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Counselor Education and Supervision Students' Stage of Program and Intimate Relationship Investment

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Walden University
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Abstract

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and Intimate Relationship Investment

by

Rachel Dell

MA, Northeastern Illinois University, 2013

BA, University of Central Florida, 2008

Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Counselor Education and Supervision

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Abstract

The doctoral counselor education and supervision (CES) program has three stages (entry, integration, or candidacy), each involving specific challenges resulting in varying time requirements, workloads, and stress levels. Personal struggles may have consequences that influence the completion of students' doctoral program and the outcomes of students' research. Interdependence theory is the theoretical framework for this study. The purpose of this quantitative study was to determine CES doctoral students' intimate romantic relationship investment as measured by the Investment Model Scale (IMS) and to investigate the relationship between CES doctoral students' stage in the program and students' intimate romantic relationship investment. The study answered the question of how CES students' stage in their program predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the IMS. This research study involved a quantitative, comparative design and used nonprobability sampling using convenience and snowball sampling practices to access the target population of (n=169) CES doctoral students who were currently involved in an intimate romantic relationship for at least one year. Using a MANOVA, findings indicated CES students' stage of program does not make any difference in their score on each of the constructs of the IMS. The findings from this study could lead to positive social change in creating knowledge that professors, counselors, and doctoral students can use in addressing the challenges and tasks of each of the doctoral stages.

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Chapter 1: Introduction to the Study

Introduction

Researchers have highlighted how the interpersonal and mental health problems of students have repercussions on doctoral work product such as doctoral research outcomes and attrition (Fox et al., 2011; Levecque et al., 2017). Promoting student persistence in the doctoral process has the potential to strengthen doctoral programs and the CES profession. Decreasing program attrition may ensure students will contribute to the field by completing the dissertation and research project. Academic institutions and educators have a vested interest in the research outcomes of their students as their names, titles, and programs are attached to dissertation work (Hagen, 2010; Lovitts, 2001; Miller, 2013).

Completing a doctoral program describes stressors that can have a negative influence on students' intimate romantic relationships (Brannock et al., 2000; Kardatzke, 2010; Legako & Sorenson, 2000). Doctoral students face unique mental health challenges, such as higher rates of anxiety and depression (Levecque et al., 2017). One key predictor of mental strain and disorders in doctoral students is the family versus work conflict (Levecque et al., 2017). The amount of time and energy spent on the doctoral program can leave little space for intimate romantic relationships and family (Gold, 2006; Sori et al., 1996).

Mental health challenges, struggles in intimate romantic relationships, and overall stress may have consequences that influence the completion of the doctoral program

(Stallone, 2004), the research process, and the outcomes of students' dissertation work (Levacque et al., 2017). Personal issues, in particular, the students' difficulties in relationships, have been found to play a role in departure from a counselor education and supervision doctoral program (Burkholder, 2013). It is important that counselor educators possess awareness of the impact that personal issues can have on their students' ability to be successful in the doctoral program (Burkholder, 2012). In this study, I investigated the connection between the intimate romantic relationship investment of counselor education and supervision (CES) doctoral students and the different stages of the doctoral process.

The potential social implications of this research study include creating awareness that counselor educators and supervisors, graduate program coordinators, and CES doctoral students can use in addressing many challenges. Students can use the data gained from this research study to be more proactive regarding the potential challenges of a doctoral program regarding their relationships and facilitate any change processes that may need to occur to adapt to doctoral study. Educators and program administrators can also use the results and implications from this study to provide support services for students during different parts of the doctoral program. Additionally, research outcomes may guide educators, administrators, program directors, student-focused programs, and mental health professionals to use the data to better serve students and support with challenges the student may face during the different stages of the doctoral process.

In this chapter, I will provide the background of this study with a discussion of the theoretical framework and research methodology and design. The chapter also includes the basic definitions and assumptions, scope and delimitations, and a description of the limitations. The chapter concludes with the significance of the study and a summary.

Background of the Study

The typical doctoral program has three stages, each having particular tasks and challenges specific to the phase of doctoral work resulting in varying time requirements, workloads, and stress levels (Grover, 2017; Pifer & Baker, 2016; Sverdlik & Hall, 2019). Work-life balance is particularly challenging for doctoral students during the stages of the doctoral program. Researchers have consistently shown the negative influence of stress, mental health issues, and the navigation of work and family balance on the overall health of students' intimate romantic relationship (Brannock et al., 2000; Gold, 2006; Ledermann et al., 2010; Legako & Sorenson, 2000; Pattusamy & Jacob, 2016; Sori et al., 2009). A balance between work and home obligations has been shown to improve doctoral student well-being and mental health (El-ghoroury et al., 2012). Ultimately, issues with the work and life balance can lead to student attrition from a doctoral program (Gardner & Gopaul, 2012).

Researchers have highlighted the challenges of the doctoral process, specifically the significant rates of depression and anxiety of students (Evans et al., 2018; Garcia-Williams et al., 2014; Hyun et al., 2006). Symptoms of anxiety and depression can have an impact on doctoral students' intimate romantic relationships, prompting some students

to seek mental health treatment with a focus on relationship counseling (Hyun et al., 2006). Relationship distress can have an impact on the mental health and overall well-being of doctoral students, and though being in an intimate romantic relationship may act as a buffer to stress in some circumstances, the issues play a part in doctoral students' suicidality and overall mental health status (Garcia-Williams et al., 2014). This relationship strife, specifically the work and family conflict, has been shown to predict mental health issues, thus resulting in potential repercussions on doctoral work outcomes such as doctoral research outcomes and attrition (Levecque et al., 2017).

According to Gardner (2009), attrition within doctoral programs is the highest out of all academic degrees. Golde (2000) stated "paradoxically, the most academically capable, most academically successful, most stringently evaluated, and most carefully selected students in the entire higher education system—doctoral students—are the least likely to complete their chosen academic goals" (p. 199). In the past, doctoral attrition has been linked to stress (Lovitts, 2001), issues with finances (Rigler et al., 2017), the lack of social support (Jairam & Kahl, 2012), advisor and student mismatch (Golde, 1998), isolation (Ali &Kohun, 2006) and program incompatibility (Golde, 1998). Additionally, high levels of students' emotional exhaustion may promote departure from a doctoral program (Hunter & Devine, 2016).

Willis and Carmichael (2011) found the work-life balance to be a contributing factor in CES doctoral students' reasons to leave a program. Byers et al. (2014) also found the work life balance to be linked to program attrition, as well as the emotional

status of doctoral students and the presence of an outside support system. Social support

has been found to promote doctoral students' completion of the program, with intimate

romantic partners being one of students' main sources of support (Jairam & Kahl, 2012).

The impact of academic work on doctoral students' intimate romantic relationship has

been studied in the past; however, much of the research has focused on marital

relationships and not on students in intimate romantic relationships that are outside the

heteronormative scope (Osterlund & Mack, 2012).

Problem Statement

Doctoral degrees are the highest terminal degree awarded in academia, allowing

graduates to serve as experts in higher education and their chosen field of study

(Mendoza & Gardner, 2010). However, the attrition rates of most doctoral programs in

the United States indicate the challenging nature of this process as approximately 50% of

doctoral students complete their respective programs (Lovitts, 2001; MELS, 2012). As

students progress through the doctoral program, they may encounter specific challenges

and developmental milestones at each stage of the process (Grover, 2017; Pifer & Baker,

2016) resulting in differing levels of well-being and stress that can vary by stage of

doctoral program (Sverdlik & Hall, 2019). Intimate romantic relationships can improve

well-being in doctoral students (Sori et al., 1996; Suarez, 2018). During doctoral work,

students' social support, the main source being a romantic partner, can mitigate the

doctoral students' stress (French et al., 2018; Jairam & Kahl, 2012; Maulik et al., 2011)

and improve persistence in a doctoral program (Ali & Kohun, 2007). However, despite

the benefits to spending time with romantic partners and family members, doctoral students have also described the difficulty of maintaining family responsibilities with partner relationships being neglected, leaving some doctoral students to perceive a work-life imbalance (Brus, 2006; Flynn et al., 2012; Rizzolo et al., 2016). This imbalance correlates with low levels of overall well-being (Trenberth, 2005), higher levels of overall burnout (Galdino et al., 2016), and mental health issues (Garcia-Williams et al., 2014; Levaque et al., 2017; Uqdah et al., 2009).

Students' personal issues, particularly the work-life imbalance, have been found to be a source of doctoral attrition (Hoskins & Goldberg, 2005; Protivnak & Foss, 2009). Doctoral work can challenge a romantic relationship due to the role changes, financial strain, and a lack of time and energy for the relationship (Cymbal, 2004; Gold, 2006; Sori et al., 1996; Suarez, 2018). Personal relationship functioning can be particularly important to the counseling field. The ability to build an effective therapeutic relationship has been found to be more important than a counselor's theoretical approach or intervention (Wampold, 2001). Healthy relationship skills are essential for counselors; thus, their romantic relationships require intentional consideration (Osterlund & Mack, 2012). Doctoral students in (CES) programs complete field experiences and provide counseling services while enrolled in their program (Council for Accreditation of Counseling and Related Educational Programs (CACREP), 2019), thus they become responsible for the well-being of others in conjunction with being responsible for themselves and their families. Consequently, personal issues have been found to play a

role in CES doctoral students' reason to depart a program (Burkholder, 2013; Hoskins & Goldberg, 2005; Protivnak & Foss, 2009), indicating that relationship issues may have an impact on doctoral students' stress levels and overall functioning (Bridgmon, 2007).

Determining relational investment regarding doctoral program stage may be beneficial to CES students, CES professors, and academic programs. Doctoral students possess the opportunity to enrich and further research, ultimately enhancing the literature in each field (Komives & Taub, 2000). The consequences of attrition are vast to students, faculty, and institutions. Doctoral students incur financial debt and suffer personally; having described their attrition from a doctoral program as "devastating, leaving [students] depressed and sometimes suicidal" (Lovitts, 2001, p. 175). Faculty lose the time and effort spent on students and institutions suffer financially and lose resources for students who do not persist (Gardner, 2009; Lovitts, 2001; Pauley et al., 1999). As attrition rates impact the future of CES students and their programs, finding ways to prevent or respond to personal issues may support the success of more students engaged in relationships during their programs.

Purpose Statement

The purpose of this quantitative study was to determine CES students' intimate romantic relationship investment as measured by the Investment Model Scale and to investigate the relationship between CES doctoral students' stage in their program and students' intimate romantic relationship investment. Struggles in intimate romantic relationships, mental health challenges, and overall stress may have consequences that

influence the completion of the doctoral program (Burkholder, 2013; Hoskins & Goldberg, 2005; Protivnak & Foss, 2009), the research process (Hyun et al. 2006; Levacque et al., 2017), and the outcomes of students' dissertation work (Levacque et al., 2017). As doctoral students progress through the program, specific challenges and developmental milestones are encountered (Grover, 2017; Pifer & Baker, 2016) that influence students' well-being and stress varying by stage of the program (Sverdlik & Hall, 2019). Issues in the student's personal lives have been found to play a role in the departure from a CES doctoral program (Burkholder, 2013). It is important that counselor educators possess awareness of the impact that personal issues can have on their students' ability to complete the doctoral program (Burkholder, 2013). Personal relationship functioning can be particularly important to the counseling field as healthy relationship skills are essential for counselors (Osterlund & Mack, 2012). A counselor's skill to build an effective therapeutic relationship is the most important aspect in determining a positive client outcome (Wampold, 2001). Doctoral students' well-being is significant because CES students complete field experiences and provide counseling services while enrolled in their program (CACREP, 2019), thus they are responsible for the well-being of others as well as for themselves and their families. With the difficulties of the work-life balance through the particular challenges and tasks of the stages of the doctoral program, it is important to assess if a connection exists among students' investment in their intimate romantic relationship and their doctoral stage. Understanding the relationship between CES doctoral students' stage of the program, intimate romantic

relationship investment, and the potential for attrition can support awareness that can be used to address the challenges of the doctoral program and work/life balance.

Research Questions and Hypotheses

Research Question 1 (RQ1). How do CES students' stage in their program (entry, integration, or candidacy) predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale (Rusbult et al., 1998)?

Null Hypothesis (H_0): There is no statistically significant relationship between CES students' stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

Alternative Hypothesis (H_1): There is a statistically significant relationship between a CES students' stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

Theoretical Framework for the Study

I used interdependence theory (Kelley & Thibaut, 1978) as the theoretical framework for this study. Interdependence theory includes assessment of the personal attributes, history, and environment of both parties in the relationship, as well as the attributes, history, and current environment of relationships, their recurrent influences over each party, and the overall dynamic of a relationship (Rusbult et al., 2012).

According to interdependence theory, dependence is developed from high satisfaction and the perceived quality of available alternatives to the relationship (Rusbult et al., 2012; Rusbult & Van Lange, 2003). The quality of available alternatives refers to the perception of desirable alternatives to a relationship, such as the perception of how an individual's critical needs could be met by an individual not in the current relationship or on one's own accord (Rusbult et al., 2012). High satisfaction occurs when positive affect overwhelms negative affect (Rusbult et al., 2012). The size of the investment refers to the importance the individual places on the resources that are attached to the relationship (Rusbult et al., 2012).

The Investment Model Scale (IMS), the measurement that I used in this study, includes interdependence constructs for the analysis of the intimate relationship (Rusbult et al., 2012). The scale is a 29-item inventory designed to assess four factors: satisfaction, investment size, quality of alternatives, and level of commitment. The investment model posits that three constructs: quality of alternatives, satisfaction, and investment size, contribute to relationship dependence which foretells commitment comprising, then, the investment of a relationship (Rusbult et al., 2012; Rusbult et al., 1998). Each of the four investment constructs were used to create a score composed of intimate relationship investment during each of the doctoral stages. Prior research has shown overall investment to be based on the high commitment levels in a relationship when satisfaction and investment size are high and quality of available alternatives are low (Le & Agnew,

2003; Rusbult et al., 2012; Rusbult et al., 1998; Rusbult & Buunk, 1993; Rusbult & Van Lange, 2003).

The investment model was designed to expand the interdependence theory and includes additional factors influencing relationships (Rusbult et al., 2012; Rusbult & Buunk, 1993; Rusbult et al., 1998). The investment model expands the explanation of dependence by including investment size and feelings of commitment. Investment size is contingent on whether an individual views their important resources to be precarious if the relationship were to end; therefore, an individual is less likely to leave their relationship if he or she believes their resources will be lost as a result (Rusbult et al., 1998). As the dependence one feels for their partner increases, so do feelings of commitment. An individual's psychological attachment and intent to continue in a relationship is defined as level of commitment (Rusbult et al., 1998). Thus, a relationship's probability of persistence is influenced by each partner's level of commitment, which is determined by an individual's level of satisfaction and assessment of alternatives and investments (Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of quality of alternatives predict higher levels of commitment in the intimate relationship (Rusbult et al., 2012).

Interdependence is the essence of an intimate relationship. Interdependence theory is used to investigate the dyadic nature of two individuals in a relationship who influence each other during various interactions (Rusbult et al., 2012; Rusbult & Van Lange, 2003). The day-to-day experiences that occur in a relationship are interactions of

mutual dependence, where one individual's behavior has a direct impact on the other and vice versa. I used interdependence theory in this study to assess intimate romantic relationships during doctoral studies, including how students' behavior may have an impact on their partner, thus influencing the intimate romantic relationship.

