertation). Retrieved from the ProQuest Dissertations & Theses. (3396384)

Wittenborn, A., MacNab, M., & Keiley, M. (2012). Dyadic research in mft:
Methodological consideration. *Journal of Marital and Family Therapy, 39*(1), 5-
16.

Appendix A: Survey Documents

Letter to Doctoral Programs

Greetings,

My name is Justin Muller and I am a doctoral candidate in the Counselor Education and Supervision Ph.D program at the University of South Carolina. I am emailing you requesting your assistance with my dissertation. I would greatly appreciate it if you could share my study with your students.

I am interested in comparing the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. To do so, I am surveying doctoral students from Commission on Accreditation of Marriage and Family Therapy (COAMFTE) accredited marriage and family therapy, American Psychological Association (APA) accredited psychology, and Council for Accreditation of Counseling and Related Educational Programs (CACREP) accredited counseling programs and their partners. To be eligible to participate in my study, the doctoral student has to currently be enrolled in one of the aforementioned accredited programs and in a committed relationship that has lasted at least 1 year. Doctoral students who participate in my study will be asked to recruit their partner for my study by sharing the link and supplying his or her email address.

The participants of my study will be entered into a raffle to **win either one free (member or student member) registration to their choice of American Counseling Association (ACA), American Association of Marriage and Family Therapy (AAMFT), or American Psychological Association (APA) 2016 conference or a $400 pre-paid MasterCard.** Both the doctoral student and his or her partner must participate to be entered into the raffle. Once data is finished being collected, one participant will be randomly selected as the winner and will be contacted via email.

If you have any questions regarding my study, please let me know.

The link to my study is: https://www.surveymonkey.com/r/NP8DZMN

Thank you,

Justin C. Muller, MS, LMFT-I
Doctoral Candidate
Counselor Education and Supervision

Informed Consent

Thank you for participating in my quantitative study. The purpose of my study is to explore the impact of doctoral study on the relationship satisfaction and commitment level of doctoral students and partners of doctoral students. I hope to provide further insight on the impact of doctoral study on doctoral student relationships and generate new knowledge about how partners of doctoral students and unmarried but coupled doctoral students are impacted by doctoral study.

Your participation in my study is completely voluntary and you may change your mind at any time. You will be completing a demographic survey, the Couples Satisfaction Index (Funk and Rogge, 2007), and the Commitment Level Scale (Rusbult, Martz, and Agnew, 1998) which will take approximately 12 minutes. Also, due to my desire to obtain the perspectives of both doctoral students and partners of doctoral students, I will be relying on you to recruit your partner for my study. You will be asked to recruit your partner by sharing the link to my study and providing his or her email below.

Doctoral students and their partners' answers will be completely confidential and the results of my study will be reported in aggregate form. Doctoral students and their partners will complete my survey separately and not share their answers with one another.

I appreciate your participation in my study. I believe that both doctoral students and partners of doctoral students will benefit from participating in my study by having the opportunity to evaluate their relationship satisfaction and commitment level.

Sincerely,

Justin C. Muller, LMFT-I
Doctoral Candidate
Counselor Education and Supervision
University of South Carolina
mullerj@email.sc.edu

If you have read the consent form above and agree to participate in my study, type yes in the box below. Also, please supply your email address and your partner's email address below to enter into a raffle to with either a free (member or student member) registration to your choice of American Counseling Association (ACA), American Association of Marriage and Family Therapy (AAMFT), or American Psychological Association (APA) 2016 conference or a $400 pre-paid MasterCard. Once data is finished being collected, one participant will be randomly selected as the winner and will be contacted via the email that was given.

Do you agree to participate in this study?

What is your email address?

What is your partner's email address?

Demographics Survey

Student status: Doctoral Student____   Partner of Doctoral Student____
Both_____

Highest level of education completed: High School ___   Associate's Degree____

Bachelor's degree____ Master's degree____

PhD_____

Program: Counseling____   Psychology ___   Marriage and Family Therapy ____

Race: White/Caucasian ___   Black or African American ____   Asian/Pacific
Islander____   Hispanic ____

American Indian or Alaskan Native____   Multiple ethnicity/Other (please
specify)_____

Gender: Male____   Female_____

Sexual orientation: Heterosexual____   Homosexual_____   Bisexual_____

Age:

Income:

Financial status: Income has significantly increased since entering doctoral
program____

Income has increased since entering doctoral program____

Income has remained the same since entering doctoral program____

Income has decreased since entering doctoral program____

Income has significantly decreased since entering doctoral program____

Relationship status: Married_____   Unmarried ____

***Length of relationship (number of years):**

*Length of relationship: For married doctoral students and partners of doctoral students,
length of relationship pertains to the amount of time they have been together in a
committed relationship (including time in the marriage).