RACIAL DIFFERENCES IN THE RELATIONAL HEALTH AND DEPRESSIVE SYMPTOMS OF COLLEGE WOMEN

By

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by

Natalie F. Arce
This dissertation is dedicated to my grandparents: To my grandfathers, Hugo Arce and Frank Everett Harben; and to the memory of my grandmothers, Elvia Carrasquera Arce and Helen Robinson Harben.
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RACIAL DIFFERENCES IN THE RELATIONAL HEALTH AND DEPRESSIVE
SYMPTOMS OF COLLEGE WOMEN

By

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August 2004

Chair: James Archer, Jr.
Major Department: Counselor Education

The purpose of this study was to examine the relationships among peer, mentor,
and community relational health and depressive symptoms in a racially diverse sample of
college women. An additional purpose was to determine whether racial differences exist
among the levels of depression and relational health in college women. The study was
grounded in the Relational-Cultural Theory. A convenience sample of undergraduate
women was drawn from selected classes and campus organizational listservers. A total of
602 participants completed an on-line survey, which included the Relational Health
Indices, the Center for Epidemiological Studies Depression Scale, and nine demographic
questions. Data were analyzed using ANOVA and regression equations. Post-hoc tests
were conducted to analyze variables that demonstrated a significant main effect for race.
Results indicated a significant negative association among depressive symptoms and
peer, mentor, and community relational health in college women. Racial differences
were found for depressive symptoms, mentor relational health, and community relational
health. Findings suggest that growth-fostering peer, mentor, and community relationships may serve as a protective factor against depression for diverse groups of college women. Results of the study are presented, limitations are addressed, and the implications with regard to theory, practice, and research are discussed.
CHAPTER 1
INTRODUCTION

Depression presents a greater burden for women than any other mental problem or physical illness (Mazure, Keita, & Blehar, 2002). Women experience depression twice as often as men, and it frequently leads to negative social, physical, and economic consequences. Approximately 12 million women in the U.S. experience clinical depression each year, and as many as 20% of women will have at least one episode of treatable depression in their lifetime (National Institute of Mental Health [NIMH], 1999); however, researchers have been slow to focus efforts specifically on women’s depression (Stoppard & McMullen, 2003) and there are few outreach, prevention, or treatment programs that have been developed based on women’s unique experiences (Hammen & Gotlib, 2002).

Late adolescence and early adulthood is a time when implications of gender on depressive symptoms typically begin to emerge (Gilligan, 1982; McGrath, Keita, Strickland, & Russo, 1990; Nolen-Hoeksema, 1990; Nolen-Hoeksema & Girgus, 1994; Sparks, 2002). The American College Health Association (ACHA) (2002) found that 12.8% of college women have been diagnosed at some point with depression.

Depression and dysthymia are twice as likely to occur in college students as compared to people of similar ages and backgrounds in the workforce (Bonner & Rich, 1988). Research has shown that 53% of college students experienced depression since starting college and 9% reported considering suicide (Furr, Westefeld, McConnell, & Jenkins, 2001). Commonly cited causes of depression in college students are academic difficulty,
loneliness, financial problems, relationship issues, and hopelessness. Among female college students specifically, depressive symptoms are often related to specific stressors, including separation from home, adapting to a new community, and meeting new demands and roles as a student (Beeber, 1998).

Serious potential consequences of depression include the risk of suicidal behaviors and the increased risk for other medical, psychological, and social problems (Dixon & Reid, 2000; Katon & Sullivan, 1990; McGrath et al., 1990; Weissman, Wolk, Goldstein, et al., 1999). The incidence of suicide among young adults tripled from 1952-1995 (Centers for Disease Control and Prevention [CDC], 2002), and it is the 3rd leading cause of death in individuals age 15 to 24 (CDC, 2002; Insel & Charney, 2003). Depressive disorders and depressive symptoms are associated with physical and social limitations, translating into more days in bed and poorer health (Heiligenstein, Guenther, Hsu, & Herman, 1996). Depression in young adults often co-occurs with other mental health issues such as anxiety (Brown, Harris, & Eales, 1996), disruptive behavior, and substance abuse disorders (Angold & Costello, 1993; Regier, Rae, Narrow, et al., 1998). For women in particular, there is a strong relationship among depression and eating disorders (Wilcox & Stattler, 1996), anxiety disorders (Breslau, Chilcoat, Peterson, & Schultz, 1999; Brown et al., 1996) and substance abuse (Mazure et al., 2002; NIMH, 1999; Rao, Daley, & Hammen, 2000). In addition to serious physical, psychological, and social problems reflected in the general population, depression can have a compounding negative impact on the interpersonal relationships (Goldstein, et al., 1999; Gotlib & Hammen, 2002; Weissman, Wolk), academic performance (Heiligenstein et al., 1996), and attrition rates of college students (Blumberg & Flaherty, 1985; Meilman, Manley,
Gaylor, & Turco, 1992). The impact of depressive symptoms on academic achievement, relationship formation, and commitment to lifetime goals in college may lead to long-term consequences beyond college (Beeber, 1999; Nolen-Hoeksema & Girgus, 1994).

Physical and psychological symptoms of depression common in young adults include persistently sad or irritable mood, loss of interest in activities once enjoyed, significant changes in appetite or body weight, sleep disturbance, lethargy, feelings of worthlessness or guilt, suicidal ideation, and difficulty concentrating. According to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM-IV-TR) (American Psychiatric Association [APA], 2000), five or more of these symptoms must be present for 2 or more weeks before a diagnosis of major depression is indicated. However, the presence of merely one of these symptoms has the ability to significantly affect physical and psychological functioning. Additional signs of depression in young adults include recurring, non-specific pain, frequently skipping class or poor academic performance, substance abuse, social isolation, and decreased communication (APA, 2000). Common depressive symptoms specific to young women are eating disorders, dissatisfaction with one’s body, significant weight loss or gain, chronic headaches, and self-destructive behaviors (Sands, 1998). It is important to note that these behaviors may manifest particularly during times of transition, increased stress, and changing social role expectations (Hazler & Mellin, 2004).

While the transition to college offers young women opportunities for new relational connections, intellectual growth, and career development, there are also stresses associated with those changes that have the potential to exacerbate existing depressive
symptoms. The stress related to the transition and adjustment to college has often been identified as a risk factor for developing depression in young women (Beeber, 1999; Cutrona, 1982). Relational explanations of stress in college transition include the changes in peers and loss of friendships. Preoccupation with friendship dynamics is a significant source of distress affecting college adjustment via increased loneliness and lower self-esteem (Paul & Brier, 2001). As a result, students with poor social skills are more vulnerable to the development of depression, loneliness, and social anxiety as they adjust to college (Segrin & Flora, 2000). Conversely, students who maintain close friendships through the transition seem to be buffered from social loneliness (Oswald & Clark, 2003).

College transition and adjustment may pose even more difficulties for women of color. In Black communities there are typically more opportunities for receiving social support through access to extended family and social networks (Carr, Gilroy, & Sherman, 1996; Collins, 1990). Extended kinship networks are also prevalent in Hispanic families (Bernal, 1982; Garcia-Coll & Mattei, 1989). Therefore, when women of color go to college, particularly one with a predominately White population, they may be distanced from their built-in social and family networks, thereby leaving them vulnerable to feelings of isolation and depression. Research on Black students’ experiences at a university with a predominately White population has shown that students high in race-based rejection sensitivity experience more difficulty during the college transition (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). The same study, however, demonstrates that positive race-related experiences and connections increase one’s sense of belonging and help with the transition.
Research on minorities’ experiences during their transition and adjustment to college has revealed factors that predict depression, play a protective role against depression, and impact their stress. Relational and cultural variables (specifically attachment to family networks and cultural traditions) predict academic, emotional, and global adjustment to college for minority students (Dewitt-Parker, 2000). For Asian American students, a positive relationship was found between social support and adjustment (Tao, Dong, Pratt, Hunsberger, & Pancer, 2000); alternatively, lack of social support, in addition to loneliness and a small network size, predicts depression during the adjustment to college (Kim, 2001). In addition to the institutional discrimination that minority students often face, they also experience subtle or blatant discrimination from other minority students, particularly if these peers perceive them to be identifying with the majority group (Ford, Harris, & Schuerger, 1993). Undoubtedly, support networks are critical to the adjustment of minority college students, yet additional information is needed to make definitive conclusions about how to deter depression.

Although research on depression in college students has emerged in the literature, there has been little examination focused exclusively on depression in college women. In particular, the roles that specific types of relationships play in protecting college women against depressive symptoms have not been determined. Additionally, there is little information on the differences in depressive symptoms among racially diverse groups of college women. This study contributes to the small amount of literature on college women of color, and it may offer an enhanced picture of women’s experiences with depression and the types of relationships that may serve as preventative factors against depression.
Theoretical Framework

Traditional theories of human development place an emphasis on the task of separation and individuation leading to autonomy, particularly during late adolescence (Chickering, 1969; Erickson, 1963). Although Erikson’s theory of development emphasized social context and the resources that individuals build as they face developmental and environmental challenges in life, his stage model emphasizes a relatively quick progression to autonomy and independence over the struggle between intimacy and isolation. Erikson’s model sets the solidification of identity and differentiation as a primary task for late adolescence and young adulthood.

Erikson’s research on late-adolescent development prompted a separate inquiry into college-student development. Sanford (1962, 1966), one of the first developmental theorists to specifically discuss college-student development, emphasized the need for balance between challenge and support, recognizing support from others as an important part of development. However, the amount of support is important: too much support creates a comfort zone, and can inhibit student growth. Therefore, even though support is recognized, the goal is still independence and autonomy. One of the best-known models of college development was introduced by Chickering (1969); it parallels Erikson’s (1963) idea that seeking autonomy before forming relationships is central to healthy development. Chickering’s (1969) original seven vectors were:

1. developing competence
2. managing emotions
3. developing autonomy
4. establishing identity
5. freeing interpersonal relationships
6. developing purpose
7. developing integrity
Over the years, some theorists (Greeley & Tinsley, 1988; Straub, 1987; Straub & Rodgers, 1986; Taub, 1995; Taub & McEwen, 1991) have questioned the applicability of Chickering’s model to female college students and students from diverse ethnic and racial backgrounds. The original model was criticized primarily for the belief that autonomy must precede intimacy for late adolescent and young-adult development. Research found that Chickering’s vector related to autonomy development did not seem to fit college women’s descriptions of their experiences. Instead, they more closely paralleled Chickering’s description of the vector related to freeing interpersonal relationships (Straub, 1987). In the revised *Education and Identity* (Chickering & Reisser, 1993), Chickering moved the vector of “interpersonal relationships” before the “establishing identity” vector and changed the name of the “freeing interpersonal relationships” vector to “moving through autonomy to interdependence.” The revised edition places a heavier emphasis on the recognition of the importance of interdependence, strong, interpersonal commitments, and communion with other individuals and groups. However, the model still places “developing autonomy” and “freeing interpersonal relationships” as two separate constructs and emphasizes that the vectors describe key paths for progressing toward individuation. The revised theory provides a basic framework to help understand movement that students make throughout college, but does not provide insight into the richness or importance of college women’s relational experiences and how they could possibly serve as protective and facilitative factors during development.

In response to observing the experiences of women more closely, there has been a paradigm shift toward relational theories for the explanation of human development (Chodorow, 1978; Belenky, Clinchy, Goldberger, & Tarule, 1986; Gilligan, 1982; Jack,
Relational theories attempt to provide alternative ways of thinking about human identity development and challenge the traditional emphasis placed on separation and individuation, focusing instead on the basic human need for connection and interdependence (Chodorow, 1978; Jordan et al., 1991; Miller, 1976; Surrey, 1985).

The quality of relationships often moderates depression in women (Belle, 1982; Genero et al., 1992; VanderVoort, 1999) along with support systems (Pratt et al., 2000; Reyes, 2002) and the presence of intimate, confiding, supportive relationships (Beeber, 1999; Lin et al., 1986; NIMH, 2000); furthermore, perceived and received support in relationships may be more important than network size (Weinstein, 2002). Optimism, as a result of perceived social support rather than actual network size, is associated with smaller increases in stress and depression in college students (Brissette et al., 2002). Conversely, destructive or ineffective relationships are associated with lowered self-esteem and, consequently, depressive symptomology (Beeber, 1999).

Gilligan’s (1982) research on a group of adolescent girls shows that their senses of identity developed through and because of their relationships. These girls defined themselves in relational terms such as “giving,” “helping,” “caring,” and “being kind to others.” Kaplan (1986) describes the foundation of girls’ identity development as based on the “reciprocity of affect” and on the “flow of empathic communication and mutual attentiveness from one to the other.” It is within these types of relationships, which are based on facilitating connections that girls begin to develop a sense of self-competence. Belenky and colleagues (1986) added to the relational paradigm shift by describing women’s “ways of knowing.” They believe that women tend to construct and develop
knowledge through “connected knowing,” which is contextual and experiential; versus “separate knowing,” which is objective and uses logical analysis.

Another relational theory, which provides the theoretical framework of this study, is the Relational-Cultural theory (RCT). The Relational-Cultural theory was developed by feminist scholars and researchers at the Stone Center at Wellesley College. The foundation for RCT, originally termed “self-in-relation theory,” suggests that identity development occurs through psychological connection and mutual sharing and that a woman’s self-worth is grounded in her ability to create and maintain relationships. The ability to grow and develop within a relationship leads to mutual empowerment and the desire for increased connection (Jordan et al., 1991). Jordan (1997a, p.15) wrote, “We are suggesting that the deepest sense of one’s being is continuously formed in connection with others and is inextricably tied to relational movement.”

Relational movement in growth-fostering relationships develops within the context of qualities such as mutual engagement, authenticity, and empowerment/zest. Mutual engagement is defined as the perceived mutual involvement, commitment, and attunement to the relationship (Liang, Tracy, Taylor, Williams, Jordan, & Miller, 2002). Engagement within relationships has been shown to mediate stress and depression among college women (Beeber, 1998). Authenticity is a person’s evolving and ongoing ability to represent herself genuinely in the context of relationships (Liang et al., 2002). It is “an ongoing challenge to feel emotionally real, connected, vital, clear, and purposeful in relationships (Mencher, 1997, p. 323).” Authenticity in relationships helps women acquire self-knowledge as well as an increased knowledge of the other person in the relationship (Miller & Stiver, 1997). Empowerment/zest is the feeling of vitality and
energy gained from engaging in growth-fostering relationships (Miller, 1976). Also, it is a feeling of being strengthened, encouraged, and motivated to action in one’s life (Liang et al., 2002).

The nature of young girls’ and women’s relationships has been studied in terms of whether the quantity or quality of relationships is more important, and researchers have found that the quality of supportive peer relationships and social networks is more important, particularly in mental and physical health, than a specific number of friends (Belle, 1982; VanderVoort, 1999; Weinstein, 2002). Women’s relationships tend to be self-disclosing, empathic, and intimate (Genero et al., 1992). Three types of close relationships (beyond parent or intimate relationships) that seem to be significant for the development of college women include peer relationships (Furman & Buhrmester, 1992; Veroff, 1997), relationships with adult mentors (Blyth, Hill, & Smith, 1982; Darling, Hamilton, & Niego, 1994), and community relationships (Kirton, 2000; Mears, 2002; Pratt et al., 2000).

Relational health, measured by the Relational Health Indices (Liang et al., 2002) and grounded in the Relational-Cultural theory, is a measure of the level of connection in college women’s relationships with a peer, a mentor, and her community. Little empirical research has focused on the relational dynamics and depressive symptoms in college women. Additionally, even less is known about the relationship between depressive symptoms and relational health in college women of color. In the study used to develop the Relational Health Indices, Liang et al. (2002) used the Center for Epidemiological Studies Depression scale (CES-D) (Radloff, 1977) as a measure of concurrent validity, and found that there was no significant correlation between the relational health of peer
or mentor relationships and a moderate association with college community relationships. The current study continues to look at whether a relationship exists between depressive symptoms and relational health in college women.

**Statement of the Problem**

The prevalence rate for lifetime occurrence of Major Depressive Disorder (MDD) in American adults is 16.2% (Kessler, Berglund, Demler, et al., 2003). Kessler et al. (2003) found depression widely distributed in the population, and associated it with significant role impairment and symptom severity. Respondents with 12-month MDD report an average of 35.2 days in which they are unable to accomplish their everyday activities because of their depression. The NIMH (2000) estimates that depression affects more than 19 million Americans aged 18 or older annually, yet only one-third seek professional assistance despite the fact that treatment can significantly help in 80% of cases.

