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# Relationships, Health, and Spirituality among College Students: Factors of College Success

Solomon S. Wang

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LOMA LINDA UNIVERSITY  
School of Behavioral Health  
in conjunction with the  
Faculty of Graduate Studies

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Relationships, Health, and Spirituality among College Students:  
Factors of College Success

by

Solomon S. Wang

---

A Dissertation submitted in partial satisfaction of  
the requirement for the degree of  
Doctor of Philosophy in Family Studies

---

June 2017

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Each person whose signature appears below certifies that this dissertation is in his/her opinion adequate, in scope and quality, as a dissertation for the degree Doctor of Philosophy

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## ABSTRACT OF THE DISSERTATION

Relationships, Health, and Spirituality among College Students: Factors of College Success

by

Solomon S. Wang

Doctor of Philosophy, Graduate Program in Family Studies  
Loma Linda University, June 2017,  
Dr. Brian Distelberg, Chairperson

This explorative longitudinal study investigated the relationship between health-related quality of life (HRQL) and various social and faith factors associated with the home to college transition. Data from 347 collegians attending a Christian University were utilized for this study and results uncovered that over the course of a year, gender, time, significant emotional relationships, a psychosocial abuse history, and faith importance predicted HRQL. In addition to each having a main effect, there were unique interactions among the variables that predicted outcomes. The findings provide valuable theoretical and practical insight on what colleges and universities can do to address deteriorating collegian mental health and cultivate resiliency in their student body, particularly among incoming freshmen.

Additionally, this study also synthesized several human development, social, and family science theories into a single cross-disciplinary framework. This new framework called the socio-emotional resituational framework (S.E.R.F) provides a developmental roadmap of the home to college transition as well as insight about how to facilitate optimum young adult development. SERF is divided into two parts, the conceptual theory and theory of change and each part is described and applied.

# **CHAPTER 1**

## **INTRODUCTION**

The U.S. Department of Education (2013) projected that higher education enrollment among high school graduates will climb by 15% between 2010 and 2021. This is a significant projection, considering that college enrollment is currently at an all-time high with over 17 million students enrolled in higher education. Although an encouraging trend, it is accompanied by rising concerns about evidence of deteriorating Health Related Quality of Life (HRQL), particularly college students' perception of their mental health (ACHA, 2014). According to The Center of Disease Control (CDC, 2016) HRQL refers to one's subjective impression of their physical and mental health. Perception of one's own health, while subject to personal judgement and interpretation is intertwined with one's clinical profile. It is estimated by The National Alliance of Mental Illness (NAMI) mental illness which is associated with HRQL afflicts approximately one in four college students (2012).

Although the etiology, development, course, and outcomes of mental health issues among college students is an ongoing and controversial topic, there is increasing documentation of its association with HRQL (Anye, Gallien, Ban, & Moulton, 2013; Baum & O'Malley, 2003; Fedele et al., 2009; Lange & Byrd, 1998; Murray, Lombardi, Bender, & Gerdes, 2013; Sage, Britt, & Cumbie, 2013; Zea, Jarama, & Bianchi, 1995). As a part of HRQL, poor mental health threatens college retention by compromising young adults' adjustment to college, academic performance, and academic longevity, all of which are important factors that predict success in college (Robinson et al., 2015). As of 2013, the dropout rate among American college students was estimated to range from

22% to 33%, which is a troubling statistic considering the high college enrollment rate among high school graduates and falling HRQL.

Three mechanisms underpin HRQL that may improve student health and retention: a) family relationships; b) social relationships; and c) faith. With their entry into college, young or emerging adults face many new stressors, not the least of which is leaving their family of origin and adapting to the new challenges of academic and extra-academic demands (Credé & Niehorster, 2012). Particularly among first year college students who attend residential-based institutions, they additionally must navigate the higher education social environment and form positive connections. Failing to do so compromises these students' adjustment to and longevity in the higher education institution (Parcerella & Terenzini, 2005). While some students adapt and enjoy the college social scene, ample evidence suggests that many struggle and report feeling loneliness, anxiety, depression, and a general lack of positive relationship (ACHA, 2014; Shim & Ryan, 2012).

The predominantly social nature of HRQL implies that social relationships play a pivotal role in college students' mental health and overall well-being. In addition to the quality of their peer and mentor relationships, there is also evidence that students' relationships with their parents and with God are predictive of health and college adjustment outcomes (Credé & Niehorster, 2012; Dickie, Ajega., Kobylack, & Nixon, 2006; Donnelly, Renk, Sims, & McGuire, 2011; Jolley & Taulbee, 1986; Parade, Leerkes, & Blankson, 2010; Paredes, Ferrira, & Pereira, 2014; Spilka & Mullin, 1977; Trotter, 2010). However, although there is likely a role for spirituality within HRQL, the exact nature of that role remains unclear.

The purpose of this quantitative study was to analyze how key interpersonal relationships and interpersonal beliefs interplayed with the HRQL of Pepperdine University undergraduates over the course of one year. This study used existing longitudinal data gathered by a relationship education program for Pepperdine undergraduates. The significance of studying these associations longitudinally was that it provided understanding of how student development, programming, higher education practices, and policies can be created or modified to promote college students' adjustment to higher education and overall health. Thus, this study's findings also support college student retention, which is a prime goal of higher education institutions across the United States.

### **Objectives**

The overall aim of this study was to examine how college students' interpersonal relationships contributed to various dimensions of HRQL. To satisfy this aim, this study sought to accomplish four objectives:

1. Estimate the direct contribution of significant emotional relationships on HRQL over time.
2. Estimate the contribution of relationship with God on HRQL over time.
3. Examine the interdependence between significant emotional relationships and relationship with God on HQRL over time.

This study applied a linear regression models to a longitudinal dataset to address each of the study's objectives.



## **Background**

In the spring of 2014, the American College Health Association's National Health Assessment (ACHA-NCHA) (2014) released a report that found that, within the previous 12 months, 42% of male and 60.2% of female college students experienced overwhelming anxiety. It also reported that 34.9% of women and 27.8% of men felt so depressed that it was difficult for them to function, and nearly 60% of the students (51.3% of men and 63.3% of women) felt very lonely. Although not a psychiatric condition on its own, studies have shown that loneliness contributes to anxiety and depression, as well as to other troubling trends, such as poor academic performance, college dropout, suicide and/or substance abuse, identity problems, poor social skills, and violent behaviors (Ebesutani et al., 2015; Hefner & Eisenberg, 2009; Mattanah, Brooks, Brand, Quimby, & Ayers, 2012; Nicpon et al., 2006; Rotenberg & Morrison, 1993; Lamis, Ballard, & Patel, 2014; Samuolis & Griffin, 2014; Riggio & Kwong, 2009; Segrin & Flora, 2000; Martens & Palermo, 2005). Both the National Association of Mental Health (NAMI) (2012) and UCLA's Cooperative Institutional Research Programs (2014) found similar mental health limitations in college students. They concluded that current college students self-reported the lowest levels of emotional health in 49 years.

## **Call for Mental Health Service Change**

In response to the troubling findings of poor HRQL among college students, Student Affairs Administrators in Higher Education published a jointly constructed primer report by the American Psychological Association (APA) and the American Council on Education (ACE) in 2014. This report appealed for higher education

institutions to allocate more of their resources to supporting the behavioral-mental health needs of college students. The primer argued that greater emphasis on prevention-based education and outreach should be the goal. According to the report, “about 70 percent of the students who use counseling services at their college or university report that their personal problems had an impact on their academic performance” (Douce & Keeling, 2014, p. 2). The point of prevention service is that it should be accessible to students before they develop significant limitations. Moreover, college students often stigmatize greater levels of services (provided to individuals after significant problems have developed), such as therapy services, which make it less appealing for students to seek out these services. Prevention service is more appealing because it can avoid this stigmatization (NAMI, 2012; NASPA, 2014).

In addition, Douce and Keeling (2014), the primer’s authors, argued that an educational and outreach approach can promote campus-wide awareness of mental health, which in turn can: a) eliminate fragmentation in services while improving access to resources to support student’s health, learning, and well-being; b) bring awareness to patterns in individuals, groups, or the campus that suggest the presence of mental and behavioral health concerns; and c) prepare all members in the higher education community not to only recognize but also to respond to these concerns.

### **rIQ Program**

Formed and organized over a decade before Douce and Keeling’s (2014) article, faculty members at Pepperdine University constructed rIQ based on the premise that healthy relationships play a foundational role in young adult HRQL, psychosocial

development, and college adjustment. While the original aim of the program was to promote long-term healthy relationship development, mounting evidence of deteriorating HRQL and mental health among college students has compelled practitioners who use rIQ to address these issues in their programming.

The origins of rIQ lie in the marriage and family ministry work of Dr. Dennis Lowe and Dr. Emily Scott-Lowe, both of whom are current faculty members at Pepperdine. Starting in 1996, the Lowes gave regular healthy relationship and marriage seminars at Pepperdine University and other venues across the country. During the fall semester of 2004, an undergraduate who had attended one of Lowe's healthy relationship seminars sent an e-mail to him that said, "You have great resources for me once I get married and have a family, what about for my relationships right now?" This message compelled Lowe to formulate a practical response, which eventually developed into a "Healthy Relationship Initiative" seminar in the fall of 2005. He expected the event, which took place at Elkins Auditorium on a late Friday evening, to draw between 50 to 100 participants. The more than 700 who showed up overwhelmed the chapel staff, the speakers, and the 350-capacity auditorium. The sizable response propelled Lowe and university administrators to turn this one-off event initiative into a full-fledged program.

Since 2008, Hannah Parmelee, the current executive director of the Boone Center of the Family, has served as executive program director. After renaming the program "Relationship Intelligence Quotient" (rIQ), Parmelee formalized the program and integrated it into Pepperdine University's mandatory convocation series. As such, rIQ serves as one of the venues for undergraduates to fulfill the required fourteen university-

sanctioned seminars, events, or chapels they must attend in order to have acceptable class standing at Pepperdine.

Although developed before the rising nationwide concern about college undergraduates' mental health, rIQ's rationale and content were grounded in the assumption that healthy relationships are foundational to young adult health and adjustment. Furthermore, its creators developed rIQ based on two perceived needs of college students: 1) a desire to form long-lasting and satisfying interpersonal relationships; and 2) a desire to form a personalized faith and/or world ideology that provides purpose, meaning, and direction to their lives. Parmelee's faith-based marital and family therapy (MFT) background allowed her to identify and ground these needs in human developmental theory, research, and psychotherapy.

Research on rIQ's program is in its early stages. Along with a team of five graduate students and a faculty member at Pepperdine, I've given five poster presentations on our data analysis results. Additionally, I've published a study on the association between young adults' perception of God's involvement their lives, the importance of their faith, their relationship beliefs, interpersonal skills, confidence, and parental relationships (Wang et al., in press.). Currently, I'm conducting a second data-driven study that examines the interrelation between student's faith, the quality of their significant emotional relationships, their relationship beliefs, and HRQL. The aim of the second paper is to use data to test and refine rIQ's conceptual theory and theory of change. Along with these studies, this dissertation will serve as the first significant project to examine the interplay between relational and social variables and college

undergraduates' HRQL using rIQ, thereby laying the groundwork for more rigorous and robust studies of program effectiveness.

### **Theoretical Framework**

Prior to the development of rIQ's conceptual theory and theory of change, the program's creators developed its content and delivery structure using a bottom-up approach. After gathering and synthesizing information and feedback from students, faculty, school administrators, and chapel staff, Parmelee formed rIQ's core program content, which consists of six content areas: a) friendships; b) healthy communication; c) dating; d) relationship with God; e) sex; and f) social boundaries. In terms of program delivery structure, the program is designed to progress students from receiving empirically sound information to becoming active agents in their own social development. Later phases of the program consist of small group gatherings, mentoring, and internship positions that promote social participation, introspection, and practice.

The program's content and organizational structure is grounded in the socio-emotional resituating framework (SERF), a theoretical framework that combines the multi-contextual framework, social exchange theory, social capital theory, and the re-centering process (McGoldrick, Carter, & Garcia-Preto, 2011; Homans, 1958; Putnam, 2000; Tanner, 2006). This synthetic framework, which a later chapter of this dissertation will explain fully, holds that college-bound young adults undergo a social and emotional transition towards interdependence between their homes and the higher education environment. It also holds that, within the dynamic social matrices woven into each

context, healthy psychosocial development occurs alongside healthy relationships, sound social skills, and students' judicious navigation of the social environment.

### **Rationale**

There is a need to study interpersonal relationships. Specifically, scholars must understand: a) how interpersonal relationships relate to young adult health; b) how student relationships can be a strategic point of HRQL prevention and intervention; and c) how a relationship education program can promote college student adjustment, development, and well-being.

The lack of research on college students' interpersonal development and relationship education programming is surprising given that the most common reason college students seek counseling services is due to relational difficulties with their peers and difficulties within intimate relationships (Brown, Feiring, & Furman, 1999; Creasey, Kershaw, & Boston, 1999; Fincham, Stanley, & Rhoades, 2011; Davila, 2011; Stavrianopoulis, 2015). Additionally, there is mounting evidence that adolescents' and young adults' romantic relationships and friendships are psychosocially formative, particularly during the young adult period when many possibilities remain open (Almquist, Ostherg, Rostilia, Edling, & Rydgren, 2013; Connolly & Konarski, 1994; Davilia, 2011; Felmlee, 2001; Larson, Clore, & Wood, 1999; Rauer, Pettit, Lansford, Bates, & Dodge, 2013; Ungar, 2012; van der Horst & Coffé, 2011). For these reasons, this study aims to synthesize and progress research in the areas of student health and development, family development, young or emerging adulthood, and relationship education.

## **CHAPTER 2**

### **THEORY**

The theoretical basis for this study was the socio-emotional resituating framework (SERF), an interdisciplinary perspective that blends McGoldrick, Carter, and Garcia-Preto's (2011) multicontextual framework, social exchange theory, social capital, and the re-centering process (Homans, 1958; Putnam, 2000; Tanner, 2006). This chapter synthesizes this framework, which I applied to rIQ's programming and which consists of two parts: a) conceptual theory; and b) theory of change. In addition to outlining and describing this framework, this chapter also briefly describes and summarizes the grand theories from which SERF draws, which include ones from the disciplines of psychology and the family sciences. An overview of these frameworks will set the stage for SERF by outlining how college student development and adjustment are nested within significant social relationships in the social context.

#### **Psychosocial Development Theory**

rIQ was originally grounded in the psychosocial development theory, which is a psychoanalytical theory of human development (Erickson, 1968; 1980). This perspective holds that development occurs through an ongoing person-environment interaction. Because of its foundational role in both rIQ's programming and this study's theoretical stance, I will briefly summarize the psychosocial developmental perspective before explaining how it applied to my study. Following this, I will do the same for Emerging Adult Theory, a developmental theory that not only follows Erickson's stage-based

perspective but outlines the unique developmental challenges that young adults face when they enroll in higher education (Arnett, 2004).

### *Origins of the Theory*

Scholars most frequently locate the origins of psychosocial development theory in Erik Erikson's (1968; 1980) seminal work on adolescent to adult identity development. Although his work was based on Freud's psychoanalytic perspective on individual development, it deviated from Freud's work in two important ways. While Freud saw development as ending in childhood and as a product of shifting internal dynamics, Erickson described human development as occurring across the entire lifespan and as a product of ongoing person-environmental interaction. Situating the person in social and historical context, he outlined an eight-stage developmental framework that addressed the influence of others and social institutions. Each stage was distinguished by a crisis or turning point that the person had to resolve through "the balancing of the internal self and the external environment" (Evans, Forney, Guido, Patton, & Renn, 2010, p. 49). Erikson's (1968) perspective of growth and development was based on the epigenetic principle, where "anything that grows has a ground plan and...out of this ground plan the parts arise, each part having its time of special ascendancy, until all parts have arisen to form a functioning whole" (p. 92). He proposed that the specific crisis or developmental challenge of young and full adulthood involved establishing intimate or committed relationships with others, the failure of which can lead to isolation or emotional stress.

This theory was applied to my study's theoretical foundation. Its central premise of human development as occurring through the person-social environment interaction was



utilized to set the theoretical tone of my study. Adapting this principle, I propose that development in young adulthood occurs through the dynamic interchange between the individual and their social environment. The manner to which young adults strive to intimately connect with their peers, socially integrate into their new community, and reorient their relationship with their parents was shaped by their developmental history. For example, the attachment history between children's behaviors, perspectives, and expectations of the self and others is influenced by their attachment with their parents. Children who come from psychosocially healthy upbringings are more likely to form healthy relationships than those coming from abusive homes.

### ***Emerging Adulthood***

In the last two decades, developmental psychologists who adopted Erickson's stage-based perspective, most notably Jeffrey Jensen Arnett (2000; 2004), introduced the concept of a development stage situated between adolescence and adulthood. They called this stage *emerging adulthood* and argued that it represents a distinct developmental period that occurs specifically among "18- to 29- year olds in industrialized societies" (Arnett, Kloep, Hendry, & Tanner, 2011, p. 14). Typically beginning with their launch from their context of dependence, emerging adulthood is characterized by individuals' independence from committed adult roles, "such as marriage, childbearing, and establishing a new career" (Amato & DeBoer, 2011, p. 27).

For the college bound, emerging adults enter in a social context ideal for adult role exploration. On the one hand, many higher education practices are grounded in philosophical and literary traditions that promote the journey towards learning about

oneself (Astin, Astin, & Lindholm, 2011). On the other hand, higher education offers a plethora of majors, courses, career choices, relationship opportunities, and worldviews from which students choose. In response to these incentives, many young adults sample a variety of adult roles and life experiences in a self-focused identity formation quest. Arnett's theory plays an important role in my research. I've adapted a significant part of his theory to explain the unique developmental challenges central to young adulthood. Specifically, I've adapted his idea that identity exploration and formation in terms of one's spiritual and social identity are the central psychosocial development task of this period.

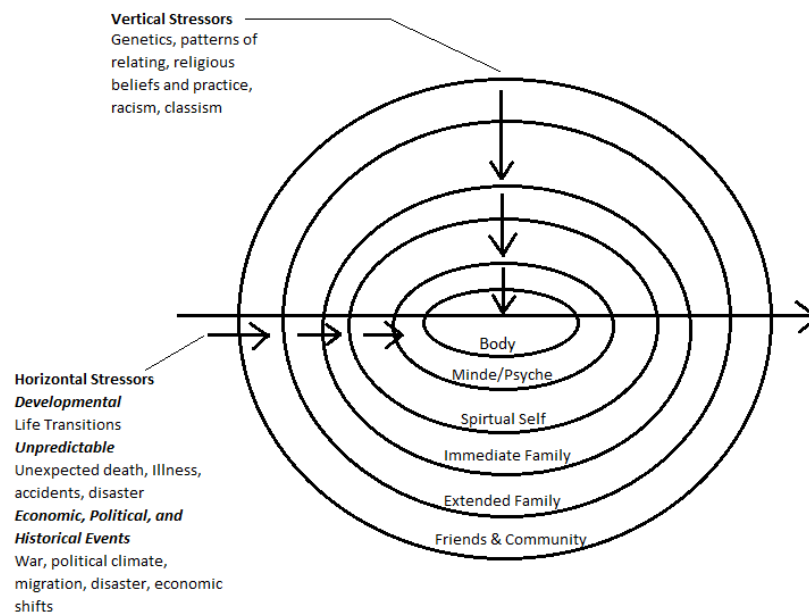
### **Family Science Frameworks**

The following sections will provide an overview and comparison of the three primary family science theories upon which SERF is based. Individually, each of these frameworks bring light to different aspects of the social and emotional nature of the home to college transition. What distinguishes these theories from the psychological ones in the previous section is their emphasis on how relational history, social processes, and the social context of young adults shape the home to college transition. The goal of this section is to theoretically demonstrate how young adults' transition are relational in nature.

### ***Expanded Family Life Cycle***

The expanded family life cycle theory considers young adulthood to be a period of launching and leaving one's context of dependence (McGoldrick et al., 2011).

Operating on the principles that human autonomy is a delusion and that healthy development occurs in a “balance between connectedness and separateness, belonging and individuation,” this framework holds that individual development does not occur apart from family, but rather occurs within its context (McGoldrick et al., 2011, p. 5). This model, which focuses on the influence of the family, as well as other significant relationships in the social environment, situates the individual at the center of a social ecology, as depicted in Figure 1.



**Figure 1.** Adapted Multicontextual Framework. Adapted from *Individual, Family, and Social Perspective: The Expanded Family Cycle* (4<sup>th</sup> ed.), by M. McGoldrick, B. Carter, and N. Garcia-Preto. Boston, MA: Allen & Bacon.

### Integration of Time

Although there are similarities between this model and the social ecology model, what distinguishes the expanded family life cycle is the schematic integration of time along vertical and horizontal axes (McGoldrick et al., 2011). Flowing downward along

the vertical axis are the historical issues found and transmitted through families (e.g., genetics, religion, culture, loaded family issues, psychological issues, biological heritage, and attachment) and society (e.g., cultural and societal histories, social hierarchy, stereotypes, and gender). Along the horizontal axis are the various developmental challenges and unpredictable influences that college students, their families, and society face as they pass through time (e.g., life transitions, economic recession, accident, untimely death, and natural disasters). The horizontal axis also “relates to community, connection, current events, and social policy as they affect a family or individual at a given time” (McGoldrick et al., 2011, p. 7). Taken together, this model depicts how people live their lives given society’s inherited (vertical) social norms, stereotypes, prejudices, and economic structures. This integration of time permits an examination of the how the various levels of the social context cross-pollinate and manifest in individual developmental trajectories.

### ***Social Exchange Theory***

Researchers have applied social exchange theory, which is a multidisciplinary mixture of economics, behavioral psychology, and sociology, to study marriage, romantic relationships, and other close relationships (Nakonezny & Denton, 2008; Hand & Furman, 2008). The most self-deterministic theory of the ones reviewed in this work, the core idea of social exchange theory is that people are driven to maximize rewards while reducing costs (Sabatelli & Shehan, 1993; Thibaut & Kelley, 1959). This model assumes that individuals are rational beings who act within the limits of the information they possess, and they calculate costs, rewards, and alternatives before acting.

Although researchers have been able to distinguish multiple types of rewards and resources, they generally believe that such rewards and resources bring satisfaction, pleasure, and gratification to a person within a relationship (Blau, 1964; Foa & Foa, 1980). Costs, on the other hand, are the factors that cause worry and stress, sacrifice, and increased dependence, particularly in close relationships (Safilios-Rothschild, 1976). Further, this theory “seeks to explain the development maintenance...and decay of exchange relationships in terms of the balances” between the rewards, resources, and costs that are naturally exchanged in social transactions (Nakonezny & Denton, 2008, p. 402).

### ***Social Capital Theory***

Social capital theory, according to Putnam (2000), refers to the “connections among individuals—social networks and the norm of reciprocity and trustworthiness that arise from them” (p. 19). Intuitively, the basic idea is that one’s social network encompasses friends, family, and other stable associates who can be called upon during a crisis or serve as assets towards obtaining gainful advantages, such as edging ahead of other job applicants (Woolcock & Narayan, 2000). A durable asset, the social network’s benefits encompass both private and public sectors of life (Adler & Kwon, 2002). For instance, an alluring private goal for the college freshman during the first few weeks of the college term is to establish bonds with others and/or a social network (Cantor, Kimmelmeier, & Basten, 2002; Hartley, 2011).