Interdependence theory was an appropriate theoretical framework for this research study because it is used to examine the current environment and history of two individuals. I used this theory to examine CES students, their perception of their relationship investment, and the environment of the doctoral program. The theory is used to examine each party's own personal history, behaviors, mental state, and functioning coupled with the current status of their own dyadic functioning and history (Rusbult et al., 2012; Rusbult & Van Lange, 2003). Thus, the theory is used to assess more than just the two individuals in an interaction and is used to examine the overall essence of their relationship as the foundation upon which the individuals interact. My use of the theory was appropriate because the theory takes into consideration the CES doctoral student, the CES students' opinion of their relationships with their partner, and the current stressful environment, which was the CES doctoral program, essentially looking at the connections between the relationship and the CES doctoral setting.

Nature of Study

This quantitative study had a cross-sectional survey design; thus, participants completed a survey with the data collected at one time. I used a comparative design in this nonexperimental study. I categorized participants by the students' stage of doctoral

program; I did not randomly assign research participants to groups or manipulate a variable. The variables that I examined in this study were CES students' current stage of the doctoral program (entry, integration, or candidacy) and the four constructs (quality of alternatives, satisfaction, investment size, and dependence) of the Investment Model Scale (Rusbult et al., 1998). A quantitative approach was appropriate for this study because my intent was to gather numerical data and generalize findings across CES doctoral students enrolled in doctoral programs.

The target population was CES doctoral students involved in an intimate romantic relationship for at least 1 year. The survey, the Investment Model Scale (Rusbult et al., 1998), is a self-administered questionnaire that was completed by students online to assess students' relationship based on four constructs, including commitment level, satisfaction level, quality of alternatives, and investment size. To give better descriptions of participants, I collected demographic information including an indication of participation in intimate romantic relationship of at least 1 year and enrollment in a CACREP-accredited CES doctoral program. I analyzed the survey results using a statistical analyses program to determine if a relationship exists between stage of program and relationship investment.

Definitions

Research describes terms that are specific and may be unique to a particular study. The terms that I used for this study were:

Candidacy stage: The stage of doctoral program which starts once the student attains doctoral candidacy and ends once the student completes the program (Ampaw & Jaeger, 2012).

Counselor Education and Supervision (CES) doctoral program: A doctoral program that is CACREP-accredited that extends doctoral degrees in Counselor Education and Supervision to students that complete the requirements of the program.

Dependence: Commitment represents the "intent to persist in a relationship, including the long-term orientation toward the involvement as well as feelings of psychological attachment" (Rusbult et al., 1998, p. 359).

Doctoral student: A student enrolled in a Counselor Education and Supervision doctoral program.

Entry stage: The stage of doctoral program, which starts upon registration in the program and ends once the student completes eighteen credits (Ampaw & Jaeger, 2012).

Integration stage: The stage of doctoral program, which starts once the student completes eighteen credits and ends when the student attains doctoral candidacy (Ampaw & Jaeger, 2012).

Intimate romantic relationship: an ongoing and enduring partnership of two people that may last over an extended period of time.

Intimate romantic relationship stress: the tension that arises in the relationship, in the form of divergent attitudes and needs or disturbing habits of one partner (Ledermann et al., 2010).

Investment Model Scale (IMS): The measurement used in this study, which uses four constructs, commitment, satisfaction, quality of alternatives, and investment size to assess a relationship (Rusbult et al., 1998).

Investment size: Investment size represents "the magnitude and importance of the resources that are attached to a relationship" (Rusbult et al., 1998, p. 359).

Quality of alternatives: Quality of alternatives represents the "perceived desirability of the best available alternative to a relationship", basically, the extent that an individual believes his or her most important needs could be satisfied outside of the intimate romantic relationship (Rusbult et al., 1998, p. 359).

Satisfaction: Satisfaction represents the positive versus negative affect experienced in a relationship (Rusbult et al., 1998, p. 359).

Assumptions

I assumed that the survey was an appropriate measurement tool to assess the variables in the research study. Thus, the study assumes the Investment Model Scale (IMS) was an appropriate tool to measure the doctoral students' status of their relationship during their doctoral program. This could have had an impact on the study because the outcomes of the study would not produce results indicating doctoral students' romantic relationship investment. The next chapter provides an overview of the IMS scale and the underlying framework of Interdependence Theory as well as a summary of various research studies that have examined couple relationships using the IMS under general stress conditions (Impett et al., 2002; Kurkela et al., 1996; Rodrigues & Lopez,

2013) and in times of acute and chronic stress (Edwards et al., 2011; Rusbult & Martz, 1995; Truman-Schram et al., 2000).

The second assumption was that participants will properly identify which stage of doctoral program they were currently in. This may have resulted in the data being skewed and not indicating the doctoral students' romantic relationship investment at the current stage the doctoral student was actually in, which could have been vastly different than students' relationship investment in another stage. To address this assumption, the stages were explained in a clear and concise manner multiple times throughout the study. Once in the introduction section of the study (Appendix A) and during the questions assessing stage of program (Appendix B). The final assumption was that participants will answer the survey questions honestly, however, this could not be demonstrated to be true or false. Study participants could complete the study in the setting and at the time of their choosing, which may have promoted honesty and accuracy of data.

Scope and Delimitations

This study was limited to CES doctoral students who were in romantic relationships lasting over one year and were enrolled in CACREP-accredited CES doctoral programs; the scope of the research encompassed all regions of the United States. The population of doctoral students were chosen because of the attrition rate being the highest among students at the doctoral level of study (Gardner, 2009); thus, excluding graduate and undergraduate students. Doctoral students enrolled in CACREP-accredited programs were chosen to be the highlight of this study to ensure equivalent courses of

study and allow for comparisons across stages. CACREP accreditation includes an evaluation and review process that determines counseling programs meet industry standards (Adkison-Bradley, 2013). The purpose of this quantitative study was to determine CES students' romantic relationship investment as measured by the Investment Model Scale (IMS) and to investigate the relationship between a CES doctoral students' stage in their program and students' romantic relationship investment.

A quantitative method of research was chosen to provide data on a sample of doctoral students in order to determine students' romantic relationship investment. The IMS was chosen because it has been shown to be reliable in the assessment of romantic relationship investment during times of acute and chronic stress (Edwards et al., 2011; Rusbult & Martz, 1995; Truman-Schram et al., 2000). The theoretical framework for this study, Interdependence Theory, was chosen because it accounts for each party's own personal history, behaviors, mental state, and functioning coupled with the current status of their own dyadic functioning and history (Rusbult et al., 2012; Rusbult & Van Lange, 2003). Thus, it accounts for more than just the two individuals in an interaction and looks at the overall essence of their relationship as the foundation upon which the individuals interact. As students progress through the stages of the doctoral program, they encounter specific challenges and developmental milestones at each stage of the process (Grover, 2017; Pifer & Baker, 2016). Since levels of well-being can vary according to each stage (Sverdlik & Hall, 2019), examining and developing an understanding becomes important for the field of counseling.

Population validity describes the extent to which the study results are

generalizable from the sample of participants to the general population (Onwuegbuzie,

2000). Using large and random samples will minimize the threat to population validity,

promoting generalizability (Onwuegbuzie, 2000). Researchers should exercise caution in

generalizing research outcomes (Onwuegbuzie, 2000). Therefore, applying the results

from the study was limited to CES doctoral students who are in a romantic relationship of

over one year and enrolled in CACREP-accredited programs in the United States.

Limitations

A limitation of the study was the potential for a low response rate than preferred

for a statistical significance. To address this limitation, I intended to use convenience

sampling to distribute the research study to various listservs including the CESNET and

local Pacific Northwest University listservs. If the plan did not produce the required

number of responses, I intended to utilize Walden's Participant Pool and engage in

snowball sampling by contacting CACREP-accredited Counseling programs.

A second limitation included the self-reporting nature of the research which may

have led to misrepresentation or inflation of the data due to the desire to appear socially

acceptable (Lucas, 2018). As such, a life event may be experienced by different people in

diverse ways (Lucas, 2018). Another drawback to the self-reporting nature of this study

was the halo effect. The Halo effect consists of "unwarranted inferences about the

positive or negative qualities of a person based on information about other unrelated

characteristics [...] such as physical attractiveness, social status, having an unusual name,

interpersonal style, etc." (Forgas & Laham, 2017, p. 289). Thus, when a student is in love and favors their partner, they may then view interactions in terms of their overall attitude toward the other. This limitation was addressed using the Investment Model Scale (Rusbult et al., 1998) as it measures the constructs using parallel questioning, meaning the researchers created single questions worded in multiple ways to assess the same construct.

Significance

Past research has highlighted how doctoral students' personal issues, such as family size, financial strain, mental health, and relationship functioning, can have an impact on work product, such as attrition, doctoral research, and dissertation outcomes (Fox, Fonsseca, & Bao, 2011; Levecque et al., 2017). Though researchers have consistently shown the difficulties of graduate student stress on general marital functioning (Brannock et al., 2000; Gold, 2006; Legako & Sorenson, 2000; Polson & Piercy, 1993; Sori et al., 1996), only a few studies have been focused on the romantic relationships of doctoral students, specifically in CES programs (Kardatzke, 2010; Perepiczka, 2008). Further, much of the research focused on doctoral student experiences has been qualitative in nature (Corbin & Strauss, 2008; Sverdlik et al., 2018). Studies focused on CES doctoral students may be particularly significant as they complete field experiences and provide counseling services while completing each stage of their program (CACREP, 2019), thus they become responsible for the well-being of others in conjunction with being responsible for themselves and their families. Researchers have

called for further literature focused on the stages of the doctoral program, particularly the challenges and student outcomes (Gardner, 2009; Grover, 2017; Pifer & Baker, 2016; Sverdlik & Hall, 2019) as well as regarding doctoral students' work/life balance, particularly romantic relationship functioning (Cymbal, 2004; Gold, 2006; Kardatzke, 2010). This research study had an opportunity to add to the quantitative research dearth by highlighting the relationship between the stage of doctoral program and the romantic relationship investment of CES students.

The findings from this study could lead to positive social change in creating knowledge that Counselor Educators, Counselor Supervisors, graduate program coordinators, and CES doctoral students can use in addressing the challenges and tasks of each of the doctoral stages. Doctoral programs, and connected faculty and institutions, may become at risk when attrition is high as this challenge has historically caused university systems to eliminate unproductive academic programs or limit current program enrollment, funding, and functioning (Lovitts, 2001). This study can benefit the counseling community and those adjacent by providing awareness of how students' investment level in their romantic relationship may differ depending on the stage of the students' doctoral process. Students can use the information to be more proactive regarding the potential challenges of a doctoral program regarding their relationships and facilitate any change processes that may need to occur to adapt to the specific stages of doctoral study. Educators and program administrators can use the results and implications from this study to provide more directed support services focused on the specific

challenges and strategies of each of the stages. Additionally, research outcomes may guide educators, administrators, program directors, student-focused programs, and mental health professionals to use the information to better serve students and ease the stress on the student during the different stages of the doctoral process.

Summary

Students may experience challenges that may have severe consequences influencing the completion of the stages of a doctoral program (Stallone, 2004), the research process, and the outcomes of the students' dissertation work (Levacque et al., 2017). As students progress, each stage of the doctoral program has specific developmental milestones and unique challenges resulting in differing levels of well-being and stress that can vary by stage of program. Research outcomes may guide those involved in the CES profession to use the information to better serve students and ease the stress and strain on the student during the different stages of the doctoral process. The following chapter will involve the literature and search strategies for this research study. The chapter will include an introduction to the problem and purpose of the research study, the theoretical framework, a synopsis of the current literature, and literature related to the study variables and key concepts.

Chapter 2: Literature Review

Introduction

Completing a doctoral degree is a challenging task involving exceeding levels of competence, continued motivation, and navigation of both academic work and the work-life balance (Grover, 2017). The challenge of the doctoral program leads to significant stress (Bridgmon, 2007; Levecque et al., 2017; Pattusamy & Jacob, 2016; Oswalt & Riddock, 2007). Students' social support from intimate romantic partners has been found to mitigate stress (French et al., 2018; Jairam & Kahl, 2012; Maulik et al., 2011) and improve persistence in a doctoral program (Ali & Kohun, 2006). In previous studies, doctoral students have described the demands of doctoral work highlighting the difficulty of maintaining family responsibilities (Flynn et al., 2012) with partner relationships being neglected, leaving the students to perceive a work-life imbalance (Brus, 2006; Rizzolo et al., 2016). This imbalance correlates with low levels of overall well-being (Trenberth, 2005), higher levels of overall burnout (Galdino et al., 2016), and mental health issues (Garcia-Williams et al., 2014; Levaque et al., 2017; Uqdah et al., 2009). Personal issues play a role in CES doctoral students' reason to depart a program (Burkholder, 2013; Hoskins & Goldberg, 2005; Protivnak & Foss, 2009); however, these studies are based on married students and have primarily focused on personal issues and work life balance, rather than the partner relationship. While sources have found personal challenges to influence CES students to drop out of their doctoral program, research has yet to focus on

how doctoral study, particularly the stage of the program, has an impact on the relationship investment of CES students.

The purpose of this quantitative study was to investigate the relationship between a CES doctoral students' stage in the program and students' intimate romantic relationship investment as measured by the Investment Model Scale. Struggles in intimate romantic relationships, mental health challenges, and overall stress may have consequences that influence the completion of the doctoral program (Burkholder, 2013; Hoskins & Goldberg, 2005; Protivnak & Foss, 2009), the research process (Hyun et al. 2006; Levacque et al., 2017), and the outcomes of students' dissertation work (Levacque et al., 2017). As doctoral students progress through the program, specific challenges and developmental milestones are encountered (Grover, 2017; Pifer & Baker, 2016) having an influence on students' well-being and stress varying by stage of the program (Sverdlik & Hall, 2019).

Personal issues have been found to play a role in the departure from a CES doctoral program (Burkholder, 2013). It is important that counselor educators possess awareness of the impact that personal issues can have on their students' ability to be successful in the doctoral program (Burkholder, 2013). Personal relationship functioning can be particularly important to the counseling field as healthy relationship skills are essential for counselors (Osterlund & Mack, 2012). Doctoral student well-being is significant because CES students complete field experiences and provide counseling services while enrolled in their program (CACREP, 2019), thus they are responsible for

the well-being of others as well as for themselves and their families. Given the challenges

of balancing multiple roles and the obligations of coursework and research during the

differing challenges and tasks of the stages of the doctoral program, it is important to

assess if a connection exists among students' investment in their intimate romantic

relationship and their doctoral stage. Understanding the relationship between CES

doctoral students' stage of the program, romantic relationship investment, and the

potential for attrition can support awareness that can be used to address the challenges of

the doctoral program and work/life balance.

       This chapter will include the literature and search strategies for this research

study. The chapter will include an introduction to the problem and purpose of the

research study, the theoretical framework, a synopsis of the current literature, and

literature related to the study variables and key concepts. The chapter concludes with a

summary.

Literature Search Strategy

       My strategy for the literature search was to locate empirical data on the

relationship between doctoral work and doctoral students' intimate romantic

relationships. I conducted my search using the following databases: Academic Search

Complete, EBSCOhost, Education complete, ERIC, Google Scholar, ProQuest

Dissertations and These Global, Psychology Databases Combined Search, and Sage. I

utilized the Walden Library to search for information involving this research. I used the

section titled Find an Exact Article was used extensively as many articles were found

through other research articles allowing me to link with journals involving the research variables and to search by article title or digital object identifier (DOI).