When college students do seek help, treatment is often sought from mental health professionals in college counseling centers and student health care centers. An identification of problems earlier and an increase in prevalence of psychological problems have turned these counseling resources into a significant front line for the mental health care system. Seventy-seven percent of college counseling center directors indicated that an increase in the numbers of students with severe psychological problems was of concern to their center (Gallagher, Gill, & Sysco, 2000). Many students are coming to college already diagnosed with depression; although, some researchers have found no differences in college mental health center clients’ perceived distress in recent years (Cornish, Kominars, Riva, McIntosh, & Henderson, 2000; Pledge, Lapan, Heppner, Kivlighan, & Roehlke, 1998), the prevailing assertion is that the clients who seek services
from college mental health care centers are increasing in frequency and severity (Benton, Robertson, Tseng, Newton, & Benton, 2003; Gallagher et al., 2000; Heppner et al., 1994). Benton et al. (2003) reported that over the past 13 years the rates of depression at one large university counseling center have doubled, the rates of suicide have tripled, and that students seen more recently had more complex problems with typical developmental and relationship issues, combined with more severe problems like depression, anxiety, and suicidal ideation.

Depression has become an inescapable issue on campuses around the country, so much so that the University of Michigan Depression Center co-sponsored the inaugural Depression on College Campuses national conference in 2003. Depression, when left untreated, can worsen, last longer, and possibly lead to suicide. Less-severe effects of depression in college students include high attrition rates, physical and psychological suffering, and conflictual interpersonal relationships (Blumberg & Flaherty, 1985; Gotlib & Hammen, 2002; Heiligenstein et al., 1996; Meilman et al., 1992). Depression typically starts early in life, tends to run a chronic course, and produces significant impairment (Insel & Charney, 2003). Therefore, it is important to intervene early, to avoid the progression of depressive symptoms in college students.

It has been proposed that part of the increase seen in depression in college students is related to the increased number of stresses millennial students face, including economic, social, technological, and cultural stress (Newton and Benton, 2003; Voelker, 2003). Common stressors that are part of college life include academic demands, new financial responsibilities, changes in social groups, development of personal boundaries, family issues, and anxiety about life after graduation. In addition to the general stressors
faced by all college students, female college students may be at greater risk for additional stress and negative experiences, such as reproductive-related events, higher rates of sexual and physical trauma, and the loss of power in relationships through gender-role socialization (McGrath et al., 1990; NIMH, 2000; Nolen-Hoeksema, 2002). Depression impacts female college students at a rate of approximately 12.8% (ACHA, 2002), which is a rate two times higher than for male college students.

The gender differences in depression rates rise substantially during the transition from childhood to adolescence to adulthood (Carr, Gilroy, & Sherman, 1996; Gilligan, 1982; Jack, 1987b; Nolen-Hoeksema, 1990; Nolen-Hoeksema & Girgus, 1994; Sparks, 2002; Stiver, 1991). Some researchers have attributed the rise in depression rates in adolescent girls to the cultural view that women’s concern with relationships is unhealthy or a sign of dependency; however, relational theorists suggest that a reason for increased depression rates is the disconnection between the cultural pressure to individuate and women’s inclination to remain connected in their most important relationships (Carr, Gilroy, & Sherman, 1996; Gilligan, 1982; Jack, 1987b; Nolen-Hoeksema, 1990; Stiver, 1991). Kaplan, Gleason, and Klein (1991) support the relational position, and argue that increased interdependency in relationships is an important goal for young women; and that inadequate relational experiences (not dependency needs) contribute to depression in women.

Researchers have posed multiple models for how gender differences in depression emerge in adolescence. Nolen-Hoeksema and Girgus (1994) described and evaluated three models for how gender differences might develop in adolescence, and concluded (on the basis of their literature review) that risk factors for depression that develop during
childhood merge with biological and social challenges for adolescent girls, thus increasing the likelihood for depression. Wichstrom (1999) presented a similar view, intensified gender-role socialization and subsequent developmental challenges at the time of late adolescence explain the emergence of gender differences in depression. Differences in depression are partially explained by an increase in developmental challenges for females, including pubertal development and increased pressure to conform to feminine sex-roles (Wichstrom, 1999). Regardless of how gender differences influence depression, by young adulthood the significant two-to-one ratio between women and men is present across ethnic and racial groups. The problem of depression in women is significant and deserves attention. Depression should be examined among women in college because rates of depression are significantly rising; and because the consequences of experiencing depression in college are physically, psychologically, socially, and academically costly.

**Need for the Study**

The cause of depression remains undefined (Insel & Charney, 2003), although reproductive, hormonal, genetic/biological, psychological, social, and environmental stressors (including abuse and oppression) have been identified as risk factors (NIMH, 2000). Even though theoretical models differ, there is agreement that the etiology of depression is multifaceted. Since depression is often progressive in its course and most women will go untreated, it is important to identify protective factors that can inform outreach, prevention, and treatment strategies, which will prevent unnecessary losses for women (McGrath et al., 1990). This study examined the relational domain of depression and whether connected peer, mentor, and community relationships can serve as a protective factor in the development of depression.
Impairment from depression and depressive symptoms, especially its impact on productivity, is a significant personal and societal issue. Depression is ranked as one of the largest “disease burdens” in the world, and it is the third leading cause of mortality and lost workdays (World Health Organization, 2002). Compared to many other medical illnesses, depression is associated with higher medical costs, greater disability, poorer self-care, and increased morbidity and mortality (Katon & Sullivan, 1990). In terms of the impact on labor costs in the U.S. workforce, workers with depression cost an excess of $31 billion per year compared with workers without depression (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003).

Costs-of-depression estimates do not typically include non-labor market participants, such as college students; however, rates of depression among college students have risen and not only cause a strain on college mental health resources, but also cause serious personal suffering for the student and can often predict the development of depression beyond college. While depression can develop at any age, the average age of onset is the mid-20s (APA, 2000). According to the Centers for Disease Control, the average age of onset for depression has dropped from 28 to 20-years-old over the last 20 years (Newton & Benton, 2003). Also, depressive disorders seem to be occurring earlier in life in people born in recent decades (Klerman & Weissman, 1989).

Although some research on the rates of depression among college women exists, there is a lack of research related to the dynamics of college women’s relationships and depressive symptoms. Additionally, literature on the racial differences in the rates of depression in college women is lacking. Women of color are not immune to high rates of depression (McGrath et al., 1990), yet it is astounding that much of what we know about
women is based on White women. Gender should be conceptualized as a multifaceted concept that fluctuates across social classes and ethnic groups (Russo, 1987), and this conceptualization should be applied to depression-related research.

McGrath et al. (1990) discussed specific factors that may place women of color at an increased risk for depression and other mental health issues, such as racism and the historical, cultural, and structural position of Black people in American society. They also discussed how familial, socioeconomic, migration, and acculturation concerns increase risks for depression in women of color. Further, women of Asian descent also contend with racial stereotyping that places them at an increased risk of depression. Typically this manifests as others identifying them as a “model minority,” espousing submissive, quiet, docile characteristics. These specific factors pose a need for empirical information on the racial differences in depression rates among women and also the possibility that certain types of connected relationships can serve as a contextual factor from which to draw information about resistance to depressive symptoms.

**Purpose of the Study**

This study examines the relationship between relational health and depression in a racially diverse sample of college women. The purpose of this research was to determine whether racial differences exist among the levels of depression and relational health in college women. This study has an empirically-based design grounded in the Relational-Cultural theory. The researcher used the Relational Health Indices, which measures levels of mutual engagement, authenticity, and empowerment/zest in participants’ relationship with a peer, a mentor, and her college community. Additionally, demographic information was collected and depressive symptoms were measured. While there have been theoretically-based papers on depression using the RCT framework, to the
researcher’s knowledge no quantitative studies have examined the relationship between relational health and depression. Further, few studies have examined depression among a racially diverse group of college women. It is important to study the dynamics of depression in women across racial groups in order to expand the knowledge base of college women of color and depression. This research seeks to examine how college women’s peer, community, and mentor relationships may individually or synergistically serve as a protective factor against depression for female college students.

**Rationale for the Approach**

Regardless of race, women are two times as likely to suffer from depression compared to men, and the same is true for economic, education, or occupational status (Beeber, 1999; Blehar & Oren, 1995; Kessler et al., 2003; McGrath et al., 1990; National Institute of Mental Health, 2000; NIMH, 2000; Nolen-Hoeksema, 1990, 2002). This gender differential has been one of the most consistent and robust findings in depression-related research. The same ratio has been reported throughout many other countries including Canada, Puerto Rico, France, West Germany, Italy, Lebanon, Taiwan, Korea, and New Zealand (Weissman, Bland, Canino, Faravelli, Greenwald, et al., 1996). Also, women tend to show higher levels of subclinical depressive symptoms compared to men (Nolen-Hoeksema, 1990). Depression-related research has proliferated over the past few decades, but most has focused on examining the presence and causes of gender differences, often to the exclusion of looking at differences within groups of women (Hammen & Gotlib, 2002). The research on women and depression has focused on specific risk factors as an attempt to explain the 2:1 ratio, including reproductive-related events; higher rates of poverty, trauma, and sexual and physical abuse; personality
traits such as rumination and interpersonal orientation; and gender roles and loss of power in relationships (McGrath et al., 1990; NIMH, 2000; Nolen-Hoeksema, 2002).

Research on relationships has tended to examine family and intimate relationships. Other supportive connections, such as peer, community, and mentor relationships, have not been studied to the same degree. If a relationship between depression and relational health exists, improved peer, mentor, and community relationships could serve to partially protect women against depressive symptoms. An understanding of racial differences is also necessary to inform and develop stronger outreach and prevention programs.

This study focuses on racially diverse college women, as opposed to the general adult population of women, because of the researcher’s accessibility to the population as well as the potential to discover important information to inform college outreach and prevention programs and clinical interventions. Using an instrument that measures depressive symptoms rather than one that is a diagnostic measure allows a more thorough study of depressive symptoms in a non-clinical setting, symptoms which have been correlated to the development of depression and have been shown to cause significant academic, social, and physical impairment in college students. Kaplan, Roberts, Camacho, and Coyne (1987) reported that 51% of people with high levels of depressive symptoms at one point also reported high levels of depressive symptoms 9 years later. Additionally, even moderate symptoms of depression often lead to development of anxiety disorders, major depression, and other mood disorders (Beeber, 1999; Brown et al., 1996). Therefore, if mental health practitioners can intervene before the depressive
symptoms lead to the onset of major depression, perhaps the course of chronic depression in some college women’s lives could be prevented.

Depression is heterogeneous, and the implications of depression-related research depend on what subtypes or symptoms the researcher measures. Recent studies have begun to examine the prevalence of subclinical depression using the diagnostic criteria for minor depression and recurrent brief depression discussed in the DSM-IV-TR (APA, 2000); and found rates that are as high or higher than rates of major depression (Kessler, 2002). Major depression requires 2 weeks of clinically significant dysphoria with five additional symptoms; and minor depression requires two to four symptoms with the same severity occurring over 2 weeks. Researchers often use scales that assess the presence of depressive symptoms (such as crying, feelings of helplessness, and sleep disturbances) as measures of predictive depression, because subclinical depressive symptoms measured by summary scales correlate with the development of major depression (Kessler, 2002; McGrath et al., 1990; Radloff, 1977).

**Research Questions**

The following research questions were examined in this study:

1. What is the relationship between peer relational health and depressive symptomology?
2. Are there racial differences in the relationship between peer relational health and depressive symptomology among female college students?
3. What is the relationship between mentor relational health and depressive symptomology?
4. Are there racial differences in the relationship between mentor relational health and depressive symptomology among female college students?
5. What is the relationship between community relational health and depressive symptomology?
6. Are there racial differences in the relationship between community relational health and depressive symptomology among female college students?

7. What is the relationship between race and college women’s depressive symptoms?

8. Are their racial differences in the peer relational health of college women?

9. Are their racial differences in the mentor relational health of college women?

10. Are their racial differences in the community relational health of college women?

Definition of Terms

The following terms are operationally defined corresponding to how they were used in the study.

**Asian:** a racial group encompassing diverse ethnic and cultural traditions including females of Asian and Pan-Asian heritage.

**Authenticity:** a person’s evolving ability to represent herself genuinely in the context of relationships (Liang et al., 2002). It is an ongoing challenge to feel emotionally real, connected, vital, clear, and purposeful in relationships (Mencher, 1997, p. 323).

**Black:** a racial group encompassing diverse ethnic and cultural traditions including females of African American and Caribbean American heritage.

**Connection:** “an interaction between two or more people that is mutually empathic and mutually empowering” (Miller & Stiver, 1997, p. 26).

**Community:** the college community to which the participants belong.

**Depressive symptoms:** common to young adults include depressed mood; loss of interest in usual activities; regular sleep disturbances; significant weight gain or loss; feelings of guilt and worthlessness; feelings of helplessness and hopelessness; suicidal ideation; difficulty concentrating or making decisions; irritable mood; psychomotor agitation or retardation; and fatigue or loss of energy (APA, 2000).
**Disconnections**: can be small or large exchanges in relationships that work against mutual empathy and mutual empowerment (Miller & Stiver, 1997, p. 26). Disconnections are inevitable in all relationships. Chronic disconnection is thought to be the source of psychological suffering.

**Empathy**: “the dynamic cognitive-affective process of joining with and understanding another’s subjective experience” (Jordan, 1997a, p. 15).

**Empowerment/zest**: a feeling of vitality and energy gained from engaging in growth-fostering relationships (Miller, 1986). Also, it is a feeling of being strengthened, encouraged, and motivated to action in one’s life (Liang et al., 2002).

**Growth-fostering relationships**: create the “five good things” including an increased zest (vitality, energy); an increased ability for and an inclination toward action; a clarified sense of self and the other person; a greater sense of self-worth; and an increased sense of connection to the other person and a drive toward more connections in life (Miller, 1986).

**Latina**: a racial group encompassing diverse ethnic and cultural traditions including females of Mexican, Spanish, Caribbean, and South and Central American heritage.

**Major depressive disorder**: a mood disorder characterized by one or more major depressive episodes, and at least two weeks of depressed mood or loss of interest; and by at least four additional symptoms such as changes in sleep, appetite, weight, or psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating or making decisions; or recurrent thoughts of death or suicidal ideation, plans, or attempts (APA, 2000).
Mentor: a positive adult role model (other than a parent, peer, or romantic partner) who is available for support and guidance (Leadbeater & Way, 1996).

Mutual empathy: occurs when all the participants in the relationship join together based on authentic thoughts and feelings, resulting in a two-way dynamic process which functions as a central component of psychological growth (Miller & Stiver, 1997).

Mutual engagement: the perceived mutual involvement, commitment, and attunement to the relationship (Liang et al., 2002).

Mutuality: a way of relating; a shared activity in which each or all of the people involved are participating as fully as possible. Mutuality does not mean sameness, equality, or reciprocity (Miller & Stiver, 1997).

Peer: someone the participant feels attached to (through respect, affection, and/or common interests); someone she depends on for support, and who depends on her (Liang et al., 2002).

Relationship: the set of interactions that occur over a period of time composed of a combination of connections and disconnections (Miller, 1982).

Relational-Cultural Theory: a theory of human development that has emerged from the critiques of traditional human development theory; created in response to clinical observation of women’s psychological development. It is based on the idea that identity development occurs through psychological connection and mutual sharing, and that women’s self-worth is grounded in their ability to create and maintain relationships.

Social support: the “perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners” (Lin et al., 1986, p. 18).
**White:** a racial group encompassing diverse ethnic and cultural traditions including females of European heritage.

**Women of color:** women of African, American Indian/Native American, Asian, Latina/Hispanic and Middle Eastern descent, including multiethnic women.
CHAPTER 2
LITERATURE REVIEW

Introduction

The purpose of this study was to examine the relationship between relational health and depression in a racially diverse sample of college women. An additional purpose was to determine whether racial differences exist among the levels of depression and relational health in college women. The review of the related literature in this chapter is comprised of three sections: the theoretical framework for the study, risk factors for depression in college women, and protective factors against depression in college women. The theoretical framework section includes a discussion of traditional frameworks for human development and the emergence of relational models of development, specifically, the Relational-Cultural theory. The risk factors section includes a discussion of related literature on gender socialization, adjustment to college, and race and ethnicity as factors that impact the development of depression in college women. The protective factors section includes the literature related to the importance of relationships in college women’s lives, specifically the importance of peer, mentor, and college community relationships.