For the wider context or community, social capital facilitates the investment of concrete and social resources, promoting a mutually beneficial and reciprocating

environment (Putnam, 2000). For example, my classmates and I benefit from a university that promotes social cohesion among its community through various school-led activities. Further, a social community with an ethos of trustworthiness not only has higher levels of civic engagement among its members, but it is also better equipped to confront pervasive vulnerabilities, such as student mental health, loneliness, and dropout (Putnam, 2000).

Although the advantage of a social network exists because of the social structure that surrounds the individual in his or her given location (e.g., university community that assembles and organizes human interaction), it is not necessarily context specific. The connections formed in one setting can be transferred and/or transformed in another (Adler & Kwon, 2002). For instance, university students can use the relationships that they have established in college to assist them later with their search for employment.

Each of the previously outlined framework were integrated into my study. The Expanded Family Life Cycle's emphasis on how the launch from the home is a relational process operates as the theoretical base. The other family science frameworks along with psychosocial theory were analyzed, deconstructed, and woven together through the lens of this framework. Social Exchange Framework was used to explain the social transactional process that occurs throughout this transitional process. Finally, Social Capital Theory's emphasis on the role of social network on individual growth and development functioned as the overcasting umbrella to (a) demonstrate and explain the expansion of young adult's social networks during the transition as well as (b) its role in determining long-term adjustment outcomes. In the next section, I will compare these three family science frameworks with the intent of setting up the stage for theory synthesis.

## **Comparison of Existing Theories**

### ***Expanded Family Life Cycle***

The expanded family life cycle is the only theory that contains a human developmental framework. Since the transition from home to college is fundamentally a developmental transition, the expanded family life cycle served as the foundation against which I compared all of the other family science theories. Following a comparison of the expanded family life cycle with social capital and social exchange theories, this section compare and contrast social exchange with social capital and will end by presenting the unique dimensions of social capital theory that set it apart from the other two frameworks.

### **Expanded Family Life Cycle Versus Social Capital**

Similar to social capital theory, the expanded family life cycle framework holds that it is impossible to understand individuals without assessing the complex human systems in which they live (McGoldrick et al., 2011). However, the expanded family life cycle theory differs from social capital because it stratifies the social environment into distinct levels of influence, within which the individual is a recipient and instigator (Evans et al., 2010). For instance, although college students should act in accordance with university-set educational and behavioral standards, different students have different instigative characteristics that invite or inhibit certain responses from peers, university faculty, and staff (Renn & Arnold, 2003).

Another point of comparative difference is the assumption of the proximity of influence. As depicted in Figure 1, the closer the system is to the individual (the family

vs. the culture), the more “felt” and direct the influence. Wider systems that surround the family and individual play a more encompassing role and influence the other subsumed subsystems in subtle yet powerful ways (e.g., cultural gender expectations).

A final difference between these two frameworks is the function of time. Time serves as a proxy for the stressors that pass through the family (e.g., inherited health conditions, dysfunctional patterns of relating, educational expectations) with unfolding life stressors (e.g., transition to college). Researchers have documented that stress is greatest during life transitions, as individuals and their families redefine and rebalance their roles and relationships with one another and with the larger community in which they live (George, 1993; Hadley, Jacob, Milliones, Caplan, & Spitz, 1974; Marcia, 2012; McGoldrick et al., 2011). The multitude of challenges that come with the transition to college qualifies as a developmentally stressful period for students and their families (Cleary, Walter, & Jackson, 2011; Lee, Dickson, Conley, & Holmbeck, 2014; McGoldrick et al., 2011).

### **Expanded Family Life Cycle Versus Social Exchange**

There are two notable differences between these two frameworks. First, the expanded family life cycle theory is a lifespan perspective, whereas social exchange theory is not. This fundamental difference results in a different understanding of the college transition, particularly the adjustment to the social conflux that naturally occurs with this transition (Cantor et al., 2002; Thomas, 2000; Tinto, 2000). Although researchers have used both frameworks to study interpersonal relationships, including close ones, the expanded family life cycle framework views familial relationships as



playing a role continually during the student's adjustment to the transition (McGoldrick et al., 2011). This differs from social exchange theory, which focuses on the development, longevity, and end of relationships based on the principle of rational cost-benefit analysis (Sabatelli & Shehan, 1993).

The second major difference is the expanded family life cycle's emphasis on the mediating social context (McGoldrick et al., 2011). Rather than focusing on the linear exchange between rewards and costs, the expanded family life cycle includes the familial and social perspectives of human interaction. For instance, alongside the students' need to adjust to their new social environment, their parents need to renegotiate their relationship as a dyad and within their extended kinship network, the community, and their larger social system. Significant emotional relationships may also play formative rather than additive roles. For instance, one study found that young women who were securely attached to their parents had an easier time forming friendships while in college (Parade et al., 2010). Similarly, Markiewicz, Lawford, Doyle, and Haggart (2006) found that mothers served as the psychologically secure base for college students regardless of whether or not the participant had a romantic partner, suggesting that mothers continue to play an important developmental role during college life.

### ***Social Exchange Theory***

Social exchange theory, which "can be viewed as valuing a separative self to the extent that rationally and self-interests are emphasized," is the most individualistic framework of the ones reviewed in this chapter (Sabatelli & Shehan, 1993, p. 397). This difference in philosophical ideology invites a different application and interpretation of

the transition to college life. At a practical level, social exchanges determine the nature of one's social networks for better or worse. For example, rewarding and reciprocating exchanges between individuals are likely to deepen as well as enrich one's social life and social networks as it promotes reciprocating relationships. The goal of comparing Social Exchange Theory with Social Capital theory in this section is to demonstrate their complementary differences.

### **Social Exchange Theory Versus Social Capital Theory**

Although both frameworks operate on the principle of equity or reciprocity, the key difference between social exchange theory and social capital theory lies in their unit of analysis. Whereas social capital focuses on reciprocity within a social network, social exchange examines reciprocity at a dyadic level. The smaller unit of analysis permits examination and understanding of causality in relational outcomes and satisfaction, tasks not easily feasible in social capital theory (Sabatelli & Shehan, 1993). This difference in frameworks extends to the notion of rewards. In social exchange, rewards have a keystone function; behavior and relational outcomes are “envisaged as a function of its payoff” (Sabatelli & Shehan, 1993, p. 396). Social capital, on the other hand, sees rewards as naturally emerging from social interaction between diverse members in a community (Putnam, 2000).

In a similar vein, social capital runs on a teleological principle of *generalized reciprocity*, where a society that is marked by reciprocity between its members produces a community of mutual giving without members expecting a reward. This principle is a direct contrast with social exchange, which has been criticized as being unable to explain

the emergent properties of altruism, when relationships are less determined by rewards and reinforcement history (Blau, 1964; Emerson, 1976; Sabatelli & Shehan, 1993).

### ***Social Capital Theory***

#### **Connecting networks**

An assumption in social capital theory that is comparatively different from the other frameworks is the principle of conjoining social networks. This principle assumes that individuals are members of multiple social networks (e.g., friendship groups, sports teams, families), and when two individuals become connected, so do their once separate social networks. An expansion of this idea is the notion that there are two broad categories of social capital: bonding and bridging capitals (Putnam, 2000). Examples of bonding capital are fraternities, college clubs, and sports teams, where memberships in these organizations “reinforce exclusive identities” (Putnam, 2000, p. 22). Examples of bridging capital include the civil rights movement and ecumenical religious organizations, which serve to generate broader identities through the union of individuals with different demographic features and backgrounds.

#### **Participant in a Community**

Finally, and perhaps the most important distinguishing feature of the social capital framework, is the assumed coexistence between social capital and civic engagement. Putnam (2000) asserted that emerging alongside generalized reciprocity is “voluntary and spontaneous cooperation [between members]” (p. 7). Social capital is widely valued not only because of its instrumental value, but also because it functions as a conduit for civil

and social participation, both of which have implications for empowerment, self-efficacy, and personal, relational, and community well-being (Christens & Lin, 2014; Sheedy & Whitter, 2009; Bandura, 1997; Evans & Prilleltensky, 2007; Cicognani et al., 2008).

### **Transition to Young/Emerging Adulthood**

People face many dynamic social and emotional demands during their transition to young adulthood, which makes the transitional process as important, if not more, than the accomplishment of key developmental milestones. As a systems-based developmental theory, SERF emphasizes the social and emotional transition among college-bound young adults. To understand as well as organize this process, SERF draws from life transition theory and the young adult re-centering process (Anderson et al., 2012; Tanner, 2006). This section describes and summarizes these theories jointly, with the goal of showing how individual developmental challenges are embedded within the social environment, which is one of the central assumptions of SERF.

### ***Transition Theory***

Anderson, Goodman, and Schlossberg (2012) defined a life transition as “any event or non-event that results in changed relationships, routines, and roles” (p. 33). An event refers to an occurrence that changes one’s life, which can be anticipated, such as graduating from high school, or unanticipated, such as the untimely death of a parent. A non-event constitutes one or more occurrences that one expected to occur but did not, such as the failure to obtain admission to college. The transition to college qualifies as a major event (Anderson et al., 2012). Individually, the transition is a psychosocially

destabilizing experience for many young adults due to the loss of significant emotional connections (Ames et al., 2011). The felt loss is thought to activate the attachment or bonding system in young adults, who are keenly interested in forming socio-emotional bonds early in their higher education careers.

The transition is also a familial one. In accordance with family systems theory, the function of each family member is related (Yanir & Guttman, 2010). Even when they are separated, the emotional relationship between parents and their young adult children is a mutual relationship that impacts every member's success in performing his or her developmental tasks. Hence, the socially and emotionally differentiating young adult challenges the entire family system to make emotional and practical adjustments (Aquilino, 2006; Amett, 2007; Bloom, 1988; Lewis & Lin, 1996, McGoldrick et al., 2011). The core of family development during this period involves members finding new meanings in their relationships with each other and their respective communities.

### ***Re-centering Process***

Complementing Arnett's (2000; 2004) emerging adulthood theory, Jennifer Tanner (2006) presented a model that highlighted the relational nature of the college transition process in greater detail than transition theory (Anderson, Goodman, & Schlossberg, 2012). She asserted that her model fit within a developmental framework because, alongside other major developmental theories, the parent-child relationship is central. Building on Arnett's emerging adulthood theory, as well as Blos's (1967) conceptualization of the second separation-individuation period and Ausubel's (1996) destabilization model, Tanner proposed a three-stage re-centering model. Re-centering

involves an individual's shifting of power, responsibility, dependence, and agency away from his or her context of dependence (e.g., family and school) and toward contexts that cultivate interdependence (e.g., peer groups, communities, and careers).

Stage 1, the launching position, begins with the adolescent embedded in his or her childhood context or family. Prior to emerging adulthood, teachers, the community, and primarily parents are responsible for “the behavior, adjustment, development, and care of their dependent children” (Tanner, 2006, p. 27). The typical marker and initiation of this stage is the legal emancipation of teens at age 18. Along with the lifting of restrictions that define legal and social dependence, adolescents are expected to make more life choices on their own (Arnett et al., 2011). Gould (1978) noted that “until the age of 16 or 18, we have only been the lowly actor in our lives—others have been the producers, directors and screenwriters” (p. 45). Although the actor (i.e., developing person) is always an agent, a person's progress towards financial autonomy, formation of personal values and beliefs, and development of an equal adult-to-adult relationship with his or her parents are commonly associated with obtaining adulthood in western societies (Arnett, 1997).

Stage 2, emerging adulthood proper, is marked by temporary role commitments in terms of education (i.e., college major), occupation, and interpersonal relationships (Arnett, 2004). Differing from adolescence is the relatively higher level of freedom to explore these vectors without the constraints of past contextual structures put forth by systems such as schools and the family (Amato & DeBoer, 2011; Arnett, 2000; 2004; Astin et al., 2011; Guiffrida, 2009; McGoldrick et al., 2011). Although no longer embedded in his or her family of origin's context, the individual remains in transitory

interdependence, as denoted with incomplete and dotted lines in Figure 1. These yet-to-be confirmed relationship boundaries in the parent-adult child relationship confront unique challenges. First is the ongoing conflict inherent in the goal of establishing oneself as separate yet connected with one's family (Tanner, 2006). At the same time, parents undergo the challenge of renegotiating their once child-parent relationships into adult-to-adult relationships while providing partial or complete financial support for their adult child (Arnett et al., 2011).

The choices and commitments that young adults make during this stage have a two-fold effect. First, as young adults move towards lifelong commitments, their adulthood roles become characterized. Second, as young adults establish their adult selves, the boundaries between the emerging adult and their families of origin become more definite. Occurring at the same, the young adults gain resources outside of the family that support their financial independence and other forms of adult sufficiency, which in turn facilitates the solidification of the boundaries between adult children and their parents (Tanner, 2006).

The close of the re-centering process is Stage 3, or young adulthood, which is marked by the establishment of a system of enduring commitments in careers and relationships. These commitments promote the solidification of adult responsibilities and roles that establish relationship stability with others. Compelling the move towards role and responsibility commitments are the emerging demands of the adult world, which encourage young adults to "maintain a consistent self, one who meets the expectation and responsibilities of these system commitments" (Tanner, 2006, p. 30). This replaces the exploratory self.

Although Tanner's and other theorists' theoretical assumptions are intriguing, they have rarely been tested and are in need of further exploration. Collectively, these life transitional frameworks shed light on the interdisciplinary and dynamic process that underlies the home-to-college transition. Rather being a self-deterministic and linear process, the many psychosocial and relational processes overlap and weave together family relationships and social relationships with adjustment and health outcomes.

### **Integrated Model: Socio-Emotional Re-Situational Framework**

This section will introduce the Socio-emotional re-situational framework (SERF), a new integrative model that merges the theoretical and empirical literature on the previously outlined psychological and family science theories with other relevant literature on the home-to-college transition. This theory is the result of a critical analysis and synthesis of the previous discussed frameworks. The reason why this synthetic framework was used as opposed to any one of the others is because (a) it reflects as well as explains the interdisciplinary nature of the college transition (b) it cross pollinates the principles and assumptions allowing for the stratification of various layers of the social context surrounding young adults, and (c) it permits the analysis of the mutual relationship between the student and their changing social and emotional landscapes. There are two parts of SERF, the conceptual theory as well as the theory of change, each will be outlined and described below.

#### ***Conceptual Theory***

Along with presenting the assumptions and principles of SERF's conceptual



theory, I will explain this perspective through its application to the three most common transitional challenges associated with HRQL as noted in the college development literature: a) reorienting family relationships; b) cultivating personal agency; and c) becoming socially integrated.

### ***Reorienting/Re-centering Oneself***

Many young adults report feeling a mixture of excitement and dread regarding their transition to college (Lee et al., 2014; Park, Edondson, & Lee, 2012; Srivastava, Tamir, McGonigal, John, & Gross, 2009). This transition may be particularly stressful for students who attend residential intuitions and move away from their families and friends (Azmitia, Syed, & Radmacher, 2008; Shaver, Furman, & Buhrmester, 1985). SERF holds that, at an individual level, many college students, particularly those who move out of their homes, are thrust into the task of ‘re-centering’ or resituating themselves (Tanner, 2006). The resituating process is not a ties-braking transition; rather, it is a move towards a blend of “contentedness and separateness, belonging and individual, interdependence and autonomy” (McGoldrick et al., 2011, p. 6).

SERF operates on the principle that the family provides the emotional security and support that are critical for young adults’ identity continuity (Dennis, Phinney, & Chuateco, 2005). On the one hand, families transmit their history, patterns of relating, genetics, and functioning via the vertical axis, giving young adults “the hand [they] are dealt” (McGoldrick et al., 2011, p. 7). On the other, the family is a social unit that shares significant emotional experiences (e.g., life transitions) as they pass through time, nurturing bonds that have lasting influence on development and mental health.

**Table 1.** Assumptions of the Socioemotional Re-Situational Framework (SERF) Conceptual Theory

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**Familial**

- Family relationships are in flux during the home-to-college transition.
- The family plays a continual role in the social and emotional processes associated with the home-to-college transition, even after launching
- Personal resilience emerges & operates through social participation afforded by significant emotional others, particularly from family members.

**Transitional**

- The home-to-college transition is a significant life transition that is social in nature
- The launching of young adults into college is not a ties breaking transition, instead its one where young adults and every family member undergo a redefining, reorienting, & realigning of their roles, expectations, behaviors, and relationships with each other.
- Adjustment to the social and emotional demands after launching has a lasting impact on mental health & academic outcomes.

**Individual**

- Identify formation, although a central process of young adulthood, is not an individual project.
- Collegians are driven to find their social place/niche within the higher education environment.
- Young adults are agents in their adjustment & adaptation to their new social environments
- Students' ability to connect to others in the higher ed. environment is contingent on their ability to read & navigate the social environment, as well as find opportunities to participate in it.

**Macro**

- The higher ed. environment promotes self-focused exploration of social, professional, & spiritual identity.
  - Cultivating social participation & belonging between students on higher ed. campuses promotes optimum adjustment & campus-wide generalized reciprocity.
  - Optimum development & resiliency in young adulthood exists in healthy interdependence between their family relationship and others in their higher ed. environment.
  - The degree to which colleges cultivate social participation & inclusion is reflected in their students' socio- emotional growth, development, & adjustment to the transition.
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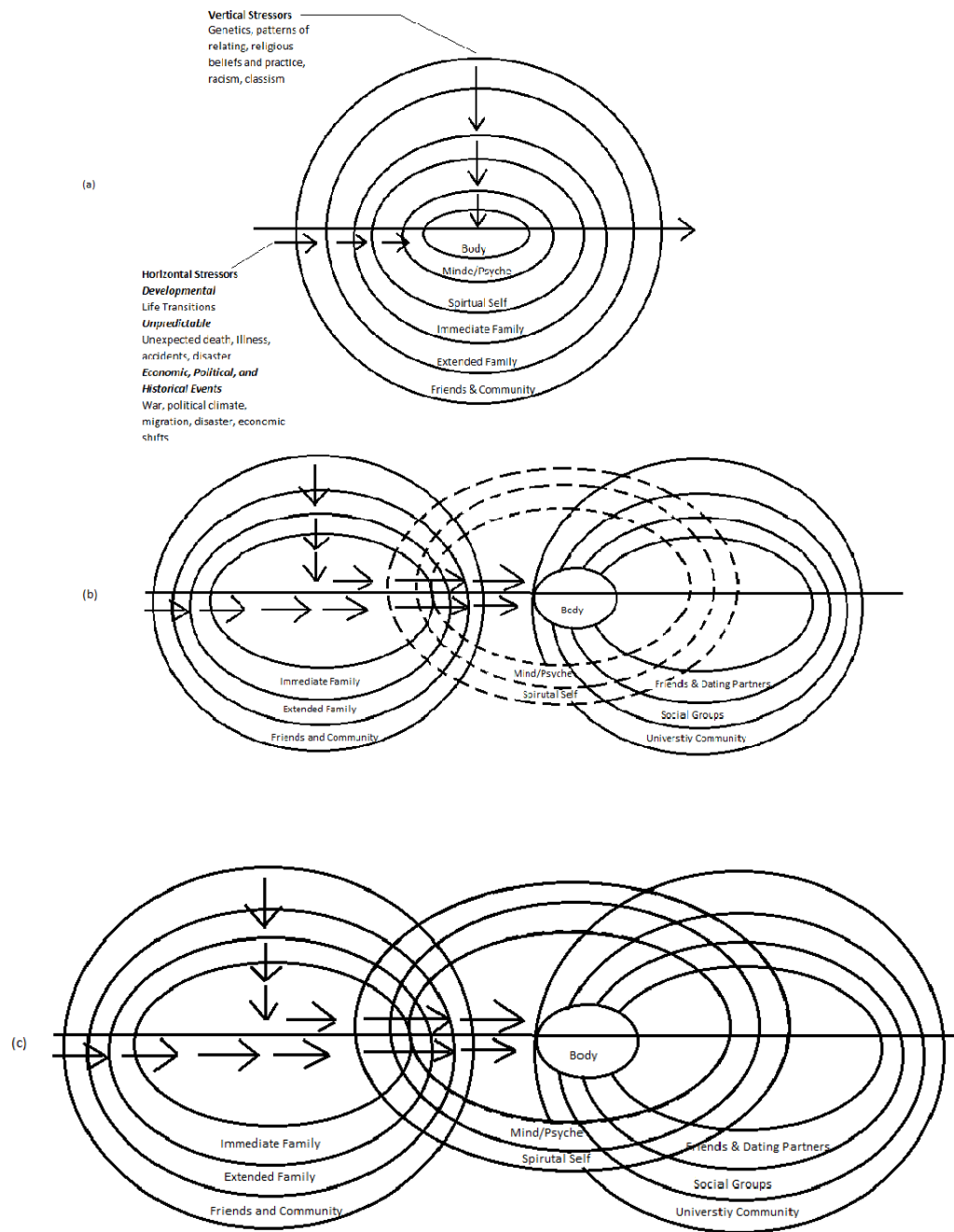
Adapting McGoldrick et al.'s (2011) expanded family cycle and Tanner's (2006) reorienting theories, the resituating process is a three-stage process, as represented in Figure 2. Before becoming young adults, adolescents are situated within their context of dependence. At this stage, adolescents are still under the direct influence of their parents, teachers, youth group leaders, and other authority figures. The marker as well as initiation of this stage's end is the legal emancipation of adolescents. As restrictions on adolescents lift, many move away from their context of dependence and into new social environments. This move is not a break of relational ties, but rather is a relational reorientation process where previously dependent relationships begin the transition towards more mature, adult ones.

In stage B, young adults undergo a social, emotional, spiritual, and relational reconfiguration. As denoted with the perforated lines in Figure 2, young adults are in a state of transitory interdependence where they strive to differentiate themselves socially and emotionally from their families while also exploring and experimenting with possible adult roles now open to them (Tanner, 2006). A natural consequence of this process is the diffusion of young adults' boundaries that previously distinguished who they were personally, socially, and spiritually (Tanner, 2006). The vertical and horizontal axes play a significant role during this process, guiding young adult choices, behaviors, and interpretation of experiences. For instance, young adults' relational histories with their parents shape their health behaviors and level of felt stress during the transition to college (Bemier, Laose, & Whipple, 2005; Holt, 2014; Larose & Bovin, 1998, Matthews, 1998; Parade et al., 2010; Paredes et al., 2014).

In stage C, the young adult has made lasting relational and role commitments, effectively resituating him- or herself. At this stage, the boundaries between young adults' minds, psyches, and spiritual selves become clear, as they commit to who they are relationally, professionally, and spiritually. Ideally, young adults have established a healthy social and emotional interdependence between their families and the significant relationships they formed in the higher education environment. Healthy interdependence refers to a balance of connectedness and separation, dependency and independence, individuation and belonging with emotionally significant others (McGoldrick et al., 2011). SERF assumes that young adults who have matured to this stage have reoriented their family relationships, and thus are able to 'return' socially and emotionally to their family-of-origin relationship as differentiated adults.