I used the following keywords: *relationship satisfaction, relationship investment, relationship quality, perceived relationship quality, roles and relationship quality, roles and relationship satisfaction, doctoral student, graduate student, doctoral attrition, doctoral student and romantic relationship investment, graduate student and relationship investment, doctoral student and marriage, romantic relationship satisfaction,* and *marital relationship quality.*

A search of peer-reviewed literature showed a lack of research focusing on doctoral students in general (Sverdlik et al., 2018), and their intimate romantic relationships (Kardatzke, 2010; Perepiczka, 2008). Much of the research on education focuses on undergraduate students (Gardner, 2009) and married students instead of student relationships that are outside the heteronormative scope (Suarez, 2018; Gold, 2006; Price, 2006). In further search of doctoral students and intimate romantic relationships, I found that the concepts go as far back as 1983 and resurfaced again in 1995. For my study, I searched the current literature from the 1970s to the present from peer-reviewed journals, as well as selected from seminal articles from the 1980s. Current literature on the variables stemmed from peer-reviewed journals such as: *Journal of Counselor Education and Supervision, Journal of Career Development, Journal of Adult and Continuing Education, Health Education Journal, Journal of College Counseling, Journal for Counselor Preparation and Supervision, Journal of Interpersonal Violence,*

Contemporary Family Therapy, Journal of College Student Development, Family Relationship, Journal of Psychology and Theology, The Journal of Behavioral Health Services and Research, College Student Affairs Journal, South African Journal of Psychology, Journal of College Student Retention: Research, Theory & Practice, Journal of Family Psychotherapy, and *Counselor Education and Supervision.*

Theoretical Foundation

I used interdependence theory as the framework for this study. Interdependence theory was created by Harold Kelley and John Thibaut in 1978 expanding social exchange theory and game theory to encompass a more comprehensive view of relationships (Kelley & Thibaut, 1978). Interdependence theory is used to examine the dyadic nature among two individuals who influence each other during various interactions (Rusbult et al., 2012; Rusbult & Van Lange, 2003). The day-to-day experiences that occur in a relationship are interactions of mutual dependence, where one individual's behavior has a direct impact on the other and vice versa. According to interdependence theory, dependence is developed from high satisfaction and the quality of available alternatives (Rusbult et al., 2012; Rusbult & Van Lange, 2003). High satisfaction occurs when positive affect overwhelms negative affect (Rusbult et al., 2012). The quality of available alternatives focuses on the perception of desirable alternatives to a relationship, such as the perception of how an individual's critical needs could be met by an individual not in the current relationship or on one's own accord

(Rusbult et al., 2012). The size of the investment considers the importance the individual

places on the resources that are attached to the relationship (Rusbult et al., 2012).

Interdependence theory was expanded by the investment model with the inclusion

of additional factors influencing relationships (Rusbult et al., 2012; Rusbult & Buunk,

1993; Rusbult et al., 1998). The investment model expands the explanation of

dependence by including investment size and feelings of commitment. Investment size is

contingent on whether an individual views their important resources to be precarious if

the relationship were to end; therefore, an individual is less likely to leave their

relationship if they believe their resources will be lost as a result (Rusbult et al., 1998).

As the dependence one feels for their partner increases, so do feelings of commitment.

An individual's psychological attachment and intent to continue in a relationship is

defined as level of commitment (Rusbult et al., 1998). Thus, a relationship's probability

of persistence is influenced by each partner's level of commitment, which is determined

by an individual's level of satisfaction and assessment of alternatives and investments

(Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of

quality of alternatives predict higher levels of commitment in an intimate relationship

(Rusbult et al., 2012).

Rusbult et al. (1998) created the investment model to predict relationship

persistence using factors beyond positive affect. The researchers established empirical

support for the scale. Upon investigation, the variables, satisfaction, size of investment,

quality of available alternatives, and dependence were moderately associated with other

scales indicating healthy couple functioning, such as dyadic adjustment, levels of trust, and level of we-ness, and were not related to scales assessing personal dispositions. Analysis of the Investment Model Scale (Appendix C; Rusbult et al., 1998) indicated strong reliability with alpha levels as follows: commitment level ranging from .91 to .95, satisfaction level ranging from .92 to .95, quality of alternatives ranging from .82 to .88, and investment size ranging from .82 to .84. Researchers demonstrated the scale to have good convergent and discriminate validity as evidenced by strong empirical relationships with marital/dyadic adjustment measures and weak empirical relationships with personal disposition measures. Further research demonstrated validity and found Cronbach's alphas of the IMS to be .90 for level of satisfaction, .88 for quality of alternatives, .85 for size of investment, and .88 for level of commitment (Impett et al., 2002). I selected this study to outline the Investment Model Scale as it is the measurement to be used in this research study. Additionally, I chose this article because the Investment Model Scale is a quality indicator of relationship commitment due to the inclusion and assessment of its four constructs: quality of alternatives, satisfaction, investment size, and dependence.

Prior studies have shown interdependence theory and the Investment Model Scale can be applied in intimate romantic relationships (Impett et al., 1996; Rodrigues & Lopes, 2013). Impett et al., (1996) conducted a quantitative research study assessing 3,627 married couple and their relationship investment. The sample consisted of the following demographics: the mean age was 40 for men (age range of 17 to 79) and 37 for women (age range of 17 to 77 years), the couples had lived together for a mean of 13.9 years

(range of less than a year to 59 years), and the sample was highly educated as 67% of men and 52% of women reported a bachelor's degree or higher. The researchers used the chi-square statistic test to determine the investment of each member of the couple relationship initially. The researchers were able to follow up with 27% of the original sample. One of the main goals of the research study was to determine whether the investment model applied to the sample population. The researchers found the model to fit the data well, $\chi2$ (18, N = 983) = 99.52, p < .001, CFI = .97, RMSEA = .07. Upon comparisons, the small percentage of individuals who completed the follow-up measure did not significantly differ from individuals who only completed the measure once. Further, multiple fit indexes found the investment model to fit the data of the large sample of married couples. The study found satisfaction, quality of alternatives, and size of investments to predict commitment in men and women intimate romantic relationships.

Interdependence theory and the Investment Model Scale have also been applied to different types of intimate romantic relationships, such as single in a committed intimate romantic relationship, domestic partnership, and married (Rodrigues & Lopes, 2013). Rodrigues and Lopes (2013) used a quantitative research method to assess 356 heterosexual individuals' investment in their romantic relationships. Of these participants, 21% were married, 15% were involved in a domestic partnership, and 63% were single in a committed relationship; the range of length of relationship was 1 to 336 months. The authors divided the individuals into two subsamples: (a) 228 participants,

65% of the total, were used in a confirmatory factor analysis of the Investment Model

Scale (82% women; median age = 27.52 years, SD = 7.86) and (b) 128 participants, 35%

of the total, were used in a confirmatory factor analysis of the Investment Model Scale-

Shortened Version (83.6% women; median age = 25.94 years, SD = 6.15).

In regard to the confirmatory analysis of the Investment Model Scale, relative and

absolute goodness of fit indexes were obtained: $\chi2$ = 182.14, $\chi2/df$ = 2.14, CFI = .94, TLI

= .93, RMSEA = .07 (CI: .06; .09) and SMSR = .06 with moderate to high standardized

regression paths between the items and their latent factors (ls varying from .41 to .94),

and latent factors correlations varying from moderate to high (fs from -.20 to

.56). Cronbach's alphas revealed high reliability for satisfaction (.89), quality of

alternatives (.88), and investment size (.72). In regard to the confirmatory analysis of the

Investment Model Scale-Shortened Version, $\chi2$ = 99.03, $\chi2/df$ = 1.68, CFI = .95, TLI =

.93, RMSEA = .07 (CI: .05; .10), and SMSR = .06, with moderate to high standardized

regression paths between the items and their latent factors (ls varying from .38 to .93),

and latent factors correlations varying from moderate to high (fs from -.51 to

.63). Further analyses revealed each factor of the IMS-S to have high reliability, as shown

by the Cronbach's alpha for satisfaction (.94), quality of alternatives (.80), investment

size (.82), and commitment (.89).

I chose interdependence theory as the basis for this research study because it

examines the current environment and history two individuals may be interacting upon. I

used the theory to consider the CES student, their perception of their relationship

investment, and the environment of the doctoral program. The theory examines each party's own personal history, behaviors, mental state, and functioning coupled with the current status of their own dyadic functioning and history (Rusbult et al., 2012; Rusbult & Van Lange, 2003). Thus, it examines more than just the two individuals in an interaction and looks at the overall essence of their relationship as the foundation upon which the individuals interact. I used this theory because it takes into consideration CES doctoral students, the CES students' opinion of their relationships with their partner, and the current stressful environment, which is the CES doctoral program, essentially looking at the connections between the relationship and the CES doctoral setting. The research questions were addressed by interdependence theory as the IMS measurement will determine relationship investment of CES doctoral students during each stage of the program, with differing stressors, milestones, and tasks.

Literature Review Related to Key Variables and/or Concepts

Intimate Romantic Relationships

Intimate romantic relationships are a central contributor to an individual's social support system, physical and mental health, and overall well-being (Robles & Keicolt-Glaser, 2003). In 2019, around half of the adults in the United States were married (Geiger & Livingston, 2019), compared with 56% in 2003 (Robles & Kiecolt-Glaser, 2003). On the other hand, in 2019, 7% of adults in the United States were cohabiting with an intimate romantic partner, increasing 29% since 2007 (Geiger & Livingston, 2019). Additionally, 4.5% of adults in the United States of America identify as lesbian, gay,

bisexual, or transgender (Newport, 2018), and of those, 10% are married to same-sex partner (Jones, 2017). As intimate romantic relationships have seen radical changes in recent decades, the formation of the current intimate romantic relationship landscape is diverse.

Marriage has been found to promote health and well-being via cohabitation, economic gains, and social support (Ross, Hill, Mirosky, 2016). However, researchers have highlighted cohabitating adults to report poorer health and as much distress as those living alone (Hughes & Gove, 1981). Stress has an influence on intimate romantic relationships, on an individual's thoughts, feelings, health-related behaviors, coping behaviors, and physiology (Burman & Margolin, 1992; Kiecolt-Glaser & Newton, 2001). Further, dissatisfied unions lead to significant stress levels and individuals who are distressed in their marriage have been found to have lower levels of well-being and physical health (Coyne & Delongis, 1986). As intimate romantic relationships are students' main source of social support and relationships are central to an individual's well-being, understanding the impact of a significant stressor, such as the doctoral program, becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

Investment Model Scale Constructs

Doctoral work can be a challenging obstacle which has a significant influence on students' relationship functioning (Brus, 2006; Flynn et al., 2012; Rizzolo et al., 2016). A relationship's probability of persistence is influenced by each partner's level of

commitment, which is determined by an individual's level of satisfaction and assessment

of alternatives and investments (Rusbult et al., 1998). Relationship investment is

comprised of three constructs: quality of alternatives, satisfaction, and investment size,

ultimately comprising relationship dependence which then foretells commitment

(Rusbult, Agnew, & Arriaga, 2012; Rusbult et al., 1998). High satisfaction occurs when

positive affect overwhelms negative affect (Rusbult et al., 2012). The quality of available

alternatives focuses on the perception of desirable alternatives to a relationship, such as

the perception of how an individual's critical needs could be met by an individual not in

the current relationship or on one's own accord (Rusbult et al., 2012). The size of the

investment considers the importance the individual places on the resources that are

attached to the relationship (Rusbult et al., 2012). The Investment Model Scale (IMS), the

measurement used in this study, uses four constructs, quality of alternatives, satisfaction,

and investment size, and relationship dependence, to analyze the intimate romantic

relationship (Rusbult et al., 2012). The investment model is based on interdependence

theory which accounts for relationship functioning by assessing each individual's

behaviors and mental state while examining the current environment and relationship

history two individuals may be interacting upon (Rusbult et al., 2012; Rusbult & Van

Lange, 2003). Previous researchers have used the measurement to determine intimate

romantic relationship functioning during times of stress (Edwards, Gidycz, & Murphy,

2011; Guerrero & Bachman, 2008; Rhatigan & Axsom, 2006). Assessing the intimate

romantic relationship investment of students can highlight the differences of relationship functioning during the specific stages and challenges of the doctoral program.

Doctoral Study Stages of Program

Doctoral degrees are the highest terminal degree awarded in academia allowing graduates to serve as experts in higher education and their chosen field of study (Mendoza & Gardner, 2010). However, the attrition rates of doctoral programs in the United States continue to indicate the challenging nature of this process as approximately only 50% of doctoral students complete their program (Lovitts, 2001; MELS, 2012). Completing a doctoral degree requires the successful navigation through the developmental milestones and challenges of each of the doctoral program stages as well as competence, continued motivation, and balance of both academic and personal obligations (Grover, 2017).

As students progress through the doctoral program, they encounter specific challenges and developmental milestones at each stage of the process (Grover, 2017; Pifer & Baker, 2016) resulting in differing levels of well-being and stress that can vary by stage of doctoral program (Sverdlik & Hall, 2019). Grover (2017) explains three stages that encompass the doctoral journey, which include the *entry* stage, the *integration* stage, and the *candidacy* stage. Below is an explanation of the three stages, along with the distinct milestones, tasks, and challenges of each phase.

The *entry* stage starts at registration and ends once the student completes eighteen credits. This stage begins as the student orients to doctoral study when he or she decides

which program to apply to and encapsulates the first year of study (Gardner, 2009).

Individuals with work experience must discard their professional identities as they

transition back to student (Pifer & Baker, 2016); this can be particularly difficult as many

individuals have to begin the doctoral program as a novice in a new culture after securing

hard-earned status and expertise in prior professional environments (Gardner, 2009).

Doctoral students must recognize that doctoral work is fundamentally different from prior

experiences and students must be more accountable for their success (Grover, 2017).

Students must focus on being aware of and accessing resources, connecting with faculty

members, understanding the political landscape of the doctoral program, and developing

tools to maximize learning and success (Grover, 2017). This initial stage includes identity

shifts from working professional to student, possible moves to new locations, and

adjustment to new role/schedule (Gardner, 2009; Pifer & Baker, 2016). These changes

can be particularly challenging as the new roles, geographical changes, and financial

adjustments have an impact on the students' families (Suarez, 2018). Grover (2017)

posits the principal challenge of this stage is "trying to position oneself within the new

context" (p. 12). Strong emotions, such as fear, self-doubt, and isolation, often

accompany the shift in roles (Brill et al., 2014).

The *integration* stage begins once the student has earned eighteen credits and ends

when the student attains doctoral candidacy. In this stage, students become "immersed in

the language and culture of the discipline" (Gardner, 2009, p. 62) and the students begin

to understand the mechanisms of doctoral study, their place within their program and

institution, and in their profession (Grover, 2017). During this stage, students finish the remainder of their doctoral coursework, complete necessary exams, and commence dissertation development (Pifer & Baker, 2016). In this period, students must build competency in their coursework, deepen peer relationships, establish significant relationships with key faculty, prepare for examinations, and change role from student to professional (Gardner, 2009). The stakes are higher during this stage and mistakes are more costly to the student (Grover, 2017). Researchers estimate around 30% of doctoral students leave during the second stage (Golde, 1998; Gardner, 2009). Students who depart from their doctoral program at this point feel extreme disappointment and emotional distress (Lovitts, 2001).

The principal challenge of this stage includes the balance of learning a broad sense of a field while developing a niche or skill (Grover, 2017). Students begin to see themselves less as a student and more as a knowledge maker and disperser (Lovitts, 2001). As the transition occurs, students need to be more of a catalyst of their learning, recognizing they must seek additional knowledge on their own accord in order to be successful (Gardner, 2009). As students gain this independence, the pressure to perform, succeed, and persist intensifies (Grover, 2017). Students tend to become more isolated leaving the education environment as coursework is completed and independent research begins (Pifer & Baker, 2016). Additionally, students' personal relationships must adjust to accommodate students' endeavors; interactions with loved ones may become strained or infrequent given the challenges of the work, school, and life balance (Pifer & Baker,

2016). Communication, in both personal and academic settings, becomes key as expressing and listening to other's expectations leads to an easier approach to uncomfortable conversations and addressing challenges as they arise (Gardner, 2009; Pifer & Baker, 2017); additionally, communication has been found to ease the stress associated with maintaining balance during this stage (Jairam & Kahl, 2012).