Theoretical Framework

Until approximately 30 years ago, the prevailing belief of developmental theorists was that a key component of healthy human development, especially around the time of late adolescence, was the process of individuating from others and developing autonomy via separation from parental-type relationships (Erickson, 1963; Chickering, 1968). As
one of the predominant college student development theorists, Chickering (1969) proposed a seven vector model of student development. The original seven vectors included:

1. developing competence
2. managing emotions
3. developing autonomy
4. establishing identity
5. freeing interpersonal relationships
6. developing purpose
7. developing integrity

Tasks related to relationships were emphasized after an individual developed a differentiated identity apart from others. From this paradigm, adolescent females and young women were often seen as deviating from the norm when they defined their identity through their relationships with others (Chickering & Reisser, 1993).

Chickering’s model, specifically the vectors of “developing autonomy” and “freeing interpersonal relationships” were subsequently challenged by feminist researchers studying sex differences and criticized for the assumption that autonomy must come before intimacy. Straub and Rogers (1986) examined data from a sample of 241 female college students and found that women score significantly higher on the mature interpersonal relationships task than on the autonomy task, concluding that relational tasks precede autonomy tasks for women. Further, Greeley and Tinsley (1988) surveyed 441 college students and results indicated that the best predictor of autonomy in college students is intimacy. They also found that women score significantly higher than men on intimacy scores and slightly higher than men on autonomy scores. Straub (1987) interviewed female students who had significantly higher autonomy scores compared to the mean of the sample and found that relational events are most frequently reported, followed by educational events, as the kinds of experiences that impact the development
of autonomy. The relationship between autonomy and interpersonal relationships was further supported by Taub (1995) who examined this correlation with a diverse sample of undergraduate college women. Taub (1995) concluded that for women, the vectors of autonomy development and the development of freeing interpersonal relationships are not separate.

Chickering’s model was also questioned for its fit with members of diverse racial or ethnic groups, specifically diverse groups of women (Taub & McEwen, 1991). Taub and McEwen (1991) examined the patterns of development for White and Black undergraduate women and found differences by class level in measures of autonomy and mature interpersonal relationships and by race in a measure of intimacy. They found that seniors score significantly higher on autonomy scores than freshmen, sophomores, or juniors; however, the freshmen, sophomores, and juniors do not significantly differ on autonomy scores. The results indicated that White women scored higher than Black women on the intimacy measure of interpersonal relationship development; however, the findings were qualified by the researchers who suggested that there may be fewer opportunities for interpersonal relationship development for Black women on a predominantly White campus. Taub and McEwen concluded that women tend to develop autonomy through their relationships with others.

In the second edition of Education and Identity, the authors responded to the research on the complexities of college students’ experiences with autonomy and interpersonal relationships, specifically women’s experiences, and changed several aspects of the model. Chickering and Reisser (1993) wrote, “Few developmental theories have paid much attention to emotions and relationships. More work has been done on
thoughts and values. Our theory assumes that emotional, interpersonal, and ethical
development deserves equal billing with intellectual development (p.39).” The fifth
vector, “freeing interpersonal relationships”, was renamed “developing mature
interpersonal relationships” and was moved above “establishing identity” to the fourth
vector. They renamed the vector “developing autonomy” to “moving through autonomy
toward interdependence” and added more complexity to the “developing identity” vector
in response to “noted issues raised by recent researchers concerning differences in
identity development based on gender, ethnic background, and sexual orientation (p.40).”
Interestingly, Reisser and Chickering (1993) describe moving through autonomy toward
interdependence as beginning with a separation from parents and leading to a reliance on
peers, non-parental adults, and occupational or institutional reference groups. These three
types of support parallel the relationships included in the relational health construct
investigated in the current study.

Relational health is a construct that developed from the RCT paradigm, which has
grown from clinical observations of women and feminist critique of traditional human
development theories. Theories grounded in the psychology of women, such as RCT,
challenge the value placed on individuation and autonomy over relational connection.
Women’s experiences of identity development contradict most traditional models of
development that focus on the task of disconnection from early relationships to develop a
separate sense of self (Surrey, 1985). Subsequent research has reinforced that the extent
to which a person has strong and supportive relationships relates to the health and well-
being they experience in life (Berkman, 1995) and that a woman’s sense of self is
grounded in her relationships (Gilligan, 1982; Jack, 1987a; Josselson, 1996; Miller, 1976;
Surrey, 1985). Rather than focusing on relational separations as a path toward identity development, relational theories of psychological development assert that “self-differentiation is promoted and encouraged without a series of losses, as it is occurring within the context of staying meaningfully connected to significant others” (Turner, 1997, p. 75).

Originally termed the “self-in-relation” model (Surrey, 1985), and later the Relational model, the Relational-Cultural Theory (RCT) has evolved over the past 25 years from the ideas of Jean Baker Miller’s book *Toward a New Psychology of Women* (Miller, 1976). The ideas also evolved more generally from feminist theorists’ belief that traditional theories of “self” development did not fit women’s lived experiences (Miller, 1984). Relational-Cultural Theory emphasizes the contextual, responsive, and process factors involved in the relational nature of human experiences (Jordan, 1997a).

Additionally, focus is placed on the idea that identity development is intimately tied to relationships, developing through differentiation rather than through disengagement and separation (Jordan, 1991).

Basic tenets of RCT include the idea that all interpersonal growth occurs in connection, that all people yearn for connection, and that mutual empathy and mutual empowerment are at the root of growth-fostering relationships (Jordan et al., 1991). Miller described “five good things” that characterize growth-fostering relationships:

1. increased vitality/zest
2. increased empowerment and the ability to take action
3. increased clarity of self, other, and the relationship
4. increased sense of worth
5. a desire for more relationships

In this conceptualization, if these five aspects are present in relationships, people will grow toward greater mutuality and empathic opportunity rather than toward separation
with others. Hagerty, Lynch-Sauer, Patusky, and colleagues (1992) described similar concepts as the precursors to the development of a sense of belonging.

One of the central RCT constructs is mutual empathy or mutuality. According to this concept, mutual empathy functions as a central element of psychological growth. It is a two-way exchange in which both participants are simultaneously affecting and being affected by one another resulting in mutual empowerment (Miller & Stiver, 1997; Jordan, 1991). Mutuality involves openness to influence, emotional availability, and the knowledge that you are influencing and being influenced by the other person (Jordan, 1991). It does not mean merging or sameness. Instead, it is based on the idea that each person’s sense of self becomes clearer when the relationship is mutually empathic.

Research has shown that there are significant mental health benefits related to situations where individuals receive support from others, as well as situations where there are ongoing exchanges of supportive behaviors (Cutrona, 1996). These exchanges are the cornerstone of mutuality in relationships.

Alternatively, lack of mutuality in relationships has specifically been shown to be a significant predictor of depression in women (Genero et al., 1992; Sperberg & Stabb, 1998; Jack & Dill, 1992). Jack (1987b) argued that depression occurs as a result of a loss of self within relationships due to attempting to achieve an intimacy that never materialized. Sperberg and Stabb (1998) examined the level of perceived mutuality in college women’s relationships, along with their level of anger suppression and anger expression, and found that lower levels of mutuality and higher levels of suppressed or inappropriately expressed anger are associated with depression. In addition, lower levels of mutuality explain more of women’s development of depression compared to their
levels of anger. Lower mutuality scores also related to higher anger suppression. The results support the ideas proposed by RCT that women in mutual relationships may be less likely to suppress their anger and more likely to express their anger in ways that enhance mutuality and connection in their relationships (Jordan, 1991).

The importance of growth-fostering relationships to mental health is one of the central tenets in RCT; furthermore, RCT contends that disconnection is a major source of psychological distress (Jordan, 1997b). Jordan (1991) pointed out that even in relationships that are mutual overall; certainly every specific interaction will not be mutual. Therefore, even the most connected relationships will inevitably experience disconnection. Relational-Cultural theory recognizes this inevitability, and argues that disconnections in relationships can serve, depending on the response of both parties, as opportunities for further growth or serve as experiences in which one person, typically the less powerful, begins to keep aspects of her self out of the relationship, thereby becoming less and less authentic. If the hurt person is either not able to express her feelings or expresses her feelings and is met with apathy, denial of her experience, or additional hurt, she will begin to distort herself in order to keep the relationship. Kaplan (1986) suggests that the consequences of chronic disconnection, such as feelings of loss, inhibition to action, internalized anger, and low self-esteem, often result in depressive features in women.

Depression can impair the capacity for mutuality due to the tendency to withdraw, feelings of helplessness, and diminished interest or ability to receive from others (Jordan, 1991). Miller and Stiver (1997) referred to this situation as the central relational paradox and wrote, “In the face of repeated experiences of disconnection, we believe people yearn
even more for relationships to help with the confused mixture of painful feelings. However, they also become so afraid of engaging with others about their experience that they keep important parts of themselves out of the relationship and develop techniques for staying out of connection (p. 2).” According to RCT, not being able to represent one’s self authentically can lead to psychological distress, inauthentic expressions of self, and lack of connection with others. This is similar to situations Gilligan (1982) described for adolescent girls who, when they perceive the threat of loss of connection, lose theoretical “voice” by keeping important thoughts and feelings, either verbally or non-verbally, out of relationships in order to save the relationship. The chronic disconnection that RCT proposes can lead to the opposite of the “5 good things” and include decreased energy, disempowerment, confusion, diminished worth, and turning away from relationships. Turning away from relationships can result in feelings of isolation, which has been described as the source of most suffering (Jordan & Hartling, 2002).

Relational-Cultural theorists believe chronic disconnection occurs on an individual level, but also occurs simultaneously on a cultural and institutional level. Racism, sexism, classism, and heterosexism also create social and cultural disconnections and have a direct impact on an individual’s sense of connection and disconnection. Jordan (1997b) wrote, “Due to our culture’s handling of difference, through a system of hierarchy and dismissal, major, chronic, and painful disconnections occur around diversity; racism, sexism, heterosexism, classism, and ageism all become forces in creating disconnection rather than connection (p.3).” Jordan goes on to say that these forces create deeper isolation, withdrawal, fear, and shame. Ultimately, especially for marginalized groups,
this leads to chronic disconnection. At the same time, “empathy across difference”, can serve as a catalyst for growth and validation in relationships (Jordan, 1997b).

Another RCT construct that serves to create growth and validation in relationships is relational competence. Relational competence is defined by Jordan (1994) as involving “movement toward mutuality, developing anticipatory empathy, being open to being influenced, experiencing vulnerability as an inevitable place of potential growth rather than danger, and creating good connections rather than exercising power over others (p.3).” From the RCT standpoint, women develop a sense of relational competence from establishing and maintaining growth-fostering relationships. The sense of empowerment that develops from the knowledge that a relationship is based on mutuality, openness to being influenced, and having the power to influence another person, is critical for women’s development (Jordan, 1994). A sense of relational confidence also grows out of connection in relationships. Jordan (1992, p.5) wrote, “A personal sense of worth or confidence ideally is not just feeling good about oneself but also involves a sense that one has something to contribute to others and that one is part of a meaningful relationship.”

Connection is one of the characteristics of relational health, a key construct which has grown out of the Relational-Cultural theory. Relational health is described by the qualities of mutual engagement, authenticity, and empowerment/zest. Engagement is defined by perceived mutual involvement, commitment, and attunement to the relationship (Liang et al., 2002). Mutuality means that there is a sense of openness to change and growth, to being responsive to the other person, and to emotional availability (Jordan, 1997a). Authenticity describes a person’s evolving ability to represent herself genuinely in the context of relationships (Liang et al., 2002). Empowerment/zest is the
feeling of vitality and energy that comes from engaging in growth-fostering relationships. Also, it is the feeling of being personally strengthened, encouraged, and inspired to take action in one’s life (Liang et al., 2002). In theory, mutual engagement, authenticity, and empowerment/zest will increase the amount of connectedness within a relationship, and create a desire for more relationships that possess those same qualities (Miller, 1976; Jordan et al., 1991).

Relational health is a relatively new construct tested in research, and aside from the study that validated the measure, the researcher found only five studies that examined relational health, using the Relational Health Indices (Liang et al., 2002). Peikert (2003) examined the relationship among organizational women's relational health and social, economic, and contextual variables. The study also examined the relationship between positive relational health and career success. Peikert found that education and tenure significantly predicts relational empowerment and that age significantly predicts sense of community among the professional women. Mears’ (2002) research focused on the relationship among college women's connection to their college community, a best friend, psychological distress, and problematic substance use. Results indicate that a lack of connection to the college community is strongly correlated to all measures of psychological distress, and in some instances this relationship is significantly stronger than the relationship between connection to a best friend and psychological distress. No relationship was found between connection to college community and problematic substance use, although the psychological benefits of healthy community relationships for college women were significant. Walsh (2001) used the RHI to define the factors that affect counseling supervisees’ self-disclosure to their supervisor. The quality of the
supervisory relationship seems to be the most important to self-disclosure in all categories. The respondents identified high levels of self-disclosure and mutuality in their supervisory relationships. Goldman (2001) examined the relationship between Black, Latina, and White female college students' relational health and disordered eating patterns and found a significant correlation between peer and community relationships and disordered eating. Sutherin (2002) researched the relationship of internalized homophobia and relational health among staff and congregants in five community churches. The author found that lesbians with higher levels of relational health have lower levels of internalized homophobia. Finally, in the study used to develop the Relational Health Indices, Liang et al. (2002) used the Center for Epidemiological Studies Depression scale (CES-D) as a measure of concurrent validity and found that there was no significant association among the CES-D and peer or mentor relational health and a moderate association between the CES-D and community relational health. The current study continued to look at the relationship between depression and relational health and examined levels of depressive symptoms and relational health across racial groups.

An additional purpose of the study was to extend the empirical research using the Relational Health Indices and using the RCT framework. There has been a substantial amount of criticism of the theory as it has advanced over the past twenty-five years. After several of the early works based on the self-in-relation model were published, criticism arose regarding the applicability of the model to diverse populations of women. The model was originally developed by White, upper-middle class, well-educated women, and after this bias was pointed out by critics and was acknowledged by the theorists themselves, an effort was made to include diverse groups of women in the growth of the
model. Criticism and discussion of RCT led to a conscious investigation of the biases of the theory and resulted in *Women’s Growth in Diversity* (Jordan, 1997c), a volume that addresses misconceptions of the theory and also discusses the applicability of RCT across cultures. The volume was intended to extend the relational model and explore the complexity and life experiences of diverse groups of women (Jordan, 1997b).

Jordan (1997b) recognized that despite the appreciation and commitment to expanding the theory, representation from all groups of women and class groups was lacking and that RCT researchers should continue to make deliberate efforts to study the applicability of RCT to diverse populations. Subsequent research has shown that this model and other relational models hold relevance for women of other cultures as well as for women of color in the United States (Garcia-Coll, 1992; McRae, 2000; Turner, 1997; Tatum, 1997). Further research must continue to examine whether RCT is relevant for multiple groups of people.

Additional criticism of the theory has been raised regarding whether RCT polarizes male and female development. According to Knudson-Martin and Mahoney (1999), the status quo is maintained when either theorists over-emphasize or ignore gender differences. They wrote, “In the rush to address gender, many therapists reinforce a false dichotomy between women and men. At the same time they fail to address how differences in gender equality may be damaging to relationships (p.325).” Because RCT was originally termed a theory of women’s psychological development, there seemed to be an over emphasis on the differences in women and men’s development. However, as the theory has evolved, RCT theorists have argued that connections are essential for both males and females, but social conditions have been such that women learn and tend to
feel more permission to practice relational skills. Rather than emphasizing differences between men and women, RCT places a high value on relational skill and suggests that relational skills are critical contributors to the well-being, growth, and productivity of all members of society.

Some researchers have described the emphasis on the relational skills of women as a weakness of the theory, citing that it recreates and reinforces existing gender constructions. Douglas (1995) described the self-in-relation theory as painting a “rigid, essentialist view of women which can paradoxically lead to a stereotypical depiction of women that serves to maintain the status quo in the psychology of women (p.3).” One of the goals of feminist therapy and theory is to challenge the status quo related to gender roles. Approaches to therapy tend to either challenge or recreate existing gender constructions (Knudson-Martin & Mahoney, 1999). Even though RCT emphasizes women’s relational skill, it is a misconception that the theory recreates sexist gender constructions. Instead the theory views relational skills as qualities that can positively serve both men and women. According to RCT, women’s relational skill is developed as a result of social conditioning rather than simply due to “women’s nature”, and therefore, men have the capacity to develop relational skills as well.