### ***Becoming Socially Integrated***

Along with expending a great deal of energy and attention on differentiating and finding themselves apart from their context of dependence, students are also driven to find their social niche or "place" in their new environments (Arnett, 2004; Azmitia et al., 2013). The task of finding one's place brings into focus two separate yet related issues: a) the ability to read and navigate the social environment successfully through b) finding outlets for participation in it (Cantor et al., 2002). SERF assumes that healthy and supportive social networks play an important role in shielding individuals from social isolation and mental health ailments. This assumption is grounded in the literature that asserts that, individually, supportive social networks cultivate a sense of belonging and



**Figure 2.** SERF three-step transition process. Adapted from *Individual, Family, and Social Perspective: The Expanded Family Cycle* (4<sup>th</sup> ed.) by M. McGoldrick, B. Carter, and N. Garcia-Preto. Boston, MA: Allen & Bacon; and from “Recentring During Emerging Adulthood: A Critical Turning Point in the Human Life Span.” In J. J. Arnett & J. L. Tanner (eds.), *Emerging Adults in America: Coming of Age in the 21<sup>st</sup> Century* (pp. 21-55). Washington, DC: American Psychological Association.





social integration, both of which have been documented to play a key role in mental health, as well as in the decision whether to drop out or persist in college (Bean, 2005; Cantor & Sanderson, 1999; Hartley, 2011; Johnson, Soldner, & Leonard, 2007; Leaper, Farkas, & Brown, 2012; Pascarella & Terenzini, 2005; Zea et al., 1995). The formation, quality, and longevity of these new social connections are contingent on the balance of rewards and costs that come in both tangible and intangible forms. Although not initially, young adults eventually evaluate the costs and benefits of their social connections before making important interpersonal decisions, such as whether to continue or end a relationship.

SERF also holds that personal resilience operates through the “[engagement] in and work with the opportunities afforded by others, either in interpersonal or group contexts” (Cantor et al., 2002, p. 177). Social participation is thought to rise alongside social integration, and together these have implications for development, adjustment, and well-being in adolescents and young adults (Da Silva, Sanson, Smart, & Toumbourou, 2004; Eccles & Barber, 1999; Cicognani et al., 2008; Smetana, Campione-Barr, & Metzger, 2006; Youniss, Bales, Christmas-Best, McLaughlin, & Silbereisen, 2002). Further, SERF operates on the principle that “identity development is not an individual project” (Azmitia et al., 2013, p. 744). Rather, it is constructed and negotiated within the context of college students’ significant emotional relationships, namely with their families, peers, university faculty, and staff, that can instill a sense of worthiness in them (Cooper, 2011; Erikson, 1968). These significant relationships have bonding and bridging functions. Both are critical for producing generalized reciprocity that facilitates cooperation between all members in the social environment (Putnam, 2000).

### *Theory of Change*

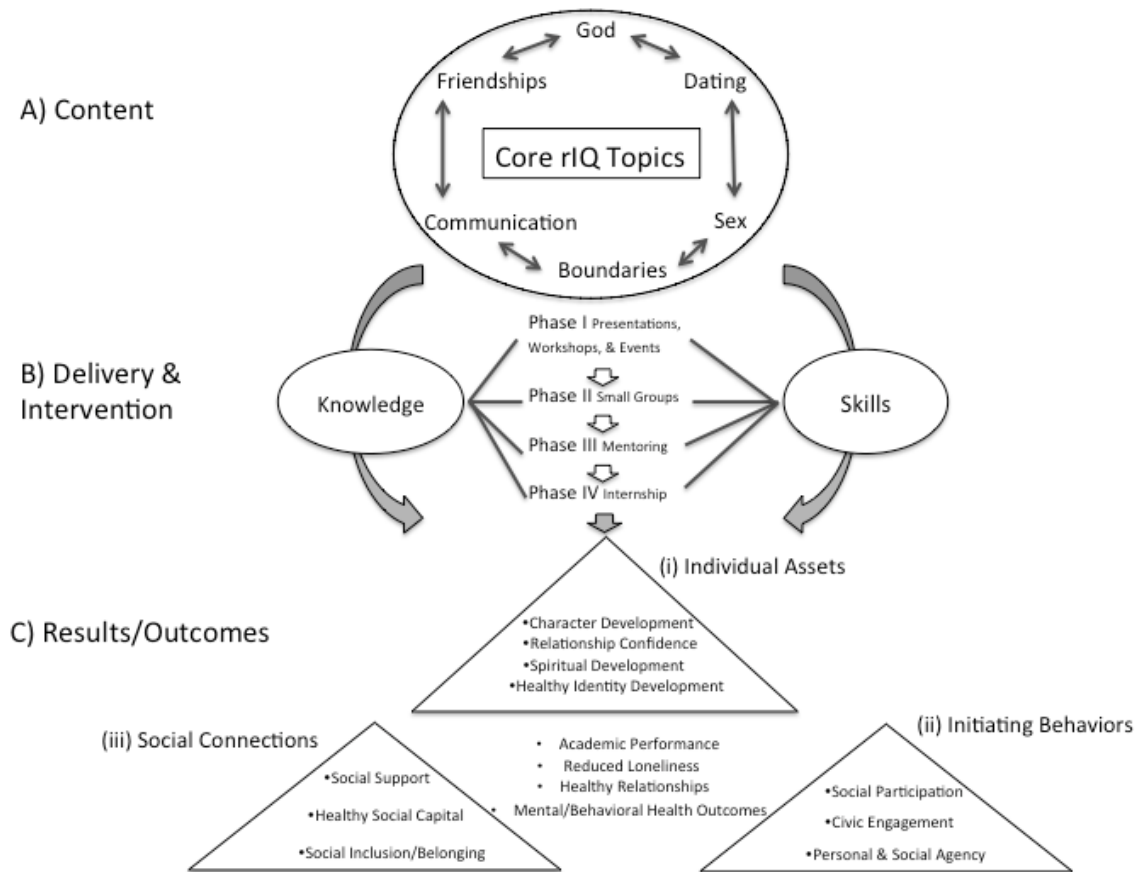
As a guideline for rIQ's programming, the theory of change plays a more applied role than the conceptual theory. rIQ's program material and delivery structure developed from a blend of college students' demands and research on the academic and health benefits of social capital, social skills, and social support. The six core topics of the rIQ program include: a) dating; b) relationship with God; c) healthy communication; d) friendships; e) relational boundaries; and f) sex. While the program developers selected these topics based on college students' perceived needs and demands, they grounded rIQ's teaching content and delivery methods in SERF's theory of change. The central premise of the theory of change is that program benefits match levels of participation and social integration. In other words, the more included a participant feels, the greater he or she will benefit from the program. To that end, the theory of change has four phases of delivery process, which is graphically represented below in Figure 3.

Higher dosages within rIQ are defined as higher levels of participation and social integration. For example, phase I participants are audience members of a one-way presentation, in contrast with phase II participants, who have open discussions with small groups about how the content applies to their lives.

		Best Course of Actions	Goals
Phase I Presentations (Lowest program dosage)		<ul style="list-style-type: none"> <li>One-way transmission of information</li> <li>Present core rIQ content in accordance with leadership manual guidelines</li> <li>Presentations take place in classrooms, dorms, auditoriums, and other secure places across the university campus</li> </ul>	<ul style="list-style-type: none"> <li>Expose and recruit participants to rIQ programming and content</li> <li>Offer participants opportunity to learn more about healthy relationships</li> <li>Start conversations about importance of healthy relationships</li> </ul>
Phase II Club Convo		<ul style="list-style-type: none"> <li>Trained student intern, faculty or college staff member, or religious leader lead 6-week group discussion and activities</li> <li>Teaching content and activities come from rIQ leadership manual</li> <li>Group sizes 5-12 young adults</li> </ul>	<ul style="list-style-type: none"> <li>Explore rIQ content in greater depth</li> <li>Facilitate social inclusion and social integration experiences</li> <li>Build healthy social networks</li> </ul>
Phase III Mentoring		<ul style="list-style-type: none"> <li>Young adult is matched with mentor who meet on a regular basis during semester</li> <li>Mentors consist of student interns, faculty or university staff member, religious leader, or other trained rIQ leader</li> <li>Mentor and young adult explore rIQ topics in depth</li> </ul>	<ul style="list-style-type: none"> <li>Socially, spiritually, and emotionally empower students</li> <li>Form as well as keep students accountable to their personal, professional, social, and spiritual goals</li> <li>Increase sense of belonging</li> <li>Come alongside students to help them discern best cause of action in life and relationships</li> </ul>
Phase IV Internship (Highest program dosage)		<ul style="list-style-type: none"> <li>Young adults deliver rIQ with in a variety of duties including but not limited to: <ul style="list-style-type: none"> <li>giving presentations</li> <li>Leading a small group</li> <li>Assisting in program evaluation and research</li> <li>administrative duties</li> <li>mentoring,</li> <li>assist in the developing new program content</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Cultivate personal agency &amp; healthy identity development</li> <li>Promote rIQ's mission of promoting healthy relationships among and through participants</li> <li>Mobilize and equip peers as resources for other students</li> <li>Give young adults opportunity to develop service, research, organizational, and/or leadership talents</li> <li>Equip students to become agents of healthy relationship change within their communities</li> </ul>

**Figure 3.** Program delivery roadmap.





**Figure 4.** Program theory of change and intervention roadmap.

### ***Part A: Program Content***

While each topic has distinct content, teaching methods, and activities, all share the goals of transmitting healthy relationship knowledge, increasing social skills, promoting relationship health, and initiating conversations about the role of healthy relationships in young adults' lives. These shared goals weave together rIQ's teaching content. Collectively, they form an outreach program that is greater than the sum of its parts.

Although the content of each content area differs, every section consists of a blend of: a) didactic teaching materials; b) group discussions; c) supplementary

discussion activities; and d) vignette readings and analysis. All of these methods aim to promote participation and social integration. Each content area will be described briefly below, along with their rationales and importance.

## **Friendships**

This program section is about how to identify and cultivate healthy friendships, as well as how to be an intentional friend to others. This section teaches these points through discussions about the importance of friendships, ways to communicate and maintain friendships, and types of friendships. To address these topics, students discuss questions such as: Why do we want friends? How do you prefer to communicate with your friends, and what are the benefits of using those methods? Have you ever had fair-weather friends? In what ways has a friend been helpful to you when you were in a difficult place? The activities that supplement the discussion questions include writing a list of questions that one would ask a good friend in order to know him or her better, a speaker-listener activity, the reading of vignettes, and other activities listed in the rIQ workbook.

Friendships are typically a salient topic among young adults. Peers and friendship are often the social gateway to the community contained in the higher education setting. Within a developmental ecological perspective, friendships can lead to an increased connectedness with the university, thus cultivating academic motivation, adjustment to college, and the flow of key resources that promote well-being and academic performance (Li, Frieze, Nokes-Malach, & Cheong, 2013; Nordstrom, Goguen, & Hiester, 2010; Buote et al., 2007). This occurs through the mechanisms of forming microsystems that connect an individual to other, larger systems embedded within the

community that provide or circulate key resources, such as student organizations, faculty, and school policies.

### **Healthy Communication**

This section teaches the importance of healthy communication in relationships and how communication facilitates deeper relationships with others. The topics taught in this section include self-monitoring and regulation of emotions during conversations, conflict styles, and healthy nonverbal and verbal communication during conflict. Students learn and apply these skills through discussion topics on identifying, understanding, and regulating emotions and on conflict styles. For example, students might discuss the following question: What might you say to identify your primary emotion during a conflict? A sample discussion prompt might also ask the students to discuss the strength and weakness of each style of conflict resolution presented to them. In addition to guided discussions and didactic instruction, students engage in activities that highlight key skills, such as pairing up with someone to practice identifying feelings verbally during a conflict, as well as reading and analyzing various vignettes.

Effective communication is arguably the critical skill that either makes or breaks the home-to-college transition. Theoretically, communication is the purposeful activity that not only interconnects all of the other core topics in the program, but also predicts social outcomes for better or worse. Communication plays a critical role in mental health and developmental outcomes, as many mental health problems are social in nature. Good communication is not only critical to renegotiation with parents, but also for social integration into the higher education community. Further, effective communication can

act as a protective factor, such as the case of frequent parent communication and less risk-taking behavior and cultivating teacher relationships that promote academic persistence and social support (Small, Morgan, Abar, & Maggs, 2011; Wang, 2014).

A distinguishing content feature of the program is its inclusion of social media communication. With rise of the Internet came a revolution in communication, which has quickly become an integral part of life (Duggan, Ellison, Lampe, Henhard, & Madden, 2015). The exploration of the consequences and etiquette of social media use may impact critical outcome variables, such as social capital and other factors that apply within and beyond the college campus (Johnston, Tanner, Nishant, & Kawalski, 2013).

Communication is the central medium through which the majority of the person-environment interface occurs, making it a relevant and indispensable skill that is found across all of the core topics. Effective communication plays a critical role in social interaction and social relationships.

## **Dating**

This section focuses on five key aspects of dating and intimate relationships during young adulthood: a) the purpose of dating; b) knowing about oneself as an intimate person; c) how to get a date; d) how to accept or decline a date; and e) how to transition into a dating relationship. Students learn and apply these topics through discussion questions, didactic teaching content, accompanying teaching content, activities, and vignette reading. An appropriate discussion question would be: What is one way you worked on being personally healthy this week in your current dating or non-dating stage? Activities could involve asking the students to share something they learned

during the session with a peer partner.

The chief reason students seek mental health services is for relational difficulties, particularly in intimate relationships (Creasey et al., 1999; Fincham, et al., 2011; Stavrianopoulos, 2015; Davila, 2011). There is emerging evidence that young adults' romantic lives are interconnected with their mental health and views of self, making this an appropriate subject for intervention (Connolly & Konarski, 1994; Davila, 2011; Larson, Clore & Wood, 1999). From a developmental standpoint, intimate relationships play a critical role in the family differentiation or socio-emotional resituating process, as they promote the negotiations of family relations (Regalia, Lanz, Tagliabue, & Manzi, 2011).

Although the “achievement and connectedness of intimate relationships” are important in the differentiation process, rIQ operates on the principle that the family remains a stable base of support and identity continuity throughout this period (Regalia et al., 2011, pp. 150-151). Additionally, the program holds that healthy development occurs though the student finding a balanced connectedness and separateness between his or her family and voluntary close relationships. The goal of this segment of the program is therefore to help students pursue and achieve balance in their dating relationships and to learn how these relationships impact their relationships with others, including their families.

### **God and Spirituality**

This section focuses on teaching how Christianity or spirituality can enhance one's college life. This section examines the college students' relationship with God or

spirituality and how that relationship can enhance their lives and personal growth. Students engage in discussions about spiritual matters, such as their relationships with God, God's calling, their relationships with each other, and activities that supplement the discussions. Students could discuss the following questions: Does God want a relationship with us? Why or why not? They may also be prompted to talk about a time they felt loved and what might change if God loves them. Discussing the important people in their lives and why they are important would also be appropriate, as would activities in which they use art to tell a story about God or about their loved ones to supplement discussions. Additionally, the reading exegesis or analysis of sacred texts and vignettes supplement discussion and teaching content.

Religion can be a powerful socializing agent, and many college students claim that their faith is important in their lives (Barry & Abo-Zena, 2014; Astin et al., 2011). rIQ operates on the principle that cultivating college students' faith and/or spiritual beliefs fortifies its key functions as: a) a meaning-making framework that promotes empowerment, purpose, and agency; b) a resource in the "healing, recovery and resilience" in the face of distress and suffering; and c) a socially unifying belief system that facilitates the formation of healthy bonding and bridging skills (Walsh, 2009, p. 32; Putnam, 2000).

At an institutional or exosystem level, faith serves three important purposes: a) promoting an ethos of purpose and belonging among participants; b) acting as the medium through which rules and boundaries of the university system are taught and instilled into young adults; and c) faith can act as the mediation through which universities can teach about the value of resources and how to transmit them in a way that

promotes university-wide generalized reciprocity (Chickering, 1969). At a familial level, faith can also serve as an important narrative tool that helps the family adapt to the changes that occur during the launch of their adult children. It can function as one of the key bridges for emotional support and identity continuity.

## **Human Sexuality**

This segment of the program provides a broad overview of the physiological process of human sexuality, followed by the interpersonal and emotional consequences of premarital sex, the dangers of sliding into a relationship rather than deciding to get into one, and, finally, how to end a relationship gracefully. Teaching content and discussion topics will center on how sex is a part of the students' lives, the consequences of premarital sex, and cohabitation. Students will explore what healthy sexuality is and how they can honor the expression of sexuality in one another. They can also explore how cohabitation and marriage are different, among other topics. Vignette reading and analysis, as well as activities, supplement the teaching content and discussion.

A topic closely associated with intimate relationships, sexuality is a key medium that promotes the negotiation of family relationships and facilitates a transition towards connection to voluntary relationships. Not exclusively a physical activity, human sexuality in its relational forms, such as attraction, is a key factor in connecting and bonding with others. A hot topic among college students, students may be exploring their sexual identities. The common undergraduate practices of "hooking up" and having "friends with benefits" demonstrate this (Helm, Gondra, & McBride, 2015; Lovejoy, 2015; Puentes, Zusman, & Marty, 2008). The implications of engaging in sexual

relationships without understanding sexuality's function in human relationships may lead to socio-emotional consequences, such as sliding into relationships versus deciding to enter them, and even physical consequences, such as sexually transmitted diseases and unintended pregnancies (Fehr, Vidourek, & King, 2015). rIQ aims to disseminate critical information about the relational impact and implications of physical and non-physical sexuality for young adults, not only to reduce sexual violence but also to help them make informed and wise decisions about their budding sexual lives.

### **Social Boundaries**

This segment of the program teaches about interpersonal boundaries, what they are, how they work, types of boundary violations, and how to set boundaries with different types of people/relationships. Teaching and discussion content instill awareness about boundaries that will help students define their own boundaries. Students identify and discuss some of society's laws and boundaries, as well as what boundaries people might have. There are also discussions that apply the knowledge to the students' friends and relationships. For example, they may discuss what boundaries their friends tend to push, which of their boundaries are different for close friends versus acquaintances, and their boundaries with their parents, siblings, and romantic partners. There are also activities that supplement the discussion and teaching topics. For example, students may be directed to draw a castle on a paper, write their personal boundaries on the walls of the castle, and then share their work with others. Finally, the students will read and analyze vignettes that supplement the discussions in order to understand and apply the course content.



Boundaries not only provide structure and organization in a social system, but they also dictate how its resources flow within it. During the socio-emotional resituating process, boundaries undergo significant fluctuation and/or stress. On the one hand, young adults redefine the boundaries of their relationships with their parents; on the other, their social boundaries undergo an explorative yet formative process in their new social environment. Young adults may not necessarily know how to navigate these two intersecting tasks or how to form (or reform) healthy boundaries, which puts them at risk for compromised psychological adjustment and well-being, particularly if they have poor boundaries to begin with (Perrin, Ehrenberg, & Hunter, 2013). This section aims not only to guide young adults in the boundary redefining process, but also to help those who have poor boundaries to move toward a healthy interdependence within their families, friends, dating partners, peers, and other voluntary interpersonal relationships.

### ***Part B Delivery & Intervention Methods***

As outlined in the diagram rIQ delivery roadmap (Figure 3), participants have the option of attaining higher doses of rIQ's program after attending just one phase I presentation. Phases are in ascending order. Later phases refer to higher program dosages and thus greater opportunities to explore rIQ topics more deeply, as well as attain greater opportunities to become an active participation.

#### **Phase I**

In this phase, the primary delivery methods are one-way presentations. Program participation is kept to a minimum, as qualified and trained rIQ speakers, interns, college

or university faculty and/or guest speakers present teaching material in a presentation-based manner.

## **Phase II**

Small groups meet on a weekly basis for the first or middle six weeks of a semester and discuss an rIQ core topic. Small group meetings are led by rIQ trained group facilitators, which include rIQ interns, faculty, religious leaders/pastors, university staff members, or guest volunteers. The organization, content, and activities of each of the six meetings are outlined in the rIQ leadership manual (Parmelee, 2014).

## **Phase III**

Participants at this phase can either choose a mentor or be matched with one. Mentors are generally encouraged to provide guidance to mentees on any of the subjects found within the rIQ leader manual. However, at the mentor's discretion, any appropriate topic, including personal, professional, and spiritual matters, may be included. Mentors' chief task is to assist mentees in seeing and imagining a variety of options as they face important life and relationship decisions.

## **Phase IV**

As interns, students choose to serve in any of the following capacities: a) present at any one of the Phase I presentations; b) lead a six-week small group; c) assist in program evaluation and research; d) assist in administrative duties; e) help create or plan new material for rIQ; and/or f) negotiate with rIQ staff about ways they could serve rIQ

that do not fit into any of the aforementioned categories.

### ***Part C Results & Outcomes***

Psychosocial outcomes are broadly categorized into three categories: a) individual assets; b) initiation behaviors; and c) social connections. The three psychosocial outcome triangles are organized to form a truss-like formation around student mental health, academic performance, reduced loneliness, and healthy relationships. In engineering, the assemblage of building materials such as steel beams into truss triangle formations are frequently used when constructing the infrastructure of heavy buildings such as bridges, skyscrapers, and roofs. Known for their resilience against stress as well as structural longevity, they distribute weight at two points at any given time and operate particularly well under tension. Each outcome triangle can be thought of as a nodal point in the truss formation of psychosocial resources. The strength and structural integrity of these triangular nodal points support and predict academic performance, loneliness, and relationship outcomes in collegians. Listed in triangles (a), (b), and (c) are subcategories that act as cross-beams to each psychosocial resource or category that deepen as well as fortify each. While the direct analysis of the interrelation between these variables is a future project, my work has thus far found some evidence of the interrelation between these outcomes.

### **Summary**

The review of the theoretical and empirical literature has brought to light the many individual and family-based developmental challenges that emerge during the home-to-

college transition. These challenges, which collectively place significant socio-emotional strain on young adults and their families, cannot be understood within a single theoretical framework. The complexity of the transition requires an interdisciplinary framework that combines perspectives from psychology and the family sciences. The result of a review and analysis of the frameworks and empirical literature is a new framework, the socio-emotional re-situating framework (SERF), which explains the transition in terms of reorienting oneself within two social systems.

This blended framework serves as the foundation in which the intervention program rIQ is grounded. As a theoretical perspective, SERF outlines and stratifies the social contexts that young adults are transitioning in between. Additionally, it explains the relational dynamics that are inherently a part of this process. SERF applies to my study in three ways. First it allows me to examine and explain young adult psychosocial development in terms of significant emotional relationships and HRQL. As understated parts of psychosocial development, collegians' HRQL and social relationships not only reflects but also play an important role in interpersonal and spiritual development. Secondly, it allows me to examine collegian's spirituality, specifically their faith and relationship with God over time. This topic which has seen a surge in the last few decades may play a significant role in interpersonal beliefs, relationship quality, and HRQL. Finally, this framework acts as a foundational step towards the larger goal of evaluating and developing rIQ's programming and research agenda. This dissertation acts as a pilot study to test and refine SERF, a process that will likely continue in a series of future projects.