The *candidacy* stage begins as the student attains doctoral candidacy and ends once the student successfully completes the program (Grover, 2017). The principal challenge of this stage is to "engage in deep research and establish ties with professionals in the field" (Grover, 2017, p. 15). This stage includes the final tasks of the doctoral program and joining the population of professional scholars (Gardner, 2009). However, this transition can be particularly difficult as with the shift comes the removal of significant peers and faculty and an overall sense of community; students can feel lonely, isolated, and abandoned during this time (Gardner, 2009). Nevertheless, during this transition to independence, the student must shift from an "authority figure of the advisor to the authority invested in self" (Gardner, 2009, p. 79).

The dissertation is completed during this stage; the dissertation process is the culmination of the years of coursework and research the student must complete in order to obtain the doctoral degree, certifying the student has the skills and knowledge necessary (Lovitts, 2001). The transition to independence and the weight from the dissertation can be paralyzing, leaving students overwhelmed (Gardner, 2009). During the dissertation process, students report increased overall anxiety (Gardner, 2009) and

stress levels due to relationship issues (Bridgmon, 2007). At this stage, the pressure is highest as failure is "fatal", resulting in attrition from the program (Grover, 2017, p. 15). Thirty percent of students who depart their program, do so during this stage. The departure and resulting loss are the most significant of the stages as the student, faculty, and program's investment is highest. Completion of this phase results in the title of doctor as the student is now a representative of his or her discipline to the larger community (Gardner, 2009). As each of the doctoral stages has an approximate 30% departure rate from the program, the research study provided a clearer picture of the intimate romantic relationship stressors that are prevalent during each stage.

The stages involve specific tasks and challenges specific to the phase of doctoral work resulting in varying time requirements, workloads, and stress levels (Grover, 2017; Pifer & Baker, 2016; Sverdlik & Hall, 2019). An important factor in success is doctoral students' ability to navigate the stages of the program while managing the various stressors of academic, professional, and personal work (Grover, 2017). As various challenges associated with personal circumstances can occur during each stage of doctoral work, understanding the impact of these stressors becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand. Determining intimate romantic relationship investment during each stage of the program will meet the current gap in the research. The toll the doctoral process takes on the student has been documented in various research studies detailing students'

responses to the stressors and consequences of this balancing act; these research studies are outlined below.

Doctoral Student Mental Health

Research has consistently shown the doctoral process to increase students' stress levels with both acute stressors, such as coursework, exams, and the dissertation process, and chronic stressors, such as balancing roles, high workload, and time limitations (Bridgmon, 2007; Levecque et al., 2017; Pattusamy & Jacob, 2016; Oswalt & Riddock, 2007). The prolonged stressful environment can have a deleterious impact on the mental health of doctoral students (Evans et al., 2018; Garcia-Williams, Moffitt, & Kaslow, 2014; Hyun, Quinn, Madon, & Lustig, 2006). As such, researchers have studied the mental health needs of doctoral students in order to understand the experiences of this unique population.

The consistent stress and strain on the doctoral students have been researched, finding that students suffer from significant rates of depression and anxiety (Evans et al., 2018; Garcia-Williams, Moffitt, & Kaslow, 2014). Specifically, researchers have found depression and anxiety rates of doctoral students to be six times the average person (Evans et al., 2018). Evans et al. (2018) assessed the mental health of 2,279 graduate students from 234 institutions and 26 countries to address the lack of understanding regarding the mental health of graduate students. Ninety percent of respondents were Ph.D. students from a variety of professional fields. Results indicated doctoral students are six times more likely to experience mental health concerns, such as anxiety and

depression. Furthermore, 39% of the sample scored in the moderate to severe depression range, as compared to 6% of the general population measured previously with the same scale (Kocalevent, Hinz, & Brahler, 2013).

Symptoms of anxiety and depression can have an impact on doctoral students' intimate romantic relationships, prompting the students to seek mental health treatment with a focus on relationship counseling. Hyun, Quinn, Madon, and Lustig (2006) examined the mental health needs of graduate students. The authors used a cross-sectional survey to assess 3,121 students from one university; 68% of the sample population were doctoral students and 56% were in an intimate romantic relationship. The authors created a survey to assess the mental health needs, relationship with advisors, financial status, family burden, academic discipline, program competitiveness, social support, demographics, and utilization of mental health services. Results indicated 45% of respondents having an emotional or stress-related problem over the last year. Fifty percent of students reported the intention to seek mental health services. Another 30% reported having already sought mental health services for a relationship problem during their time in the program. Self-reported mental health needs were significantly and negatively associated with confidence about finances (MP=-11%), higher functional relationship with one's advisor (MP=-1%), regular contact with friends (MP=-5%) and being married (MP=-13%). Therefore, confidence regarding finances, a functional relationship with advisor, social support, and marriage were associated with students' mental health.

Relationship issues have an impact on the mental health and overall well-being of a doctoral student, and though being married may act as a buffer to stress, the issues have also been found to play a part in doctoral students' suicidality as students with thoughts of suicide were more likely to report relationship arguments and strife (Garcia-Williams, Moffitt, & Kaslow, 2014). The researchers used quantitative research methods to focus on the mental health of graduate students utilizing the Patient Health Questionnaire (PHQ-9) in addition to assessing suicidality, anxiety, substance use, eating disorders, negative emotions, and the utilization of mental health treatment. Research determined that out of the 201 graduate students, 7.3% reported thoughts of suicide, 1.7% had hurt themselves in the last week, 2.3% had made a plan to hurt themselves, and 9.9% had made a suicide attempt in their past. The average PHQ-9 score was 7.95, with a range of zero to twenty-seven and a standard deviation of 5.16 thus indicating that most students suffered from at least mild to moderate depression. Twenty one percent of graduate students suffered from severe depression. Women were shown to experience higher rates of suicidality and depression. Student with thoughts of suicide were more likely to report having arguments and fights with loved ones and feeling intensely anxious, drinking more than usual, eating disorders, and feelings of hopelessness, desperation, and being out of control. Half of the graduate students reported feelings of anxiety and 86% reported worrying a lot and feeling life is too stressful within the last four weeks. This study is concerning as it shows that relationship strife, specifically having arguments and fights, may be a contributing factor in doctoral students' thoughts of suicide.

The demise of an intimate romantic relationship can have a significant impact on the stress levels of doctoral students, ultimately having an impact on the completion of a doctoral program. Bridgmon (2007) examined the stress factors associated with being all but dissertation status in 124 counselor education and supervision, counseling psychology, and clinical psychology doctoral students. Certain characteristics, such as demographic variables and scientist-practitioner variables, were assessed to determine if they predicted all-but dissertation stress. Multivariate correlational methods were used to determine that all-but dissertation students reported more stress when there is (1) a lack of dissertation chair structure, (2) a lack of interest in research activities, (3) increased current stress, and (4) the demise of an interpersonal relationship. The demise of an intimate romantic relationship was determined by asking the participants if an intimate romantic relationship had ended during their doctoral study. Thirty-two percent of students reported the demise of an intimate romantic relationship during the doctoral program.

This study highlights doctoral students' overall stress and, specifically, how doctoral students' intimate romantic relationship health can have an impact on students' stress levels and academic functioning. However, limitations of the study exist, such as the demise of an intimate romantic relationship was assessed by only one question and did not provide any follow up questions or data. Thus, it did not provide specific information about the intimate romantic relationship or how the stages of the doctoral program may have an influence on intimate romantic relationship investment or

functioning. The study also focused on the ending of an intimate romantic relationship forgoing the intimate romantic relationships that persist through the program. The study determined what the impact of the doctoral program, specifically the doctoral stages, has on students' intimate romantic relationship investment.

This relationship strife, specifically the work and family conflict, has been shown to predict mental health issues resulting in repercussions on doctoral work product such as doctoral research outcomes and attrition. Levecque et al. (2017) used quantitative methods to examine the influence of the academic climate on Ph.D. students' mental health. The study compared the mental health of 3,659 Ph.D. students in Flanders, Belgium to those of the general population (769 individuals), highly educated employees (592 individuals), and higher education students (333 individuals). The researchers then assessed organizational factors that predict mental health status in Ph.D. students. Researchers found that based on the GHQ-12, 32% of Ph.D. students experience struggles with mental health issues, especially depression.

Results indicated the work and family conflict to be one of the highest contributing factors predicting mental health issues, specifically depression and general psychological distress. As this study highlighted, relationship functioning can have an impact on students' mental health, additionally, mental health has been found to be a contributing factor in doctoral student attrition (Hunter & Devine, 2016; Levacque et al., 2017; Stallone, 2004). Thus, the interplay between students' relationships and doctoral

study becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

Work/Life Balance

Particularly challenging for doctoral students during the stages of the doctoral program include the work-life balance; research has consistently shown the negative influence of stress, mental health issues, and the navigation of the work and family balance on the overall health of students' intimate romantic relationship (Brannock et al., 2000; Gold, 2006; Ledermann et al., 2010; Legako & Sorenson, 2000; Pattusamy & Jacob, 2016; Sori, Wetchler, Randall & Bodenmann, 2009).

A balance between work and home obligations has been shown to improve doctoral student well-being and mental health. El-ghoroury et al. (2012) examined stressors, coping strategies, and barriers in the utilization of wellness activities. The quantitative study assessed a sample population consisting of 387 psychology graduate students. Assessments included stress, coping and self-care, and barriers to participating in healthy activities. The study found that 70% of students had experienced a stressor that had an impact on the students' overall functioning. Stressors included coursework, finances, mental health issues, and a lack of balance between work, school, and life. Coping strategies included social support from loved ones, regular exercise, and hobbies. The barriers to self-care were the lack of time and finances. Over 50% of students reported the following challenges: academic pressure (68.1%), financial concerns (63.9%), anxiety (60.7%), and poor work/school/life balance (58.7%). Additional

concerns were family issues (44.9%), research pressure (43.1%), compassion fatigue (38.2%), lack of support (36.3%), depression (35.1%), physical health issues (33.7%), relationship issues (33%), other interpersonal issues (32.6%), and loss (27.7%). Thus, this study highlighted that one third of students experienced relationship issues during their program. As family support was one of the most used coping strategies by the students to manage stress, issues in relationships can have an impact on students' coping strategies.

Ultimately, issues with the work and life balance can lead to students becoming uninvolved and uninvested in the completion of their doctoral program, which can delay graduation. Gardner and Gopaul (2012) used qualitative methods to explore the experiences of part-time doctoral students at one research institution in the US. The sample of ten doctoral students who identified as part-time students were completed with face-to-face interviews. The conceptual framework focused on doctoral student socialization, which is the process through which an individual learns to adopt the values, skills, attitudes, norms, & knowledge needed for membership in a society or organization. Detected themes included concepts of (1) school/life balance, (2) support, and (3) fitting the mold. Specifically, the main source of support for this population was their family members (spouses), employers/coworkers, and cohort.

The part-time students' untraditional student role and lack of work/life balance led to the lack of advisor/peer interaction in which students said had influenced their focus, connections, face-to-face time, and opportunities for research. The experiences

outlined by the study indicated part-time doctoral student experiences are much different

than the reports of full-time doctoral students. The students in the study discussed how

time, roles, and other obligations detracted from students' investment in the program,

which then influenced level of involvement. The level of involvement comprises

students' attachment to the program, the discipline, and the overall profession. As this

study highlighted, issues with work life balance can have an impact on students' level of

investment in the academic program, thus, the interplay between students' relationships

and doctoral study becomes increasingly important for counselors, counselor educators,

and counselor educators-in-training to understand.

Attrition

Attrition from doctoral programs is the highest out of all academic degrees

(Gardner, 2009). Golde (1998) stated "paradoxically, the most academically capable,

most academically successful, most stringently evaluated, and most carefully selected

students in the entire higher education system—doctoral students—are the least likely to

complete their chosen academic goals" (p. 199). Doctoral attrition has been linked to

stress (Lovitts, 2001), exhaustion (Hunter & Devine, 2016), issues with finances (Rigler

et al., 2017), the lack of social support (Jairam & Kahl, 2012), advisor issues (Golde,

1998), isolation (Ali &Kohun, 2006) and program incompatibility (Golde, 1998).

High levels of emotional exhaustion have been linked to the departure from a

doctoral program. Hunter and Devine (2016) used a mixed method study to further

examine the antecedents of doctoral students' emotional well-being and their plans to

leave academia. Researchers used quantitative scale measures and qualitative systematic self-observation items to examine 186 doctoral students from nine countries to determine their perceptions of faculty support, leader-member exchange, emotional exhaustion, and their intentions to leave academia. Emotional exhaustion is a central aspect to burnout, and it occurs when the demand of a task exceeds an individual's resources which results in the lessening of emotional energy. The researchers used The Measurement of Experienced Burnout (Maslach & Jackson, 1981) to determine emotional exhaustion.

Results indicated that 35.5% of doctoral students reported moderate to high levels of emotional exhaustion and with the higher levels of emotional exhaustion, students were more likely to plan on leaving academia. Results also indicated that perceived faculty and department support reduced students' emotional exhaustion and intentions to disenroll, a strong relationship between supervisor and student decreases students' emotional exhaustion, and advisor experience and frequency of meetings reduced emotional exhaustion but not intentions to leave academia. The article highlights the importance of facilitating doctoral students to establish social supportive relationships and develop effective coping skills to prevent emotional exhaustion.

Byers et al. (2014) also found the work life balance to be linked to program attrition, as well as the emotional status of doctoral students and the presence of an outside support system. The researchers used a dialectical, philosophical lens to investigate doctoral students' perceptions of stressors while enrolled in a doctoral program, specifically focusing on the coping strategies used to alleviate the stress. Ten

participants were chosen via convenience sampling to participate in a face-to-face interview. Qualitative analyses found five themes of issues most important to doctoral students that contribute to attrition: emotional status, structure of program, justification for participation in program, compartmentalization of life, and outside support systems. Doctoral student responses highlighted the difficulties of balancing the multiple roles, including family, student, professional, and social roles. The multiple roles fostered feelings of guilt, worry, rejection, and emotional crises. Support from families, including spouses, were found to mitigate these particular challenges.

Social support has been found to promote doctoral students' completion of the program, with intimate romantic partners being one of students' main sources of support. Jairam & Kahl (2012) aimed to examine the role of social support on doctoral program completion. Participants included thirty-one doctoral graduates from numerous disciplines across multiple universities in the United States. The sample was composed of 20 women and 11 men and the average age of participants was 43 and ranged from 29 to 63. Participants completed an open-ended qualitative survey assessing social support and its influence on doctoral completion. Participants were asked to describe their social support system, examine the behaviors from their social support system that facilitated and hindered doctoral degree completion, and discuss what changes they feel would have improved students' experience during the doctoral journey.