Another criticism of the Relational-Cultural theory is that it idealizes relationships and does not discuss the destructive aspects of relationships. However, Miller (1976) contends that conflict is a necessary part of relationships and essential for change and growth within the individuals and for the relationship. From the RCT paradigm, problematic aspects of relationships are explained in terms of the non-mutual culture in which they evolve. Power differentials within Western culture often limit relational
development and make it difficult for people to develop authentic, mutually empowering relationships. From that standpoint, the theory lacks an adequate discussion of how to overcome the cultural disconnections to create more authentic and mutual relationships. Creating that change in relationships was discussed in terms of “moving towards more mutuality or engaging in the search for mutuality” (Miller et al., 1997, p.47). They acknowledge that it is a problematic situation and that mutuality can be a goal that is set in therapy and extended to other relationships. Kaplan et al. (1991) presents the standpoint that conflict is one form of engagement and should be seen as a way to achieve greater connection rather than separation and disconnection.

Focusing too much on the importance of women’s relationships may perpetuate old definitions of women as makers and keepers of relationships and could encourage women to find self-esteem solely through serving others rather than through self-exploration within relationships. The researcher believes that when studied at a superficial level, the theory may seem to set women up to take on standard, static gender roles in relationships. However, when studied further, it is apparent that the theory does not encourage women to accept traditional gender roles, but encourages women to value their relational skills and use them in powerful ways to feel a greater sense of self-clarity and to feel more connected and empowered. Additionally, if women were to find identity through autonomy and independence, as some feminists suggest would be a more forward thinking route, notions of what it means to be liberated would continue to be based on Western, patriarchal thinking. Relational-Cultural theory challenges the notion that for one to develop a solid identity, one must be independent and autonomous. The researcher contends that there is a fine line between creating new options for people and
recreating gender roles, but by throwing out the false dichotomy between independence and dependence and expanding the continuum to encourage interdependence, RCT provides a healthy way of viewing relationships and identity development.

This researcher believes that the criticisms of RCT have primarily been misunderstandings of the theory. However, these misunderstandings will not be fully amended until further rigorous quantitative and qualitative research is done that extends the theoretical constructs to a wide range of populations. Despite the criticism of the theory, the Relational-Cultural Theory describes an important link between connection through growth-fostering relationships and well-being in the lives of women. The lack of the growth-fostering qualities of mutual empathy, authenticity, and empowerment/zest lead to chronic disconnection, which in turn, contributes to the understanding of women’s depression (Genero et al., 1992; Jack & Dill, 1992; Sperberg & Stabb, 1998). Relational health takes into account the importance of mutuality, authenticity, and empowerment/zest and their ability to affect the relational domain of depression and act together as a protective factor against depression. The current research study extended the understanding of women’s depression by inquiring about the relationship among peer, mentor, and community relationships and depression in a racially diverse group of college women.

**Risk Factors for Depression in College Women**

Researchers, despite differences in theoretical orientation, typically agree that the etiology of depression is multifaceted. After several decades of research, some of the risk factors for depression have been identified including gender, experiencing negative and stressful life events, physical illness, low levels of education, chronic financial difficulty, unemployment, and lack of social support (Tsai & Chentsova-Dutton, 2002). The
research on women’s depression has mainly focused on specific risk factors to explain the fact that women experience depression twice as often as men. Common explanations have included reproductive-related events; higher rates of poverty, trauma, sexual and physical abuse, and interpersonal violence; personality traits such as rumination, interpersonal orientation, and other psychological factors; and gender socialization and loss of power in relationships (McGrath et al., 1990; NIMH, 2000; Nolen-Hoeksema, 2002). This section will focus on gender socialization and the adjustment to college as risk factors for depression in college women. In addition, because there is a substantial amount of research that demonstrates that college women of color tend to face additional stress due to the “double jeopardy” of being female and of minority status (Downie, 1998; Kenny & Perez, 1996; McGrath et al., 1990; Sparks, 2002; Sue & Sue, 1972), ethnicity and race are also discussed as a risk factor for the development of depression.

**Gender Socialization**

Approximately 12.8% of female college students have been diagnosed with depression (ACHA, 2002). Moreover, over one third of women suffer from mild to severe depressive symptoms (Beeber, 1998; Peden et al., 2000a; Peden et al., 2000b; Reed et al., 1996). These rates of depressive symptoms rise substantially as young women transition from childhood to adolescence to adulthood (Carr et al., 1996; Gilligan, 1982; Jack, 1987b; Nolen-Hoeksema, 1990; Sparks, 2002; Stiver, 1991). Gilligan (1991, p. 13) wrote, “Adolescence witnesses a marked increase in episodes of depression, eating disorders, poor body image, suicidal thoughts and gestures, and a fall in girls’ sense of self-worth.” In a 10-year longitudinal study, researchers found that overall rates and new cases of depression increase disproportionately for girls between ages 13 and 15, and by
15 to 18-years old, the rates of depression increase significantly for both genders and the female rate rises to double the male rate (Hankin, Abramson, Moffitt, et al., 1998).

There have been many explanations for how and why gender differences emerge in adolescence. One of the most common interpretations of the disparity in rates of depression in women compared to men is that there are more risk factors for depression due to socialization differences, differences in learned coping styles, and innate biological differences (Sparks, 2002). Based on prior research, Nolen-Hoeksema and Girgus (1994) explored three theories for how gender differences in depression might develop in early adolescence. The first was that the causes of depression are the same for girls and boys, but the causes of depression become more prevalent in girls in early adolescence. The second theory was that there are different causes of depression in girls and boys, and that the causes of girls’ depression become more prevalent in adolescence. The third theory was that girls are more likely to have risk factors for depression even before adolescence, but that depression is seen when the risk factors interact with challenges in adolescence and increase the prevalence of depression. Of these, the authors found most evidence for the third theory, suggesting that “gender differences in depression most likely emerge in early adolescence because gender differences in risk factors for depression that develop during childhood meet up with biological and social challenges whose prevalence increases in early adolescence (Nolen-Hoeksema & Girgus, 1994, p. 424).” They go on to say that the increase in challenges during adolescence is larger for girls because they have more risk factors before adolescence and encounter more biological and social challenges during adolescence. They point to girls’ socialized cooperative interaction style and type of coping interacting with challenges, such as
parental and peer expectations, adherence to gender roles, body dissatisfaction, and sexual assault, as one reason that they are more prone to depression than their male peers. The authors assert that their model explains individual differences among depression because girls likely to experience depression are the ones who face risk factors in addition to facing the challenges of adolescence.

One of the first theorists to address girls and women’s psychological development within the context of gender socialization, Gilligan (1982, 1991, 1993, 1994) described a female’s sense of self as directly connected to her ability to connect with others. Gilligan’s (1982) research on adolescent girls revealed that their sense of identity developed through and because of their relationships. These girls defined themselves in relational terms such as “giving”, “helping”, “caring”, and “being kind to others”. However, a shift tended to occur in middle to late adolescence when “being relational” was seen as a burden rather than as an asset. Girls sensed that it was dangerous to say what they thought or wanted in terms of the risk it posed to their relationships and the potential for abandonment and loss of relationship. This often resulted in the loss of “voice” within relationships. The subsequent withdrawal of the authentic self from relationships occurred because the girls thought that if they said what they were thinking and feeling they would be alone (Gilligan, 1982). This was observed as a strategy to make and maintain relationships, but ironically the withdrawal of self kept girls from developing connections with others (Taylor, Gilligan, & Sullivan, 1995). These relational situations compromised mutuality, responsiveness, and genuine communication in relationships (Gilligan, 1991). The consequences of repressing one’s feelings and needs
in relationships has been shown to negatively impact psychological well-being and increase the risk for depression (Jack, 1987b; Stern, 1991).

In the silencing-the-self theory, Jack (1987b, 1991) argues that women develop relationship schemas that increase their susceptibility to low self-esteem and depressive symptoms. Jack incorporates ideas from attachment theory and self-in-relation theory emphasizing the interpersonal nature of depression. Jack’s theory parallels self-in-relation theory in that it is centered on women’s experiences and it recognizes the importance that women place on developing and maintaining connected relationships. In Jack’s (1987b) longitudinal study of 12 depressed women, she found that it was not the loss of a relationship, but the loss of self that occurred within relationships that precipitated depression. The women in her study perceived that the cause of their depression was related to not having their relational needs met despite fulfilling the roles society valued in women. Jack observed that a majority of women lost a sense of themselves in the process of trying to understand and maintain the relationships.

Wichstrom (1999) argued that the role of intensified gender socialization explains the emergence of gender differences in depression during adolescence. Results indicate that gender differences are partially explained by an increase in developmental challenges for females, such as pubertal development, body dissatisfaction, and increased pressure to conform to feminine sex-roles. Gender-role orientation is a factor that has received support in research for contributing to individual differences in the vulnerability to depression (Cheng, 1999). The qualities associated with the traditional gender socialization of women (i.e. self-sacrificing, relational, non-aggressive) are typically not valued as highly as the qualities associated with the traditional gender socialization of
men (i.e. individualistic, distant, aggressive) and have been associated with the
development of depression. Sparks (2002) noted that the way women build self-esteem
and identity disadvantages women in Western culture given the research on depression
and self-esteem. She wrote, “Their self-esteem is built largely around relatedness and
emotional connections in their professional as well as their domestic lives, and they tend
to become depressed as a result of cutoffs or disruptions in close relationships (p. 286).”

Western society continues to place a high value on independence, autonomy, self-
achievement, and individuality. According to most relational theories, this poses a
dilemma for young girls and women because societal influences to move away from
relationships to form identity runs counter to their relational sense of self (Carr, Gilroy, &
Sherman, 1996). Rather than creating a false dichotomy for women to stay in or reject
relationships, the Relational-Cultural theory focuses on the process of interdependence
through growth-fostering relationships (Jordan & Hartling, 2002). Based on this idea,
McBride (1990) presented alternative views of autonomy for women that involve
individuation, interdependence, and mutual cooperation. When alternate definitions of
autonomy are adjusted to include women’s experiences and allow for continued
connection, the process of negotiation toward interdependence poses less of a threat to
relationships, an important tool for identity development. The more women internalize
the idea that they should be individuated, autonomous beings in the traditional sense, the
more they are likely to feel a sense of deficiency and inner division over their sense of
themselves as relational beings (Carr, Gilroy, & Sherman, 1996).

In addition to the potential for feeling an inner division related to the pressure of
increased gender-role expectations, other factors that have been linked to women’s
increased risk of depression in college including higher rates of sexual and physical abuse, pressures to choose career paths that accommodate domestic roles, role overload, unequal power distribution in dating relationships, and institutional discrimination within higher education (Nolen-Hoeksema, 1990).

**Adjustment to College**

Adapting to college is a major transition faced by many young adults. Even though college presents a number of exciting opportunities for personal and academic development, there are also many stressors and potential for adjustment difficulties that accompany college life. Additionally, many students attend college away from their family and childhood support system, leaving them with having to experience transitional and developmental stressors while also developing new college relationships (Swift & Wright, 2000). Many students experience emotional difficulties such as loneliness, depression, anxiety, and homesickness in their first year (Cutrona, 1982), and as many as 30-40% of first-year students will drop out of college due to adjustment difficulties and not finish their degree programs (Gerdes & Mallinckrodt, 1994). Social support has been declared one of the most important protective factors for adjustment to college to offset the increased stress (Tao et al., 2000). Rather than lose relationships as they transition to college, it is important for women to add on connected relationships as they negotiate academic, personal, and career development challenges (Turner, 1997).

Heiligenstein et al. (1996) examined academic impairment in a sample of college students who indicated depression was a concern for them, and they found that in 92% of those surveyed, academic impairment negatively impacted academic productivity and interpersonal problems. Additional findings revealed that at all levels of depression, affective impairment was more prevalent than academic impairment. The affective
impairment described interpersonal difficulties the students were having with other students, family, and faculty. These types of interpersonal difficulties often lead to social isolation and interpersonal distrust (Gotlib & Hammen, 2002) and persist long after the depressive episode is resolved (Weissman et al., 1999). Meilman et al. (1992) examined college students who took academic withdrawals for mental health reasons and found that depression was a major factor in approximately half of the withdrawals. This is supported by Blumberg and Flaherty’s (1985) findings that depression is associated with lack of college success and higher attrition rates.

The transition to college presents women with a new environment that brings out both their strengths and vulnerabilities (Beeber, 1999). Aspects of the new environment often include academic and social pressures and exposure to physical stressors that require coping skills they may still be developing. Typically women handle risks by accessing resources through close interpersonal ties, but without strong relationships, a decrease in self-efficacy and self-esteem may occur and ultimately result in the development of depressive symptoms. Not surprisingly, resistance to depressive symptoms is associated with the effective use of social support gained through interpersonal relationships; further, disturbances in relationships are associated with lower self-esteem and depressive symptoms (Beeber, 1999). Beeber found a significant association between negative life events that affect women’s self-esteem, defined as her performance in interpersonal relationships, and depressive symptoms. She also found that women tend to derive efficacy self-esteem from relationships. Beeber suggests developing interventions to improve interpersonal relationships and social support, rather than focusing on competence in gaining access to resources, as a way to increase
adjustment. Previous research shows that social support and self-esteem are key variables in predicting depressive symptoms (Beeber, 1998). Beeber (1998) found that symptoms of depression do not necessarily have to be severe to impact women’s energy to meet the academic and social challenges of college. She points out that the best strategy is to intervene with college women before the symptoms increase in frequency and severity.

Belenky et al. (1986) observed that female students often feel alienated in academic settings and often doubt their intellectual competence. In their qualitative research, participants were asked what stood out to them over the past few years, and they answered questions about self-image, relationships, academics, change, challenges, and their views on the future. The authors describe five epistemological perspectives that emerged from their interviews: silence, received knowledge, subjective knowledge, procedural knowledge, and constructed knowledge. With regard to relationships, the female students felt anxiety related to college because they related a move toward autonomy as a break from supportive people and movement away from important relationships.

Transition to college affects and is affected by relationships, including relationship with parents. Wintre and Yaffe (2000) studied the impact of perceived parenting style, current relationship with parents, and psychological well-being on perceived adjustment to the university among college students. The researchers found that mutual reciprocity, communication with parents, and psychological well-being all positively impact adjustment to college. Results of one longitudinal study on adjustment to college indicated that students who spend more time thinking about college and have complex expectations about university life tend to adjust better to stressful circumstances in
college than those who have simpler expectations (Pancer, Hunsberger, Pratt, et al., 2000). The researchers argued that those who have more complex expectations think through potential stressful circumstances and when faced with those challenges, are better able to handle them than students who do not think about challenges or potentially stressful circumstances they may face.

**Race and Ethnicity**

In addition to the universal conflicts and adjustments that college students must make as they negotiate their undergraduate experiences, women of color face additional dilemmas (Kenny & Perez, 1996). Black women typically have a number of opportunities for receiving social support and access to resources to mediate stressful situations through their extended family and social networks (Carr, Gilroy, Sherman, 1996; Collins, 1990; Jackson & Sears, 1992). Hispanic and Latino families are also likely to include extended kinship networks (Bernal, 1982; Garcia-Coll and Mattei, 1989). When women of color go to college, particularly a college that has a predominately White population, they may be distanced from their built in social and family network, thus leaving them feeling isolated and vulnerable to depressive symptoms.

Research that has addressed the adjustment, stressors, and well-being of students of color indicates that women of color may experience higher rates of depression and difficulty adjusting to college. Reed, McLeod, Randall, and Walker (1996) found that between 12-18% of Black female college students experience severe depressive symptoms. Downie (1998) researched the “double jeopardy” phenomenon, which is the impact of racial and gender oppression on Black college women, and found that major negative life events predict greater depression and poorer college adjustment, and that compounding sexist events are associated with even higher levels of depression. Black
women attending predominately White colleges and universities are less likely to perceive the college environment as supportive compared to White women. Additionally, there is a significant association between feelings of alienation and higher attrition rates among Black college women (Tomlinson-Clarke, 1998). Using a sample of Black and White college women, Walden (1996) found that for Black college women, religiosity, family support, quality of support, and self-importance are protective factors against suicidal behaviors and for Caucasian women, religiosity, family support, and non-family support are protective factors against depressive symptoms and suicidal behavior. Risk factors for suicidal behavior for this sample included quality of support, substance use, depression, hopelessness, exposure to violence, and exposure to suicide. Downie (1998) emphasized the need for social supports within the college community to offset negative life events contributing to higher levels of depression in women of color.

Asian American women also experience high rates of depression despite the stereotype that Asians living in the United States are functioning effectively and experiencing little difficulty (Asamen & Berry, 1987). Among women aged 15-24, Asian American women have the highest rate of suicide mortality rates across all racial and ethnic groups (CDC, 2001). Asian American college students report higher levels of depressive symptoms compared to White students (Liu et al., 1990; Leong, 1986; Kuo, 1984; Okazaki, 1997), and are often characterized as socially isolated and as individuals who perceived themselves as less autonomous, more anxious, nervous, lonely, alienated, and rejected compared to other students (Asamen & Berry, 1987). Asamen and Berry (1987) found a positive relationship between feelings of alienation and lower self-concepts in Asian American college students. Further, their findings suggest that to
enhance the self concept of these students, it is important to address the level of alienation they experience.