### **CHAPTER 3**

#### **LITERATURE REVIEW**

There is mounting evidence that college students' HRQL is deteriorating, particularly in regards to mental health (ACHA, 2015; Gallanger et al., 2014). This troubling trend has worsened rapidly over the past ten years, with undergraduates reporting elevating levels of stress, anxiety and depression symptomology, relational struggles, and loneliness (ACHA, 2015; CCMC, 2015; Gallanger et al., 2014; Mistler et al., 2013; NAMI, 2012). While concerning on its own, these declining dimensions of HRQL have long been associated with other troubling trends, including college dropout, suicide, eating disorders, and addictions (Borders, et al., 2009; Cook & Hausenblas, 2011; Haomiao et al., 2015, 2012; Xu et al., 2016). While stress and anxiety levels naturally rise and influence HRQL during the home-to-college transition, falling HRQL currently outpaces the rising enrollment rate among college undergraduates (CCMH, 2015).

It is therefore critical to address HRQL among college students, not only to stop its descent, but also to address the issues that are associated with its decline. As a foundational step to addressing these issues, this study aims to examine how HRQL is interrelated with social relationships, family relationships, and spirituality. These sources, which are in flux during the launching period, are powerful yet underutilized resources that can be mobilized and integrated into intervention and preventative based programs to bolster HRQL (Fassig, 2003; Morse & Schulze, 2013; Mastens et al, 2004; Mattanah et al., 2012; Matthews, 1998; McGoldrick et al., 2011; Metheny & McWhirter, 2013; Nicpon et al., 2006; Paloutzian & Park, 2005; Putnam, 2000; Reis et al., 2009; Rhoades

& Wood, 2014; Schultheiss & Blustein, 1994; Shim & Ryan, 2012; Spivey, 2010; Springer, 2014; Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012; Thomas, 2000; Ungar, 2012; Walsh, 2012; Wilkes &). The next section of this chapter will describe HRQL and its interrelation with social relationships, college adjustment, and spirituality.

### **Health Related Quality of Life**

The use of quality of life measures have become an important part in the evaluation of health, particularly mental health, in recent years (Mendlowicz & Stein 2000; Mogotsi, Kaminer, & Stein, 2000; Quilty, Van Ameringen, Mancini, Oakman, & Farvolden, 2003; Wells et al., 1989). Typically referring to an individual's life satisfaction, personal health, well-being, and functioning, quality of life reflects the "aspects of life that make life particularly fulfilling and worthwhile" (Quilty et al. 2003, p. 406). Quality of life can further focus on the individual's impression of his or her own functioning. Called the health-related quality of life (HRQL), this concept refers to an individual's personal assessment of his or her "physical, mental and emotional, and social functioning" (ODPHP, 2010, p. 1).

Although subjective in nature, HRQL provides valuable information that compliments an individual's clinical profile (Anye et al., 2013; Katsching 1997; Mogotsi et al. 2000). Unsurprisingly, researchers have found a positive association between HRQL and psychopathology among adults; the worse adults felt about their quality life, the more symptomology they reported. Wells et al. (1989) for example found greater complaints of depression, poor physical functioning, inept social role functioning,

somatic complaints, and perceived physical health problems among patients afflicted with chronic depression. Similarly, Schonfeld et al. (1997) found that major depressive and anxiety disorders were more powerful predictors of low HRQL scores than post-traumatic stress disorder, panic disorder, and some medical conditions (e.g., heart disease, diabetes, or arthritis).

Research on HRQL in undergraduates found a similar association when it came to stressful life events and depression (Damush, Hays, & DiMatteo, 1997; Monahan, Bracken-Minor, McCausland, McDevitt-Murphy, & Murphy, 2012). In other studies, college students' HRQL has been linked to alcohol abuse and their spirituality (Anye et al., 2013; Monahan et al., 2012). Specifically, research has found a positive association with student spirituality and participation of on-campus religious activities and HRQL. Additionally, there was an inverse relationship between spirituality and alcohol use. While these studies collectively provide some insight into the relation between HRQL, health behaviors, and college success in undergraduates, they do not answer questions regarding how these associations develop over time. Additionally, these studies did not examine how HRQL can be promoted to improve these dimensions of health.

### ***HRQL and Social Relationships***

In the face of deteriorating HRQL among many college undergraduates, educators and researchers have sought to identify and understand the interplay of factors that contribute to this troubling trend (ACHA, 2014). Researchers who have approached this task from a psychosocial or family science standpoint have identified social relationships as a critical predicting factor. In the empirical literature, college students reported

relational problems as one of the greatest and most common stressors that compel them to seek help or drop out of school (Berger, 1997; Credé & Niehorster, 2012; Fincham et al., 2011; Hurst, Baranik, & Daniel, 2012; Keup & Stolzenberg, 2004; Tinto, 1993; Woosley & Shepler, 2011). Conversely, researchers have found that healthy and supportive relationships, as well as social integration, positively predict college adjustment, academic longevity, and psychosocial well-being (Azmitia et al., 2013; Becker, 2008; Bluc, Ellis, Goodyear, & Hendres, 2011; Brannan, Biswas-Diener, Mohr, Mortazavi, & Stein, 2013; Credé & Niehorster, 2012; Fassig, 2003; Guiffrida, 2009; Larose, & Bovin 1998; f, Zaharakis, & Benotsch, 2014; Schulenberg, & Zarrett, 2006).

From a social ecological standpoint, significant social and family relationships collectively make up the young adult's social context. While the individual is an agent within his or her social context, the people within them are a source for decision-making and personal judgments, including the impression of one's health status. For instance, there is documentation that emotional and social support from family and friends during the home-to-college transition are critical to self-reported health and well-being (Adams, Ryan, & Keating, 2000; Almquist et al., 2014; Reis et al., 2009; Wintre & Sugar, 2000). Additionally, the task of finding one's social niche within the higher education context plays a similar function, predicting not only college persistence, but also adjustment and loneliness, all of which are associated with HRQL (Azmitia et al., 2013; Lamis et a., 2014; Nicpon et al., 2006; Quan, Zhen, Yao, & Zhou, 2014; Shaver et al., 1985). The awareness of personal and emotional difficulties typically arises from everyday interpersonal omissions. These omissions often compel young adults to seek information, particularly relationship advice.



### ***rIQ: Relationships and HRQL***

Utilizing this information as a springboard, an appropriate practical response by higher education institutions and educators would be forming or adapting an evidenced-based relationship education program. rIQ seeks to become such a program, and an important step in that process is for rIQ to ground itself in the empirical literature and a sound theoretical framework. SERF, described in Chapter 2, provides a developmental framework that draws from the ample theoretical and empirical literature that documents the social nature of HRQL, the college transition, and adjustment process. This model, which functioned as the theoretical basis for this study, operationalizes the social, emotional, and spiritual transition inherent to this life transition. At a glance, the rIQ model unveils the innately interdisciplinary nature of this life transition. For the remainder of this chapter, I will review and synthesize the literature that describes this transitional period. The goal is to gain a thick description of how social relationships are woven into a variety of college student adjustment and health outcomes. The questions that both drive and organize the remaining part of the chapter are: a) what is the social nature of the home to college transition; b) how do social relationships influence college student development and adjustment; c) how does spirituality influence transitional outcomes and health among college students; and finally d) what is the literature and theory that grounds rIQ's programing and long term empirical agenda?

### **Adjustment to College**

Concern about the manner in which students adjust to college is reflected in the many orientation programs offered by many colleges and universities, as well as in the

substantial educational research on the subject (Credé & Niehorster, 2012). Researchers consider the transition to college to be an important developmental milestone that has reverberating effects on young adults' psychosocial health and well-being. While a systematic coverage of the literature is beyond the focus of this study, this literature collectively points to the interdisciplinary and relational nature of the home-to-college transition (Azmitia, 2013; Baker & Siryk 1984; Hickman & Andrews, 2003; Larose & Bovin, 1998; Lidy & Kahn, 2006; Matthews, 1998; Nordstrom et al., 2014; Schneider & Ward, 2003; Schultheiss & Blustein, 1994; Yi, Yong-hong, & Chui-kai, 2015).

### *Theoretical Vectors of Adjustment*

There is substantial agreement among education researchers about how adjustment is structured. Many fall in line with Baker and Siryk's (1984) theoretical taxonomy of adjustment. This taxonomy has four broad categories, including academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment (Borow 1947; Baumgart & Johnstone, 1977; Kramer, 1980; Munro, 1981). Academic adjustment refers to the degree to which students adapt to their academic demands. According to Baker and Siryk (1984), academic adjustment includes college students' engagement with their schoolwork, adequacy of their study efforts, and attitudes towards their study. Social adjustment reflects the degree to which college students integrate themselves into the university's social ecology by participating in campus activities, meeting new people, and making friends. Conversely, this vector also includes loneliness and missing one's family. Personal and emotional adjustment reflects the degree to which students experience distress, in the form of stress and anxiety, and/or

physical reactions in the university context. Finally, institutional attachment is the degree to which students identify with and become attached to the university community of which they are a part.

The trajectories and outcomes of each these four categories are not mutually exclusive, but rather are contingent on the processes and outcomes of one another. For example, researchers have found that students' peer relationships are determinants of academic persistence and performance (Aslam, Shahzad, Syed, & Ramish, 2013; Bliuc et al., 2013; Nicpon et al., 2006; Rice, Barth, Guadagno, Smith, & McCalum, 2013). Additionally, there is evidence that family-of-origin relationships have implications for social adjustment after launching (Adams et al., 2000; Allen, Häuser, O'Connor, & Bell, 2002; Azmitia et al., Brannan et al., 2013; Metheny & McWhirter, 2013; Rhodes & Wood, 2014). Social relationships underpin as well as bridge these four categories; how well students navigate the various social networks in higher education, how healthy their social relationships are, and how successfully they differentiate or reorient their family relationships set the tone and pathway of adjustment for all four adjustment categories. For the remainder of this chapter, I will review and synthesize the literature that has examined how interpersonal relationships among young adults interplay with HRQL and college adjustment. I will pay special attention to how relationships act as a nexus through which college adjustment occurs.

### ***Relationship Health and Adjustment***

A review of the literature suggests that the key variables that influence college adjustment may be categorized into eight categories, six of which relate to college

students' relationship health. In the relational model of development, optimum functioning occurs through meaningful and reciprocating connection with significant emotional relationships within the individual's context (Jordan, 2010). Relationship health is a dynamic construct, implying that individuals grow towards each other, experience mutual empathy, are authentic, and are committed to working through relational difficulties (Jordan, 2010).

For this study, relational health reflects two interpersonal dimensions: the quality of significant relationships, and college students' relationship attitudes. These interrelated constructs fall in line with Jordan's (2010) perspective of development through relationships, as the dynamic interrelation between these constructs promotes growth towards others (Lenz, 2014). Significant relationships refer to young adults' significant emotional relationships found in both their context of dependence (e.g., parents) and higher education environment (e.g., friends). Attitudes have to do with one's confidence in one's interpersonal skills, as well as the degree to which they align with rIQ healthy relationship beliefs. As a program, rIQ holds principles of what constitute healthy relationship beliefs. Developed and grounded in a synthesis of established relationship education curriculum and empirical literature, rIQ assumes that these principles promote relationally healthy individuals who will later form healthy marriages and families. Although thoughtfully formed, these healthy belief principles are untested and underwent their first systemic analysis in this study. A brief description and summary of the six social domains that have been documented to promote health and adjustment among college students are summarized below.

## **Experiences in College**

Students' experience of college is likely to predict their adjustment. Orientation programs that outreach to college undergraduates are likely to promote positive experiences, as they help individuals meet and connect with new people, acquaint them with support resources, and provide an overview academic demands (Abe, Talbot, & Geelhoed, 1998; Morse & Schulze, 2013). Conversely, there is abundant literature on the effect of negative experiences, which range from general negative experiences to more specific events, such bullying, experiences of aggression, or lack of positive experiences (Beyers & Goossens, 2002; Brooks & DuBois, 1995; Jantzer, 2006; Klem, 2008; Nansel et al., 2001, Napoli & Wortman, 1997; Rice, Vergara, & Aldea, 2006). The central theme of this body of work is that first year students with proportionally more positive social experiences in college are more likely to adjust well to the social and academic demands of higher education.

## ***Self Evaluation***

Researchers have proposed that a variety of individual traits facilitate undergraduates' adjustment to college (Aspinwall & Taylor, 1992; Becker, 2008; Brooks & DuBois, 1995; Fulton, Marcus, & Zeigler-Hill, 2014; Kurtz, Puher, & Cross, 2012; Puher, 2009; Schnuck & Handal, 2011; Wintre & Sugar, 2000). Self-evaluations of core traits, such as locus of control, self-esteem, health, and self-efficacy, may also influence adjustment. College students who reported high levels of "core self-evaluations are likely to be characterized by higher level of self-confidence and optimism which is likely to make the formation of new social relationships easier" (Credé & Niehorster, 2012, p.

137). In the same vein, high self-evaluation could reflect social or academic adjustment and good health, which collectively predicts adjustment and health.

### *State and Affective Traits*

In addition to more stable traits such as personality, a variety of affective traits and states have been documented to interplay with adjustment and health. Researchers have found that affective states, such as depression symptomology, loneliness, and stress, as well as more trait-like characteristics, such as a general affect state, were associated with adjustment (Beyers & Goossens, 2002; Fassig, 2003; Quan et al., 2014; Wohn & LaRose, 2014; Brooks & DuBois, 1995; Conley, Travers, & Bryant, 2013; Karasick, 2004; Mathis & Lecci, 1999). However, even with extensive examination, the interplay between adjustment, affective states, and affective traits has been difficult to study. However, scientists assume that this interplay is influential in shaping the nature of social interactions and experiences (Credé & Niehorster, 2012).

### *Social Support*

Characterized as a buffering mechanism, the substantial literature on the role of social support and academic adjustment in college students has operated on a stress-model, where relationships function as an intangible yet powerful resource (Boulter, 2002; Nicpon et al., 2006; Rice et al., 2013; Ungar, 2012; Walsh, 2006; Wilks & Spivey, 2010). Social support appears in two broad forms: 1) faculty and staff, who impact academic adjustment; and 2) family and friends, who more likely benefit the personal-emotional and social dimensions of adjustment (Credé & Niehorster, 2012). Finding and

establishing social capital or social networks have long been documented as critical to the successful transition to college, or any new social environment for that matter (Anderson et al., 2012; Azmitia et al., 2013). This is because developing one's sense of social identity is important in establishing an inner compass for career and choice of activities while in college (Bean, 2005; Leaper et al., 2012; Zea et al., 1995). Conversely, identity formation, arguably the central task of emerging adulthood, is constructed and negotiated within significant social relationships (Azmitia et al., 2013; Syed, Azmitia, & Cooper, 2011).

### ***Relationship with Parents***

The launch from the home and entry into college is a single transitional event that represents an important psychosocial step for young adults (Mattanah et al., 2004). While removal from the direct support and influence of their parents may be a socially and emotionally significant event for young adults, the adjustment process that follows is powerfully influenced by the quality and nature of the parent-young adult relationship. Many researchers have used parent-child attachment theories to identify factors that promote or hinder adjustment, particularly in terms of levels of secure attachment and parenting styles (Holt, 2014; Hickman & Andrews, 2003; Schultheiss & Blustein, 1994; Wintre & Sugar, 2000). For example, in studies of the emotional and psychological aspects of the transition into young adulthood, some researchers have tested the interplay between young adults' personal characteristics and attachment patterns and early childhood experiences (Arnett, 2007; Bemier et al., 2005; Coté, 2006; Galambos, Barker, & Krahn, 2006; Roberts, O'Donnell, & Robins, 2004; Schulenberg & Zarrett, 2006;

Yanir & Guttman, 2010). Others have examined family characteristics, including how the parent-adolescent relationship affects young adult adjustment to independence (Allen et al., 2002; Masten et al., 2004; Noack & Buhl, 2004; Rusconi, 2004).

Some researchers asserted that parents serve as a secure base for maturing youth, who later as young adults consolidate their differentiated identity and cultivate their autonomy (Hardie, 1999; Rothbaum & Trommsdorff, 2007). Others suggested that an emotionally interdependent relationship between parents and their emerging adult children is critical to the development of social and emotional autonomy, thus promoting healthy adult development (Haley, 1997; McGoldrick et al., 2011; Olson, 1986; Pittman, 1987; Tanner, 2006). Regardless of their focus, most theorists on this subject agree that the transition to adulthood is a process that encompasses the entire family (Yanir & Guttman, 2010).

Although the theoretical and empirical literature has long assumed that finding one's own place in the adult world apart from family is one of the central tasks of young adulthood, there is emerging evidence that young adults maintain ties with their family even after being launched (Stephens et al., 2012; Carlson, 2014; Metheny & McWhirter, 2013; Agliata & Renk, 2008). Markiewicz et al. (2006) for instance found that mothers served as the psychologically secure base for young adults, regardless of whether or not the participant had a romantic partner. Similarly, Brannan, Biswas-Diener, Mohr, Mortazavi, and Stein (2013) found that perceived support from family, not friends, was predictive of well-being among college students. Furthermore, Hoefer and Moore (2010) found that, on average, college students were in contact with their parents an average of 13 times a week, which was a jump from 13 times a year among those born in the 1970s



and earlier. This finding suggested that parents played a continual role in their adult children's lives even after launching.

### ***Relationship/Social Anxiety***

In his model of the home-to-college transition, Tinto (1993) classified two types of transition forces at work: external (i.e., finances, obligations) and internal (academic difficulty, loneliness, adjustment). Launched young adults who cope with internal stressors that come from mental health conditions are particularly vulnerable to adjustment problems that compromise the longevity of their higher education careers (Parcerella & Terenzini, 2005). One troubling mental health ailment that typically worsens among traditionally aged college students is social anxiety disorder (SAD) (Nordstrom et al., 2014). According to Nordstrom and colleagues (2014), young adulthood is a dangerous age range between the onset of SAD, which occurs between ages 10 to 16, the stabilization of symptoms around age 19, and the solidification of symptoms after the age of 24.

This is troubling, considering that many college-bound young adults have interpersonal achievement goals (Ryan & Shim, 2008; Shim & Ryan, 2012; Horst, Finney, & Barron, 2007). These social achievement goals, which refer to developing greater social skills and demonstrating social competence, such obtaining positive feedback from others, play an important role in students' perceptions of their social relationships and well-being later in college (Elliot, Gable, & Mapes, 2006; Horst et al., 2007; Molden & Dweck, 2006; Ryan & Shim 2008). Prior research and theory suggests that social achievement goals among first year college undergraduates set in motion

different processes that predict later social behaviors, adjustment to college, and mental health (Shim & Ryan, 2012).

### ***Relationship with God***

This final segment of the chapter outlines how students' spirituality, specifically their perceived relationship with God, is related to their HRQL. This section has two parts. The first part reviews and synthesizes the empirical literature that demonstrates the relationship between spirituality and HRQL. The second summarizes rIQ's empirical history in relation to this topic.

Although deserving of its own study, I would like to emphasize that college students' relationships with God plays an important role in their adjustment, HRQL, and well-being. In the last few decades, there has been burgeoning interest in young adults' spiritual and religious development, particularly as more researchers recognize the significant developmental and social shifts that occur during this period of life (Arnett, 2004; Astin et al., 2011). Religiosity and spirituality are constructs with complex and diverse conceptualizations (Hill & Edwards, 2013). In general, religiosity is the extent to which an individual holds and adheres to a system of beliefs and practices regarding a divine power or figure (Jordan, Masters, Hooker, Ruiz, & Smith, 2013). Spirituality refers to an individual's ultimate meaning or purpose in life, a higher calling towards compassion and love through the "personal, transcendent, and characterized by qualities of relatedness" (Astin et al., 2011, p. 5). Unlike religiosity, spirituality is more self-deterministic in tone and does not require belief in a higher power (e.g., God) or sacred doctrine (e.g., Bible) (Hill & Edwards, 2013).

While distinct, there is considerable overlap between these two constructs. At the heart of both is the philosophical aim of cultivating meaning through significant emotional relationships. For practicing Christians, God is a significant emotional figure, and many report having a “relationship” with God rather than a particular view or image of Him (Benson, & Spilka, 1973; Gorsuch, 1968; Kirpatrick, 2008; Pew Research Center, 2008; Schaap-Jonker, Eurelings-Bontekoe, Zock, & Jonker, 2008). From a developmental standpoint, along with their parents, launched young adult Christians presumably reorient their relationships with God. This assumption comes from several intersecting bodies of literature that have examined the role played by the parent-child relationship in the God concept. In one body of literature, there was consistent evidence that an individual constructs his or her God image or conceptualization based upon parent modeling (Cassibba, Granqvist, Costantini, & Gatto, 2008; Dickie et al., 2006; Gnaulati & Heine, 1997; Granqvist, Ivarsson, Broberg, & Hagekull, 2007). A separate body of work found that adolescent and young adult religious and spiritual development was shaped by parental religiosity and religious socialization (Barry & Abo-Zena, 2014; Dollahite & Marks, 2009; Myers, 2006; Smith, 2005).

As young adults depart from their context of dependence, they are no longer under the direct control of their parents, pastors, and religious or spiritual mentors. Especially among young adults who attend residential-based colleges or universities, the physical move from their homes greatly diminishes the influence of parents in their religious and spiritual lives (Barry & Abo-Zena, 2014). At the same time, young adults are interested in making their own independent decisions without parental input (Nelson & Barry, 2005). While it seems intuitive to assume that launched young adults distance

themselves from God as a natural extension of the launching and familial differentiation process, there is growing evidence that a large percentage report a strengthening of their religious and spiritual beliefs (Walsh, 2009; McGoldrick et al., 2011; Smith & Zhang, 2009; Astin et al., 2011; Lee, 2002; Lefkowitz, 2005). Within the context of the developmental challenges of young adulthood, the task of examining and personalizing their relationship with God is a socially and emotionally critical task (Arnett, 2004; Barry & Abo-Zena, 2014).

Establishing one's personal relationship with God after launching encompasses the development of a worldview, a construct critical to human survival and thriving (Arnett, 2004). Having a personalized worldview allows a person to establish a 'posture' towards the in world, which guides health behaviors and enables the person to synthesize his or her life experiences in a comprehensive and personally significant way (Anye et al., 2013; Hooker, Masters, & Care, 2014; Parks, 2011). Parks (2011) described this process:

To become an emerging adult in faith is to discover in a critically aware, self-conscious manner the limits of inherent or otherwise socially received assumptions of how life works and what counts—and to compose more adequate forms of meaning and faith on the other side of that discovery (p. 10).

Holding a belief in God can facilitate the emotional and social transition to college. On the one hand, it may guide and facilitate the process of meeting and bonding with like-minded others, thus increasing the likelihood of social integration (Bean, 2005; Hartley, 2011; Leaper et al., 2012; Merino, 2014; Pascarella & Terenzini, 2005). On the other hand, God can act as a steadfast attachment figure to whom stressed young adults

can turn for hope in the face of uncertainty (Houser & Welch, 2013; Kirpatrick, 1998; Miner, 2009; Pargament, Ensing, Falgout, & Olsen, 1990; Reiner, Anderson, Hall, & Hall, 2010; Sim & Yow, 2011, Wang, Parmelee, & Eldridge, in press).