Researchers used a grounded theory research design to analyze the data; using open coding, axial coding, and selective coding to develop themes to interpret how social

support processes function during the doctoral process. Results illuminated three groups upon which the students gain social support: academic friends, family, and doctoral advisors. When discussing family support, most students discussed their significant other; thus, spouses, in particular, had an important role in the support given to students. Positive social support from spouses included emotional support, which was composed of general encouragement, friendship, esteem building, and love, and practical support, which was composed of gifts, financial support, acts of service and the space and time to focus on academic work. The family's sacrifice of time and financial support were major themes in the discussion of practical support. Limitations of the research include the small participant sample, the online format of the survey, and the focus on students' perspective. To improve upon this study, future research could increase the sample size to improve generalizability, use a face-to-face style of interview to gain more in-depth information, and assess students' social support system to gain additional perspective. As intimate romantic relationships are significantly important to the social support system of the student and as healthy relationship skills are essential for counselors, understanding the impact of a significant stressor, such as the doctoral program, becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

The work-life balance has been shown to be a contributing factor in CES doctoral students' lack of degree completion. Willis and Carmichael (2011) conducted a study regarding doctoral student attrition by focusing on non-completers in counselor education

who withdrew during or after the third year of doctoral study. The qualitative study was guided by the research question: "What is the experience of doctoral attrition in counselor education?" Six late-stage doctoral non-completers from counselor education programs participated in research interviews that were analyzed using a grounded theory approach. Results showed two distinct types of attrition: dropping out or leaving. Dropping out was the experience of barriers acting against the internal desire of the student to complete the program. The barriers that contributed to doctoral attrition included a problematic chair relationship and having a career outside of the doctoral program. Leaving is the internal change that changes the priority of completing the doctoral program. Five participants reported a negative experience of encountering barriers that acted against the internal desire of the participants to obtain the doctorate. One participant reported a positive experience of an internal change that altered the priority of continuing in doctoral study. Full-time employment, the work life balance, and problematic chair relationships prevented doctoral completion and led to negative emotional reactions. As these studies highlighted, issues with work life balance can have an impact on students' completion of the academic program, thus, the interplay between students' relationships and doctoral study becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

The work life balance requires students to navigate and foster their intimate romantic relationships in order to be successful at home and at work. The ability to navigate and foster relationships has been found to be more important than a counselor's

theoretical approach or intervention (Wampold, 2001), thus, healthy relationship skills are essential for counselors (Osterlund & Mack, 2012). As such, students' romantic relationships require intentional consideration. Doctoral students in Counselor Education and Supervision (CES) programs complete field experiences and provide counseling services while enrolled in their program (CACREP, 2019), thus they become responsible for the well-being of others in conjunction with being responsible for themselves and their families. Understanding the impact of a significant stressor, such as the doctoral program, becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

Impact of Doctoral Study on the Intimate romantic Relationship

The impact of academic work on students' intimate romantic relationship has been studied in the past; however, much of the research has focused on married relationships not on students with intimate romantic relationships that are outside the heteronormative scope. (Osterlund & Mack, 2012). In a study similar to this study, Brannock, Litten, and Smith (2000) explored whether doctoral programs had an impact on students' marriage. The researchers used quantitative methods to examine the marital relationships of doctoral students enrolled in graduate programs. The study aimed at determining whether marital satisfaction was higher at a particular stage of the doctoral program in addition to looking at the effects of having children, the spouse's employment and student status, and length of marriage had on marital satisfaction. Systematic sampling produced 54 doctoral student participants who had been married at least a year

and currently living with their spouse. Researchers grouped participants into three categories: (a) students enrolled in their first or second semester, (b) students at the half-way point in the program, and (c) students in the last two semesters of doctoral work. Participants completed the Demographics and Structured Questionnaire, Locke-Wallace Marital Adjustment Test, and the Index of Marital Satisfaction. Researchers used two one-way analyses of variance to determine whether the students' stage of program had an impact on marital satisfaction.

Results determined that students' stage in the doctoral program did not have a significant impact on marital satisfaction. Further, length of marriage, presence of children, and spousal employment status did not have a significant impact on marital satisfaction. The students' marital satisfaction was significantly higher when the spouse was also classified as a student. Contributions of the study include the continued focus on the stressors and challenges of graduate school on the student and his or her spouse. The study could have addressed delimitations that existed in Brannock's study. While Brannock et al. (2000) studied the impact that doctoral programs had on students' marriage, the population was limited to married, heterosexual relationships of more than one year. Based on these findings additional information is needed concerning relationships outside the heteronormative scope.

Relationship concerns were the center of another study of the marital satisfaction of doctoral students. Gold (2006) used quantitative methods to examine marital satisfaction among graduate students. Participants included 65 graduate students from

one research university in the college of education, 58.5% were doctoral students and 41.5% were master-level students. Using the Marital Satisfaction Inventory-Revised, researchers examined 10 variables of martial functioning. Results found women students to be more dissatisfied than men students within the couple problem solving communication $F(1, 43) = 1.301$ $P = .041$, with conventionalism $F(1, 43) = 3.465$, $P = .001$, and role orientation $F(1, 43) = 2.029$, $P = .049$). Men students were more dissatisfied with communication regarding finances $F(1, 20) = 2.463$, $P = .018$). Among doctoral students, both men and women reported significant levels of relationship conflict, frequent arguments, and difficulty in problem solving during the doctoral program. Results also imply that couples may be underestimating how being a student may influence stress and their intimate romantic relationships. As respondents in this study were from only one university, this study addressed the lack of generalizability as the sample population is intended to be from a variety of institutions with CACREP accredited CES programs.

Furthermore, non-student spouses also report negative effects of graduate school on their intimate romantic relationships (Legako & Sorenson, 2000). The researchers used qualitative research methods to examine the impact of graduate school on marriage for the students' non-student spouse. Participants included six women and six men spouses of third-and-fourth year graduate students at an APA-approved program in Clinical Psychology. Further demographics of the study participants were not included. Interviews were modeled after the Locke & Wallace Marital Adjustment Test (Locke &

Wallace, 1987) and assessed the historical background of the couple, the marital

relationship, the perceived impact of graduate training on the marital relationship, the

perceived impact of the integration on spirituality on the marital relationship, the impact

of graduate study on students personal life, and participant's recommendations for future

programs. Researchers found that non-students reported a detrimental effect of graduate

school on student marriage. Spouses reported a general dissatisfaction with the marital

relationship due to the stress from graduate training and specifically, the financial strain

of the graduate program. Although general dissatisfaction was reported by non-student

spouses, the spouses also reported the student to have improved emotional accessibility

and be more expressive, rendering multifaceted implications regarding the intimate

romantic relationships.

Cymbal (2004) found students' spouses to report higher satisfaction levels on the

Marital Satisfaction Inventory-Revised (Snyder, 1997) when compared to the normative

sample population. The dissertation study focused solely on the effects of higher

education on the marital satisfaction of the non-student spouse. Specifically, this research

study's purpose was to understand the relationship between doctoral training in

psychology and marital satisfaction from the non-student spouse's viewpoint. Twenty-six

men non-student spouses were given the Marital Satisfaction Inventory-Revised (Snyder

& Aikman, 1998); their married spouses were students that were at the later stages of

their doctoral training. Significant differences were found determining non-student

spouses were more satisfied in their marital relationship, time spent with spouse, and

affective communication than the measurement's normative sample. As the above highlighted, students' intimate romantic relationship is impacted by students' academic obligations and vice versa, which can have a resulting influence on students' completion of the academic program; thus, the interplay between students' relationships and doctoral study becomes increasingly important for counselors, counselor educators, and counselor educators-in-training to understand.

Summary and Conclusions

The purpose of this study is to investigate the relationship between CES students' stage in doctoral program and students' intimate romantic relationship investment as measured by the Investment Model Scale (IMS). Several themes are evident after a review of the present literature on doctoral students' intimate romantic relationships during doctoral program stages. First, doctoral study is a challenging process fraught with acute and chronic stress, which has a multitude of consequences for students' intimate romantic relationships (Brannock et al., 2000; Gold, 2006; Ledermann et al., 2010; Legako & Sorenson, 2000; Pattusamy & Jacob, 2016; Sori, Wetchler, Randall & Bodenmann, 2009). While sources have found personal challenges to influence CES students to drop out of their doctoral program, research has yet to focus on how doctoral study, particularly the stage of the program, has an impact on the relationship investment of students. This study will fill the gap in the literature focusing on the relationships of CES doctoral students. Specifically, this study will highlight how the stage of the CES doctoral program has an impact on students' relationship investment. Chapter three will

include a detailed description of the research methodology used for the study. Chapter three will also include sections on the research design and rationale, instrumentation, target population, sampling procedures, recruitment procedures, data collection methods, data analysis, threats to validity, and ethical considerations.

Chapter 3: Research Method

The purpose of this quantitative study was to determine CES students' intimate romantic relationship investment as measured by the Investment Model Scale and to investigate the relationship between CES doctoral students' stage in their program and students' intimate romantic relationship investment. This chapter includes the description of the research design and a thorough rationale for selecting the specific design suitable to answer the research question. This chapter also includes an extensive explanation of study methods, descriptions of the target population, sampling and sampling procedures, recruiting participants, data collection methods, and a detailed description of instrument used. Additionally, I will discuss the data analysis plan and internal and external validity threats. The chapter concludes with a discussion of the ethical procedures.

Research Design and Rationale

This study was quantitative. Quantitative models describe and measure the magnitude of the relationship between two or more variables (Walliman, 2017). Researchers who implement quantitative research designs concentrate on gathering information and applying it to larger populations of people (Walliman, 2017). The design was the basis of a deductive approach upon which a researcher guides the research purpose, questions, and methodology based on a hypothesis (Walliman, 2017). Within the quantitative research design, a survey research method supports the exploration of the differences of relationship investment of CES doctoral students during each stage of the doctoral program. The survey was a self-administered questionnaire that participants

completed online. The study had an ex-post facto, nonexperimental research design, meaning I will examine a prior existing variable that will not be manipulated due to it already occurring in the natural course of events. The study was cross-sectional, as results were gathered at a specific point in time. Thus, I examined if a relationship exists between students' current stage in a CES doctoral program and the existing intimate romantic relationship of the student. The use of the ex-post facto, nonexperimental design was appropriate because it provided statistical data as the constructs studied, stage in doctoral program and intimate romantic relationship investment, had already occurred and was not manipulated by the researcher. Time constraints exist due to the time it takes to obtain the required number of participants as response rates can be low (Field, 2013). The costs of the survey were estimated to be minimal given the instrumentation was to be completed over the internet.

I used a comparative design for this study. The researcher investigated the relationship amongst the level of satisfaction, commitment, investment, and quality of alternatives of the student relationship as measured by the Investment Model Scale and the students' stage of doctoral program: entry (starts at registration and ends once the student completes eighteen credits), integration (ends when the student attains doctoral candidacy), and candidacy (ends once the student successfully completes the program), as well as intention to withdraw from doctoral program. I attempted to answer the following research question: How do CES students' stage in their program (entry, integration, or candidacy) predict their score on each of the constructs (commitment,

satisfaction, quality of alternatives, and size of investment) of the Investment Model

Scale (Rusbult et al., 1998)?

I categorized the doctoral program into three stages: entry, integration, and

candidacy. Intimate romantic partners were defined as a relationship mate (unmarried) or

spouse (married) of a CES doctoral student whose relationship have lasted at least one

year. Investment was measured by dependence and degree of commitment, which is

determined by an individual's level of satisfaction and assessment of alternatives and

investments. The variable involved the student's current stage in the doctoral program:

entry, integration, and candidacy, and the four constructs of the Investment Model Scale:

quality of alternatives, satisfaction, investment size, and commitment. To give a better

description of participants, I included demographic information as an indication of

participation in intimate romantic relationship of at least one year and enrollment in a

CACREP-accredited CES doctoral program.

Methodology

In the following sections, I present information concerning the population,

sampling procedures, the method of data collection, the instrumentation, and the

proposed data analysis process. Finally, the chapter will conclude with the discussion of

the ethical procedure.

Population

The target population was CES doctoral students currently involved in an intimate

romantic relationship for at least 1 year. A CES doctoral student was defined as a student

enrolled in a CACREP-accredited doctoral program in Counselor Education and Supervision. CACREP accreditation includes an evaluation and review process that determines counseling programs meet industry standards (Adkison-Bradley, 2013). The population size consisted of CES students enrolled in a CES doctoral program and who had been involved in an intimate romantic relationship. As of 2018, there were 2,917 doctoral students enrolled in CACREP accredited CES programs (CACREP, 2018). An intimate romantic relationship was defined as an ongoing and enduring partnership of two people that may last over an extended period of time.

Sampling and Sampling Procedures

The sampling method was nonprobability sampling using convenience and snowball sampling practices. Nonprobability does not involve random selection (Uprichard, 2013); thus, snowball and convenience sampling may include a sample that is not representative of the population (Farrokhi & Mahmoudi-Hamidabad, 2012). Convenience sampling includes participants in the sample that are selected because of ease of access (Farrokhi & Mahmoudi-Hamidabad, 2012). Snowball sampling occurs when current participants recommend others who may meet the criteria of participation (Yeager et al., 2011). With the circumstances of the student being a part of a small community of doctoral students, convenience sampling, coupled with snowball and respondent-driven sampling, was the most appropriate. I used Convenience sampling to distribute the research study to various listservs including the Counselor Education and Supervision Network Listserv (CESNET-L) and local Pacific Northwest University

listservs. Participants then could forward the study to known eligible participants. A listserv is an application that distributes an electronic message to people who have subscribed to the mailing list (Gil & Quinones, 1999). Subscribers to the Counselor Education and Supervision Network Listserv (CESNET-L) and university counseling departments and their listservs were likely those in or adjacent to the counseling, mental health, and education fields (FAQ, 2020). The listservs were appropriate because of the immediate, easy access to the study population. The sampling frame was CES students involved in an intimate romantic relationship for at least 1 year and who are currently enrolled in a CES doctoral program.

I conducted a review of the literature to determine the number of participants necessary for this research study. The GPower 3.0 analysis calculator (Faul et al., 2009) was used, which an anticipated alpha level of .05, a desired statistical power level of .80, and a desired effect size of η2= .05, based on Cohen's eta-squared standard of .01 for a. small effect, .06 for a medium effect, and .14 for a large effect (Morris & Fritz, 2013).

I used a G*Power software program to determine sample size. The statistical test was set for multivariate analysis of variance. For this study, a medium effect size of .25 was chosen to show how strong the relationship is between the variables, as medium effect size is most commonly used in the social sciences. I sent the alpha at .05 and set the rejection level for the study. I set the statistical power, the probability that a statistical test will detect a relationship, at .8. This calculation yielded a sample size of 186 participants for the study.

Procedures for Recruitment, Participation, and Data Collection

The recruiting procedures for the research study included requesting participation to listservs, forwarding to students enrolled in CACREP-accredited doctoral programs, and requesting participants forward the email of the research study to individuals who may be eligible to participate. I contacted the list owner of the Counselor Education and Supervision Network Listserv (CESNET-L) to request permission to post the survey. Once I received permission, the survey was posted and two follow up requests were completed in 3-week increments. Additionally, CACREP-accredited Counselor Education and Supervision doctoral programs were contacted requesting permission to disburse the study to doctoral students. At the time of the study, there were 81 institutions that offered a CES doctoral program. Each program director received an email outlining the study with a request to disburse to CES students and survey link.

The initial page of the online survey included my name, contact information, advisor contact information, institutional affiliation, confirmation of IRB approval, purpose of the study, degree information, how results will be used, and permission to withdraw at any time (Appendix A). To ensure participants were eligible for participation, I provided a brief description of the study and the qualifications for participation, which was determined by specific screening questions determining stage of program and relationship status and length (Appendix B). Demographic information included an indication of participation in intimate romantic relationship of at least one year and enrollment in a CACREP-accredited CES doctoral program. Potential breaches

of security did not occur as I gathered no identifying information, nor did an individual

know if their referee participated unless he or she chooses to disclose. Follow up emails

and postings were used to facilitate and increase participation to both listservs and

electronic community boards.

I collected data using the web-based survey system SurveyMonkey.

SurveyMonkey is a confidential website as the company does not collect participants' IP

addresses and the company does not have access to survey responses. Data were kept on

SurveyMonkey for as long as an account was active. After a SurveyMonkey account has

been deleted, the application can keep the data for an additional 90 days on backup media

(Finley, 2007). Individuals had access to informed consent, which contained items such

as eligibility, risks of participating, a notification of where to find the results of the data,

and an option to print out the informed consent form. Individuals then acknowledged

agreement after reading the informed consent document by continuing to the questions.