Kenny & Perez (1996) examined family attachment and psychological well-being in a diverse sample of first-year college students and found that students with perceptions of a positive family attachment figure tended to report lower levels of psychological symptoms, suggesting that cohesion and interdependence within ethnic minority families appear to be adaptive for students’ adjustment to college. However, Asian college women may be placed in a position of conflict between their cultural background and Western values to which they are exposed in college, specifically the emphasis placed on independence is often at odds with Asian values (Sue & Sue, 1972). Also, when Asian students are feeling depressed or are experiencing other psychological problems, a barrier for Asian American students related to accessing mental health services is feeling that they are seen as a “model” minority and that they could be disgraced or stigmatized within their own community or family for needing help (Sue & Sue, 1972).

In addition to the risk of depression for Black and Asian students, Latinas also experience high rates of depression. Approximately 21% of Latina adolescents attempted suicide, which was almost twice the rate of their Black and White peers (CDC, 1996). One empirically based study examined Latina adolescents who were receiving mental health services and compared those who had attempted suicide with those who had not attempted suicide. Significant differences between the two groups were not found related to demographic factors, level of depression, family dynamics, level of acculturation, or self-esteem; however, the mutuality between girls and their mothers was significantly lower among suicide attempters (Turner, Kaplan, Zayas, & Ross, 2002). The findings
support the belief that mutuality in relationships plays a significant role in Latina’s mental health.

For Latina students, higher education often presents a unique set of academic and personal issues that have often been overlooked on university campuses (Gloria & Rodriguez, 2000). Gore & Aseltine (2003) examined the transitional roles and interpersonal experiences that had potential for mediating the association between race and depressed mood in young adults. Results revealed that Black and Hispanic students have higher depression scores compared to White and Asian students. The researchers found that the differences were largely explained by the under-representation of Black and Hispanic students, faculty, and staff at undergraduate colleges. The importance of school climate, in terms of racial diversity, to psychological adjustment was also supported in a study of Black, Latino, and Asian American students (Way & Robinson, 2003).

VanderVoort and Skorikov (2002) examined the etiology of depression and anxiety in an ethnically diverse sample of 162 college students and found that chronic physical symptoms and network quality are predictive of both depression and anxiety. Social network quality is a strong predictor of mental health compared to physical symptoms in White students, but for Asian students, physical health was a stronger predictor of mental health than the social network characteristics. The authors suggest that ethnicity be taken into consideration when accessing what may contribute to depression and anxiety in college students.

Rosenthal and Schreiner (2000) examined depression in Asian, Black, Latino, White and other ethnic minority students at an urban public college and found rates of
symptoms similar to another representative sample of adults; however, level of symptoms did not differ among ethnic groups. Gratch, Bassett, and Attra (1995) studied the relationship of gender and ethnicity to self-silencing and depression among college students. Among the female college students surveyed, Black, Latina, and Asian college students scored higher on the depression measure than White college women; however, only Black and White college women’s depression scores were significantly different.

Depression may be diagnosed less frequently in Black and Asian women and more frequently in Latina women compared to White women; however, prevalence information regarding racial differences is not definitive (NIMH, 2000). Although some research on the rates of depression among college women exists, there is a lack of research related to the dynamics of college women’s relationships and depressive symptoms. Additionally, literature on the racial differences in the rates of depression in women is lacking (Sparks, 2002). Most of what is known about depression in women is based on depression in White women, despite the fact that women of color are not immune to high rates of depression (McGrath et al., 1990). That is why it is important to continue to study group differences in levels of depressive symptoms among college women. Increased information regarding the prevalence of depressive symptoms in diverse groups of women will help inform outreach and prevention programs and clinical interventions.

**Protective Factors Against Depression in College Women**

Researchers have consistently found that close, intact relationships predict health and well-being (Meyers, 2000; VanderVoort, 1999). People who have supportive, close relationships with friends, family, and support networks are less vulnerable to negative life events and some physical illnesses than those who have few social ties (Meyers,
Relationships provide the opportunity to develop a positive sense of identity through constructive feedback, meaningful connections, and other people with whom one can work through problems (VanderVoort, 1999). Depression research has emphasized the role of certain variables that act as protective factors against the effects of negative life events and depression including mutual and connected relationships, positive life events, family support, and social support (Belle, 1982; Lin et al., 1986).

An accumulating body of knowledge has shown that there is a link between social networks and well-being. Although previous research has described the benefits of social support, there has been less attention paid to the possible functions of different sources of support. It is important to examine whether certain types of connected relationships provide protection against depressive symptoms and whether the functions of certain relationships vary across race. For example, connected peer relationships may be more strongly correlated with lower depressive symptoms in Black college women, and community relationships may be more strongly correlated with lower depressive symptoms in Asian college women.

Collier (1996) examined the friendships of Black, Latina, Asian, and White students and found both similarities and differences related to friendship norms. The emergent themes regarding racial differences included that Latina students’ friendships were characterized by rules of relational support and bonding, Asian students’ friendships valued helping each other to achieve goals and exchange ideas, Black students’ friendships valued acceptance and their respective ethnic group memberships, and White students’ friendships valued commonalities, individual needs, and genuineness. The correlation between psychological well-being and friendship support seems to vary.
depending on the type of friendship (Way & Chen, 2000). The Afrikan paradigm
describes the self as comprised of family, peers, and community perspectives (Harris,
1992). Relational health posits that peer, mentor, and community relationships in college
women’s lives play an important role in facilitating psychological well-being.

The need for attachment and intimacy seems to be continuous throughout life;
however, the forms that attachment and important relationships take may change
considerably depending on the developmental context (Fassinger & Schlossberg, 1992).
It seems to follow that the type of relationships that act as protective factors may change
as well. According to the Relational-Cultural theory, women’s peer, mentor, and
community relationships provide a rich source of connections for college women that
may buffer the effects of risk factors for depression.

Peer Relationships

According to Schultz (1991), the psychological importance of women’s friendships
has been neglected in the psychological literature until recently, in part because the
models of adult development were based on the male experience. When psychological
models of female development began to emerge, room was made to investigate female
friendships to inform theory and practice. Schultz (1991) wrote, “Friendships are
especially important at times of transition such as adolescence, becoming a mother,
divorce, retirement; not simply for support, but as models that are integrated to create
new facets of one’s identity (p. 20).” Peer support may offer an advantage over group
support because peers are more likely to experience the same stressors compared to larger
network members such as family, mentors, or community members (Helgeson, 2003).

Gottlieb (1983) described the foundation of social support as being based on “the
existence of one or more dyadic relationships characterized by intimacy, stability,
spontaneity and mutuality (p.50) Research on the mental health of women consistently shows that social isolation, loss of relationship, and unhealthy relationships may lead to and maintain depression; further, in the face of stressful circumstances, the lack of relationships increases the risk of depression in women (Genero et al., 1992).

O’Neil and Mingie (1988) found that stressful life events, lack of social support, and a family history of psychiatric illness are significantly related to depressive symptoms in college students. In addition, the lack of a confiding relationship is a specific risk factor. Interestingly, although depression experienced by college students is often serious, only a small number of students seek professional help.

Relationship factors, particularly high-quality social networks and trusted, satisfying friendships, offer protective benefits and enhance adjustment for college students (Veroff, 1997). Chickering and Reisser (1993) stated that other students may be some of the most important teachers that a college student could have. They wrote, “Relationships are labs for learning to communicate, empathize, argue, and reflect (p.392).” The importance of having friends is well documented. Some research indicates that friendships may predict life satisfaction more than family relationships and that having friends facilitates adjustment to difficult life transitions (Fassinger & Schlossberg, 1992). On the other hand, emotionally unsupportive friendships and friendship quality is negatively associated with depression (Aseltine, Gore, & Colten, 1994; Compas, Slavin, Nelson, 1996; Wagner, & Vannatta, 1986).

Knickmeyer, Sexton, and Nishimura (2002) reviewed the literature on the impact of same-sex friendships on well-being in women and found that the literature indicates that friendships generally lead to increased mental, physiological, and social well-being.
Alternately, the literature supports the idea that there is a relationship among an absence of friendships and loneliness, depression, and psychosomatic illness. The authors also contend that, related to women’s well-being, the quality of friendships is more important than the quantity of friendships. Knickmeyer et al. (2002) defined friendship as “one type of social support characterized by intimacy, self-disclosure, mutual concern, a sharing of resources, equality in power, and ultimately empowering (p. 38).” In their critique of the current literature related to women’s same-sex friendships, they describe a need for more studies that investigate friendships within specific ethnic populations, cross-cultural women’s friendships, and lesbian friendships. Finally, the authors rearticulated the need for research on relational disconnection and the role it plays in psychological distress.

Veniegas and Peplau (1997) studied the balance of power within friendships of undergraduate students and found that women evaluate their same-sex friendships more positively than men and equal-power friendships are rated significantly higher than unequal-power friendships on all measures of quality. Women report higher levels of self-disclosure and interpersonal rewards from their friendships. The findings confirmed that a balance of power within friendships is associated with friendship quality. The authors suggest that power within friendships is an important factor to examine when discussing the quality and subsequent benefit of friendships in people’s lives and that equality within friendships should not be assumed.

Veroff (1997) studied whether the concepts of friendship and social support were seen as joint constructs in a group of college students. The results suggest that high quality social networks offer protective benefits for college students. In particular, having a trusted friend improves adjustment for students. The author suggests that friendships
and support should be seen as joint contributors to positive, quality interpersonal relationships for college students.

In 300 interviews with men and women regarding their friendships, Rubin (1985) found that women have more and higher quality friendships than men at every life stage. The meaning of friendship for women revolves around shared intimacy and for men it revolves around bonding in shared activities. One of the benefits of friendship that the author describes is that friendships create an environment for the development of aspects of the self that can not or do not occur within a family context. The single women in the study who did not have a best friend were troubled by the lack of that relationship in their lives; however, two thirds of the single men did not identify a best friend, but were not troubled by the lack of relationship. Rubin emphasized the importance of friendships in women’s lives and concluded that friendships are valuable sources of identity affirmation.

In response to the lack of research on friendships within and across ethnic and racial minority populations, Way and Chen (2000) studied the friendships of Black, Latino, and Asian adolescents. The authors sought to explore the characteristics, contextual factors, and quality of these friendships and found that Latina and Black females have significantly higher levels of general friendship support than Asian females. Psychological well-being is positively associated with friendship support, and even when girls have non-supportive home lives, the researchers suggests that they still can have supportive friendships, particularly if they are encouraged by the larger culture to participate in confiding same-sex friendships. They go on to say that they could find support in their friendships when home relationships are unsupportive. Having a group of
peers that provide support and can provide models for handling and coping with challenges is a beneficial way to buffer stress (Gloria, Kurpius, Hamilton, & Willson, 1999). Life stress is positively related to depression, and support sources, specifically female friends and family members have a buffering effect on depression in Black women (Brown, Parker-Dominguez, & Sorey, 2000).

Lee and Robbins (1998) examined social connectedness and its correlation with anxiety, self-esteem, and social identity in college women. The authors found that social connectedness is negatively associated with trait anxiety, that those with higher levels of connectedness report greater social identity, and that social connectedness is positively related to self-esteem. Women with high levels of connectedness are less likely to experience anxiety in their daily lives, whereas women with lower levels of connectedness are more likely to experience daily life as anxiety provoking. Additionally, women with high connectedness display higher levels of interpersonal trust and higher levels of social self-esteem. The results support the idea that women who have high levels of connectedness in their relationships have the tendency to want to seek out additional relationships.

**Mentor Relationships**

Connection to parents, family members, or other adults has been found to be the most important factor associated with a reduced risk of depression, suicidal behavior, and a number of other problems, regardless of race, ethnicity, socioeconomic status, or family structure (Resnick, Bearman, Blum, et al., 1997). Strong support for the importance of connected relationships with adults counters traditional views of development that states that healthy development entails separation and independence from relationships.
Soucy and Larose (2000) examined whether young adults’ perceptions of attachment and control in their family and mentoring situations impacted their adjustment to college. Results related to their mentoring experiences showed that perception of a secure mentor relationship is predictive of adjustment to college. The findings support the view that connections to non-parental adults are important during the college years and contribute to psychological development. Spencer (2000) reviewed literature on relational theories and found support for the idea that a relationship with one supportive adult is associated with positive outcomes in individuals facing negative life events.

The term mentor is rooted in Greek literature and originally referred to the relationship between one man and a younger male in which the older man acted as a guardian, teacher, and surrogate parent to the younger male in the absence of his father (Beck, 1989; Scott, 1992). As the concept of mentoring evolved, the model remained largely based on relationships between men. Levinson (1978), who studied mentor relationships in men, argued that if women utilized mentoring experiences, it would positively impact their independence and success. Mentors provide exposure to important occupational and social aspects of life and are essential to normal adult development (Levinson, 1978).

Mentoring has been recognized in business, higher education, schools, agencies, and foundations as a component of career and personal development (Gerstein, 1985). One of the most common reasons for mentoring is to develop leadership through the provision of practical knowledge and support (Scott, 1992). The impact of mentoring relationships for women has not been studied as extensively. Since women and racial and ethnic minority groups have historically been underrepresented in the mentoring literature
(Atkinson, Casas, & Neville, 1994), many researchers have identified a need for research on mentoring that specifically focuses on these groups (Carden, 1990).

The traditional notion of mentoring has tended to be unidirectional, where the mentor imparts important information to mentees in response to their needs (Daloz, 1986; Hamilton & Darling, 1989; Levinson, 1978). However, researchers have begun to question whether this type of mentoring is as effective for females as it is for males (Liang, Tracy, Taylor, & Williams, 2002). Instead, it appears to be more beneficial for women to have a mentor relationship that involves mutual exchanges of information and ideas and that has a core relational component. Carden (1990) reviewed theoretical and empirical literature on mentoring and describes critical aspects of mentoring as the degree to which the participants in the mentoring relationship engage in active exchanges and one in which both are open to being influenced. These aspects seem to enhance the self-esteem of the mentee and allow for identity development. Further, these bi-directional relationships may serve to buffer the stress of important adult transitions (Liang et al., 2002).

The complexities of transitioning to adulthood for women, including changing roles, friendships, and family dynamics, has led researchers to investigate the use of non-parental adult figures as a resource for support, facilitating psychosocial and educational adjustment (Liang et al., 2002). Liang and colleagues (2002) studied the relational dimension of mentoring college women and suggest that the relational qualities of empathy, engagement, authenticity, and empowerment/zest influence the success of mentoring women. The authors found that mentoring relationships high in relational qualities are positively correlated with higher self-esteem and lower levels of loneliness.
Beck (1989) studied the personal and academic benefits of a mentor program for adolescent females. The results of the study indicated that there are significant personal, academic, and career benefits to young women that are gained by mentoring relationships. Additionally, the author stressed that through mentor relationships, the participants gained information that is not formally offered in an academic classroom setting and felt that they learned more risk-taking behaviors from their mentors.

One of the most significant positive effects on college persistence in women came from informal mentoring interactions outside of the classroom (Nora, Cabrera, Hagedorn, & Pascarella, 1996). Often college women’s mentors are faculty members. Research shows that relationships with faculty members are second in importance for students behind relationships with peers and are crucial in fostering student competence (Chickering & Reisser, 1993). Not only are mentors critical for women who have already made the choice of attending college, but they are critical to the decision to attend college. Cruz (2000) studied the influence of mentors on the decision of Latina women to attend college and found that a significant percentage of women with mentors said that their mentor was influential in their decision to attend college.

Due to the disproportionately fewer number of minorities in higher levels of business and academia, little is known about minority networking and mentoring (Scott, 1992). Black students who developed mentor relationships on campus had an increased likelihood of academic gains and skill development; further, students’ academic integration and persistence was found to be significantly influenced by formal and informal contact with faculty (Hackett & Byars, 1996). Kimbrough, Molock, and Walton (1996) found that establishing and maintaining social support networks and mentors...
decreases discomfort for Black students on predominately White college campuses. In an article which discussed psychosociocultural issues for counseling Latino college students, Gloria and Rodriguez (2000) suggest that social support from mentors is critical to Latino student academic persistence and success. This belief is supported by a study which found that Latino students who have a mentor who is invested in their personal and academic development are more likely to be successful in a higher education setting (Gandara, 1995). In a study of racially diverse “at risk” adolescent females, Leadbeater and Way (1996) found that girls who have supportive, understanding, and validating mentors show an increase in their confidence and ability related to developing strategies of resistance. Moreover, these types of mentor relationships seem to help to maintain psychological health and buffer multiple social stressors experienced in adolescence.