### ***Religion, Spirituality, and Health***

While the scientific examination of the relationship between religion, spirituality, and health has extend over a century and resulted in more than 1,000 published studies, the past two decades have seen a surge in studies that persuasively documented the positive relationship between religious involvement and physical and mental health (Koenig, McCullough, & Larsen, 2001; Miller & Thoresen, 2003). One of the driving forces in this spike is health care providers' recognition of the importance of subjective evaluation of quality of life along with spirituality or religious background in health services (Ayne, 2013; CDC, 2016; Guyatt, Feeny, & Patrick, 1993). While not straightforward, researchers have documented that religious beliefs and spirituality reflect and contribute to subjective well-being, health behaviors, and treatment responsiveness (Argyle & Martin, 1991; Emmons, Cheung, & Tehrani, 1998; Kirk & Lewis, 2013; Layard, 2010; Lun & Bond, 2013; Poloma & Pendleton, 1990).

While most research on the interplay between religion, spirituality, and HRQL has focused on the elderly and ill, there is increasing recognition that religion and spirituality play an important role in subjective well-being and, by extension, health services for young adults (Astein et al., ; Ayne, 2013; Fellingner et al., 2005; Guyatt, Feeny, & Patrick, 1993; Koenig, Pargament, & Nielsen, 1998; Park et al., 2011). While it some have suggested theoretically and colloquially that religion and spirituality play an

important mediating role in health, there are less than a handful of studies that examined this association directly (Anye et al., 2013; Jordan et al., 2013). In their study of student spirituality, Anye and colleagues (2013) uncovered a direct, positive association between spiritual well-being and HRQL. Jordan and colleagues (2013) took this idea one step further by adding interpersonal relationships as a factor in their study. The results of their analysis uncovered findings that suggest that different religious and spiritual beliefs were associated with differences in interpersonal styles (e.g., warmth, gratitude, compassion), which in turn shaped interpersonal goals, outcomes, and social well-being.

In a similar vein, scholars have documented that social belonging, which is an important health factor among young adults, was mediated through individuals' perceptions of their relationships with God and social networks (Freeze & DiTommaso, 2015; Oman & Thoresen, 2006). Evidence of the interplay these factors is found in studies of how shared religious or spiritual beliefs facilitated gaining social support among adolescents and adults (Merino, 2014; Miller & Kelley, 2006).

### **rIQ Empirical History**

In March 2011, Ken Canfield, former director of the Boone Center of the Family, as well as Margaret Weber, Hannah Parmelee, and Anne Lee developed the instrument used to collect the data that I used in this study. Called the Relationship IQ inventory (Appendix A), it measures a variety of constructs that are central to the philosophical and practical interests of the rIQ program, including the quality of college students' relationships with God, parents, and friends, as well as students' interpersonal skills, confidence, healthy relationship beliefs, and mental and spiritual health. The result of a

data analysis conducted between 2014 and 2015 found a positive association between all of the aforementioned constructs. Additionally, there was a similar positive relationship between program participation, interpersonal skills, confidence, and perceived benefits of the program.

In recent publication by Wang, Parmelee, and Eldridge (in press), the authors longitudinally examined how God involvement and faith importance among college students was related to the quality of their relationships with their parents and friends, mental and spiritual health, healthy relationship beliefs, and interpersonal confidence. The researchers found that a majority of students reported: a) they saw God as a close and personal friend; b) they believed God was involved in their lives; and c) their faith in God was important to them. College students who increased or maintained a high score in the latter two dimensions over the course of a year later reported a rise in healthy relationship beliefs and the quality of relationships with their parents, and they reported comparatively better mental, spiritual, and physical health scores than their peers. These findings suggest that faith and God relationships have both a direct and indirect positive association with HRQL and that the interrelation between these constructs strengthens over time.

### **Summary**

A review of the literature demonstrated that young adult HRQL outcomes are contingent on a variety of interpersonal factors and college students' spirituality. As young adults transition to college, they work to form healthy, reciprocating relationships with their peers, along with reorienting their relationships with God and their families.

Adjustment to their changing psychosocial landscape is not only dependent on their significant relationships, but also their self-ratings of their interpersonal skills, relationship beliefs, and social experiences. Taken together, the evidence offers a compelling reason to study how social relationships, family relationships, and spirituality shape HRQL over time, both individually and interdependently.



## **CHAPTER 4**

### **METHODS**

To accomplish the three main objectives of this study, I applied several statistical analyses to data that was collected by the rIQ program between 2012 and 2014. This data consisted of information collected from Pepperdine University undergraduates of all class standings (freshmen, sophomores, juniors, and seniors) and both sexes. To test the relationship between all the key variables, I constructed and executed a series of general linear model techniques. This analysis technique not only allowed for the examination of each independent variable's contribution to HRQL scores, but also an examination of how their interdependence predicted changes in HRQL over time. I expect to publish two journal articles based on the results of this study. The first will be a data-driven paper which will focus on the results of the data analysis. Data analysis in this paper will test how collegians' interpersonal and faith lives contributed to HRQL over time for better or worse. The second will be a theory paper that is a response to the findings of the first paper. I expect that the second paper will present a more updated and refined version of SERF.

#### **Description of Dataset and Instruments**

This longitudinal quantitative study used a dataset collected by rIQ over the course of two years. The data consisted of two Pepperdine undergraduate cohorts: one from 2012 to 2013, and one from 2013 to 2014. In each cohort, rIQ collected data at two time points: a) at the beginning of the school year, or at the beginning of the fall semester, during Pepperdine University's new student orientation and b) at the end of the

spring semester. The instrument which rIQ used to collect data both times was the rIQ inventory, a battery of scales developed internally within the Boone Center for the Family (Appendix A). These measures aimed to gauge students' relationship quality across significant emotional relationships, health, abuse history, faith in God, relationship beliefs, and interpersonal skills confidence. The sample, which I assessed for this study, consisted of  $n = 369$ , with 343 freshmen (92.95%), 7 (1.89%) sophomores, 12 juniors (3.25%), and 7 seniors (1.89%). In terms of gender, 31.43% of the sample was male, and 47.42% were female. Participants' ages ranged from 17 to 23, and data collection occurred between 2012 and 2014.

### **Overview of Analytic Strategy**

The study has two specific goals. First is to examine how undergraduates develop across several interpersonal and faith variables that rIQ's program targets in its intervention. Second is to study how changes across these variables influence HRQL over time. Fulfilling these goals will lay the groundwork for future theory and program evaluation research as well as pave the pathway providing evidence of rIQ's effectiveness and efficacy. Data analysis will undergo three sequential steps. Each part will be outlined and described in the following sections.

### ***Step 1: Measurements Preparation***

#### **HRQL**

HRQL was the outcome measure in this study. To measure HRQL, I used subset of six health questions within the rIQ inventory. This measure asked participants to report

their health across six dimensions: physical, mental, spiritual, emotional, financial, and familial. Participants rated each item on a 1 to 4 Likert scale, with 1 = poor and 4 = excellent health. To provide adequate variance, I compiled these ratings into a single measure. I also ran an exploratory factor analysis (EFA) to test the inter-correlation between the variables, as well as the measure's reliability. The HRQL composite that was used for this test was constructed from an instrument without psychometric properties. This lack of psychometric properties of the instrument makes reliability testing a necessary and critical step towards assessing the reliability of results.

### **Relationship Beliefs**

rIQ measured students' relationship beliefs using the Current Relationship Beliefs scale, a subset of 15 questions in the rIQ inventory. This measure asked participants to read 15 interpersonal principle statements and respond with either 'agree' or 'disagree.' While each item was dichotomous, the entire measure was composited to form a total score of 15 points; rIQ holds that there are correct and incorrect responses to each item (e.g. All conflicts are bad for relationships T/F; Facebook creates deep friendships T/F; Sexual experiences have a negative impact on future relationships T/F). Correct answers to each item were coded as worth 1 point, and incorrect responses were worth 0 points. Higher scores indicated a higher alignment with the relationship beliefs that rIQ promotes in its program, and participants can score a maximum of 15 points

### **Relationship Confidence**

Relationship confidence refers to a subset of ten questions in the rIQ inventory

that asked participants to assess their interpersonal skills. Topics in this section included skill in working out interpersonal conflict, ability to identify healthy relationships, picking good friends, expressing emotions healthily in relationships, ability to identify and form healthy romantic relationships, and whether they had good models of healthy relationships in their lives. Students rated each item on a 1 to 4 Likert scale, with 1 = strongly disagree and 4= strongly agree. I executed an exploratory factory analysis prior to compositing these items in a measure to examine the inter-correlation among items and reliability of the measure.

### **Relationship Quality**

In the rIQ inventory, participants reported the quality of their relationships with significant others, including their fathers, mothers, and friends. A four-point Likert scale measured these items, with 1= poor and 4= excellent. I compiled these three items into a single measure to assess the quality of significant relationships.

### ***Step 2: Univariate Assumptions Analysis***

I conducted univariate tests on the above measurements to determine their statistical variance and properties. To test each measure's assumption of normality, I applied central tendency tests of mean, median, and mode using IBM's Statistical Package for the Social Science. Alongside normality, I also tested the variability of each measure in terms of standard deviation, kurtosis, and skewness.

### ***Step 3: General Linear Modeling***

Methodologically, this study seeks to examine the change and interactions of measurements and variables over time. The statistical analysis technique that I employed to fulfill these aims was general linear modeling (GLM) (McCullagh & Nelder, 1989). The rationale for using this technique is that it allows the simultaneous integration of categorical and continuous variables into a model, thus permitting a general overview of college students' development over time. I directed particular attention to how the interaction between the independent measures and variables predicted HRQL over time. There were two subparts to the analysis: a main effect analysis and an interaction analysis.

#### **Model I: Main Effect Analysis**

The main effect analysis involved placing all composited measures into the first block of the model. Several key variables were also included in the first block. They are listed and described below.

##### ***Time***

Time was the central independent variable of the GLM model. I expected that, over time, the HRQL score would change in relation to changes across all of the measurements and variables included in the model.

##### ***Gender***

Gender identity has been shown to begin and become established well before young adulthood (Davis, 2002; Deaux, 1985; Galambos, Almedia, & Petersen, 1990;

Harris & Harper, 2008; Kohlberg, 1966). While there is no predominant theory that explicitly outlines gender development in young adulthood, I expected gender to influence results, as there is extensive documentation of its influence in social relationships, faith in God, and reported health in college students (Almquist et al., 2014; Astin et al., 2011; Barton & Kirtley, 2012; Larsen, Sandberg, Harper, & Bean, 2011; Leaper et al., 2012; Reiner et al., 2010; Wohlgemuth & Betz, 1991). I coded men as 0; I coded women as 1.

### ***Age and Class Standing***

Class standing refers to year in school classification; participants were either in their freshman, sophomore, junior, or senior year in their undergraduate programs. Given SERF's assumptions and my review of the relevant literature, I expected students who had a higher class standing to score differently than their more junior peers. In the same vein, I also expected participants' age to influence the measures and variables that I tested.

### ***Substance Abuse, Divorce, & Psychosocial Abuse***

Students reported their trauma or stress history in the following areas: a) parental divorce, b) physical abuse, c) mental/emotional abuse, d) sexual abuse, e) death of a close family member, and c) substance abuse. Students were asked to check all that applied. At NSO, 14.7 % experienced parental divorce as children, 3.2% substance abuse, 1.2% physical abuse, 7.2% emotional/mental abuse, and 31.7% experienced a death of a close family member. When combined into a single composite variable (e.g. summing all

items), 46.1% reported to have experienced some form of trauma in their history with 36.6% experiencing at least 1 form of trauma, 6.3% two traumas, 2.3% three, 0.6% four, 0.3% five. For this study, abuses divided in to distinct subscales through dummy coding; one for psychosocial abuse (physical, emotional, sexual abuse), one for divorce, and one for substance use/abuse. A frequency analysis found that 32 students reported psychosocial abuse in their history, while 51 students experience divorce and 7 experienced substance abuse.

### ***Parental Divorce***

Researchers have documented that parental divorce influenced the religious lives of young adults and their faith in God, as well as their perceptions of marriage, romantic relationships, and sense of well-being and mental health (Knabb & Pelletier, 2013; Shortz & Worthington, 1994; Amato & DeBoer, 2001; Darlington, 2001; Cui & Fincham, 2010; Miles, 2010; Ängarne-Lindberg & Wadsby, 2011; Chase-Lansdale, Cherlin, & Kiernan, 1995; Uphold-Carrier & Utz, 2012).

### ***Abuse History***

I expected participants' abuse history, whether physical, psychological, sexual, or any combination thereof, to affect scores across all variables and measures. While beyond the scope of this study, an overview of the literature revealed several underlying themes that were relevant to the measures of this study. Studies on undergraduates who had a history of childhood abuse indicated that such students displayed psychological disturbances and difficulties in adjusting to college (Maples, Park, Nolen, & Rosén, 2014;

Miller-Perrin, Perrin, & Kocur, 2009; Wells, Vanderlind, Shelby, & Beevers, 2014).

Empirical work also found a positive association between childhood abuse and difficulty in close young adult relationships, particularly dating relationships (i.e., intimate partner violence) and substance use (Asberg & Renk, 2013; Berzenski & Yates, 2010; Lassri & Shahar, 2012; Milletich, Kelley, Doane, & Person, 2010; Oshri, Himelboim, Kon, Sutton, & Mackillop, 2015; Skowron & Platt, 2005). Finally, researchers documented that abuse history had a negative impact on self-concept (Lopez & Heffer, 1998). I therefore expected a negative association between participants' history of abuse and HRQL.

### ***Substance Abuse***

Studies have shown that substance abuse is inversely associated with religiosity (Giordano et al., 2015). Researchers have also documented that worsening mental health and well-being is associated with substance abuse (Ciarracchi & Brelsford, 2009; Terleck, Ecker, & Buckner, 2014). I therefore expected that students with substance abuse histories would score differently across variables, particularly in terms of their faith in God and mental health.

### ***Death in the Family***

While I expected that many students would have experienced the death of a loved one in their lives, I also expected that this item would have mixed results. This is a confounding variable. There are multiple ways in which a death in the family would influence the other variables in this study, including the emotional relationship between the young adult and the lost loved one (e.g., close vs. distant, parent vs. sibling), nature of



**Table 2.***Independent Variables*

<i>Number</i>	<i>Name</i>	<i>Description</i>	<i>Coding</i>
IV1	Time	Pretest or Posttest time point	0 = Pre; 1 = Post
IV2	Gender	Male or Female	0 = male; 2 = female
IV3	Class Standing	Freshman, Sophomore, Junior, or Senior	Dummy code 0 & 1
IV4	Age	Participant's age	Scale: 16-29
IV5	Past Trauma	Parents divorce; Physical abuse, psychological abuse sexual abuse, substance abuse, death.	Dummy code 0 = not applicable 1= applicable
IV6	God Influence	How involved or influential God is in everyday life	Scale: 1-4
IV7	Faith Importance	How important is their faith is God	scale: 1-3
IV8	Sig. Relationships	Relationship quality with Father, Mother, and Friends	Scale: 3-12
IV9	rIQ beliefs	Healthy relationship beliefs, unique rIQ program principles	Scale: 0-15
IV10	Relationship Confidence	Ability to navigate & manage relationships, have healthy relationships in their lives	EFA; Scale*

\* *Exploratory Factor Analysis will be conducted before compositing measure into a scale measurement*

the death (e.g., slow or sudden), the time of the death (recent vs. long ago), and the participant's personal and family response to the death.

### ***Model II: Interaction Analysis***

The second part of the analysis involved building a model which examined the interaction of factors and measurements across time. This part of the analysis had two

parts: one that included demographic variables as covariates, and one that included interactions between study variables and the point in time. Table 2 displays the outline of the analysis strategy.

**Table 4.**

*Interaction Model Building Part I*

<i>Interaction Analysis I</i>		<i>Interaction Analysis II</i>		<i>Interaction Analysis III</i>	
<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>
1	Time X IV2	10	Model 1 X IV3	18	Model 10 X IV4
2	Time X IV3	11	Model 1 X IV4	19	Model 10 X IV5
3	Time X IV4	12	Model 1 X IV5	20	Model 10 X IV6
4	Time X IV5	13	Model 1 X IV6	21	Model 10 X IV7
5	Time X IV6	14	Model 1 X IV7	22	Model 10 X IV8
6	Time X IV7	15	Model 1 X IV8	23	Model 10 X IV9
7	Time X IV8	16	Model 1 X IV9	24	Model 10 X IV 10
8	Time X IV9	17	Model 1 X IV 10		
9	Time X IV 10				

**Table 5.**

*Interaction Model Building Part II*

<i>Interaction Analysis IV</i>		<i>Interaction Analysis V</i>		<i>Interaction Analysis VI</i>	
<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>
25	Model 18 X IV5	26	Model 25 X IV6	31	Model 26 X IV7
26	Model 18 X IV6	27	Model 25 X IV7	32	Model 26 X IV8
27	Model 18 X IV7	28	Model 25 X IV8	33	Model 26 X IV9
28	Model 18 X IV8	29	Model 25 X IV9	34	Model 26 X IV10
29	Model 18 X IV9	30	Model 25 X IV10		
30	Model 18 X IV10				

**Table 6.***Interaction Model Building Phase*

Interaction Analysis VII		Interaction Analysis VIII		Interaction Analysis IX	
<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>	<u>Model Number</u>	<u>Interaction Analysis</u>
35	Model 26 X IV8	38	Model 35 X IV9	40	Model 38 X IV10
36	Model 26 X IV9	39	Model 35 X IV10		
37	Model 26 X IV10				

### Summary

The analysis tested two core assumptions of rIQ's theory (SERF): a) interpersonal relationships' quality and healthy relationship beliefs are positively associated with HRQL; and b) how college students' relationships with God in terms of their perception of His involvement and the importance of their faith in Him is positively associated with HRQL. The results of this study will help refine rIQ's conceptual theory and theory of change. These refinements will be described and outlined in the follow-up theory paper.

## **CHAPTER 5**

### **MANUSCRIPT #1**

# **IMPRESSIONS OF PERSONAL HEALTH AMONG COLLEGIANS: WHAT RELATIONSHIPS AND FAITH FACTORS PREDICT HEALTH RELATED QUALITY OF LIFE AMONG COLLEGE STUDENTS?**

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### **Abstract**

This explorative longitudinal study investigated the relationship between health-related quality of life (HRQL) and various social and faith factors associated with the home to college transition. This study comprises data from 347 Christian University students, and results revealed that over the course of a year, gender, time, significant emotional relationships, a psychosocial abuse history, and faith importance predicted HRQL. There were also unique interactions among the variables that predicted outcomes. The findings provide theoretical and practical insight on how colleges and universities can address deteriorating mental health among students and cultivate resiliency in their student body, particularly among incoming freshmen.

## **Introduction**

The U.S. Department of Education (2013) projected that higher education enrollment among high school graduates will climb by 15% between 2010 and 2021. This is a significant projection, considering that college enrollment is currently at an all-time high with over 17 million students enrolled in higher education. Although an encouraging trend, it is accompanied by rising concerns about evidence of deteriorating Health Related Quality of Life (HRQL), particularly among college students (American College Health Association National Health Assessment, 2014). It is estimated by the National Association of Mental Health (NAMI) that mental illness in the form of HRQL afflicts approximately one in four college students (NAMI, 2012). According to the Center for Disease Control (CDC, 2016), HRQL refers to one's subjective impression of their physical and mental health. A refined version of quality of life (QoL), HRQL has played an increasingly important role in mental health evaluation and treatment in recent years, particularly among collegians (Mendlowicz & Stein 2000; Quilty, Van Ameringen, Mancini, Oakman, & Farvolden, 2003).

## **Background**

### ***Emerging Adulthood***

In the last two decades, developmental psychologists who adopted Erikson's (1980) stage-based perspective, most notably Jeffrey Jensen Arnett (2000; 2004), introduced the concept of a development stage situated between adolescence and adulthood. They called this stage emerging adulthood (EA) and argued that it represents a distinct developmental period that occurs specifically among "18- to 29-year-olds in

industrialized societies” (Arnett, Kloep, Hendry, & Tanner, 2011, p. 14). Typically beginning with departure from the home, emerging adulthood is characterized by individuals’ independence from committed adult roles, “such as marriage, childbearing, and establishing a new career” (Amato & DeBoer, 2011, p. 27). For an increasing number of EAs, the rite of passage involves departing their context of dependence and entering higher education, a social institution grounded in philosophical and literary traditions that promote the journeying towards learning about oneself (Astin, Astin, & Lindholm, 2011). In response, many young adults sample a variety of experience and adult roles in a self-focused identity quest (Wang, Parmelee, & Eldridge, 2016).

### ***Resituating Oneself***

Researchers have documented that alongside other major life transitions, stress is greatest during this period of launching. Even when anticipated, the transition to college is a psychosocially destabilizing experience. Many experience the loss of significant emotional connections while simultaneously being met with swelling academic, social, and emotional demands (Ames et al., 2011). From a developmental standpoint, the task of sampling different experiences and roles in higher education is social in nature; in addition to connecting with faculty and staff members that care about the student’s development and well-being, other tasks for students include reorienting and rebalancing their relationship with their parents while moving toward their peers, friends, dating or intimate partners, and new communities with greater intimacy and relational reciprocity (Arnett, 2004; Chow, Roelse, Buhrmester, & Underwood 2011; Fincham, Stanley, &

Rhoades, 2011; McGoldrick, Carter, & Garcia-Preto, 2011; Smetana, Campione-Barr, & Metzger, 2006).

### ***Mental Health***

Although the etiology, development, course, and outcomes of mental health issues among college students is an ongoing and controversial topic, there is increasing documentation of its association with HRQL and social relationships (Anye, Gallien, Ban, & Moulton, 2013; Baum & O'Malley, 2003; Fedele et al., 2009; Lange & Byrd, 1998; Murray, Lombardi, Bender, & Gerdes, 2013; Sage, Britt, & Cumbie, 2013; Zea, Jarama, & Bianchi, 1995). Social relationships play a pivotal role in college students' mental health and overall well-being. In addition to the quality of their peer and mentor relationships, there is also evidence that students' relationships with their parents and with God are predictive of health and college adjustment outcomes (Credé & Niehorster, 2012; Dickie, Ajega., Kobylack, & Nixon, 2006; Donnelly, Renk, Sims, & McGuire, 2011; Parade, Leerkes, & Blankson, 2010; Paredes, Ferrira, & Pereira, 2014; Trotter, 2010).

### ***Relationship with God***

Many collegians claim that their faith is important in their lives (Astin et al., 2011; Barry & Abo-Zena, 2014). College students' faith and/or spiritual beliefs can play a role in fortifying key functions during the home to college transition as: a) a meaning-making framework that promotes empowerment, purpose, and agency; b) a resource in "healing, recovery, and resilience" in the face of distress and suffering; and c) a socially

unifying belief system that facilitates the formation of healthy bonding and bridging skills (Putnam, 2000; Walsh, 2009, p. 32). Further, many practicing Christians, including young adults, claim to have a relationship with God rather than an idea of Him. For instance, in factor analytic studies (e.g. Granqvist & Kirkpatrick, 2008), researchers found that practicing Christians tend to view God in relational terms rather than doctrinal ones (Benson & Spilka, 1973; Gorsuch, 1968; Schaap-Jonker, Eurelings-Bontekoe, Zock, & Jonker, 2008). A relationship in God in young adulthood implies a reciprocating connection where the individual not only received but also participates in the mutual connection. For this study, relationship with God is framed as consisting of two dimensions: a) the perceived influence of God in one's life and b) how important one's faith is. While the former captures the receiving aspect of one's relationship, the latter symbolizes a young adult's participation in it.