Once the participants began the survey, they were asked demographic information, stage

of program, and were given the Investment Model Scale (Rusbult et al., 1998) (Appendix

B). Participants exited the survey through an exit webpage. A participant could exit at

any time once the participant entered the survey by closing the web browser if the

participant chooses to no longer continue the survey. No follow-up procedures were

required.

Instrumentation

Sources of information for the dissertation project derived from CES doctoral students' scores on the Investment Model Scale (Rusbult et al., 1998) and students' stage of program (entry, integration, or candidacy). The IMS was administered in an online format which participants completed via the internet. The scale is a 29-item inventory designed to assess four factors: satisfaction, investment size, quality of alternatives, and level of commitment. Completion of the IMS resulted in four scores for each participant indicating a level for each of the constructs; higher scores are indicative of greater satisfaction, levels of commitment, high investment, and lower quality of alternatives.

The IMS, the measurement that I used in this study, was developed by Caryl E. Rusbult, John M. Martz, and Christopher R. Agnew in 1998 and is based on interdependence theory. The measurement was designed to assess relationship development and maintenance. The investment model uses interdependence theory constructs to analyze a relationship. The model posits that three constructs: quality of alternatives, satisfaction, and investment size, contribute to relationship dependence which foretells commitment (Rusbult et al., 1998). The investment model expands the theory of interdependence by positing that a relationship's probability of persistence is influenced by each partner's level of commitment, which is determined by an individual's level of satisfaction and assessment of alternatives and investments.

I chose the IMS as the basis for this research study because it examines the current environment and history two individuals may be interacting upon. Using the

theory, I examined the CES student, their perception of their relationship investment, and the environment of the doctoral program. The theory examines each party's own personal history, behaviors, mental state, and functioning coupled with the current status of their own dyadic functioning and history (Rusbult et al., 2012; Rusbult & Van Lange, 2003). Thus, it examines more than just the two individuals in an interaction and looks at the overall essence of their relationship as the foundation upon which the individuals interact. I used the Investment Model Scale in this study to consider the CES doctoral student, CES students' opinion of their relationship with his or her partner, and the current academic environment (which is the CES doctoral program) essentially looking at the connections between the relationship and CES doctoral students' stage in program. I sent an electronic mail message to the contact information from the article and scale requesting permission to use the scale in an electronic format for this study. There were no restrictions documented for use of the instrument for research.

Upon investigation, variables used in the IMS were moderately associated with other scales indicating healthy couple functioning, such as dyadic adjustment, levels of trust, and level of we-ness, and were not related to scales assessing personal dispositions. Analysis of the Investment Model Scale (Rusbult et al., 1998) indicated strong reliability with alpha levels as follows: commitment level ranging from .91 to .95, satisfaction level ranging from .92 to .95, quality of alternatives ranging from .82 to .88, and investment size ranging from .82 to .84. Researchers demonstrated the scale to have good convergent and discriminate validity as evidenced by strong empirical relationships with

marital/dyadic adjustment measures and weak empirical relationships with personal disposition measures. Further research demonstrated validity and found Cronbach's alphas of the IMS to be .90 for level of satisfaction, .88 for quality of alternatives, .85 for size of investment, and .88 for level of commitment.

As reliability ensures that the results are accurate and can be reproduced with a different population (Creswell, 2014), researchers have established the instrument is reliable (Rusbult et al., 1998). Additionally, using both scales and indexes increases the measurement's reliability as scores are founded on a variety of items within the instrument (Frankfort-Nachmias & Nachmias, 2008). As a result of the combination of items to analyze data in indexes, there can be more than one question measuring the same concept; therefore, this increases reliability.

The IMS has been used with several populations showing consistent reliability and validity in the utilization of the measurement. Populations include college students' dating relationships (Lin & Rusbult, 1995; Rusbult, 1980, 1983), married individuals (Rusbult, Johnson, & Morrow, 1986), friendships (Arroyo & Segrin, 2011; Oswald, Clark, & Kelly, 2004), same-sex relationships (Impett, Beals, & Peplau, 2001; Duffy & Rusbult, 1986; Greene & Britton, 2015), abusive relationships (Edwards Gidycz, & Murphy, 2011; Rhatigan & Axsom, 2006), employee/employer interactions (Rusbult & Farrell, 1983; Van Dam, 2005), consumer/product (Li & Petrick, 2008; Sung & Campbell, 2009), and parasocial relationships (Branch, Wilson, & Agnew, 2013).

A weakness of the IMS includes the self-reporting nature of the instrument as the data comes from interviews and questionnaires that individuals complete regarding their own view of their intimate relationships and are thus subjective. However, as the constructs of the IMS, investment, quality of alternatives, commitment, and satisfaction, are also subjective and depend on an individual's view of their intimate relationship. Therefore, the data that derives from the IMS provided an appropriate picture of an individual's investment in an intimate romantic relationship.

Operationalization

The variables in this study included the doctoral students' stage in the doctoral program and the doctoral students' intimate romantic relationship. The doctoral students' stage of the doctoral program includes entry, integration, and candidacy. The entry stage starts at registration and ends once the student completes eighteen credits, the integration stage ends when the student attains doctoral candidacy, and the candidacy stage ends once the student successfully completes the program (Ampaw & Jaeger, 2012).

The other variable includes the participant scores attained on four constructs of the Investment Model Scale, quality of alternatives, satisfaction, investment size, and commitment (Rusbult et al., 1998). Quality of alternatives represents the "perceived desirability of the best available alternative to a relationship", basically, the extent that an individual believes his or her most important needs could be satisfied outside of the intimate relationship (Rusbult et al., 1998, p. 359). Satisfaction represents the positive versus negative affect experienced in a relationship" (Rusbult et al., 1998, p. 359).

Investment size represents "the magnitude and importance of the resources that are attached to a relationship" (Rusbult et al., 1998, p. 359). Commitment represents the "intent to persist in a relationship, including the long-term orientation toward the involvement as well as feelings of psychological attachment" (Rusbult et al., 1998, p. 359).

The IMS consists of forty questions which assess the four dimensions of intimate relationship interdependence (Rusbult et al., 1998). The satisfaction, quality of alternatives, and investment factors are measured by eleven level facet and global items and the commitment factor is measured by seven facet and global items (Rusbult et al., 1998). The facet items are measured on a four-point Likert scale with responses ranging from 0 (do not agree at all) to 3 (completely agree) to indicate the participant's agreement with each statement in regard to his or her intimate relationship (Rusbult et al., 1998). The global items are measured on a nine-point Likert scale with responses ranging from 0 (do not agree at all) to 8 (completely agree) to indicate the participant's agreement with each statement in regard to his or her intimate relationship (Rusbult et al., 1998). Facet items promote the comprehensibility, reliability, and validity of global items.

Satisfaction, quality of alternatives, investment, and commitment subscale scores are computed by averaging the global items that make up the subscale assessing intimate relationship interdependence (Rusbult et al., 1998). A high score on the measurement is an indicator of greater romantic relationship interdependence (Rusbult et al., 1998). Examples of scale items include: "the people other than my partner are very appealing to

me," which is a measure of quality of alternatives; "I have put a great deal into our relationship, and I would lose," which is a measure of investment size; "I am committed to maintaining my relationship with my partner," which is a measure of commitment level; and "my relationship is close to ideal," which is a measure of satisfaction level.

Investment size is contingent on whether an individual view their important resources to be precarious if the relationship were to end; therefore, an individual is less likely to leave their relationship if he or she believes their resources will be lost as a result (Rusbult et al., 1998). As the dependence one feels for their partner increases, so do feelings of commitment. An individual's psychological attachment and intent to continue in a relationship is defined as level of commitment (Rusbult et al., 1998). Thus, a relationship's probability of persistence is influenced by each partner's level of commitment, which is determined by an individual's level of satisfaction and assessment of alternatives and investments (Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of quality of alternatives predict higher levels of commitment in an intimate relationship (Rusbult et al., 2012).

Data Analysis Plan

As the participants completed the survey on Survey Monkey, data analysis started once the sample size was attained. The next step included uploading the data into the Statistical Package for the Social Sciences (SPSS), Version 24. This program was used to analyze, screen, and clean the data. Specifically, the data was scoured to detect, correct, or remove any inaccurate results from the survey responses, a process also

known as data cleaning (Chu et al., 2016). Data cleaning is necessary to ensure the quality of data; thus, data was looked over to detect and remove any errors that may degraded the overall record (Chu et al., 2016).

The research questions and hypotheses for this quantitative study were as follows:

RQ1. How do CES students' stage in their program (entry, integration, or candidacy) predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale (Rusbult et al., 1998)?

H0: There is no statistically significant relationship between CES students' stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

H1: There is a statistically significant relationship between CES students' stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

The data analysis that was used in this study include descriptive statistics and the multivariate analysis of variance (MANOVA). Descriptive statistics provide the mean, mode, median, standard deviation, and frequencies of the results (Field, 2013). The statistical test used to test the hypothesis is the MANOVA. The MANOVA is a statistical test used to establish whether there are any statistically significant differences between independent groups on more than one continuous dependent variable (Field, 2013). In

this study, the MANOVA was used to analyze whether a relationship exists between stage of doctoral program and the intimate romantic relationship investment of CES doctoral students. Assumptions of the test include (a) two or more dependent variables should be measured at the interval or ratio level, (b) the independent variable consists of two or more categorical, independent groups, (c) there is independence of observations, (d) an adequate sample size, (e) no univariate or multivariate outliers, (f) there is multivariate normality, (g) there is a linear relationship between each pair of dependent variables for each group of the independent variable, (h) homogeneity of variance-covariance matrices, and (i) no multicollinearity (Field, 2013). The study met each of the assumptions, thus the test was appropriate for use.

<div align="center">**Threats to Validity**</div>

Validity describes the extent an instrument measures what it is intended to measure, thus if the instrument measures the variable, it is said to be valid (Winter, 2000). Threats to validity exist in research, though researchers attempt to alleviate validity issues by utilizing certain techniques and strategies (Onwuegbuzie, 2000). This research study includes several validity issues which were addressed.

External Validity

External validity describes whether the research outcomes can be generalized to a larger population (Onwuegbuzie, 2000). Threats to external validity may have an impact on the generalizability of research results (Onwuegbuzie, 2000). Prospective threats to the external validity of this research study included population validity and specificity of

variables. Population validity describes the extent to which the study results are generalizable from the sample of participants to the general population (Onwuegbuzie, 2000). Using large and random samples will minimize the threat to population validity (Onwuegbuzie, 2000). Specificity of variables describes "the fact that any given inquiry is undertaken utilizing (a) a specific type of individual; (b) at a specific time, (c) at a specific location, (d) under a specific set of circumstances, (e) based on a specific operational definition of the independent variable, (f) using specific dependent variables, and (g) using specific instruments to measure all the variables" (Onwuegbuzie, 2000, p. 33). To mitigate this threat, variables were clearly operationally defined, and researchers exercised caution in generalizing research outcomes (Onwuegbuzie, 2000). Therefore, applying the results from the study was limited to CES students.

Internal Validity

Internal validity describes the ability to infer causation between the variables as well as changes within research participants or with the selection of the research participants (Creswell, 2014; Frankfort-Nachmias & Nachmias, 2008; Onwuegbuzie, 2000). The survey was administered online once, with three reminders for participation, therefore, threats to internal validity involving history, regression, maturation, or mortality should not have impacted the results of this study (Frankfort-Nachmias et al., 2015). Prospective threats to the internal validity of this study included selection and ambiguity about the direction of causal influence. A possible threat was the possible self-selection of participation to the survey who became participants (i.e., will most

participants have positive attitudes about their intimate romantic relationships implying a

work-personal life balance because they have access and time to complete the study).

This type of self-selection bias may have caused a restriction of the range in the study

population (Creswell, 2014). Ambiguity about the direction of causal influence describes

the inability to determine whether the independent variable causing the dependent

variable or the dependent variable causing the independent variable (Onwuegbuzie,

2000). Simple random sampling is one of the most effective methods to limit the self-

selection bias (Braver & Bay, 1992). A description of the population was included in the

discussion section. Additionally, causal inferences will not be assessed or discussed in

this study.

Construct Validity

Construct validity establishes whether the instrument measures the intended

construct and describes the instrument aligning with the general theoretical framework of

the research study (Frankfort-Nachmias & Nachmias, 2008). Therefore, construct

validity assesses how well a theory is translated into the measurement. Past researchers

studying the IMS have found strong construct validity (Kurkela et al., 1996; Rodrigues &

Lopes, 2013). Analysis of the Investment Model Scale (Rusbult et al., 1998) indicated

strong reliability with alpha levels as follows: commitment level ranging from .91 to .95,

satisfaction level ranging from .92 to .95, quality of alternatives ranging from .82 to .88,

and investment size ranging from .82 to .84. Researchers demonstrated the scale to have

good convergent and discriminate validity as evidenced by strong empirical relationships

with marital/dyadic adjustment measures and weak empirical relationships with personal

disposition measures. Further research demonstrated validity and found Cronbach's

alphas of the IMS to be .90 for level of satisfaction, .88 for quality of alternatives, .85 for

size of investment, and .88 for level of commitment. Therefore, minimal issues of

construct validity were identified in this research study.

Ethical Procedures

Ethical procedures are essential to ensure no harm is done to participants in a

research study (Hammersley, 2015). The research protocol in this study adhered to the

ethical requirements of the American Counseling Association (ACA, 2014) and by the

Walden IRB (Walden University, 2019). Research protocols consisting of ethical

principles should dictate the design and implementation of formalized study

(Hammersley, 2015). The study was reviewed by the Walden University IRB before

completion to ensure the welfare of participants. Responsible research protocols must

include the consideration of potential ethical issues (Hammersley, 2015). Potential

ethical issues for this research study included the potential for participant discomfort

similar to that which occurs in daily life, confidentiality issues, and academic integrity,

which consists of fraud, plagiarism, and compliance with university regulation.

Participants were provided informed consent agreements, which included

information about the purpose of the study, the voluntary nature of the study, the risks

and potential benefits of participation, information regarding confidentiality and privacy,

and the contact information of researcher and university (Appendix A). Individuals no

longer wanting to participate could exit the web page at any time; data was cleaned to

highlight participants who did not complete the study in order to ensure quality. Although

the researcher did. not collect personally identifying information, confidentiality was

ensured by password protecting data and following the data deletion procedures

described above. This study had a survey design which was completed on the internet

using a web-based survey program, Survey Monkey (2020), which ensures autonomy and

the voluntary nature of the study by having the access of the survey on any personal

mobile or electronic device and the ease of the departure of the survey which is exiting

out of the web browser at any time. Survey Monkey (2020) is a web-based program that

offers consumers user authentication and password protection. Data that is downloaded

from the site is also encrypted and password-protected (Survey Monkey, 2020). Only the

researcher and research committee had access to the data. Upon completion of the study,

data was kept in a password-protected file for five years. After five years, all data will be

destroyed.

Summary

The purpose of this quantitative study was to investigate the relationship between

CES doctoral students' stage in his or her program and students' intimate romantic

relationship investment as measured by the Investment Model Scale (Rusbult, Martz, &

Agnew, 1998). The quantitative research study had an ex-post facto, nonexperimental

research design and used nonrandom convenience sampling strategy to solicit electronic

participation. This chapter included the description of the research design and a thorough

rationale for selecting the specific design suitable to answer the research question. This chapter also included an extensive explanation of study methods, descriptions of the target population, sampling and sampling procedures, recruiting participants, data collection methods, and a detailed description of instrument used. Additionally, the data analysis plan and internal and external validity threats were discussed. The chapter was concluded with a discussion of the ethical procedures. Chapter four includes details about data collection process and a summary of study results and their impacts on the hypotheses.