Mentoring relationships appear to support and facilitate the academic and personal development of college women; however, there is still a lack of research on mentoring relationships across race in college women. Furthermore, there are few studies that evaluate mentoring relationships based on the qualities measured by the Relational Health Indices. The current study examined mentoring relationships in terms of their mutual engagement, authenticity, and empowerment/zest and their potential protective factor against depression. Aside from dyadic peer and mentor relationships, college women’s connection to their college community has been shown to positively impact their psychological well-being, facilitate adjustment to college, and potentially buffer depressive symptoms.

**Community Relationships**

Having access to relationships that meet fundamental interpersonal needs, such as love and affection, freedom to express personal feelings, and validation of personal
identity and worth, is the basis of social support (Cutrona, 1996). Positive life events, like having connected experiences with others, tend to act as a moderator of stress-related depressive symptoms in college students (Dixon & Reid, 2000). Additionally, women's relationships that provide social support are likely to counter the development of depressive symptoms (Lin et al., 1986). Therefore, it can be argued that the presence of supportive relationships create resistance to depressive symptoms, whereas the lack of these relationships may create vulnerability towards depression.

Within the context of supportive relationships, self-esteem is derived from knowing that one is loved, valued, effective, and capable of successfully maintaining important relationships. Thoits (1985) specified that maintaining self-esteem emerging from relationships is critical to positive adjustment to life transitions. Social support is a general term used to describe both structural support, referring to the quantity of social relationships a person has, and functional support, referring to the quality of social relationships and the resources that are provided by the people within an individual’s social support system (Helgeson, 2003). Research on both structural and functional support demonstrates a relationship to quality of life (Helgeson, 2003; VanderVoort, 1999); however, the mechanisms by which they impact a person’s quality of life may be different. Functional support tends to play a more significant role in women’s relationships (Liang et al., 2002). In other words, the quality of women’s social connectedness is more meaningful than the quantity or structure (Antonucci & Akiyama, 1987; Fiore, Becker, & Coppel, 1983; Liang et al., 2002; VanderVoort, 1999; Waldrop & Halverson, 1975).
Sense of belonging in social networks has been described as one important aspect of connection within relationships and one that influences health. Hagerty, Williams, Coyne, and Early (1996) investigated the relationship between sense of belonging and personal characteristics on social and psychological functioning. Using a sample of 379 college students, the authors found that a sense of belonging is strongly associated with social support, and inversely related to loneliness, depression, anxiety, suicidal ideation, and a history of psychiatric treatment. Negative social support and conflict is negatively associated with a sense of belonging for women. Additionally, those who perceive social support and positive social support actions have a higher sense of belonging. The findings suggest that a sense of belonging is related to psychological functioning, which parallels the idea that women who fit into a group and feel connected and supported in those relationships tend to have higher sense of belonging scores and a lower tendency toward depression, anxiety, and loneliness.

Depressive symptoms are found in women with low levels of personal support and chronic stress (Kaplan et al., 1987). Increased isolation could be a marker for developing depressive symptoms given the centrality of relationships in the development of self-esteem for women (Beeber, 1999). Simons and Miller (1987) found low levels of support to be a significant predictor of depression in young women. Additionally, Bergman and Surrey (1994) found that when there is a persistent impasse in relationships there are negative psychological consequences, which often contribute to psychological problems such as depression, substance abuse, and violence.

Research on college students indicates that a lack of supportive relationships often leads to negative psychological consequences. An absence of a connection to their
college community has been shown to strongly correlate with measures of psychological distress, suggesting that ties to their campus community are important for successful adjustment, persistence, and success during college (Mears, 2002). For example, a social support oriented group intervention for college students was implemented and results showed that females who participated were better adjusted to the university, showed fewer behavioral problems, were less likely to be depressed, and showed higher levels of support than the control group (Pratt et al., 2000). Likewise, Kirton (2000) found that positive perceptions of the university environment, positive perceptions of campus support, and stronger relationships with their peers all positively influence college students’ decision to stay in school. Results indicate that a sense of belonging to the community is closely related to indicators of both social and psychological functioning, including depressive symptoms (Hagerty et al., 1996).

Tinto’s (1987) theoretical model of college student development proposes that there are positive benefits for students when there is formal and informal involvement in college activities and programs, as well as student integration into academic and social systems of the college community. Social integration into the college community has been shown to increase retention and satisfaction during the college years. Widely accepted and utilized, Tinto’s theory focuses on the preparation and background of the student, their academic and career goals and commitments, their social and academic experiences on campus, their college integration levels, and their decision to either remain in college or leave. Over time, there is an interaction between a students’ adjustment and their academic goals and commitments. This theory emphasizes the dual
concepts of academic and social integration. These are the “glue” holding the student to their goals and commitments.

Gloria et al. (1999) studied Black students attending a predominantly White university and hypothesized that a higher level of social support, higher levels of comfort with the university community, and positive self-beliefs would be positively associated with increased academic persistence. Results supported the hypothesis and demonstrated that social support and comfort with the university community are the strongest predictors of academic persistence. The results related to social support show that mentoring has the strongest relationship with persistence and that Black students develop mentoring relationships and support networks within the campus to buffer negative experiences.

In a study that examined whether voluntary associations reduce psychological distress, the Rietschlin (1998) found that group membership has a stress buffering effect for adults. Rietschlin found that voluntary group membership results in a reduction of depressive symptoms and that group members suffer lower levels of depressive symptoms in the presence of increasing stress compared to non-group members. While not providing a causal relationship, the Rietschlin study supports the idea that group affiliations lead to improved psychological well-being. Also, participation in social activities with peers is correlated with less depressive symptoms and better self-assessed health in young adults (Mechanic & Hansell, 1987). Tomlinson-Clarke and Clarke (1994) found that the number of co-curricular involvements predicts social adjustment for college women, strengthening the idea that involvement in experiences that provide a connection to the campus community is beneficial for women’s psychological
development. In a study examining social connectedness as a regulator of the impact of social relationships on psychological well-being, Lee (1997) found that college women with high social connectedness show higher levels of self-esteem, social identification, and more motivation to seek out other relationships. Moreover, in previous research group association membership has been correlated with increased self-esteem, feelings of satisfaction, an improved sense of well-being, and decreased depressive symptoms (Brown, Gary, Green, & Milburn, 1992; Ellison, 1991; Gecas & Burke, 1995).

Swift and Wright (2000) examined if certain functions of social support buffer the relationship among stressful life events, anxiety, and depression in college women. Using a sample of 60 college women, the authors found that global, belonging, and self-esteem social support are beneficial to women and buffer the effects of negative life experiences such as coercive sexual events and interpersonal stressors. They wrote, “The presence of more self-esteem support may thus be particularly important when a woman is faced with interpersonal types of stressors (p. 36).” Epidemiologists who studied how social conditions influence health status of individuals “began to develop the idea that one of the most important factors that protected people from what seemed to be overwhelming insults, both natural and human made, was the extent to which people maintained close personal relationships with others” and more specifically, that for social support to be health promoting, it must increase people’s sense of competency and self-efficacy (Berkman, 1995, p. 245).

Jordan and Hartling (2002) recognize the importance of social support, but argue that social support, as defined in research, tends to characterize “a one-way form of relating, something that one gets from others (p.64)”, which is different from the bi-
directional nature of connection described in the Relational-Cultural theory. Therefore, even though there is an abundance of research on the benefits of social support for women’s psychological well-being and the importance of college women’s connection to their college community, network connection has not been addressed from the relational health paradigm, which taps into the bi-directional nature of relationships. Also, more information on the impact of the connection to one’s college community on women of color is necessary. The purpose of the current study was to determine whether there is a relationship between relational health, including community relational health, and depressive symptoms. Additionally, the researcher was interested in whether racial differences exist in the levels of relational health and depressive symptoms in a racially diverse sample of college women.

**Summary of Relevant Research**

The literature presented in this chapter supports a study of relational health and depressive symptoms in a racially diverse sample of college women. This chapter included a discussion of traditional human development theories as they relate to college students and the relational theories that have emerged from criticism of those traditional theories. The Relational-Cultural theory has been proposed as the theoretical framework of this study. The centrality of women’s relationships and, in particular, the importance of developing and maintaining growth-fostering relationships that include mutual empathy, authenticity, and empowerment/zest was discussed. Three risk factors for depression in college women were discussed, which included gender socialization, adjustment to college, and race and ethnicity.

Although research on depression in college students has emerged in the literature, there are still many questions regarding the role that types of relationships, specifically
peer, mentor, and community relationships, play in deterring depressive symptoms. Additionally, there is little research examining racial differences in depressive symptoms among college women. Focusing on relationships and depressive symptoms in a diverse group of college women not only adds to the small amount of literature on college women of color, but may offer a richer picture of college women’s experiences with depression and types of relationships that may serve as protective factors against depression.

The researcher hypothesized that there is a negative relationship among peer, mentor, and community relational health and depressive symptoms in college women. A second set of hypotheses was that there are no significant racial differences in the level of depressive symptoms or relational health in college women. The researcher hopes to add to the expanding literature using the RCT paradigm, to increase the understanding of the role of women’s relationships (specifically peer, mentor, and community relationships) as they relate to levels of depression, to examine depression and relational health in a diverse sample of college women and determine whether racial differences exist, and to contribute to the body of research on college women from which college administrators and mental health professionals can base appropriate outreach activities and clinical interventions.
CHAPTER 3
METHODOLOGY

Overview

Thirteen percent of college women have been diagnosed with depression (ACHA, 2002), and over one third of college women experience mild to severe depressive symptoms (Beeber, 1998; Peden et al., 2000a; Peden et al., 2000b; Reed et al., 1996). There is an abundance of depression-related research, but a gap exists related to information specifically on college women’s experiences of depression, ethnic and racial differences in women’s depression, and whether specific types of relationships play a protective role against depression in college women. This study attempted to address those gaps by examining the relationship between relational health and depressive symptoms in a racially diverse sample of college women. This information contributes to the body of literature on which mental health professionals and higher education administrators can base appropriate outreach activities and clinical interventions. Data was gathered on participant demographics, depressive symptoms, as measured by the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), and peer, mentor, and community relational health, as measured by the Relational Health Indices (Liang et al., 2002). Data was analyzed using ANOVA and regression equations.

Population

The sample was drawn from undergraduate women at a large southeastern university. In 2002, the total university enrollment was 48,184, of which 35,282 (73.2%) were undergraduate students. Of undergraduate students, 18,554 (52.6%) were female
and 16,508 (46.8%) were male. Of female undergraduate students, 69.1% were White, 11.1% were Hispanic, 9.7% were Black, and 6.6% were Asian (University of Florida, 2002a).

**Sampling Procedures**

This study was conducted under the guidelines and protocol consistent with the Institutional Review Board (IRB) at the University of Florida. After obtaining IRB approval, a selected list of 79 professors/instructors were contacted by electronic mail with a letter that explained the purpose of the study and requested permission to solicit prospective participants during their class by distributing a flyer with information regarding participation in the study. After receiving permission from the professor/instructor, the researcher distributed flyers in classes with information regarding the study, the inclusion criteria, and the web address of the on-line survey. The potential participants returned the bottom portion of the flyer to the researcher with their email address. The participants either went to the on-line survey directly or waited for an email from the researcher with the direct link to the survey. In addition to gathering participants through campus classes, the researcher sent emails to a selected list of 42 listserver moderators/contact persons to seek permission to send an email seeking study participants to their organizational listserver. The researcher either sent an email directly to the listserver that included an introduction to the study, inclusion criteria, and a link to the on-line survey or the listserver moderator/contact person forwarded an email letter with the same information to the listserver.

Once the participants reached the on-line survey, they were asked to read the informed consent and if they agreed to the terms, they clicked on the “I have read the above document and agree to participate” box. They were then forwarded to the on-line
survey. Participants were not able to reach the survey unless they agreed to the terms of the informed consent. In both data gathering procedures, a reminder email was sent one week after the original email.

The benefits of using an on-line survey include the elimination of paper, postage, mail-out, and data entry costs, as well as the reduced time required for survey implementation (Dillman, 2000; Murray & Fisher, 2002). One disadvantage of using on-line surveys includes the inaccessibility to a computer for some populations; however, since 1998, University of Florida students were required to have access to and basic knowledge of computer and email/internet applications. Further, given the emergence of the internet and email as crucial aspects of correspondence at the university level, it was assumed that the participants had basic knowledge of email and internet usage.

Researchers have found that response rates for postal mail surveys and internet surveys are comparable (Schaefer & Dillman, 1998), that responses to email surveys are received quicker, and that item non-response is lower for internet surveys (Schaefer & Dillman, 1998; Murray & Fisher, 2002). Pettit (2002) compared results of a World Wide Web (WWW) questionnaire and a paper and pencil questionnaire and found that random response, item non-response, extreme response, and acquiescent response are not statistically different. In fact, paper and pencil questionnaires elicit a statistically higher number of uncodable responses. Truell, Bartlett, and Alexander (2002) also found that internet and mail surveys achieve a similar response rate. In addition, they determined that response speed and completeness are better for the internet based surveys.

The on-line survey included an introduction to the study and directions, the informed consent, the Relational Health Indices (Liang et al., 2002), the Center for
Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), and a nine question demographic questionnaire.

**Research Questions and Hypotheses**

**Research Questions**

**Questions 1 & 2.** What is the relationship between peer relational health and depressive symptomology and are there racial differences in the relationship between peer relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-P as the covariate.

**Questions 3 & 4.** What is the relationship between mentor relational health and depressive symptomology and are there racial differences in the relationship between mentor relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-M as the covariate.

**Questions 5 & 6.** What is the relationship between community relational health and depressive symptomology and are there racial differences in the relationship between community relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-C as the covariate.

**Question 7.** What is the relationship between race and college women’s depressive symptoms? An ANOVA was used where the CES-D was the dependent measure and race was the independent variable.
**Question 8.** Are their racial differences in the peer relational health of college women? An ANOVA was used where RHI-P was the dependent variable and race was the independent variable.

**Question 9.** Are their racial differences in the mentor relational health of college women? An ANOVA was used where RHI-M was the dependent variable and race was the independent variable.

**Question 10.** Are their racial differences in the community relational health of college women? An ANOVA was used where RHI-C was the dependent variable and race was the independent variable.

**Hypotheses**

This study includes 5 hypotheses, one related to research questions 1-6 and 4 related to research questions 7-10. The hypotheses are:

1. There is a negative relationship between the peer, mentor, and community relational health and depressive symptomology in a racially diverse sample of college women.

2. **H₀:** There are no significant racial differences in the depressive symptomology of college women.
   
   **H₁:** There are significant racial differences in the depressive symptomology of college women.

3. **H₀:** There are no significant racial differences in the peer relational health of college women.
   
   **H₁:** There are significant racial differences in the peer relational health of college women.

4. **H₀:** There are no significant racial differences in the mentor relational health of college women.
   
   **H₁:** There are significant racial differences in the mentor relational health of college women.
5.  

\( H_0: \) There are no significant racial differences in the community relational health of college women.

\( H_1: \) There are significant racial differences in the community relational health of college women.

**Design and Data Analysis**

The researcher used a survey research design and tested five hypotheses using three regression equations and four ANOVA’s. For the regression equations, the dependent variable was depressive symptomology, specifically depressive symptomology that occurred within the week prior to the completion of the survey. The dependent variable was operationalized by the Center for Epidemiological Studies Depression Scale (CES-D). The independent variable was race and the covariates were participants’ peer, mentor, and community relational health scores. The covariates were operationalized by the three subscales of the Relational Health Indices (RHI) (peer, mentor, and community relational health scales). The women’s race was determined by how they self-identified on the demographic questionnaire. For the ANOVA’s, the categorical independent variable was race and the dependent variables were depressive symptomology and the peer, mentor, and community relational health scales. The data obtained for this study was analyzed using the Statistical Package for the Social Sciences (SPSS). The data was collected on-line and stored via an internet database, which the researcher downloaded and transferred into SPSS once data collection was completed.