### ***Gender***

While there is no predominant theory that explicitly outlines gender development in young adulthood, we expected gender to influence results, as there is extensive documentation of its influence in social relationships, faith in God, and reported health in college students (Almquist, Ostherg, Rostilia, Edling, & Rydgren, 2014; Astin et al., 2011; Barton & Kirtley, 2012; Larsen, Sandberg, Harper, & Bean, 2011; Leaper, Farkas, & Brown, 2012; Wohlgemuth & Betz, 1991).

### **Objectives**

The overall aim for this study was to examine how college students' interpersonal



relationships effected various dimensions of HRQL. To satisfy this aim, we sought to accomplish three objectives:

1. Estimate the direct effect of significant emotional relationships on HRQL over time.
2. Estimate the direct effect of faith and God influence on HRQL over time.
3. Examine the interdependence between significant emotional relationships and faith in God on HQRL over time.

For this study, we applied a linear regression models to a longitudinal dataset to address each of the study's objectives.

## **Methods**

### ***Sample***

Data used for this study was obtained from rIQ's databank. This databank consists of information extracted from undergraduates enrolled at Pepperdine University between 2011-2014 utilizing the rIQ inventory (Appendix A). Data was collected from students in cohorts, (2011-2012; 2012-2013; 2013-2014), and students where matched across two time points in the program (e.g. New Student Orientation [NSO] and End of Spring semester [SPR]). After data was matched and cleaned, results yielded a sample of  $n = 346$ , with 32.3% male, 67.6% female. The mean age of the sample ranged from 16 to 23 years old with an average as of  $M = 17.49$ ,  $SD = .522$  at NSO, and in SPR  $M = 18.70$ ,  $SD = .94$ . Of the whole sample, 81.8% was 18 years old at time point one, and 91.9% of the sample were 18 or 19 years old by the spring semester. Furthermore, the sample consisted of  $n = 369$ , with 343 freshmen (92.95%), 7 sophomores (1.89%), 12 juniors

(3.25%), and 7 seniors (1.89%). In terms of gender, 31.43% of the sample was male, and 47.42% were female.

There were no significant differences between the two cohorts in terms of gender composition or age. Although the program itself did not collect ethnicity/race data for participants, the university has a racial/ethnic composition of 45.1% White, 15.1% Hispanic/Latino, 12.4% Asian, 8.4% non-resident alien, 6.8% Black/African American, 0.6% American Indian/Alaska Native, 0.5% Native Hawaiian/Pacific Islander, 4.9% two or more races, and 6.3% Unknown. Student-reported religious affiliations at the university consist of 57.4% Christian, 1% Sectarian, 1.1% Eastern religions, 3.2% non-Christian monotheist religions, 4% no religious affiliation, and 33.1% not reported (Wang et al., 2016).

### *Design*

For this longitudinal quantitative study, we used a dataset collected by rIQ over the course of two years. The data consisted of two undergraduate cohorts: one from 2012 to 2013, and one from 2013 to 2014. In each cohort, rIQ collected data at two time points: a) at the beginning of the school year, or at the beginning of the fall semester, during the university's new student orientation and at welcome back seminars for more senior college students; and b) at the end of the spring semester. At each time point the students completed the rIQ inventory, which is a battery of scales developed internally (Appendix A). These measures were intended to gauge students' relationship quality across significant emotional relationships, health, abuse history, faith in God, relationship beliefs, and interpersonal skills confidence.

## *Measures*

### **Significant Emotional Relationships**

Students rated their relationships with their parents and friends separately on four-point scales of Poor, Fair, Good, or Excellent. This composite has a range of three to 12, with 12 indicating the greatest satisfaction with these relationships. Students reported an average of  $M = 10.67$ ,  $SD = 1.41$  at NSO and  $M = 10.92$ ,  $SD = 1.37$  by spring. A repeated measures t-test revealed a significant change in scores:  $t(322) = 3.55$ ,  $p < .05$  between the two time points. Students generally rated their significant emotional relationships higher at the second time-point ( $M = 10.69$ ,  $SD = 1.47$ ).

### **Substance Abuse, Divorce, & Psychosocial Abuse**

Students reported their trauma or stress history in the following areas: a) parental divorce, b) physical abuse, c) physical abuse, d) emotional/mental abuse, and e) sexual abuse. Students were asked to check all that applied. Physical abuse, emotional/mental abuse, and sexual abuse were composited into a single variable that was named psychosocial abuse for this study. At NSO, 14.7 % experienced parental divorce as children, 3.2% substance abuse, and 9.3% reported experiencing a form of psychosocial abuse in their past. The analysis utilized only the psychosocial abuse measure.

### **Relationship Confidence/Efficacy**

To measure relationship efficacy, 10 items were used. Each item was rated on a four-point scale from strongly disagree to strongly agree. The collected data was used in a factor analysis to determine whether the scale could be used as a composite variable.

The factorability of the 10 items in this measure was examined using principle component factor analysis. The KMO test found that the sample provided adequacy for factorability with a KMO = 0.72 and Bartlett's Test of Sphericity  $\chi^2(45) = 1217.56, p < .01$ . Due to low communalities of items within this evaluation, items were removed from the analysis resulting in a one-factor solution, retaining six items. This six-item composite resulted in a KMO = 0.77 and Bartlett's Test of Sphericity  $\chi^2(21) = 841.45, p < .01$ . The first three initial eigenvalues explained 72.2% of the variance. The following items were composited into a single variable called relational confidence/efficacy: a) I feel confident in my ability to form healthy romantic relationships, b) I feel positive about my romantic relationships, c) I can identify the qualities of a healthy romantic relationship, d) I chose friends that help me be the best version of myself, e) I have worked through a difficult or painful issue with a friend, and f) I feel comfortable expressing my true feelings to my close friends. A paired sample t-test of this composite found a slight but not statistically significant rise in scores from NSO ( $M = 19.47, SD = 3.08$ ) to SPR ( $M = 19.65, SD = 2.97$ ) where  $t(332) = 0.98, p > .05, r^2 = 0.06$ . This scale was found to be acceptably reliable (six items;  $\alpha = .72$ ).

### **Relationship with God**

This factor was measured with two variables. *Importance of faith* was one item where students reported the importance of their faith on a three-point Likert scale of not important, somewhat important, and very important. Frequency analysis at NSO showed a  $M = 2.51, SD = .61$  for NSO and  $M = 2.57, SD = .64$  at the SPR. A paired t-test found a significant change in student scores with  $t(346) = 1.98, p < .05, r^2 = 0.10$ .

### ***Influence of/Involvement with God***

This factor was measured with one four-point Likert scale item. This item asked students to rate how involved or influential God was in their lives. The possible answers ranged from no involvement to very involved. This item ranged from  $M = 3.38$ ,  $SD = .74$  at the beginning of the program to  $M = 3.42$ ,  $SD = .77$  at the spring quarter. A paired samples t-test found no significant differences between these time points ( $t(336) = 1.15$ ,  $p > .05$ .)

### **Relationship Beliefs**

A total of 15 items constituted this measure, and all were measured on a true-false scale. All fifteen items were summed to create a composited scale with total scores ranging from 0 to 15. The average score at NSO was  $M = 8.03$ ,  $SD = 1.37$ , and SPR was  $M = 7.69$ ,  $SD = 1.50$  by SPR. A paired samples t-test showed a significant reduction in this scale over time ( $t(276) = 3.86$ ,  $p < .01$ ),  $r^2 = 0.23$ .

### ***HRQL***

HRQL was measured with a composite variable consisting of four items. The items that made up this composite included physical health, mental health, emotional health, and spiritual health. Each individual item was measured using a four-point Likert scale with 1 = poor, 2 = fair, 3 = good, and 4 = excellent. The HRQL composite had a range of four (poor) to 16 (excellent) with an average of 12.34,  $SD = 2.42$ , with a skewness of -0.38 ( $SE = .09$ ) and kurtosis of -.26 ( $SE = .19$ ). KMO measure of sampling adequacy was .745. Bartlett's Test of Sphericity was significant as  $\chi^2(6) = 781.65$ ,  $p <$

.01. Results of the principle component analysis showed that the initial eigenvalue found that this single factor explained 59.76% of the variance. A paired samples t-test of the HRQL composite (physical health, mental health, spiritual health, and emotional health) found a significant drop in students' score from NSO ( $M = 12.46$ ,  $SD = 2.17$ ) to SPR ( $M = 12.20$ ,  $SD = 2.63$ ) ( $t(339) = -2.06$ ,  $p < .05$   $r^2 = 0.11$ ). The HRQL scale was found to have acceptable reliability (four items;  $\alpha = .77$ ).

### *Analytic Strategy*

Prior to analysis, all data was checked for the prevalence of missing data and for univariate assumptions associated with linear regression (Tabachnik & Fidell, 2012). Univariate analysis results found that all continuous variables conformed to univariate assumptions.

In terms of missing data, the variables with missing data include God influence (1.5% missing), significant relationships (8.5% missing), rIQ beliefs (12.8% missing), and HRQL (1% missing). Because none of the items or composites had more than 15% missing, we used a listwise deletion when building the general linear model. Following the initial data evaluation, a general linear model with three steps/blocks was accessed with HRQL as the outcome variable of interest. The first step tested only the main effects of the independent variables noted above. The next model tested whether these values had an effect over time (IV\*Time). The third model tested whether there was a moderation effect with spirituality (IV\*Influence of God).

## Results

For the first step of the model (e.g. main effect analysis), the model fit the data ( $F(9,546) = 24.53, p < .01$ ) and explained 28.8% of the variance in the HRQL outcome variable ( $R^2 = .288, R^2_{adj} = .276$ ). In this model, HRQL score decreased over the course of the year. Higher faith importance increased the HRQL by 0.80, and significant emotional relationships increased HRQL by 0.70. In addition, women scored 0.632 points lower than men.

Following the first step, the second step tested the effect of each variable over time. While the overall regression model fit ( $F(17, 538) = 13.76, p < .01$ ), the F change was not significant ( $F(8, 538) = 1.45, p > .05$ ), indicating that the addition of these IV\*time interaction variables did not add significantly to the model. However, in spite of this, faith importance and significant emotional relationships appeared to add to HRQL scores.

Finally, at step three, interactions between each IV and the importance of faith were added. The overall regression model was found to fit the data ( $F(24, 531) = 11.66, p < .01$ ). In addition to being a statistically significant model, the model also fit well with  $R^2 = .345, R^2_{adj} = .316$ , accounting for 34.5% of variance in collegians' HRQL score, which makes a significant contribution to the model with R Square change = .42 ( $F(7,531) = 4.89, p < .01$ ). In this model, time continued to decrease HRQL scores by 1.81, and being female also continued to show a significant decrease in participant's score by 0.37. Psychosocial abuse decreased scores by 4.88, God influence decreased scores by 1.03, and significant emotional relationships increased scores by 1.27. Specific to this step, model 5 of the interaction effects were estimated to be significant. Time x

gender decreased scores by 0.86. In this case, females saw greater decrease in their HRQL scores over one year in comparison to males. Next, time x significant emotional relationships increased scores by 0.27, suggesting that those who reported having better relationship quality with close others in their lives had lower decreases in HRQL scores over one year in comparison to those who reported poorer relationships. Faith importance x God influence also increased scores by 0.74, meaning that those who saw faith as very important and God as very influential in their lives had lower decreases in HRQL scores over one year in comparison to those who did not report their faith as important and God as influential in their lives.

Conversely, Faith importance x significant emotional relationships decreased scores by 0.30, a finding suggesting that those who reported their faith as very important and significant emotional relationships as excellent saw a greater decrease in their HRQL scores over one year in comparison to who did not rate these items as highly. And finally, faith importance x psychosocial abuse increased scores by 1.58, which suggests that those who reported their faith as very important and had a psychosocial abuse history saw lower declines in their HRQL scores over one year than those who reported having psychosocial history yet viewed their faith as not important. Results of the three hierarchical model steps are shown below in Table 1.



**Table 1.** Summary of Hierarchical Regression Analysis for Variables Predicting HRQL (N = 260)

Table 2

*Summary of Hierarchical Regression Analysis for Variables Predicting HRQL (N = 260)*

Variable	Model 1			Model 2			Model 3		
	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B
Time	0.1**	-0.48	0.18	-0.32	-1.55	1.69	0.38	-1.81	1.66
Gender	0.12**	-0.63	0.19	-0.04	-0.22	0.26	-0.07	-0.37	0.81
Parents Divorce	0.07	0.46	0.25	0.07	0.46	0.34	0.12	0.78	0.96
Substance Abuse	0.03	0.59	0.67	0.06	1.07	0.91	0.13	2.16	3.95
Psychosocial Abuse	-0.04	-0.35	0.35	-0.08	-0.69	0.5	-0.55*	4.88	1.97
God's Influence	0.05	0.16	0.18	0.14	0.45	0.26	-0.32*	-1.03	0.47
Importance of Faith	0.2**	0.8	0.22	0.14	0.54	0.32	0.59	2.34	1.4
Significant Relationships	0.42**	0.71	0.06	0.14**	0.6	0.32	0.76**	1.27	0.26
rIQ beliefs	-0.01	-0.02	0.07	0.01	0.02	0.1	0.24	0.4	0.28
Time x Gender				0.86	0.37	-0.16*	-0.17*	-0.86	0.37
Time x Parents Divorce				0.5	0.5	0.01	0.001	0.03	0.49
Time x Substance Abuse				1.33	1.35	-0.03	-0.04	-0.99	1.32
Time x Psychosocial Abuse				0.7	0.69	0.05	0.05	0.64	0.7
Time x God's Influence				0.37	0.36	-0.4	-0.52	-0.7	0.37
Time x Importance of Faith				0.46	0.44	0.25	0.39	0.68	0.46
Time x Significant Relationships				0.13	0.13	0.56	0.61*	0.27	0.13
Time x rIQ beliefs				1.3	0.13	-0.09	-0.02	-0.01	0.13
Faith x Gender							0.05	0.08	0.3
Faith x Parents Divorce							-0.06	-0.17	0.36
Faith x Substance Abuse							-0.05	-0.3	1.42
Faith x Psychosocial Abuse							0.48*	1.58	0.71
Faith x God's Influence							1.02**	0.74	0.18
Faith x Significant Relationships							-.96**	-0.3	0.1
Faith x rIQ beliefs							-0.46	0.16	0.11
R Square		0.29**			0.3			0.32**	
F (R square change)		24.53			1.45			4.89	

Note: \*p < .05. \*\*p < .01.

## Discussion

There were two main goals for this explorative study: a) to assess the degree to which relationship health and faith beliefs help buffer the effects of stress on HRQL for new college students, and b) examine the interrelation between the key variables of rIQ's program and an internally developed questionnaire of the program. To this end, this study has achieved these goal in two main ways. From a research standpoint, this study

revealed several areas for further exploration including the interplay between gender, relationship with God, and significant emotional others.

Most important to note, time had an important role in the young adult's HRQL. Findings from this study confirm the burgeoning literature that students' HRQL decreases with time in their undergraduate programs. Based on the review of the literature (noted above), this finding is not surprising given the stressful nature of the home to college transition. For newly launched high school seniors, the transition to a residential university away from their context of dependence is fraught with many competing academic, social, and emotional demands. Two literature-grounded explanations can be offered here, both of which involve the stressful and destabilizing nature of the home to college transition (Ames et al., 2011). Many collegians arrive to school excited but undergo a period of continuous adjustment that wears down on their subjective sense of health and well-being. The chronic stress eventually takes its toll on the sense of well-being in young adults, with some experiencing greater declines in HRQL than others. However, collegians are entering a period of social, emotional, and faith exploration. Given the exploratory nature of a college context where students can engage in self-directed identity exploration, many experience a state of identity indeterminacy, a stressful state that naturally puts pressure on HRQL. While this pullback may be interpreted as a sign of normal development, questions emerge as to whether this may be a sign of a burgeoning public health trend and whether there is a point of clinical-level illness. The questions will be explored in future follow-up studies.

Another important factors are the role of significant relationships surrounding these young adults. Researchers and theorists on collegian development have found that

the nature of significant emotional relationships predicted social integration, college adjustment, academic longevity, and psychosocial well-being for better or worse (Azmitia et al., 2013; Credé & Niehorster, 2012). From a social ecological standpoint, significant social and family relationships collectively make up the young adult's social context. While the individual is an agent within his or her social context, the people within them are a source for decision-making and personal judgments, including the impression of one's health status. For instance, there is documentation that emotional and social support from family and friends during the home-to-college transition are critical to self-reported health and well-being (Almquist et al., 2014; Chow, et al., 2011; Parade, et al., 2010; Rice et al., 2013). Additionally, the task of finding one's social niche within the higher education context plays a similar function, predicting not only college persistence, but also adjustment and loneliness, all of which are associated with HRQL (Azmitia et al., 2013; Nicpon et al., 2006)

While Time and Significant Relationships offered a direct and maintained effect in the study, other factors such as; gender, the importance of faith, psychosocial abuse, and God's influence all seemed to be time varying effects. In this case they did not predict directly the overall HRQL but either contributed or buffered the overall time decline in HRQL.

To this end, females experienced a greater decline in their HRQL over time in comparison to males. Additionally, results suggest that women's HRQL scores fell faster than males' over time. In the main effects model the females had a lower HRQ, but as can be seen in model 3, this effect is best attributed to the time\*gender interaction, which suggests that males and females enter college with a similar level of HRQL, but females'

HRQL declines over the first year to a greater extent than males. While, again, but males and female experience a decline in HRQL.

Furthermore, as a main effect, faith importance contributed positively to HRQL outcomes. But as can be seen in model 3, the effect faith has on an individual must be considered in relationship to the individual's history of psychosocial abuse, their perception of God's influence on their life, and the presence of significant relationships. First, when we consider the role of faith in HRQL, a history of psychosocial abuse has a negative effect on HRQL, unless that individual also reports a high importance of faith in their life. In this case, faith seemed to have a buffering effect on psychosocial abuse histories. In step three, findings suggest that those with a psychosocial history had lower HRQL scores compared those who did not report a history of abuse. However, faith importance interacted with psychosocial abuse history in a manner that appears to keep HRQL from declining over the course of the year. This finding aligns with the literature that examines the interplay between spirituality, resiliency, and mental health outcomes (e.g. Pargament, et al. 2000; Werdel, Dy-Liacco, Ciarrocchi, Wicks, & Breslford, 2014). To this end, faith and spirituality are likely important constructs of resilience, and therefore help individuals survive or even at times thrive in the face of stress and adversity.

To further distinguish the role of spirituality and faith in this situation, we have to consider that the importance of faith in one's life is not the sole factor of spirituality and resiliency. Rather, as we see in the third model, when individual say tat faith is important to them, and that they believe God has influence on their lives, this combination offers a strong buffering effect for the overall decline of HRQL experienced by young adults in

their first year of college. This suggests the best effects for HRQL can be achieved by not only having faith in God, but also believing that God is actively engaged in one's life. We are cautious here to point out, that individuals that do not assign an importance to their faith, but do believe that God is actively engaged in their lives actually experience a negative effect on their HRQL. As can be seen in model 3. We question whether this effect is due to a rigid, religiosity, worldview. For example, while most literature has found that faith and spirituality protect and, in some cases, promote HRQL, some studies have found that rigid religiousness has been associated with higher depression and psychological distress (Ross, 1990; Schniker, 2001). It might be that those in this study that scored high an influence of God on their life, and low on the importance of faith in their life might be examples of rigid religiosity. This finding requires further examination in future studies. Future studies that examine faith and significant emotional qualities need to include items that measure felt demands and examine how they interplay with students' rating of their relationship with significant emotional others. In a very similar way the negative interaction effect between faith and significant emotional relationships, suggest that significant relationships are indeed important and provide a positive effect on HRQL, but results also suggests that those reporting excellent significant emotional relationships and high faith importance saw a greater decline of HRQL over time. This finding appears to contradict our prediction as well as the results observed in model 1 and 2.

A possible explanation of this surprising finding is that these results are reflecting a rigidly religious sub-group within the sample. This rigidly religious group is insular in terms of their social connections and are also resistant to expanding their social

connections and perspectives. This explanation however is tentative and future studies that tease out the sub-components of each predictor variable is needed to understand the underlying dynamics at work.

As a main effect issue, significant emotional relationships contribute to HRQL scores. This finding falls in line with the substantial literature on the role of social support and academic adjustment in college students. Scholars who have researched the positive effects of social support have operated on a stress-model, where relationships function as an intangible yet powerful resource (Boulter, 2002; Nicpon et al., 2006; Rice, Barth, Guadagno, Smith, & McCalum; Wilks & Spivey, 2010). Social support appears in two broad forms: 1) faculty and staff, who impact academic adjustment; and 2) family and friends, who more likely benefit the personal-emotional and social dimensions of adjustment (Credé & Niehorster, 2012). Finding and establishing social capital or social networks has long been documented as critical to the successful transition to college, or any new social environment for that matter (Anderson, Goodman, & Schlossberg, 2012; Azmitia, Syed, & Radmacher, 2013). This is because developing one's sense of social identity is important in establishing an inner compass for career and choice of activities while in college. Conversely, identity formation, arguably the central task of emerging adulthood, is constructed and negotiated within significant social relationships (Azmitia et al., 2013). Significant relationships appear to contribute to HRQL scores in that those who reported better quality relationships with their significant emotional others had higher scores than those who did not report good relationships. This finding aligns with the growing body of work on how social relationships play a role in HRQL. What this study adds is that parent/young adult relationships play a role in HRQL over time. The

significant emotional relationship composite used in this study consists of mother, father, and friend relationships. While friendships have been documented to promote HRQL in adolescence and young adulthood, this study suggests parents also play a role after launching. Future longitudinal research on how parents play a role in the college transition after launch is needed to bring light to this finding.

Conversely, rIQ beliefs did not seem to determine HRQL outcomes; rIQ beliefs is a program-specific concept, and there is currently no literature that examines this variable interplay with HRQL, or any of the other variables. This composite variable has 15 true-false questions that cover a wide variety of topics including pre-marital sexual relationships, Facebook, interpersonal conflict, friendships, and marriage. Compared with significant emotional relationships, this measure is variable in terms of what it is trying to measure, and this is possibly contributing to its non-significance. Future work needs to refine this variable in a manner that addresses the overly wide reach; each item of this measure needs to be operationalized and measured more extensively.