Chapter 4: Results

Introduction

The purpose of this quantitative study was to determine CES students' intimate romantic relationship investment as measured by the Investment Model Scale and to investigate the relationship between CES doctoral students' stage in their program and students' intimate romantic relationship investment.

The research questions and hypotheses for this quantitative study were as follows:

RQ1: How do CES students' stage in their program (entry, integration, or candidacy) predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale (Rusbult et al., 1998)?

H$_0$: There is no statistically significant relationship between CES students' stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

H$_1$: There is a statistically significant relationship between a CES students' stage In their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

The chapter will begin with a thorough description of the data collection process including the time frame, recruitment and response rates, discrepancies in data collection,

descriptive and demographic characteristics of the sample compared to the larger

population, and an explanation of external validity. Then, I give the results of the study,

including the descriptive statistics that characterize the sample, the statistical

assumptions, and statistical analysis findings will be reported including figures to

illustrate results. Finally, I will provide a summary of the chapter.

Data Collection

The study was awarded approval from Walden's IRB on July 15, 2020 (IRB #07-

15-20-0469177). Data collection occurred from July 15, 2020 to November 26, 2020. I

used Survey Monkey to create and organize the survey with the link from the survey

included in the emails. The recruiting procedures for the research study involved

requesting survey participation on the listserv (CESNET; FAQ, 2020), forwarding the

survey request to CACREP-accredited doctoral programs and their professors, and

requesting participants forward the email of the research study to individuals who may be

eligible to participate. The CESNET listserv reached 4,170 recipients in the initial request

sent on July 22, 2020 (FAQ, 2020). I sent a second request for participation on September

10, 2020 and a final request on October 20, 2020. In addition, I sent requests for

participation to CACREP-accredited doctoral program directors and program professors.

At the time of data collection, there were 81 institutions that offer a CES doctoral

program (CACREP, 2020). As of 2018, there were 2,917 doctoral students enrolled in

CACREP accredited CES programs (CACREP, 2018). Considering a total of 169

responses were received out of a possible 2,917 doctoral students enrolled in CACREP

accredited program the response rates was 5.79%. No discrepancies in data collection from the Chapter 3 plan occurred. A total of 189 participants attempted the survey; however, only 166 fully participants finished the survey to completion. There were three participants who completed half of the survey leaving the survey incomplete; however, two full constructs, satisfaction and quality of alternatives, were answered by the participants and I was able to use the data.

The target population was CES doctoral students currently involved in an intimate romantic relationship for at least 1 year. Thus, the following demographic characteristics were important to the study: enrollment in CES doctoral program and engagement in a romantic intimate relationship for over 1 year. I defined a CES doctoral student as a student enrolled in a CACREP-accredited doctoral program in Counselor Education and Supervision. I defined an intimate romantic relationship as an ongoing and enduring partnership of two people that may last over an extended period of time.

External validity describes the extent to which the study results are generalizable from the sample of participants to the general population (Onwuegbuzie, 2000). Using large and random samples will minimize the threat to population validity (Onwuegbuzie, 2000). To mitigate this threat, variables must be clearly operationally defined, and researchers should exercise caution in generalizing research outcomes (Onwuegbuzie, 2000). The sampling frame consisted of CES students who were enrolled in a CES doctoral program and who had been involved in an intimate romantic relationship. Therefore, applying the results from the study was limited to CES students.

Results

The data analysis I used in this study includes descriptive statistics and the multivariate analysis of variance (MANOVA). Descriptive statistics provide the mean, mode, median, standard deviation, and frequencies of the results. I used the MANOVA statistical analysis to test the hypothesis. The MANOVA is a statistical test used to establish whether there are any statistically significant differences between independent groups on more than one continuous dependent variable (Field, 2013). In this study, I used a MANOVA to analyze whether a relationship exists between stage of doctoral program and the intimate romantic relationship investment of CES doctoral students. Assumptions of the test include: (a) two or more dependent variables should be measured at the interval or ratio level, (b) the independent variable consists of two or more categorical, independent groups, (c) there is independence of observations, (d) an adequate sample size, (e) no univariate or multivariate outliers, (f) there is multivariate normality, (g) there is a linear relationship between each pair of dependent variables for each group of the independent variable, (h) homogeneity of variance-covariance matrices, and (i) no multicollinearity (Field, 2013). This study met each of the assumptions, thus the test was appropriate for use.

A total of 169 subjects participated in the present study. Of those, 52 were in the entry stage, 43 in the integration stage, and 74 in the candidacy stage. I provided the descriptive statistics of the scale levels by stages below showing the mean, median, mode, standard deviation, and frequencies of the results (Tables 1 thru 3). The following

Tables, 1, 2, and 3, involve the descriptive statistics of the Investment Model Scale levels

by doctoral stage.

Table 1 illustrates the descriptive statistics of the participants in the entry stage of

the doctoral program. The number of participants in the entry stage of the doctoral

program was 52. There were no missing data from participants. The items on the IMS are

measured on a 9-point Likert scale with responses ranging from 0 (*do not agree at all*) to

8 (*completely agree*) to indicate the participant's agreement with each statement

regarding his or her intimate relationship (Rusbult et al., 1998). Higher levels of

satisfaction and investment and lower levels of quality of alternatives predict higher

levels of commitment in an intimate relationship (Rusbult et al., 2012). The mean scores

for the investment, commitment, and satisfaction level for this group of participants were

4.99, 4.77, and 5.02 respectively, while the quality of alternatives was 2.89. This

indicated a moderate level of investment, commitment, and satisfaction with a somewhat

low level of quality of alternatives meaning the students in the entry stage of the doctoral

program are moderately invested in their romantic intimate relationships.

Table 1

Entry Descriptive Statistics

		Investment	Commitment	Satisfaction	Quality of Alternatives
N	Valid	52	52	52	52
	Missing	0	0	0	0
Mean		4.99	4.77	5.02	2.89
Median		5.00	5.36	5.06	2.72
Mode		5.00	5.71	2.00	2.00
SD		1.61	1.35	2.20	1.55

Table 2 illustrates the descriptive statistics of the integration stage of the doctoral program. The number of participants in the entry stage of the doctoral program was 43, however, there were missing data from one participant. The missing data occurred when the participant did not complete any of the second page of the survey, thus only completing the investment and commitment constructs of the survey. Items on the IMS are measured on a 9-point Likert scale with responses ranging from 0 (*do not agree at all*) to 8 (*completely agree*) to indicate the participant's agreement with each statement regarding his or her intimate relationship (Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of quality of alternatives predict higher levels of commitment in an intimate relationship (Rusbult et al., 2012). The mean scores for the investment, commitment, and satisfaction level for this group of participants are 5.19, 4.69, and 5.26 respectively, while the quality of alternatives was 2.26. The scores indicated a moderate level of investment, commitment, and satisfaction with a somewhat low level of quality of alternatives meaning the students in the integration stage of the doctoral program are moderately invested in their romantic intimate relationships. Overall, the participants in the integration stage of the doctoral program have a slightly higher level of investment in a relationship than the entry level participants but not as high as the candidacy stage participants.

Table 2

Integration descriptive statistics

		Investment	Commitment	Satisfaction	Quality of Alternatives
N	Valid	42	42	43	43
	Missing	1	1	0	0
Mean		5.19	4.69	5.26	2.26
Median		5.05	5.00	5.44	2.00
Mode		5.00[a]	5.71	3.67[a]	0.00
SD		1.91	1.44	2.23	2.01

[a]. Multiple modes exist. The smallest value is shown.

Table 3 illustrates the descriptive statistics of the candidacy stage of the doctoral program. The number of participants in the entry stage of the doctoral program was 74, however there were missing data from two participants. The missing data occurred when the participants did not complete any of the second page of the survey, thus only completing the investment and commitment constructs of the survey. The items on the IMS are measured on a 9-point Likert scale with responses ranging from 0 (*do not agree at all*) to 8 (*completely agree*) to indicate the participant's agreement with each statement regarding his or her intimate relationship (Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of quality of alternatives predict higher levels of commitment in an intimate relationship (Rusbult et al., 2012). The mean scores for the investment, commitment, and satisfaction level for this group of participants were 5.46, 4.93, and 5.49 respectively, while the quality of alternatives was 2.55. This indicated a moderate level of investment, commitment, and satisfaction with a somewhat

low level of quality of alternatives meaning the students in the candidacy stage of the doctoral program and moderately invested in their romantic intimate relationships. Overall, the participants in the candidacy stage of the doctoral program had a slightly higher level of investment in a relationship than the entry and integration stage participants.

Table 3

Candidacy descriptive statistics

		Investment	Commitment	Satisfaction	Quality of Alternatives
N	Valid	72	72	74	74
	Missing	2	2	0	0
Mean		5.46	4.93	5.49	2.55
Median		5.65	5.57	5.89	2.28
Mode		5.10	5.71	8.00	.22[a]
SD		1.71	1.38	2.17	1.89

[a]. Multiple modes exist. The smallest value is shown.

The research questions and hypotheses for this quantitative study were as follows:

RQ1: How do CES students' stage in their program (entry, integration, or candidacy) predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale (Rusbult et al., 1998)?

H_0: There is no statistically significant relationship between CES students'

stage in their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

H_1: There is a statistically significant relationship between a CES students' stage In their program and their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale.

I used a one-way multiple analysis of variance (MANOVA) to analyze whether a relationship exists between stage of doctoral program and the intimate romantic relationship investment of CES doctoral students as measured by the Investment Model Scale. According to Table 2, there was not a statistically significant difference in Investment Model Scale score by CES students' stage in their program, $F(8,320) = 0.65$, $p = .737$; Wilk's $\Lambda = 0.97$, partial $\eta2 = 0.02$. Therefore, the students' stage of doctoral program did not have a statistically significant difference in the students' scores of the IMS.

Table 4

One-way MANOVA analysis of Investment Model Scale score by CES students' stage in their program

Effect		Value	F	Hypothesis df	Error df	p	Partial Eta Squared
Intercept	Pillai's Trace	0.94	629.15	4	160	<.001	0.94
	Wilks' Lambda	0.06	629.15	4	160	<.001	0.94
	Hotelling's Trace	15.73	629.15	4	160	<.001	0.94
	Roy's Largest Root	15.73	629.15	4	160	<.001	0.94
Stage	Pillai's Trace	0.03	0.65	8	322	0.734	0.02
	Wilks' Lambda	0.97	0.65	8	320	0.737	0.02
	Hotelling's Trace	0.03	0.65	8	318	0.739	0.02
	Roy's Largest Root	0.02	0.90	4	161	0.465	0.02

According to Table 4, analysis of each level of the dependent variable showed that there was no significant difference between groups, investment [$F(2,163) = 1.13$, $p = .325$, partial $\eta2 = 0.01$]; commitment [$F(2,163) = 0.46$, $p = .633$, partial $\eta2 = 0.01$]; satisfaction [$F(2,163) = 0.60$, $p = .552$, partial $\eta2 = 0.01$]; and quality of alternatives [$F(2,163) = 1.23$, $p = .294$, partial $\eta2 = 0.01$]. Therefore, the test of between subject results of the MANOVA indicated no significant difference was found among the groups of the dependent variables, investment, commitment, satisfaction, and quality of alternatives, in relationship to the stages of the doctoral program.

Table 5

Tests of Between-Subjects Effects of each level of the Investment Model Scale

Source		Type III Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Stage	Invest	6.78	2	3.39	1.13	0.325	0.01
	Commit	1.76	2	0.88	0.46	0.633	0.01
	Satisfaction	5.76	2	2.88	0.60	0.552	0.01
	QofA	8.32	2	4.16	1.23	0.294	0.01
Error	Invest	488.09	163	2.99			
	Commit	312.92	163	1.92			
	Satisfaction	786.62	163	4.83			
	QofA	550.49	163	3.38			
Total	Invest	5060.34	166				
	Commit	4172.86	166				
	Satisfaction	5371.40	166				
	QofA	1679.66	166				
Corrected Total	Invest	494.87	165				
	Commit	314.68	165				
	Satisfaction	792.38	165				
	QofA	558.82	165				

According to Table 5, analysis of each level of the dependent variable showed that there was no significant difference between groups, investment [$F(2,163) = 1.13$, $p = .325$, partial $\eta2 = 0.01$]; commitment [$F(2,163) = 0.46$, $p = .633$, partial $\eta2 = 0.01$]; satisfaction [$F(2,163) = 0.60$, $p = .552$, partial $\eta2 = 0.01$]; and quality of alternatives [$F(2,163) = 1.23$, $p = .294$, partial $\eta2 = 0.01$]. Therefore, the test of between subject results of the MANOVA indicated no significant difference was found among the groups of the dependent variables, investment, commitment, satisfaction, and quality of alternatives, in relationship to the stages of the doctoral program.

Summary

The research question for this quantitative study was: How do CES students'
stage in their program predict their score on each of the constructs of the Investment
Model Scale (Rusbult et al., 1998)? Results concluded CES students' stage of program
does not predict their score on each of the constructs (commitment, satisfaction, quality
of alternatives, and size of investment) of the Investment Model Scale. The next chapter
will provide an interpretation of the findings, limitations of the study, recommendations,
implications, and a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative study was to determine CES students' intimate romantic relationship investment as measured by the Investment Model Scale and to investigate the relationship between CES doctoral students' stage in their program and students' intimate romantic relationship investment. This quantitative study had a cross-sectional survey design; thus, participants completed a survey with the data collected at one time. The nonexperimental study included a comparative design. This study had a nonexperimental design as I categorized participants by students' stage of doctoral program; thus, research participants were not randomly assigned to groups, nor was a variable manipulated. The variables in this study included CES students' current stage of the doctoral program (entry, integration, or candidacy) and the four constructs (quality of alternatives, satisfaction, investment size, and commitment) of the Investment Model Scale (Rusbult et al., 1998).

I investigated the relationship amongst the level of satisfaction, commitment, investment, and quality of alternatives of the students' intimate romantic relationship investment as measured by the Investment Model Scale and the students' stage of doctoral program: entry, integration, and candidacy. A quantitative approach was appropriate for this study because the research intent was to gather numerical data and generalize findings across CES doctoral students enrolled in doctoral programs. This research study added to the quantitative research dearth by highlighting the relationship

between the stage of doctoral program and the romantic relationship investment of CES students. I concluded through data analysis that CES students' stage of program does not predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale. In the final chapter, I will provide an interpretation of the findings, limitations of the study, recommendations, implications, and a final conclusion to the study.

Interpretation of the Findings

Relationship strife, specifically work and family conflict, has been shown to predict mental health issues resulting in repercussions on doctoral work product such as doctoral research outcomes and attrition (Levecque et al. (2017). Completing a doctoral degree requires the successful navigation through the developmental milestones and challenges of each of the doctoral program stages as well as competence, continued motivation, and balance of both academic and personal obligations (Grover, 2017). The work-life balance is particularly challenging for doctoral students during the stages of the doctoral program. Research has consistently shown the negative influence of stress, mental health issues, and the navigation of work and family balance on the overall health of students' intimate romantic relationships (Brannock et al., 2000; Gold, 2006; Ledermann et al., 2010; Legako & Sorenson, 2000; Pattusamy & Jacob, 2016; Sori, Wetchler et al., 2009).

As students progress through the doctoral program, they encounter specific challenges and developmental milestones at each stage of the process (Grover, 2017;

Pifer & Baker, 2016) resulting in differing levels of well-being and stress (Sverdlik &

Hall, 2019). An important factor in success is doctoral students' ability to navigate the

stages of the program while managing the various stressors of academic, professional,

and personal work (Grover, 2017). As various challenges associated with personal

circumstances can occur during each stage of doctoral work, understanding the impact of

these stressors is important for counselors, counselor educators, and counselor educators-

in-training to understand.