**Instruments**

**Relational Health Indices**

The Relational Health Indices (RHI) is an instrument developed from the framework of the Stone’s Center Relational-Cultural theory to measure characteristics of women’s relationships (Liang et al., 2002). It consists of three scales that assess
connections in relationships with a peer, a mentor, and a community to which the participant belongs. Each scale contains three subscales, empathy/engagement, authenticity, and empowerment/zest, which measure important aspects of growth-fostering relationships as defined by the Relational-Cultural theory. The RHI is a 37-item self-report instrument that includes the Peer Relationship Scale (RHI-P), which has 12 items, the Mentor Relationship Scale (RHI-M), which has 11 items, and the Community Relationship Scale (RHI-C), which has 14 items. The psychometric properties of the RHI were examined and normed on a group of ethnically diverse college women (58% White, 28% Asian, 4.3% Black, 4.3% Hispanic, 1% Native American, and 4% other). The factor analysis established a three factor subscale for each scale: engagement, authenticity, and empowerment/zest. Participants are asked to rate the items using a Likert scale (1=never to 5=always). A high composite score on each of the scales corresponds to a high degree of relational health in peer, mentor, and community relationships, respectively. The higher the composite score, the higher the level of relational health in general. Internal consistency was measured using the composite Cronbach alpha coefficients for the peer (α = .85, n = 448), mentor (α = .86, n = 303), and community (α = .90, n = 445) scales (Liang et. al, 2002). In the present study, Cronbach alpha for the peer, mentor, and community scales are .82 (n = 575), .93 (n = 563), and .88 (n = 565), respectively.

The Mutual Psychological Development Questionnaire (MPDQ) (Genero et al., 1992), the Quality of Relationships Questionnaire (QRI) (Pierce, Sarason, Solky-Butzel, & Nagle, 1997), and the friend support subscale of the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988) were identified as
previously validated instruments that measure constructs similar to the RHI. The MPDQ is a 22 item questionnaire that measures perceived mutuality in close dyadic relationships, including friendships and mentoring relationships. The QRI was designed to assess support, depth, and conflict in dyadic relationships. The friend support subscale of the Multidimensional Scale of Perceived Social Support is a 4-item measure of perceived social support from friends and was also used to assess the convergent validity of the RHI-Peer scale.

Convergent validity was established by the correlation of the RHI-P and the MPDQ (r = .69), the RHI-P and two scales of the QRI, the Support Scale (r = .61) and the Depth of Relationship scale (r = .64), and the RHI-P and the friend support subscale of the Multidimensional Scale of Perceived Social Support (r = .50). Convergent validity for the RHI-M was established by the correlation of the RHI-M to the MPDQ (r = .68), the RHI-M to the QRI Support scale (r = .58), and the RHI-M to the QRI Depth of Relationship scale (r = .51). The MPDQ and the QRI were both designed to measure dyadic peer and mentor relationships; however, neither scale was designed to assess community relationships. In fact, to date there are no equivalent scales that assess community relationships to serve as a comparison measure.

Concurrent validity of the RHI was assessed using scales measuring the construct of self-esteem, loneliness, depression, and stress. The Rosenberg Self-Esteem Scale (Rosenberg, 1965), the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), and the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) were used to assess individuals’ self-perceptions, loneliness, depression, and stress, respectively. The RHI-P,
RHI-M, and RHI-C all were negatively correlated ($r = -0.35, -0.14, -0.47$) with the UCLA Loneliness Scale. The RHI-C scale was negatively correlated with the CES-D ($r = -0.39$) and the Perceived Stress Scale ($r = -0.32$).

Since the RHI is a relatively new scale, the researcher found only five studies that have utilized this instrument. Peikert (2003) used the RHI to study the relationship among organizational women’s relational health and social, economic, and contextual variables. Mears (2002) used archival data to explore the relationships among college women’s connections to their college community, friends, psychological distress, and substance abuse. Walsh (2001) used the RHI in a study that examined the factors that affect supervisee self-disclosure among pastoral counseling students. Goldman (2001) used the RHI in a study of the relationship between relational health and disordered eating in a diverse sample of college women. Sutherin (2002) investigated the relationship between relational health and internalized homophobia among lesbians in community churches.

**Center for Epidemiological Studies Depression Scale**

The Center for Epidemiological Studies Depression Scale (CES-D) was created to measure the depressive symptoms in a general population of adults (Radloff, 1977). The CES-D was developed as an amalgamation of previously established and validated depression inventories including Zung’s depression scale (Zung, 1965), the Beck Depression Inventory (Beck, Ward, Mendelson, et al., 1961), and a scale developed by Raskin and colleagues (Raskin, Schulterbrandt, Reatig, & McKeon, 1969). Radloff (1977) originally tested the scale using a household interview survey (general population) and in psychiatric settings. During initial instrument development, the scale was found to have very high internal consistency and good test-retest reliability. Radloff (1977) stated, “The scale was designed for use in studies of the relationships between depression and
other variables across population subgroups (p. 386).” Construct validity was based on theory and epidemiology of depressive symptoms and major components of depressive symptomatology were identified as depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance (Radloff, 1977).

The CES-D is a 20-item self-report measure and each item statement represents a symptom characteristic of depression (Nezu, Ronan, Meadows, & McClure, 2000). The respondents are asked to answer each statement with a response on a 4-point Likert-type scale (0-3). The scale choices include “rarely or none of the time” (less than 1 day), “some or little of the time” (1-2 days), “occasionally or a moderate amount of time” (3-4 days), or “most or all of the time” (5-7 days). Respondents are instructed to circle the choice for each statement which described how often they felt or behaved that way during the past week. Sixteen of the statements are worded to reflect depressive symptoms and four symptoms are positively worded to reflect positive affect and to account for response bias; therefore, the four positively worded items are reverse scored to determine the total CES-D score.

The participant’s score can range from 0 to 60, with a higher score indicating more depressive symptoms. The four factors that underlie the CES-D are negative affect (blue, depressed, failure, fearful, lonely, crying, sad) (7 items), positive affect (as good as others, hopeful, happy, enjoyed life) (4 items), somatic activity (bothered by things, poor appetite, concentration problems, everything an effort, sleep restless, talked less, couldn’t get going) (7 items), and an interpersonal factor (people unfriendly, people disliked me) (2 items) (Radloff, 1977; Skorikov & VanderVoort, 2003). These four factors are similar
across subgroups and with the general population (Radloff, 1977; Nezu et al., 2000). The CES-D was not designed as a tool to diagnose depression or measure symptom severity, but was designed to measure the current level of depressive symptomatology in the respondents; therefore, higher scores denote higher prevalence of depressive symptoms (Nezu et al., 2000). Research has shown that a score of 16 can be an indicator which distinguishes depressed from non-depressed respondents, typically signaling that the respondent has reported at least six items to be frequently present over the past week; however, the respondent could achieve a score of 16 or higher if she indicated that most of the items were present with less frequency (Comstock & Helsing, 1976).

Measures of internal consistency are very good in the general population (r = .85) and in the psychiatric samples (r = .90); test-retest reliability (ranging from 2 weeks to one year) is reported to be within 0.32 to 0.67 (Radloff, 1977). However, due to the nature of the instrument, the lower test-retest reliability numbers can be accounted for by taking into consideration the respondents’ “life event losses” before each test. In other words, respondents who had a low CES-D score at the initial testing point may have had a life event loss in between that testing point and the retest, thereby impacting the retest score. In the current study, Cronbach alpha for the CES-D scale was .91 (n = 561). In terms of convergent validity, the CES-D scores discriminate well between psychiatric populations and general population samples, but show moderate discrimination within the severity of psychiatric populations (Radloff, 1977). Evidence of discriminant validity was established through negative and low positive correlations with the Bradburn Positive Affect Scale and other scales that measure different variables. Convergent validity was established through positive correlations with scales measuring symptoms of depression.
A comprehensive study was conducted where data from five psychiatric populations and a community sample were collected (Weissman, Sholomskas, Pottenger, et al., 1977). Results show that the scale is an appropriate tool for detecting depressive symptoms and changes in symptoms over time and that it is valid as a screening tool for detecting depressive symptoms.

Along with the Beck Depression Inventory (BDI), the CES-D is one of the most frequently used and well-validated self-report measures of depression (Nezu et al., 2000; Skorikov & VanderVoort, 2003). Skorikov and VanderVoort (2003) examined the relationship between the construct of depression as measured by the CES-D and the BDI in college students. There is a moderately high correlation between the scales, but the subscales and factor structure suggest that they measure different aspects of depression. The study supported the idea that the CES-D places emphasis on the affective component of depression and the BDI is more focused on the cognitive component.

Originally tested with White and Black men and women of various ages and educational backgrounds in the general population and in psychiatric settings (Radloff, 1977), the CES-D has since been established as an appropriate measure for assessing the depressive symptoms of respondents across racial, gender, and age categories (Jones-Webb & Snowden, 1993; Pretorius, 1991; Masten, Caldwell-Colbert, Alcala, & Mijares, 1986; Kuo, 1984; Hurh & Kim, 1990; Knight, Williams, McGee, & Olaman, 1997; Roberts, Vernon, & Rhoades, 1989). The CES-D has been translated into several languages including Spanish and Japanese (Shima, Shikano, Kitamura, & Asai, 1985; Roberts et al., 1989). Masten et al. (1986) examined the reliability and validity of the CES-D in two groups of Mexican students. These students were administered the
Spanish version of the CES-D. Researchers concluded that the CES-D is useful for research with a Spanish speaking population given the sufficient internal consistency, reliability, test-retest stability, and concurrent validity. Pretorius (1991) studied the applicability of the CES-D among Black South African students and found that the reliability, validity, and factor structure of the CES-D is comparable to other studies using the scale. Although the CES-D is limited in its clinical utility, it has high research applicability, has been used in many countries, is available in several different languages, and has been established as an appropriate measure to use with a wide variety of populations (Nezu et al., 2000).

Summary

The purpose of the current research study was to examine the relationship between relational health and depression in a diverse sample of college women. An additional purpose was to examine whether racial differences exist among the levels of depression and relational health in college women. A convenience sample of undergraduate women was drawn from selected classes and campus listservers, and participants completed an on-line survey that included the Relational Health Indices, the Center for Epidemiological Studies Depression Scale, and nine demographic questions. Data was analyzed using ANOVA and regression equations. The results of the study are presented in Chapter 4.
CHAPTER 4
RESULTS

The purpose of this study was to examine the relationship between relational health and depression in a racially diverse sample of college women. An additional purpose of this research was to determine whether racial differences exist among the levels of depression and relational health in college women. In this chapter, the results of the study are presented in three sections including (a) the data collection and demographics of the sample, (b) the results and data analyses of each research question and hypothesis, and (c) a summary of the findings.

Data Collection and Demographics

The sample was drawn from undergraduate women at the University of Florida. After the Institutional Review Board (IRB) approved the study, 79 professors/instructors were contacted by electronic mail to request permission to recruit prospective participants by distributing a flyer with information regarding participation in the study. A total of 23 (29.1%) professors/instructors gave permission for the researcher to distribute information to their students. Of those that gave permission to the researcher to recruit their students, 17 gave permission to come into their classrooms to distribute flyers and 5 forwarded an email to their students with a link to the survey via their class listserver. Nine (39.1%) professors/instructors offered extra credit points for their students’ participation in the study. After receiving permission from the professor/instructor and arranging a mutually convenient time to come to their class, the researcher distributed recruitment flyers in class and the potential participants returned the bottom portion of
the flyer to the researcher with their email address. The participants were able to go to the on-line survey directly or wait for an email from the researcher with the direct link to the survey. Approximately one day after distributing flyers and collecting emails in classrooms, the researcher emailed potential participants information about the study and a direct link to the on-line survey. A follow up email was sent one week following the original email.

In addition to recruiting participants through classes, the researcher sent an email to 42 campus listservers, either through the listserver moderator or an organizational member, requesting that they forward an email written by the researcher to the listserver that included an introduction to the study, inclusion criteria, and a link to the on-line survey. Six email addresses were originally undeliverable, but the researcher was able to find alternative email addresses for those listservers. A reminder email was sent to the listserver contact person one week following the original email.

A total of 602 women participated in the study. Sixteen were deleted prior to analysis due to blank surveys (2), duplicate surveys (3), or the age of the participants (30 years or older) (11). Therefore, a total of 586 participant responses were valid and used for analysis. Four hundred twenty-six (72.7%) were recruited through classrooms, 152 (25.9%) were recruited through listservers, and 8 (1.4%) did not report how they were recruited. The total response rate for the study was difficult to determine given the unknown number of listservers to which the study information was posted and given the unknown number of women who subscribed to the listservers. However, the response rate for the classroom participants was 70.3% given the researcher gathered 606 email addresses in classrooms and 426 classroom participants completed the survey. Two
hundred seventy-four (64.3%) of the classroom participants received extra credit from their professors/instructors for their participation.

Participants ranged in age from 18 to 29, and the average age of participants was 20.46 years (SD=1.65). The sample included 134 (22.9%) first year students, 124 (21.2%) second year students, 130 (22.2%) third year students, 168 (28.7%) fourth year students, and 25 (4.3%) students who were in their fifth year or more of undergraduate work. Five participants did not report their year in school. Multiple academic majors were represented in the sample. The researcher narrowed the majors down into 11 categories. Table 1 presents the categories, frequencies, and percentages of the participants’ academic majors.

Table 1. Categories, Frequencies, and Percentages of Participants’ Academic Major

<table>
<thead>
<tr>
<th>Major</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>4</td>
<td>.70</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>219</td>
<td>37.40</td>
</tr>
<tr>
<td>Fine Arts, Design, &amp; Construction</td>
<td>6</td>
<td>1.00</td>
</tr>
<tr>
<td>Health and Human Performance</td>
<td>80</td>
<td>13.70</td>
</tr>
<tr>
<td>Agriculture &amp; Life Sciences</td>
<td>73</td>
<td>12.50</td>
</tr>
<tr>
<td>Business</td>
<td>73</td>
<td>12.50</td>
</tr>
<tr>
<td>Public Health</td>
<td>24</td>
<td>4.10</td>
</tr>
<tr>
<td>Journalism</td>
<td>45</td>
<td>7.70</td>
</tr>
<tr>
<td>Nursing</td>
<td>34</td>
<td>5.80</td>
</tr>
<tr>
<td>Engineering</td>
<td>11</td>
<td>1.90</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>1.70</td>
</tr>
</tbody>
</table>

Note: Data were missing for 7 respondents.

Demographic data was also collected on whether the participants were currently taking prescription medication for depression. Twenty (3.4%) participants indicated that they were currently taking prescription medication for depression, 554 (94.5%) reported that they were not taking anti-depressants, and 12 (2.1%) participants did not report whether they were taking anti-depressants. Of those that reported taking prescription medication for depression, 11 (55%) scored 16 or above on the Center for
Epidemiological Studies Depression Scale (CES-D) and 8 (40%) scored 15 or below on the CES-D. Of participants who reported that they were not taking medication for depression, 225 (40.6%) scored 16 or above on the CES-D and 308 (55.6%) scored 15 or below on the CES-D. Data was missing for 22 participants who either did not report whether they were taking prescription medication or did not complete the CES-D. Overall, 241 (41.1%) participants scored 16 or above on the CES-D, 320 (54.6%) participants scored 15 or below on the CES-D, and 25 (4.3%) had missing data for the CES-D.

Other demographic questions examined the gender of the friend and mentor identified by the participants and whether the mentor the participant identified was a member of the college faculty or staff. Frequencies and percentages for the gender of the friend and mentor the participants identified and whether the mentor identified is a member of the college faculty or staff are presented in Tables 2, 3, and 4, respectively.