### **Limitations**

This study has several limitations. Underpinning the limitations of this study's lies in the data collection instrument. While the instrument that was used extracted several promising findings worthy of continuous pursuit, the measure used to collect data has no psychometric properties. In addition, the rIQ inventory did not extensively operationalize the key variables, undermining the precision of the findings; little is known about the dimensions of each main concept (God Influence, Faith, Significant Emotional Relationships), limiting the degree of conceptualization of their interplay with

each other and on HRQL outcomes. Furthermore, aside from gender, age, and grade level, no other demographic instrument was collected, limiting the generalizability of the results. Some of the study variables have little to no prior studies on the topic, including rIQ beliefs, limiting its understanding of how it contributes to HRQL scores over time. A final weakness of this study is how students were matched across time. Rather than being given a unique identification number, students were matched by the last four digits of their phone number. The many matches across time resulted in the removal of many cases as they were unmatchable, undermining statistical power of some of the findings.

### **Next Steps**

Further research is needed to more deeply understand the interplay between these variables. Thus, a critical first step will be obtaining measures that not only capture more demographic variables but also better operationalize the various dimensions of each key research concept. Of interest will be finding measures that more deeply examine faith and use it to study its interplay with social and emotional variables known to promote health and well-being among collegians. Additionally, an instrument that comprehensively captures the many dimensions of HRQL should be pursued and eventually administered.

From a program development standpoint, the findings that faith and significant emotional relationships play a significant role in terms of HRQL outcomes are encouraging for rIQ. As a faith-based program, findings suggest that rIQ programming should continually strive to integrate faith into relationship education programs. This



study's findings that parents play a role in HRQL outcomes is a call for rIQ to develop a collegiate-parent relationship sub-section.

In addition to developing new sections in its programing, future program evaluation studies will also be directed to examine how participant experience of the program interplays with key study variables and outcomes. For example, data of collegians' experience of the dating and romantic relationship program data can be used to evaluate HRQL outcomes, particularly if it improves them. These future studies, which are expected to use more psychometrically robust instruments, will strive to integrate findings in terms of program content and delivery methods.

In summary, the factors that appear to keep HRQL scores from dropping over the course of the school year are being male, having good significant emotional relationships, and placing a higher importance in personal faith. While it might appear that being in school is negatively associated with HRQL over time, this should be interpreted with caution; the drop in HRQL over the course of the year in college is more of a reflection of the socio-emotional resituating process that is a natural extension of young adult development.

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## **CHAPTER 6**

### **MANUSCRIPT #2**

# **RELATIONSHIP INTELLIGENCE IN COLLEGE: HOW RELATIONSHIP COMPETENCE AND SKILLS ARE CRITICAL TO STUDENTS' MENTAL HEALTH**

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### **Abstract**

The ample evidence pointing at the deteriorating mental health of collegians is troubling. The social nature of mental health, along with documentation that relationship problems are one of the most common reasons collegians seek counseling, suggest that social relationships (a) play a critical role in mental health and (b) are a potential strategic point for a program-based intervention. In this paper, we propose a relationship education program grounded in a socio-emotional developmental model that synthesizes the theoretical and empirical literature on collegian social relationships and mental health. We will present and outline the program's conceptual theory and theory of change.

## **The Mental Health Crisis**

College student development theory and mental health practice need to be re-evaluated in the face of a nationally rising mental health epidemic. In the spring of 2015, the American College Health Association National College Health Assessment (ACHA-NCHA, 2015) released a report finding that within the last 12 months, 42% male and 60.2% female collegians experienced overwhelming anxiety, while 34.9% of women and 27.8% of men felt so depressed that it was difficult for them to function. Additionally, nearly 60% of students (51.3% of males, 63.3% of females) felt very lonely. Although not a psychiatric condition, loneliness has been implicated in anxiety and depression (Ebesutani et al., 2015; Hefner & Eisenberg, 2009) as well as with other troubling trends such as poor academic performance (Mattanah, Brooks, Brand, Quimby, & Ayers, 2012), drop-out (Nicpon et al., 2006; Rotenberg & Morrison, 1993), suicide and/or substance abuse (Lamis, Ballard, & Patel, 2014), identity problems (Samuolis & Griffin, 2014), poor social skills (Riggio & Kwong, 2009; Segrin & Flora, 2000), and violent behaviors (Martens & Palermo, 2005). The National Alliance of Mental Illness (NAMI, 2012) as well as the UCLA's Cooperative Institutional Research Programs (Eagan et al., 2015) mirrored these findings, with the latter concluding that collegians are currently self-reporting the lowest level of emotional health since their national study began 49 years ago.

## ***Call for Mental Health Service Change***

In response to the troubling findings on student mental health, Student Affairs Administrators in Higher Education published the American Psychological Association



(APA) and the American Council on Education's (ACE) jointly constructed primer report in 2014. This report appealed for higher education institutions to allocate more of their resources to their behavioral mental health services (NASPA, 2014). The primer appeals for greater emphasis on prevention-based education and outreach citing that "about 70 percent of the students who use counseling services at their college or university report that their personal problems had an impact on their academic performance" (p. 2). The rationale that underpins this proposed emphasis is to soften, if not sidestep, the social stigma associated with seeking therapy (NAMI, 2012; National Association of Student Personnel Administrators (NASPA), 2014).

In addition to removing the stigma around counseling, the primer argues that an educational and outreach approach promotes campus-wide awareness of mental health, which in turn can (a) eliminate fragmentation in services while improving access to resources to support student's health, learning, and well-being; (b) bring awareness to patterns in individuals, groups, or the campus that suggest the presence of mental and behavioral health concerns; and (c) prepare all members in the higher education community to not only recognize but also respond to these concerns.

### **Article Purposes**

We seek to accomplish two objectives in this article, in response to the NASPA primer and growing concern among scholars and mental health practitioners. The first objective is to examine the psychosocial development of young adults aged 18-29. Long held as a part of adulthood, researchers have recently recognized young or emerging adulthood as a distinct developmental period with unique developmental challenges not

found at any other point in the lifespan (Arnett, 2004). Summarizing the theoretical frameworks that explain the psychosocial development of this period will provide for a theoretical foundation to understanding the interplay of variables contributing to mental and behavioral health as well strategic points of intervention. The second objective is to describe a theoretically grounded program called Relationship IQ (rIQ) (Parmelee, 2014) that addresses the unique psychosocial challenges that are characteristic of this developmental period. In addition to the conceptual theory, we will summarize and explain rIQ's theory of change.

### **Psychosocial Development**

The origins of psychosocial development theory are most frequently linked to Erik Erikson's (1968; 1980) seminal work on adolescent to adult identity development. Erikson's perspective of growth and development is based on the epigenetic principle where "anything that grows has a ground plan and...out of this ground plan the parts arise, each part having its time of special ascendancy, until all parts have arisen to form a functioning whole" (Erikson, 1968, p. 92). He proposed that the specific crisis or developmental challenge of young adulthood is establishing intimate or committed relationships with others, the failure of which leads to isolation or emotional stress. The most compelling aspect of his work is that it was the first to propose a development model that operated on person-social environment interaction (Evans, Forney, Guido, Patton, & Renn, 2010).

In the last two decades, developmental psychologists, most notably Jeffery Jenson Arnett (2000; 2004) introduced the existence of an *emerging adult stage*. Situated

between adolescence and adulthood, this stage is similar to Erikson's young adult stage in that it is a period in which individuals are driven to explore, develop, and maintain a committed romantic relationship. Distinguishing from Erikson's model, however, is Arnett's assumption that alongside intimate relationships, other significant relationships (e.g. friendships, family, community), career choices, and world ideologies are also undergoing a similar exploration and formation process (Arnett, 2004). Collectively making up personal identity, these psychosocial domains that were initially constructed within an individual's context of dependence undergo a re-evaluation, modification, and experimentation process during this period (Arnett, 2004; McGoldrick, Carter, & Garcia-Preto, 2011).

Another critical psychosocial demand that appears during emerging or young adulthood is the individual's process of finding their social place or niche in new social environments, particularly in the face of the loss or disruption of once close relationships during the transition (Arnett, 2004; Azmitia, Syed, & Radmacher, 2013). The multitude of competing psychosocial demands that emerge with the transition to college places great stress among incoming collegians.

In summary, theorists have assumed that mental health problems come from a failure to adaptively respond to the critical social-developmental challenges that arise from the individual's developmental context. Therefore, the etiology, progression, treatment, and outcomes of psychosocial problems such as loneliness and anxiety are contingent on social relationships and social skills (Burke, Wosidlo, & Segrin, 2013; Segrin & Flora, 2000). However, in the face of deteriorating collegian psychosocial health and increasing demand for counseling services on college campuses across the

country, researchers have observed that a large majority of collegians first turn to their unequipped peers for help (Gallagher, 2011; Morse & Schulze, 2013; NAMI, 2012; NASPA, 2014).

### **Why Is This Program Needed?**

Relationship education needs to be brought into higher education settings, as it is here where interpersonal relationships play a critical role towards a variety of behavioral and mental health outcome variables. From a developmental standpoint, transitioning emerging adults undergo two major competing social demands: (a) a need to reorient relationship with parent(s) and family members (Arnett, 2004; Tanner, 2006) while (b) moving toward their peers, dating or intimate partners, as well as their new communities with greater intimacy and relational reciprocity (Chow, Roelse, Buhrmester, & Underwood, 2011; Fincham, Stanley, & Rhoades, 2011; Smetana, Campione-Barr, & Metzger, 2006). Students who face these demands may not possess the knowledge, skills, or resources to judiciously navigate them. Conversely, the knowledge and skill to enact good interpersonal judgment as well as “form, maintain, and end relationships gracefully with others well” (Snyder, 2006, p. 161) allows students to not only reorient their family relationships but also move towards others in a deeper and more meaningful way. Within the upstream focus of relationship education, working with this population provides greater opportunities for preventable impacts (Stanley & Rhodes, 2009) as “more variables related to longer term outcomes are amendable to change” than during full adulthood, such as intimate partner choice (Fincham et al., 2011, p. 295).

Researchers have documented an association between reciprocating and healthy relationships among young adults and psychosocial well-being, as well as interpersonal resilience, academic persistence, and healthy identity development (Hartley, 2011; Larsen, Sandberg, Harper, & Bean, 2011; Murphy, 2011; Rhoades, Stanley, Markman, & Ragan, 2012; Ungar, 2012). Alternatively, many of the factors contributing to mental health problems are social in nature (Wright, Wright, & Jenkins-Guarnieri, 2013). Zurilla, Chang, Nottingham, and Faccini (1998), for instance, found that the level of differences in interpersonal skills and demographics like race, sex, and sexual orientation between collegians contribute to depression. In separate studies on the same populous, researchers found that communication skills can be a mediator between loneliness and depression (Berg & McQuinn, 1989; DiTommaso, Brannen-McNulty, Ross, & Burgess, 2003). Along a similar vein, the transition from home to college is an emotionally and socially demanding transition (Cantor, Kemmeleer, Basten, & Prentice, 2002). Psychosocially, this is a destabilizing experience for many young adults. Ames and colleagues (2011) proposed that with this transition comes a loss of significant emotional connections, which on one hand activates the attachment or bonding system while on the other places the young adult in an socio-emotionally vulnerable position. The inherent socio-emotional vulnerability of this *launching period* (McGoldrick et al., 2011) makes it an opportune time for intervention, as psychosocial risks and growth opportunities are naturally found here (Fincham et al., 2011).

### ***Existing Relationship Education Programs***

Despite the plethora of preventative relationship education programs that theorists

have created and evaluated for seriously dating or married couples (Cottle, Thompson, Burr, & Hubler, 2014; Stavrianopoulis, 2015), evidenced-based relationship education programs for a college-aged populous who are engaged, dating, or otherwise, are few. Aside from the work Cottle et al. (2014) did with *Within My Reach*, a separate study by Braithwaite, Devlevi, and Fincham (2010), and Springer's (2014) dissertation, research on the effects of a relationship education program on college student behavioral and mental health over the past few decades has been, at best, sporadic.

The lack of programs and research is surprising considering that the most common reason collegians seek counseling services is for relational difficulties, particularly intimate ones (Davila, 2011; Stavrianopoulis, 2015), that they have with their peers (Brown, Feiring, & Furman, 1999; Creasey, Kershaw, & Boston, 1999; Fincham et al., 2011). Additionally, there is mounting evidence that adolescents and young adults' romantic relationships and friendships are psychosocially formative (Almquist et al., 2014; Connolly & Konarski, 1994; Davila, 2011; Felmlee, 2001; Larson, Clore, & Wood, 1999; Rauer, Pettit, Lansford, Bates, & Dodge, 2013; Ungar, 2012; Van der Horst & Coffé, 2011). Although there are few relationship education intervention programs, and even fewer studies on the effects of these programs on college students, researchers' findings suggest that individuals are receptive to participation in such programs and that these programs have positive effects on their attitude, communication skills, and relationships characteristics (Cottle et al., 2014).

### **Psychosocial Outreach Program: Relationship Intelligence Quotient (rIQ)**

Relationship IQ (rIQ) (Parmelee, 2014) is a relationship education program

specifically designed for a college-aged audience. rIQ's program content, which researchers formed based on student-reported felt needs consists of six core topics : (a) friendships (b) healthy communication (c) dating (d) relationship with God (e) sex and (f) social boundaries. In addition to didactically disseminating empirically sound information on healthy development in these domains, theorists have structured rIQ is structured to provide increasing levels of dosages, with higher dosages consisting of activities, discussions, mentoring, and internship positions that promote social participation, introspection, and practice.

### ***Program Theory***

The program's content and organizational structure is grounded in the *socio-emotional resituation framework* (SERF), proposed here as a new interdisciplinary theoretical framework that combines the *Multicontextual Framework* (McGoldrick et al., 2011) *social exchange theory* (Homans, 1958), *social capital* (Putnam, 2000), and the *recentering process* (Tanner, 2006). This eclectic framework serves as both the program's conceptual model and theory of change. and we will map these out in the next two parts.

### ***Conceptual Model***

SERF assumes that young adult development occurs through a variety of emotionally significant relationships. These significant relationships are not only situated in the individual's social environment but exert differing levels of felt influence. As Figure 1.1a illustrates, SERF stratifies these relationships. The more central layers of this

model represent the more emotionally and physically close relationships (e.g. immediate family) while the outer layers of Figure 1.1a constitute more emotionally and socially distant ones (e.g. community, culture). Although distant relationships are not as directly connected to the individual, this does not imply that they are of less influence. Rather, these broader macro-level systems exert encompassing influence to the systems nested closer to the individual (see vertical and horizontal arrows in Figure 1.1a), particularly in terms of the management of tangible (e.g. money) and intangible (e.g. love) resources—social processes that invariably shape close relationship expectations and outcomes.

With the launch away from home, socially and emotionally destabilized collegians are keen on finding connection with others in their new social context (Ames et al., 2011). The process of relationship development, maintenance, and decay during this transition is based on a dynamic balance of rewards and in their social exchanges (Nakonezny & Denton, 2008). SERF assumes that although not initially, young adults eventually evaluate the costs and benefit of their social connections and the nature of this process interplays with mental health. These assumptions are based on Social Exchange Theory's core idea that people are driven to maximize rewards while reducing costs (Sabatelli & Shehan, 1993; Thibaut & Kelley, 1959). Healthy relationships that maintain a delicate balance between costs and rewards are not only important in promoting meaningful and reciprocating social connections but also academic persistence (Credé & Niehorster, 2012; Goguen, Hiester, & Nordstrom, 2010; Hartley, 2011; Lee, Dickson, Conley, & Holmbeck, 2014; Mattanah et al, 2012; Nicpon et al., 2006).

SERF also holds that along with expending a great deal of energy and attention on finding individuals, collegians are also driven to finding and establishing social capital



(Arnett, 2004; Azmitia et al., 2013). In Social Capital theory, *social capital* refers to the “connections among individuals—social networks and the norm of reciprocity and trustworthiness that arise from them” (Putnam, 2000; p. 19). Having social networks or niches within the university is critical to cultivating a sense of social integration (Almquist et al., 2014; Anderson, Goodman, & Schlossberg, 2012; Azmitia et al., 2013; Buote et al., 2007; Cantor et al., 2002; Hefner & Eisenberg, 2009; Pittman & Richmond, 2008; Putnam, 2000; Van Der Horst & Coffé, 2012). The task of finding social capital brings into focus two separate yet related issues: (a) the ability to read and successfully navigate the social environment through (b) finding outlets for participation in it (Cantor et al., 2002). Furthermore, SERF assumes that healthy and supportive social networks play an important role in shielding individuals from social isolation and mental illness.

Cutting across (Figure 1.1b), as well as bridging (Figure 1.1c), the layers of the surrounding social context are two schematic representations of time—the vertical and horizontal axes (McGoldrick et al., 2011). Historical issues found and transmitted through families (e.g. genetics, religion, cultural markers, loaded family issues, psychological and/or biological heritage, attachment) and society (e.g. cultural and societal histories, social hierarchy, stereotypes, gender) flow downward to collegians along the vertical axis (Figure 1.1a). These vertical-based stressors are akin to the ‘hand that the young adults are dealt’ and invariably shape their skills, knowledge, and abilities to adapt to the college environment.

The various developmental challenges and unpredictable influences that collegians, their families, and society face as they pass through time (e.g. life transitions, economic recession, accident, death, natural disasters) exist along the horizontal axis

(Figure 1.1a). Furthermore, the horizontal axis represents how people live their lives in societies that have “inherited (vertical) norms of racism, sexism, classism, and homophobia, as well as ethnic and religious prejudices, as they are manifested in social, political, and economic structures” (McGoldrick et al., 2011, p. 7). The two axes intersect at the individual, who serves as the central nexus into which the social environment pours, and who is also the instigator to which the social environments respond (see Figures 1.1b and 1.1c).

As the models depict, the transition to college occurs in three stages. In Stage A, adolescents are situated within their context of dependence. In this setting, parents, teachers, and the community are responsible for the adolescents’ behavior, development, and adjustment. The typical concrete marker, as well as initiation of this stage, is the legal emancipation of teens at the age of 18 (Arnett et al., 2011). Along with the lifting of restrictions that define legal and social dependence, adolescents are expected to make more life choices on their own (Arnett et al., 2011; Tanner 2006). Gould (1978) noted that “until the age of 16 or 18, we have only been the lowly actor in our lives—others have been the producers, directors and screenwriters” (p. 45).

In Stage B, young adults have departed from their context of dependence and are now situated in a state of transitory social and emotional interdependence. Unlike any other period in the lifespan, individuals are socially permitted, if not encourage, to explore possible adult roles; many choose to do so in terms of academic or occupation, world ideology, and interpersonal relationships (Arnett, 2004; Arnett et al., 2014). As the perforated line that encompasses young adults’ psyche, emotional, and spiritual self denotes (see Figure 1.1b), a consequence of this exploration process is a suspension of

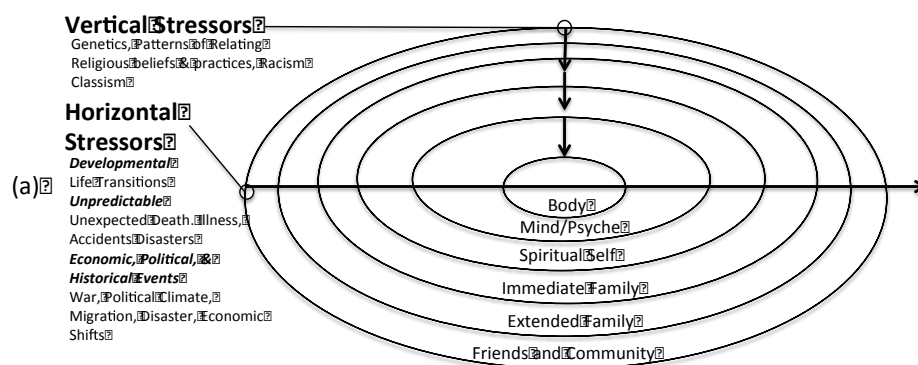
social, emotional, and spiritual boundaries. These yet-to-be confirmed boundaries are tied to identities and roles during childhood and adolescence, as well as to new temporary adult ones (Tanner, 2006). Resituating young adults are, on one hand, tasked with reorienting their relationship with their families while, on the other, establishing their independence from them by finding and establishing their social identity apart from their childhood context. From a developmental standpoint, this resituating process does not occur apart from others; the vertical and horizontal stressors connect the developing individual to individuals and social networks in both contexts and through their past and present unfolding social transactions, color the trajectory and outcome of this stage.

In stage C, the young adult has made enduring role and relationship commitments, thereby completing the task of resituating him or herself. These commitments promote the solidification of adult responsibilities and roles that establishes stability of relationship with others. The emerging demands of the adult world compel the move towards role and responsibility commitments, which encourage young adults to “maintain a consistent self, one who meets the expectation and responsibilities of these system commitments [that replace the] exploratory self” (Tanner, 2006, p. 30). This teleology is not one of autonomy from the young adult’s context of dependence but rather the establishment of a state of committed relational interdependence.

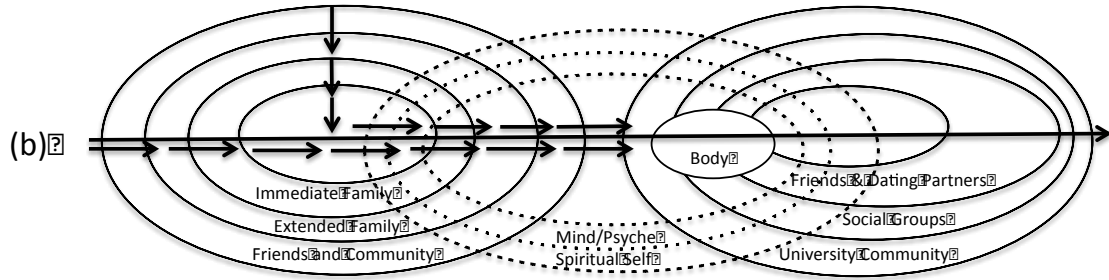
By holding a stratified orientation of the social contexts through which these young adults pass in time, both vertically and horizontally (see Figures 1.1b and 1.1c), it (1) permits a systemic understanding of the multiple social forces that intersect at each individual collegian; (2) provides an dynamic understanding of collegians’ social resources in the face of the social and emotional challenges of their transition; (3)

outlines the interplay between the multiple social networks to which the young adult belongs; and (4) provides a roadmap of the critical points of intervention that take advantage of multiple social resources found on college campuses.

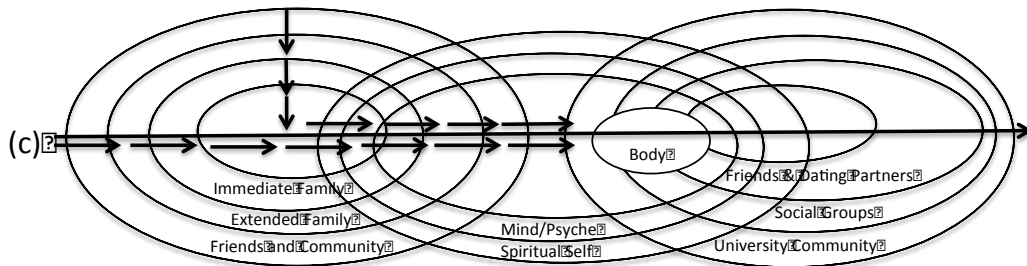
Furthermore, this stratified framework provides the grounding to formulate a series of strategic interventions that permits the recruitment, as well as integration, of students, families, and the varying levels of university personnel (e.g. professors and administrators) into the effort towards cultivating young adult interpersonal, mental, and behavioral health.