      The impact of academic work on students' intimate romantic relationships has

been studied in the past; however, much of the research has focused on married

relationships not on students with intimate romantic relationships that are outside the

heteronormative scope (Osterlund & Mack, 2012). This study filled the gap in the

literature through a focus on the relationships of CES doctoral students. Specifically, I

highlighted how the stage of the CES doctoral program has an impact on students'

relationship investment. The results in this study indicated no statistically significant

difference in Investment Model Scale score by CES students' stage in their program.

Thus, I concluded through data analysis that CES students' stage of program does not

predict their score on each of the constructs (commitment, satisfaction, quality of

alternatives, and size of investment) of the Investment Model Scale.

      I used interdependence theory as the theoretical framework in this study.

Interdependence theory accounts for the dyadic nature among two individuals who

influence each other during various interactions (Kelley & Thibaut, 1978; Rusbult et al.,

2012; Rusbult & Van Lange, 2003). The investment model expands the explanation of dependence by including investment size and feelings of commitment. Thus, using interdependence theory and the investment model, a relationship's probability of persistence is influenced by each partner's level of commitment, which is determined by an individual's level of satisfaction and assessment of alternatives and investments (Rusbult et al., 1998). Higher levels of satisfaction and investment and lower levels of quality of alternatives predict higher levels of commitment in an intimate relationship (Rusbult et al., 2012).

The day-to-day experiences that occur in a relationship are interactions of mutual dependence, where one individual's behavior has a direct impact on the other and vice versa. Thus, if one partner is working on a doctoral program, they may experience high-stress due to the work-family conflict and multiple obligations; the student's day-to-day life may have an impact on their partner and their interactions. The results in this study indicated no statistically significant difference in Investment Model Scale score by CES students' stage in their program. Thus, I concluded through data analysis that CES students' stage of program does not predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale. Therefore, regardless of the certain challenges and milestones in each of the stages, there is no difference in the students' investment of their intimate romantic relationship.

Limitations of the Study

This study was narrow in focus and had limitations. A limitation of the study was the lower response rate than preferred for a statistical significance. This may have occurred because individuals who are feeling higher levels of stress may not have chosen to participate in the study due to the additional time commitment, thus the sample may not have been reflective of the population from which it originated. To address this limitation, I used convenience sampling to distribute the research study to various listservs including the CESNET and CES programs to reach as many participants as possible. Additionally, I utilized Walden's Participant Pool as well as requesting participants forward the study to other known eligible participants in CACREP-accredited counseling programs.

A second limitation included the self-reporting nature of the research which may have led to a misrepresentation or inflation of the data due to the desire to appear socially acceptable. A life event may be experienced by different people in diverse ways (Lucas, 2018). Another drawback to the self-reporting nature of this study was the halo effect. The halo effect consists of "unwarranted inferences about the positive or negative qualities of a person based on information about other unrelated characteristics [...] such as physical attractiveness, social status, having an unusual name, interpersonal style, etc." (Forgas & Laham, 2017, p. 289). Thus, when a student is in love and favors their partner, they may then view interactions in terms of their overall attitude toward the other. I addressed this limitation by using the Investment Model Scale as it measures the

constructs using parallel questioning, meaning the researchers created single questions worded in multiple ways to assess the same construct.

Another limitation to this study is the nature of online surveys. The disadvantages to online surveys include sampling issues including self-selection bias and uncertainty over the validity of the data (Wright, 2005). Self-selection bias occurs when certain individuals who are more likely than others to complete an online survey (Wright, 2005). There was uncertainty of the data as participants are anonymous and the survey was completed online, it cannot be guaranteed that the participants met the participation requirements, such as CACREP-accredited CES program enrollment or being in an intimate romantic relationship for over 1 year.

A final limitation of the study was I collected the survey responses during a pandemic. The COVID-19 pandemic officially began in March of 2020. The COVID-19 pandemic occurred due to a virus and impacted the lives of workers and families worldwide, with social distancing practices implemented, loss of jobs due to closed/altered businesses, loss of boundaries between home and work, and increased worry about self and family health (Vaziri et al., 2020). Data collection for this study occurred July 15, 2020 to November 28, 2020. Some of the results of the pandemic were increases in stress that resulted in changes to physical health, financial concerns, multiple competing daily obligations (working from home and possible childcare) as well as either a sharped increase in time with family (as in loved ones living in the same home) or a

sharped decrease in time with family (as in extended family outside the home; (Vaziri et al., 2020). Thus, results may have been shifted by the participants' stress in a pandemic.

Recommendations

The results of this study highlighted a few areas that would benefit from additional research. As this study was quantitative, it measured the romantic intimate relationship investment of CES doctoral students in various stages of the program. A qualitative approach may provide a more thorough understanding of students' lived experiences. A qualitative approach may be particularly useful in determining how the stage of program may influence the student's relationships, especially those who are in the last stage of their program who may notice how their intimate romantic relationship shift to adapt to the stage demands. Additionally, I did not assess whether participants were in heterosexual or homosexual relationships, gender, or cultural differences, thus, studies focused on exploring these factors may provide additional insight.

A longitudinal study following students throughout the program may provide richer details regarding relationship development as students progress through their studies. Following a student on their journey may provide for more data regarding challenges with the work-life balance as well as giving an opportunity to investigate students partner's perspectives. Examining the perspectives of the nonstudent partner may highlight the particular struggles couples may endure during the doctoral program. Furthermore, it may be beneficial to access couples where both are students and have educational responsibilities. Past research has highlighted these particular couples, yet the

research studies are outdated and are more likely to portray traditional gender roles within marriages (MacLean & Peters, 1995, Scheinkman, 1988). Evaluating current couples, who more likely have an egalitarian relationship, may provide a more accurate description of these couples using a more modern approach.

Other variables to consider may be students' and partners' ages, the length of relationship, child-rearing, relocation, and financial stress. These variables may influence results as older couples who may have been together for a longer period of time may be more apt to handle struggles and challenges of the doctoral program. Child-rearing or other competing priorities may make doctoral work more challenging. However, the students with less financial stress may be able to outsource household responsibilities to promote doctoral program completion.

Implications

Studies focused on CES doctoral students may be particularly significant as CES doctoral students complete field experiences and provide counseling services while completing each stage of their program (CACREP, 2019), making them responsible for the well-being of others in conjunction with being responsible for themselves and their families. Researchers have called for further literature focused on the stages of the doctoral program, particularly the challenges and student outcomes (Gardner, 2009; Grover, 2017; Pifer & Baker, 2016; Sverdlik & Hall, 2019) as well as regarding doctoral students' work/life balance, particularly romantic relationship functioning (Cymbal, 2004; Gold, 2006; Kardatzke, 2010). This research study was an opportunity to add to the

quantitative research dearth by highlight the relationship between the stage of doctoral program and the romantic relationship investment of CES students.

The findings from this study can lead to positive social change in creating knowledge that counselor educators, counselor supervisors, graduate program coordinators, and CES doctoral students can use in addressing the challenges and tasks of each of the doctoral stages. Doctoral programs and connected faculty and institutions may become at risk when attrition is high as this challenge has historically caused university systems to eliminate unproductive academic programs or limit current program enrollment, funding, and functioning (Lovitts, 2001). This study can benefit the counseling community and those adjacent by providing awareness of how students' investment level in their romantic relationship may present in each of the stages of the students' doctoral process. Students can use the information to be more proactive regarding the potential challenges of a doctoral program regarding their relationships and facilitate any change processes that may need to occur to adapt to the specific stages of doctoral study.

Educators and program administrators can use the results and implications from this study to provide more directed support services focused on the specific challenges and strategies of each of the stages. Additionally, educators may need to pay close attention to the influence relationships and personal issues may have on the doctoral students' ability to be successful in the doctoral program (Burkholder, 2012). Due to the nature of the counseling field being focused on mental health and well-being, it is

important for educators to be aware of the impact of relationship issues and familial

obligations on the students' academic process. Furthermore, research outcomes may

guide educators, administrators, program directors, student-focused programs, and mental

health professionals to use the information to better serve students and ease the stress on

the student during the different stages of the doctoral process.

Mental health counselors may have the opportunity to address the strain on

relationships from the demands of a doctoral program in working with students and

families. Mental health counselors must be aware of the difficulties in the intersection of

the doctoral program and family functioning. Mental health counselors may facilitate the

student and family to seek support during the doctoral program, promote the development

of supportive environments for students' and spouses' in doctoral programs, and provide

awareness for students' and spouses on coping skills and relationship skill building to

improve relationship functioning while completing the doctoral program. Mental health

counseling may be a positive, effective tool in promoting students' self-care and overall

wellness.

<div align="center">**Conclusion**</div>

As intimate romantic relationships are students' main source of social support and

relationships are central to an individual's well-being, understanding the impact of a

significant stressor, such as the doctoral program, becomes increasingly important for

counselors, counselor educators, and counselor educators-in-training to understand. The

purpose of this quantitative study was to determine CES students' intimate romantic

relationship investment as measured by the Investment Model Scale and to investigate the relationship between CES doctoral students' stage in their program and students' intimate romantic relationship investment. The study answered the question: How do CES students' stage in their program predict their score on each of the constructs of the Investment Model Scale?

This research study involved a quantitative, comparative design and used non-probability sampling using convenience and snowball sampling practices to access the target population of CES doctoral students who were currently involved in an intimate romantic relationship for at least one year. The data analysis that was used in this study included descriptive statistics and the multivariate analysis of variance. The results in this study indicated no statistically significant difference in Investment Model Scale score by CES students' stage in their program. Thus, results concluded CES students' stage of program does not predict their score on each of the constructs (commitment, satisfaction, quality of alternatives, and size of investment) of the Investment Model Scale. Thus, even with many challenges and obstacles of the doctoral program, doctoral students' can successfully navigate doctoral study with their intimate romantic relationship partners.

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Appendix A: Email to Participants

Research study seeks

Counselor Education and Supervision

Doctoral Students

There is a new study about doctoral program academic stages and the doctoral student's intimate romantic relationship called "Counselor Education and Supervision Students' Stage of Program and Intimate Relationship Investment" that may increase awareness and understanding of the relationship between a student's doctoral stage and intimate romantic relationship investment. Information gathered from this study may also contribute to improved support programs for doctoral students and their intimate romantic partners.

This survey is part of the doctoral study for Rachel Dell, a Ph.D. student at Walden University.

If you decide to participate in this study, you will be asked to complete an online survey. This survey should take approximately 5-10 minutes to complete.

Participants must meet these requirements:
- a Counselor Education and Supervision doctoral student enrolled in a CACREP accredited institution
- Those who have been in an intimate romantic relationship for at least one year.

You may contact Rachel Dell if you have any questions about the study. If you want to talk privately about your rights as a participant, you can call the Research Participant Advocate at Walden University. Walden University's approval number for this study and the expiration date will be included.

If you feel you understand the study well enough to make a decision about your participation, please indicate your consent by clicking the link below or copying it into your browser.

https://www.surveymonkey.com/r/KL8NXP9

Appendix B: Demographic Questions

1. Have you been involved in an intimate romantic relationship for over one year?

     a. Yes

     b. No

2. Are you currently a doctoral student in a CACREP-accredited Counselor Education and Supervision program?

     a. Yes

     b. No

3. Which stage of the doctoral program are you currently enrolled in:

     a. *Transition/Entry stage:* The stage of doctoral program which starts upon registration in the program and ends once the student completes eighteen credits.

     b. *Development/Integration stage:* The stage of doctoral program which starts once the student completes eighteen credits and ends when the student attains doctoral candidacy.

     c. *Research/Candidacy stage:* The stage of doctoral program which starts once the student attains doctoral candidacy and ends once the student completes the program.

Appendix C: Investment Model Scale

Satisfaction Level Facet and Global Items

1. Please indicate the degree to which you agree with each of the following statements regarding your current relationship (circle an answer for each item).

(a) My partner fulfills my needs for intimacy (sharing personal thoughts, secrets, etc.)

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

(b) My partner fulfills my needs for companionship (doing things together, enjoying each other's company, etc.)

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

(c) My partner fulfills my sexual needs (holding hands, kissing, etc.)

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

(d) My partner fulfills my needs for security (feeling trusting, comfortable in a stable relationship, etc.)

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

(e) My partner fulfills my needs for emotional involvement (feeling emotionally attached, feeling good when another feels good, etc.)

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

.   2.   I feel satisfied with our relationship (please circle a number).

        0   1   2   3   4   5   6   7   8

   Don't Agree at All / Slightly Agree / Agree Moderately / Agree Completely

   3. My relationship is much better than others' relationships.

        0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

4. My relationship is close to ideal.

        0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

5. Our relationship makes me very happy.

        0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

6. Our relationship does a good job of fulfilling my needs for intimacy,

companionship, etc.

        0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

Quality of Alternatives Facet and Global Items

1. Please indicate the degree to which you agree with each statement regarding the fulfillment of each need in alternative relationships (e.g., by another dating partner, friends, family).

(a) My needs for intimacy (sharing personal thoughts, secrets, etc.) could be fulfilled in alternative relationships

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(b) My needs for companionship (doing things together, enjoying each other's company, etc.) could be fulfilled in alternative relationships

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(c) My sexual needs (holding hands, kissing, etc.) could be fulfilled in alternative

relationships.

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(d) My needs for security (feeling trusting, comfortable in a stable relationship, etc.)

could be fulfilled in alternative relationships

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(e) My needs for emotional involvement (feeling emotionally attached, feeling good

when another feels good, etc.) could be fulfilled in alternative relationships

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

2. The people other than my partner with whom I might become involved are very

appealing (please circle a number).

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

3. My alternatives to our relationship are close to ideal (dating another, spending

time with friends or on my own, etc.).

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

4. If I weren't dating my partner, I would do fine-I would find another appealing

person to date.

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

5. My alternatives are attractive to me (dating another, spending time with friends or

on my own, etc.).

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

6. My needs for intimacy, companionship, etc., could easily be fulfilled in an

alternative relationship.

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

Investment Size Facet and Global Items

1. Please indicate the degree to which you agree with each of the following

statements regarding your current relationship (circle an answer for each item).

(a) I have invested a great deal of time in our relationship

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(b) I've told my partner many private things about myself (I disclose secrets to him/her)

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(c) My partner and I have an intellectual life together that would be difficult to replace

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(d) My sense of personal identity (who I am) is linked to my partner and our relationship

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

(e) My partner and I share many memories

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

2. I have put a great deal into our relationship that I would lose if the relationship were to end (please circle a number).

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

3. Many aspects of my life have become linked to my partner (recreational activities, etc.), and I would lose all of this if we were to break up.

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

4. I feel very involved in our relationship-like I have put a great deal into it.

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

5. My relationships with friends and family members would be complicated if my partner and I were to break up (e.g., partner is friends with people I care about).

6. Compared to other people I know; I have invested a great deal in my relationship with my partner.

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

Commitment Level Items

1. I want our relationship to last for a very long time (please circle a number).

0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

2. I am committed to maintaining my relationship with my partner.

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

3. I would not feel very upset if our relationship were to end in the near future.

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

4. It is likely that I will date someone other than my partner within the next year.

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

5. I feel very attached to our relationship-very strongly linked to my partner.

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

6. I want our relationship to last forever.

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely

7. I am oriented toward the long-term future of my relationship (for example, I imagine being with my partner several years from now).

       0   1   2   3   4   5   6   7   8

Don't Agree At All / Slightly Agree / Agree Moderately / Agree Completely