**Figure 1.1a.** SERF three-step transition process. Adapted from *Individual, Family, and Social Perspective: The Expanded Family Cycle* (4<sup>th</sup> ed.) by M. McGoldrick, B. Carter, and N. Garcia-Preto. Boston, MA: Allen & Bacon and from “Recentring During Emerging Adulthood: A Critical Turning Point in the Human Life Span.” In J.J Arnett & J. L Tanner (Eds.), *Emerging adults in America: Coming of Age in the 21<sup>st</sup> century* (pp. 21-55). Washington, DC: American Psychological Association.



**Figure 1.1b.** SERF three-step transition process. Adapted from *Individual, Family, and Social Perspective: The Expanded Family Cycle* (4<sup>th</sup> ed.) by M. McGoldrick, B. Carter, and N. Garcia-Preto. Boston, MA: Allen & Bacon and from “Recentring During Emerging Adulthood: A Critical Turning Point in the Human Life Span.” In J.J Arnett & J. L Tanner (Eds.), *Emerging adults in America: Coming of Age in the 21<sup>st</sup> century* (pp. 21-55). Washington, DC: American Psychological Association.



**Figure 1.1c.** SERF three-step transition process. Adapted from *Individual, Family, and Social Perspective: The Expanded Family Cycle* (4<sup>th</sup> ed.) by M. McGoldrick, B. Carter, and N. Garcia-Preto. Boston, MA: Allen & Bacon and from “Recentring During Emerging Adulthood: A Critical Turning Point in the Human Life Span.” In J.J Arnett & J. L Tanner (Eds.), *Emerging adults in America: Coming of Age in the 21<sup>st</sup> century* (pp. 21-55). Washington, DC: American Psychological Association.

### *Theory of Change*

Building on existing research that supported the notion that social interactions positively influence a variety of collegian relationships (Frisby & Martin, 2001; Johnson, 2009), learning ability (Deci, Ryan & Williams, 1996; Frymier, 2007), motivation

(Kerssen-Griep, Trees, & Hess, 2008), and mental health (Denenny et al., 2015; Hefner & Eisenberg, 2009), theorists using rIQ seek to systematically cultivate healthy relationships that promote these positive outcomes. The central assumption of rIQ's programming is that social relationships are a key intervention point with regard to mental health and well-being. For a majority of young adults, the awareness of personal and emotional difficulties typically arises from everyday interpersonal omissions. These omissions often compel young adults to seek relationship information and advice. Providing healthy relationship information within a relationship educational context can, on one hand, provide young adults with the information that they seek. On the other hand it can bring awareness of the deeper social and emotional issues that interplay with their interpersonal struggles. Furthermore, the less personally vulnerable nature of participating in an education-based program can act as an outreach to those in need of counseling or psychotherapy, or supplement those already in therapy.

In addition to the evidence that we gleaned from literature, this assumption comes from four interlocking principles of SERF: (a) young adults who have an “unparalleled opportunity to transform their lives” (Arnett, 2004, p.8) are (b) concerned with finding and establishing reciprocal social relationships making them (c) particularly open to learning about relationships, chiefly regarding relationships' function in (d) cultivating personal identity and agency. Researchers draw these principles from the assorted literature of the social and emotional demands associated with the home to college transition. For many college-bound freshmen, higher education functions as a personal socio-emotional laboratory. Longstanding higher education practices grounded in philosophical and literary traditions that promote the individual's journey towards self-

discovery supplement the plethora of courses, majors, career choices, relationship opportunities, and different ideologies that campuses offer (Astin, Astin & Lindholm, 2011). In response to these incentives, young adults “sample a variety of adult roles and life experiences in a self-focused identity quest” (Wang, Parmelee, & Eldridge, in press). Many possible futures remain open to young adults, who are beginning to make independent decisions for their lives.

While the prospect of transitioning away from dependency and into a context of increased personal freedom is exciting, many young adults have also reported feeling dread (Lee et al., 2014; Park, Edmondson, & Lee, 2012). Incoming freshmen that have left their homes experience a loss of social networks and routine social interactions that were foundational for their sense of home and self (Azmitia et al., 2013; McGoldrick et al. 2011). Ames and colleagues (2011) argued that these relational losses prompt the reactivation of the attachment system, compelling many to connect with others in their new social environment. While some adjust well, researchers have found a dramatic increase in loneliness among many freshmen (DiTommaso et al., 2003; Lamis et al., 2014; Mattanah et al., 2012; Nicpon et al., 2006). Loneliness, which is closely associated with inadequate social integration, places the young adult at greater risk of mental health ailments, academic underperformance, and poor adjustment to the higher education context (Credé & Niehorster, 2012; Mattanah et al, 2012; Morse & Schulze, 2013). The primary intervention principle on which rIQ operates is that the transmission of healthy relationship knowledge, skills, and tools of the program rises in parallel with the level of social participation. This social capital-based principle necessitates the combination of activities and discussions that cultivate social participation. To that end,

the program designers have formulated a four-phase intervention roadmap, as depicted in Figure 2.

### ***Organization: Stages of Participation***

Although the natural target audience is freshmen or first year students, the program is open to collegians of all class standings, ethnicities, ages, and religious preferences that are interested in learning about healthy relationships in relation to topics such as (a) God, (b) dating, (c) sex, (d) boundaries, (e) communication, and/or (f) friendships (see section A of Figure 2). rIQ follows its ascending participatory-based organization through structuring its program into four successive phases (see section B of Figure 2):

*Phase I* consists of large and small audience presentations on any one of six core content topics; large presentations constitute audiences consisting of 20 or more participants. rIQ staff, trained student interns, faculty, or guest speakers well-versed with the rIQ content found in the Relationship IQ Leadership Manual (Parmelee, 2014) will give multiple presentations throughout the academic term; either a single person or a team of presenters can give presentations. Locations of the presentations will include auditoriums, dormitories, classrooms, and other secure university settings that allow for undistracted focus and reflection on the content. In addition to being the first level of intervention, this phase also operates as a recruiting phase, when individuals are exposed to rIQ's program and content and are given the option to participate in higher levels if they choose to do so.



*Phase II* participants have often attended at least one Phase I presentation, although it is not a requirement. This phase is designed for students who are interested in exploring a particular rIQ topic in greater depth and/or who wish to connect with others in a more intimate way. Participants in this phase sign up for small group discussions (5-12 people per group) that trained rIQ leaders will head up, and who will organize and facilitate weekly meeting times and dates, as well as guide the in-depth discussions on a rIQ core topic for the first or middle six weeks of a semester. Weekly meetings will occur in safe and private, or semi-private, locations across campus (e.g. classrooms, faculty homes, or conference rooms). The rIQ Leadership Manual, which specifies the organization and content of each of the meetings, will guide these meetings. The small group format of Phase II aims to promote empowerment through inviting college students to participate in deeper discussions on any of the key program topics. Through these discussions, as well as the practice and mastery of the skills with each other, the small group format can provide shared relational experiences to participants. This phase is also designed to expose participants to their leaders' healthy relationship modeling and mentoring.

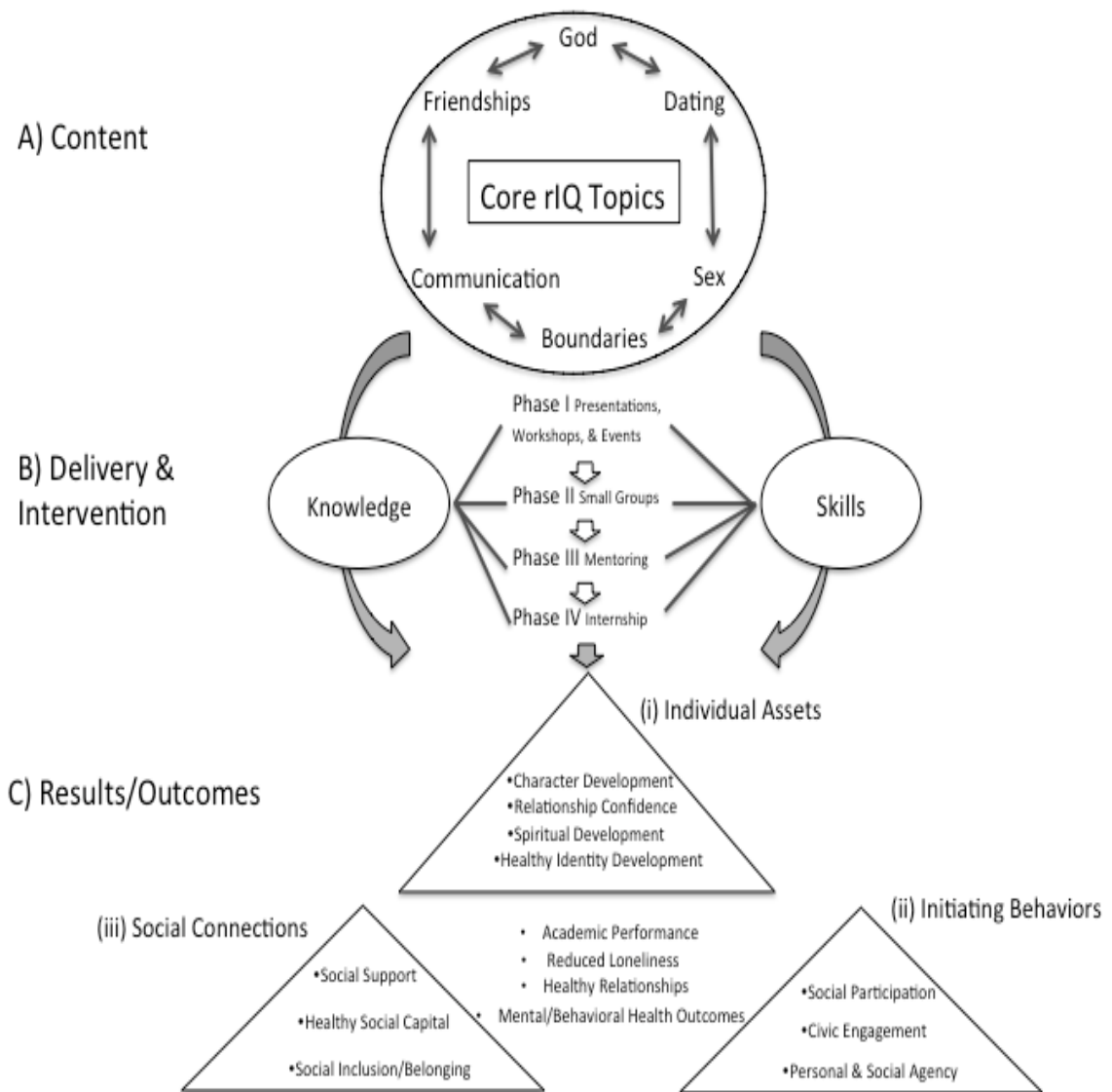
*Phase III* allows students to request to be matched with a trained rIQ personnel, faculty, or University-staff mentor; all of whom program staff have trained and assessed, and who are versed in rIQ's program content. Students will meet with their mentor on a regular basis throughout a semester (4-8 times per semester). These meetings will involve personal exploration of relational, spiritual, and professional matters. If mentees choose to do so, they will work alongside their mentor to develop feasible personal and spiritual goals, towards which the mentor will help the student process and work. In addition to

empowerment, this phase aims to give students an authoritative or wiser “[anchor] for the potential self...” acting as “...both cognitive and affective” inspirational support to young adults (Parks, 1986, p. 86).

*Phase IV* is where students, as interns, choose and negotiate their duties with rIQ staff to serve in any of the following capacities: (a) present at any one of the Phase I presentations; (b) lead a six-week small group at Phase II; (c) assist in program evaluation and research; (d) assist in administrative duties; (e) help create or plan new material for rIQ; or (f) negotiate with rIQ staff to use their unique gifting to serve rIQ in new ways that do not fit into any of the aforementioned categories. The highest level of intervention, being an intern, is synonymous to being an rIQ leader. Leadership in rIQ involves a deeper connection to the material, promoting self-authorship, identity development, self-responsibility, self-efficacy, and social integration, and interns are encouraged to mentor a peer in addition to their other duties in which they partake to further promote the outreach of the program’s mission and their personal growth. The phase-based structure of delivery operates on a social developmental matrix. Initially, the program runners assume young adults will pursue information about relationship difficulties before seeking psychotherapy.

While facilitators provide the crucial information about healthy relationship management, as well as the space for practical application at each phase, later stages direct young adults towards having healthy relational experiences with their peers and mentors. As section C of Figure 2 indicates, in cultivating young adults’ development, awareness, and healing through healthy relationship experiences, the program aims to (a) address underlying feelings of loneliness and social isolation, (b) equip students to

competently respond to their peers' appeals for help and (c) mobilize peer helpers—a heavily underutilized resource in higher education (Morse & Schulze, 2013).



**Figure 2.** Program theory of change and intervention roadmap.

## *Core Topics*

### **Friendships and Dating Relationships**

These relationships are typically salient topics among young adults. From an ecological perspective, these microsystem-level relationships typically function as the social and emotional gateway to the higher education community as they connect the individual to other microsystems and larger social systems. Researchers have documented that friendships and dating relationships increase a sense of connectedness with the university, thus cultivating academic motivation, adjustment to college, and the flow of key resources that promote wellbeing and academic performance (Buote et al., 2007; Goguen et al., 2010; Li, Frieze, Nokes-Malach, & Cheong, 2013; Pittman & Richmond, 2008). Additionally, these relationships play a critical role in the family differentiation or socio-emotional resituating process, as they promote the negotiations of family relations (Regalia, Lanz, Tagliabue, & Manzi, 2011).

### **Sex**

Sex is a topic closely associated with intimate relationships. Sexuality is a key medium that promotes voluntary union with others and the negotiation of family relationships. Not exclusively a physical activity, human sexuality in its relational forms, such as attraction, is a key factor in connecting and bonding. This is a prominent topic among college students and, as such, students may be exploring their sexual boundaries and beliefs during their college years. The common undergraduate practices of “hooking up” and having “friends with benefits” demonstrate this need for sexual intimacy and exploration (Helm, Gondra, & McBride, 2015; Lovejoy, 2015; Puentes, Zusman, &

Marty, 2008). The implications of engaging in sexual relationships without understanding sexuality's function in human relationships may lead to socio-emotional consequences—such as 'sliding into relationships' versus deciding to enter them—that undermine the bonding response of sex and could cause the students to become blinded to relationship issues. Additionally, students may suffer from negative physical consequences, such as contracting sexually transmitted diseases or unintentionally becoming pregnant (Fehr, Vidourek, & King, 2015). rIQ aims to disseminate critical research-based information on the relational impact and biochemical implications of physical and non-physical sexuality for young adults, in order to help them make informed and wise decisions about their budding sexual lives.

### **Healthy Communication and Boundaries**

Understanding these two aspects of health is arguably the most important skill for students to learn during the home-to-college transition. Theoretically, these areas are purposeful activities that not only interconnect all of the other core topics in the program, but that also predict social and emotional outcomes for better or worse. Good communication and boundary-setting skills are not only critical to students' renegotiation with parents, but also for their social integration into the higher education community as they permit the flow and containment of key resources (e.g. social support) (Small, Morgan, Abar, & Maggs, 2011; Wang, 2014).

### **God Relationship, Religion, and Spirituality**

Ideas around spirituality and religion have become far more important topics to

young adults today than they were over 30 years ago (Astin et al., 2010; Levenson, Aldwin, & Mello, 2006). Cultivating collegian's faith and/or spiritual beliefs fortifies spirituality's key functions as: (a) a meaning-making framework that promotes empowerment, purpose, and agency; (b) a resource in the "healing, recovery and resilience" (Walsh, 2009, p. 4) in the face of distress and suffering; and (c) a socially unifying belief system that facilitates the formation of healthy *bonding* and *bridging* skills (Putnam, 2000; Walsh, 2009, p. 32) and, perhaps, relationships (Merino, 2014; Miller & Kelley, 2006).

### **Conclusion**

rIQ's conceptual theory and theory of change are grounded in an integrated socio-emotional development framework. Delivered in a higher education setting, rIQ is designed to serve a broad collegiate populous interested in healthy relationship development, constructive relationship management, and social skills enhancement. Originally aiming to cultivate relationally healthy individuals so that they would later have healthy marriages and families, the program has since taken up an additional mission to address the relational difficulties that naturally interplay with loneliness and mental health ailments among collegians. Delivered within a relational matrix, this program systematically guides students to become active participants in cultivating healthy relationships with peers, mentors, and the higher education community. Future research on program outcomes and development will aim to further the program's missions and grounding theory.

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## **CHAPTER 7**

### **EPILOGUE**

This study had several objectives that are guided by a single aim. In terms of objectives, this study sought to a) exam data but unexamined data by rIQ over 3 years b) using the dataset, explore the interrelation between a variety of social and faith factors associate with college student adjustment and development and c) use the findings to lay the theoretical and statistical foundation for further study. Guiding these objectives is the aim of setting up a long-term research agenda for rIQ's program; research for the program aims to not only exam findings in greater depth but also to mature the program to become evidence based.

#### **General Findings Summary**

The findings suggest that over the course of one year in college, time, gender, relationship with God, and significant emotional relationships were associated with HRQL outcomes for collegians. Overall, collegian's HRQL dropped over the course of 1 year, with women experiencing a faster decline. Relationship with God was measured in two parts: a) level of God involvement/influence and b) the importance of faith. Significant emotional relationships quality includes relationships with one's mother, father, and friends.

For Christian collegians, the importance of their faith appeared to interact with the other individual main factors. Collegians who reported God as having high influence in their lives but did not see their faith as important saw a drop in their HRQL in comparison with those who said their faith is very important. This interaction suggests



that a reciprocating relationship or a collaborative posture with God is key to tapping into one's faith as a resource. This point reappears in the Psychosocial abuse history x Importance of faith interaction. Having a psychosocial abuse history was associated with a greater decline HRQL scores. However, among those who have a psychosocial abuse history and reported that their faith as very important to them, HRQL scores did not drop in comparison to those who had a psychosocial abuse history reported their faith was not very important. When it came to significant emotional relationships, compared with those who reported poor relationship with significant others, those who reported excellent relationship with significant others did not experience a drop HRQL over the course of the year. This finding is not surprising given the robust literature on social support's positive contribution to health and well-being. There was however a surprising finding in those who said their faith was very important as well as reporting excellent relationship with significant emotional others saw a decline in their HRQL scores over the course of the year. This finding may reflect other developmental processes stirring underneath the surface of current results. Limitations in terms of research design and data limit examinations of these processes. Future research is needed to bring out as well as flush out these underlying developmental processes.

Questions linger about whether and how faith and significant emotional relationships acts as mediator or moderator variables. Additionally, both variables have not been operationalized comprehensively in the data collection instrument leaving question about how the various dimensions of each concept interplay with a variety of HRQL and young adult outcomes. These questions will be explored in future studies.

### **Changes to Data Analysis Strategy**

The analysis strategy had to be modified. The original plan to build and run the GLM models on tables 2; 4-6 was not done because of the results on time. While time as a main factor predicted HRQL outcomes in step 1, it wasn't until step 3 of the analysis that it significantly interacted with the other variables implying that it has be viewed in relationships with other interactions and not alone. In addition to dropping time, class standing and age were also dropped due to the overrepresentation of Freshmen and 18 year olds in the sample of all (93% freshmen; 82% were eighteen years old). The underrepresentation of older and higher class-standing collegians and the overcasting SERF that grounded this study made analysis on freshmen only the most logical choice. Instead of running the original analysis plan, the main effect model at step 1 included time, gender, God influence, importance of faith, psychosocial abuse history composite (physical, emotional, and sexual abuse), rIQ beliefs, and significant emotional relationship quality. Time was run at level 2 and while the model did not fit well, it did fit with the overall model coming out as satistically significant.

The rational for running faith importance at level three was because of it relatively large coefficient value at Level 1. Finally, while significant emotional relationships contributed to HRQL scores at level one, it did not significantly contribute as an interaction variable base, even when it was set to be level 2. The insignificant contributes of time and significant emotional relationships resulted to the construction of a 3-level general linear model.

## **Manuscripts**

Two papers have emerged from this study. First was the theory-based journal article. In this paper, a newly proposed interdisciplinary model was proposed. This model, called SERF sought to describe and explain the social and emotional re-orientation process of the home to college transition, particularly how significant emotional relationship contributed to psychosocial health and resiliency for better or worse. This article broke the launching process into two parts, a conceptual framework well as the theory of change. The second paper was a data-driven paper. This paper aimed to explore and mine the data collected by rIQ over the course of 3 years. The paper found that time, gender, significant emotional relationships, and God relationships individually and in interacted with each other in ways that predicted whether HRQL scores dropped or not over the course of the year. The implications of the results from a research as well as program development standpoint were discussed in this paper.

## **Future Work**

Looking to the future, this study has laid the groundwork for several projects. First will be the formation of three research tracks. One track will aim to explore how significant emotional relationships, contribute to HRQL over time. This study track will aim to understand how parents play a role in young adult launching and eventual adjustment to higher education. Of interest will be how students reorient their relationship with their parents and how this process will determine HRQL and adult development outcomes. It is expected that this study will shed light on the social-emotional resituating process and help further refine SERF. Future studies will also

examine faith at greater depth, particularly how faith is a mediation as well as moderating variable. Faith which appears to play a significant role in collegian's lives may be a fertile topic of study on students. Questions about how faith manifests itself in times of social and emotional stress as well as how it can be fortified during the social and emotional transition will guide this track of research.

The second study track will be directed to understand how gender plays a role in HRQL over time. Results seem to show that gender plays a role in a) the rate of how HRQL drops over time as well as b) by gender, what unique factors guard against declines in HRQL over time. To further study these findings will first involved finding and administering scales with greater psychometric properties. The instrument used for this study was not only missing psychometric properties, but insubstantial in how they measured key variables (1-4 likert scale). More psychometrically robust scales would not only allow for more valid results but greater examination of how key variables influence student development and HRQL. For example, scales that operationalize faith and HRQL more systematically will allow for a deeper examination of the interplay between the many parts that make up faith and HRQL.

The final track will be focused on program evaluation. All the variable found to significantly contribute to HRQL will be integrate into the current rIQ program. This implies two things a) program content and deliver will modified and b) program evaluation will interplay with these modification. For example, an upcoming sub-topic in the works in rIQ's program focuses on the parent-young adult relationships. In this emerging part of the program, results of the study will not only be integrated into the

program content, delivery method, and execution but direct how research will study the interplay of program process and outcomes.

### **Conclusion**

This study sought to understand the college transition process. The study yielded findings that not only give further insight into this process but showed how time, gender, faith, and significant emotional relationships play a critical role. While much work needs to be done to better describe and understand this process, several conclusions could be drawn. One is that more work needs to be done to understand how to outreach to collegians whose mental health and well-being is deteriorating. Second, that collegians care very much of their relationship with significant emotional others and God even after launching, factors which have been previously assumed to be sidelined during this developmental period. Third and finally, collegians can be framed as not only as socially, emotionally, and spiritual situated between two significant social contexts, but require the active ongoing contributions of both in order to cultivate successful emerging adult development.

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