Table 2. Frequencies and Percentages of Gender of Friend Identified by Participants

<table>
<thead>
<tr>
<th>Gender of Friend</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>96</td>
<td>16.40</td>
</tr>
<tr>
<td>Female</td>
<td>479</td>
<td>81.70</td>
</tr>
</tbody>
</table>

Note: Data were missing for 11 respondents

Table 3. Frequencies and Percentages of Gender of Mentor Identified by Participants

<table>
<thead>
<tr>
<th>Gender of Mentor</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>147</td>
<td>25.10</td>
</tr>
<tr>
<td>Female</td>
<td>423</td>
<td>72.20</td>
</tr>
</tbody>
</table>

Note: Data were missing for 16 respondents

Table 4. Frequencies and Percentages of Mentor who is College Faculty or Staff

<table>
<thead>
<tr>
<th>Mentor is College Faculty or Staff</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>148</td>
<td>25.30</td>
</tr>
<tr>
<td>No</td>
<td>423</td>
<td>72.20</td>
</tr>
</tbody>
</table>

Note: Data were missing for 15 respondents
Table 5. Summary Statistics for Participants by Instrument and Race

<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relational Health Indices Peer Scale (RHI-P)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina</td>
<td>77</td>
<td>37.71</td>
<td>5.33</td>
</tr>
<tr>
<td>Black</td>
<td>112</td>
<td>35.74</td>
<td>6.34</td>
</tr>
<tr>
<td>White</td>
<td>330</td>
<td>37.17</td>
<td>5.77</td>
</tr>
<tr>
<td>Asian</td>
<td>34</td>
<td>35.15</td>
<td>5.44</td>
</tr>
<tr>
<td></td>
<td>Relational Health Indices Mentor Scale (RHI-M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina</td>
<td>74</td>
<td>31.43</td>
<td>8.29</td>
</tr>
<tr>
<td>Black</td>
<td>113</td>
<td>30.44</td>
<td>8.27</td>
</tr>
<tr>
<td>White</td>
<td>323</td>
<td>32.04</td>
<td>6.99</td>
</tr>
<tr>
<td>Asian</td>
<td>33</td>
<td>27.48</td>
<td>9.97</td>
</tr>
<tr>
<td></td>
<td>Relational Health Indices Community Scale (RHI-C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina</td>
<td>75</td>
<td>30.68</td>
<td>9.24</td>
</tr>
<tr>
<td>Black</td>
<td>111</td>
<td>25.53</td>
<td>8.97</td>
</tr>
<tr>
<td>White</td>
<td>326</td>
<td>28.35</td>
<td>8.21</td>
</tr>
<tr>
<td>Asian</td>
<td>34</td>
<td>27.06</td>
<td>6.98</td>
</tr>
<tr>
<td></td>
<td>Center for Epidemiological Studies Depression Scale (CES-D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latina</td>
<td>72</td>
<td>14.83</td>
<td>10.92</td>
</tr>
<tr>
<td>Black</td>
<td>118</td>
<td>17.20</td>
<td>11.32</td>
</tr>
<tr>
<td>White</td>
<td>322</td>
<td>14.09</td>
<td>9.32</td>
</tr>
<tr>
<td>Asian</td>
<td>31</td>
<td>19.32</td>
<td>11.44</td>
</tr>
</tbody>
</table>

A total of 586 surveys were completed which included 77 (13.1%) Latina undergraduate females, 118 (20.1%) Black undergraduate females, 34 (5.8%) Asian undergraduate females, 335 (57.2%) White undergraduate females, 17 (2.9%) undergraduate females who identified as “other,” and 5 participants who did not identify their race. To assess racial differences more accurately, the researcher dropped the participants who did not identify their race along with those who identified as “other”; therefore, only Latina, Black, Asian, and White undergraduate women were used for analysis. Seventy-seven Latina participants completed the Relational Health Indices Peer Scale (RHI-P), 74 Latina participants completed the Relational Health Indices Mentor Scale (RHI-M), 75 Latina participants completed the Relational Health Indices Community Scale (RHI-C), and 72 Latina participants completed the CES-D. One
hundred twelve Black participants completed the RHI-P, 113 Black participants completed the RHI-M, 111 Black participants completed the RHI-C, and 118 Black participants completed the CES-D. Thirty-four Asian participants completed the RHI-P, 33 Asian participants completed the RHI-M, 34 Asian participants completed the RHI-C, and 31 Asian participants completed the CES-D. Three hundred thirty White participants completed the RHI-P, 323 White participants completed the RHI-M, 326 White participants completed the RHI-C, and 322 White participants completed the CES-D. Summary statistics for the number of participants, mean, and standard deviation by race and instrument are presented in Table 5.

**Data Analyses and Results**

**Research Questions**

**Questions 1 & 2.** What is the relationship between peer relational health and depressive symptomology and are there racial differences in the relationship between peer relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-P as the covariate. The analysis included 532 observations. The race by RHI-P interaction was first tested and indicated no significant interaction with $F(3, 531) = .755, p = .520$. Therefore, the interaction was dropped from the model, and the model was reanalyzed for main effects. The test indicated that there is a significant main effect for race and RHI-P with $F(3, 527) = 3.32, p = .020$, partial $\eta^2 = .019$ and $F(1, 527) = 29.23, p = .000$, partial $\eta^2 = .053$, respectively. The covariate, RHI-P, was related to CES-D in the hypothesized direction. The results of this study indicate that with every one point increase in the RHI-P score there is a .40 decrease in CES-D score. Although a
significant main effect was found for race, Bonferroni post-hoc test indicated no significant results.

**Questions 3 & 4.** What is the relationship between mentor relational health and depressive symptomology and are there racial differences in the relationship between mentor relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-M as the covariate. The analysis included 523 observations. The race by RHI-M interaction was first tested and indicated no significant interaction with $F(3, 522) = 2.38, p = .069$. Therefore, the interaction was dropped from the model, and the model was reanalyzed for main effects. The test indicated that there is a significant main effect for race and RHI-M with $F(3, 518) = 3.54, p = .015$, partial $\eta^2 = .020$ and $F(1, 518) = 6.95, p = .009$, partial $\eta^2 = .013$, respectively. The covariate, RHI-M, was related to CES-D in the hypothesized direction. The results of this study indicate that with every one point increase in the RHI-M score there is a .15 decrease in CES-D score. Although a significant main effect was found for race, Bonferroni post-hoc test indicated no significant results.

**Questions 5 & 6.** What is the relationship between community relational health and depressive symptomology and are there racial differences in the relationship between community relational health and depressive symptomology among female college students? A regression equation was run with CES-D as a dependent variable, race as an independent variable, and RHI-C as the covariate. The analysis included 527 observations. The race by RHI-C interaction was first tested and indicated no significant interaction with $F(3, 526) = .266, p = .850$. Therefore, the interaction was dropped from
the model, and the model was reanalyzed for main effects. The test indicated that there is a significant main effect for race and RHI-C with \( F(3, 522) = 3.29, p = .020 \), partial \( \eta^2 = .019 \) and \( F(1, 522) = 75.45, p = .000 \), partial \( \eta^2 = .13 \), respectively. The covariate, RHI-C, was related to CES-D in the hypothesized direction. The results of this study indicate that with every one point increase in the RHI-C score there is a .43 decrease in CES-D score. Although a significant main effect was found for race, Bonferroni post-hoc test indicated no significant results.

**Question 7.** What is the relationship between race and college women’s depressive symptoms? An ANOVA was used where the CES-D was the dependent measure and race was the independent variable. The equation included 543 observations and showed that there is a significant main effect for race on CES-D with \( F(3, 539) = 4.57, p = .004 \), partial \( \eta^2 = .025 \). Tukey’s post-hoc test indicated that White participants (M = 14.09) scored significantly lower compared to both Black (M = 17.20), \( t(539) = 2.86, p = .023 \), and Asian participants (M = 19.32), \( t(539) = 2.75, p = .031 \).

**Question 8.** Are their racial differences in the peer relational health of college women? An ANOVA was used where RHI-P was the dependent variable and race was the independent variable. The ANOVA test included 553 observations and showed that there is a significant main effect for race on RHI-P with \( F(3, 549) = 3.24, p = .022 \), partial \( \eta^2 = .017 \). Although a significant main effect was found for race, Tukey’s post-hoc test indicated no significant results.

**Question 9.** Are their racial differences in the mentor relational health of college women? An ANOVA was used where RHI-M was the dependent variable and race was the independent variable. The ANOVA test included 543 observations and showed that
there is a significant main effect for race on RHI-M with $F(3, 539) = 4.22$, $p = .006$, partial $\eta^2 = .023$. Tukey’s post-hoc test indicated that Asian participants ($M = 27.49$) scored significantly lower compared to White ($M = 32.04$) participants with $t(539) = 3.25$, $p = .007$.

**Question 10.** Are their racial differences in the community relational health of college women? An ANOVA was used where RHI-C was the dependent variable and race was the independent variable. The ANOVA test included 546 observations and showed that there is a significant main effect for race on RHI-C with $F(3, 542) = 6.00$, $p = .001$, partial $\eta^2 = .032$. Tukey’s post-hoc test indicated that Black participants ($M = 25.53$) scored significantly lower compared to both White ($M = 28.35$), $t(542) = 3.04$, $p = .013$, and Latina participants ($M = 30.68$), $t(542) = 4.08$, $p = .000$.

**Hypotheses**

This study includes 5 hypotheses, one related to research questions 1-6 and 4 related to research questions 7-10. Hypotheses were presented in regard to the relationship between the RHI-P, RHI-M, and RHI-C and the CES-D. In addition, hypotheses regarding whether racial differences existed in the depressive symptoms, RHI-P, RHI-M, and RHI-C scores of college women were explored. The probability level for the rejection of a hypothesis was $p = .05$ for all tests.

In the first hypothesis, the researcher predicted that there is a negative relationship between the peer, mentor, and community relational health and depressive symptomology in a racially diverse sample of college women. Three different regression equations were tested, which examined both the main and interaction effects of the variables. The covariates for each regression equation were RHI-P, RHI-M, and RHI-C scores, the independent variable was race, and the dependent variable was the CES-D score. The
results supported the researcher’s first hypothesis in that they were each negatively correlated with the CES-D. Main effects for race and the RHI scales were found; however, no interaction effects were found. A summary of the findings for the regression equations and the main effects for race and RHI-P, RHI-M, and RHI-C on CES-D are presented in Table 6.

### Table 6. Main Effects, Regression Equations for RHI-P, RHI-M, & RHI-C on CES-D

<table>
<thead>
<tr>
<th>Type III SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHI-P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>974.851</td>
<td>3</td>
<td>324.950</td>
<td>3.315</td>
</tr>
<tr>
<td>RHI-P</td>
<td>2865.548</td>
<td>1</td>
<td>2865.548</td>
<td>29.234</td>
</tr>
<tr>
<td>Regression Equation for RHI-P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CES-D = 33.352 –.399(RHI-P) −1.855(Black) −4.476(White) −3.354(Latina)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RHI-M</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>1084.156</td>
<td>3</td>
<td>361.385</td>
<td>3.542</td>
</tr>
<tr>
<td>RHI-M</td>
<td>708.944</td>
<td>1</td>
<td>708.944</td>
<td>6.948</td>
</tr>
<tr>
<td>Regression Equation for RHI-M</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CES-D = 23.480 –.152(RHI-M) −1.821(Black) −4.671(White) −3.898(Latina)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RHI-C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>903.617</td>
<td>3</td>
<td>301.206</td>
<td>3.293</td>
</tr>
<tr>
<td>RHI-C</td>
<td>6901.899</td>
<td>1</td>
<td>6901.899</td>
<td>75.452</td>
</tr>
<tr>
<td>Regression Equation for RHI-C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CES-D = 30.833 –.428(RHI-C) −2.455(Black) −4.577(White) −2.681(Latina)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: “*” denotes significance at α = .05

In the second hypothesis, the null hypothesis was that there are no significant racial differences in the depressive symptomology of college women. Since results showed that there are significant mean differences for race, the null hypothesis was rejected. In the third hypothesis, the null hypothesis was that there are no significant racial differences in the peer relational health of college women. Since results showed that there are significant mean differences for race, the null hypothesis was rejected. In the fourth hypothesis, the null hypothesis was that there are no significant racial differences in the mentor relational health of college women. Since results showed that there are significant mean differences for race, the null hypothesis was rejected. In the fifth
hypothesis, the null hypothesis was that there are no significant racial differences in the community relational health of college women. Since results showed that there are significant mean differences for race, the null hypothesis was rejected.

**Summary**

The hypotheses of this study were partially supported by the results indicating that there is a negative relationship between CES-D scores and peer, mentor, and community relational health scores. Participants who had higher levels of peer, mentor, and community relational health also reported lower scores on the CES-D. However, participants in the study did not show racial differences in depressive symptoms at different levels of peer, mentor, and community relational health; that is, there were no interaction effects. Results of the study indicated that White participants scored significantly lower on the CES-D than both Black and Asian participants, indicating that White participants have less depressive symptoms compared to Black and Asian participants. Asian participants scored significantly lower on the RHI-M compared to White participants, indicating that Asian participants have lower mentor relational health compared to White college women. Finally, Black participants scored significantly lower on the RHI-C compared to White and Latina participants, indicating that Black participants have lower community relational health compared to both White and Latina participants.

The demographic data included information on the participants’ method of recruitment, age, year in school, and academic major. In addition, information was collected on whether participants were currently taking prescription medication for depression, the gender of the friend and mentor identified by the participant, and whether
the mentor the participant identified was a member of the college faculty or staff. The results of the study are discussed in Chapter 5.
Although there is a proliferation of research on depression, there has been little examination focused specifically on depression in college women and types of relationships that may act as protective factors against depression. Additionally, there is a lack of research on the racial differences in levels of depression in college women. Therefore, the purpose of this study was to examine the relationship between relational health and depression in a racially diverse sample of college women and to assess whether racial differences exist among depression and relational health scores. This chapter presents a summary of the research, the major findings of the study, the limitations, implications in relation to theory and practice, and recommendations for future research.

Summary of the Study and Major Findings

A convenience sample of undergraduate women was drawn from selected classes and campus organizational listservers. Participants completed an on-line survey, which included the Relational Health Indices (RHI), the Center for Epidemiological Studies Depression Scale (CES-D), and 9 demographic questions. Data was analyzed using ANOVA and regression equations. Post-hoc tests were conducted to analyze variables that demonstrated a significant main effect for race.

The first hypothesis proposed a negative relationship among depressive symptoms and peer, mentor, and community relational health in college women. The hypothesis was substantiated by the results, which showed that participants who reported higher
levels of peer, mentor, and community relationships also reported lower levels of depressive symptoms. The association between relational health and depressive symptoms supports the idea that connections with others may reduce the risk of depression (Miller, 1988). The results are somewhat consistent with previous research examining the relationship between depression and relational health in college women. In the study used to develop the RHI, Liang and colleagues (2002) found a significant association between community relational health and depression, but did not find a significant association between peer or mentor relational health and depression. The correlation they found between community relational health and depression ($r = -0.39$) was similar to the correlation between community relational health and depression found in this study ($r = -0.43$). One explanation for why the study found a significant correlation between peer and mentor relational health and depressive symptoms and Liang et al. (2002) did not may be because this study had a larger sample size; therefore, it had greater power in which to detect a significant relationship between peer and mentor relational health and depressive symptoms.

The findings of this study support the idea that the presence or absence of growth-fostering qualities in important relationships plays a role in women’s psychological development (Jordan, 1997; Liang et al., 2002). Previous research findings suggest that the quality of relationships moderates depression in women (Beeber, 1999; Belle, 1982; Genero et al., 1992; McGrath et al., 1990; VanderVoort, 1999) and that the lack of growth-fostering qualities can lead to chronic disconnection (Genero et al., 1992; Jack & Dill, 1992; Sperberg & Stabb, 1998). This study also lends support to previous research that emphasizes the importance of peer (Furman & Buhrmester, 1992; Veroff,
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1997), mentor (Darling, Hamilton, & Niego, 1994; Leadbeater & Way, 1996), and
community relationships (Kirton, 2000; Mears, 2002; Pratt et al., 2000) in the lives of
college women. Overall, the findings are consistent with research in the fields of
psychology, epidemiology, and medicine, which have found that close, healthy
relationships predict well-being across multiple samples (Kessler, 2002; Meyers, 2000;
VanderVoort, 1999).

**Depressive Symptoms**

The second hypothesis stated that there are no significant racial differences in the
depressive symptomology of college women. The results of this research support the
rejection of this hypothesis. The results of the study indicate that there are significant
racial differences in the levels of depressive symptoms in college women. However,
there were no racial differences in depressive symptoms at different levels of peer,
mentor, and community relational health. In other words, main effects were found, but
there were no interaction effects. The results suggest that Black and Asian college women
tend to experience more depressive symptoms than White college women. The effect size
for this finding, according to Cohen’s (1992) guidelines, was small, and because of the
disparity between the sample sizes for White and Asian college women, the racial
differences found in this study must be interpreted with caution. Finally, it is difficult to
determine whether these racial differences in depression parallel other groups of racially
diverse college women since literature on the racial differences in the rates of depression
in women is lacking (Sparks, 2002). However, the overall findings are consistent with
research on the general population (CDC, 2001) and other research suggesting that,
particularly at colleges with a predominately White population, women of color tend to
report more depressive symptoms than White women (Downie, 1998; Gratch et al., 1995; Liu et al., 1990; Okazaki, 1997; Gore & Aseltine, 2003; Reed et al., 1996).

In addition to running a main analysis of depressive symptoms and relational health in college women, demographic information was also analyzed with respect to the number of women who reported taking prescription medication for depression and the women’s CES-D scores. The CES-D measures the current level of symptoms that accompany depression in a general population (Nezu et al., 2000). Although the instrument was not designed to diagnose depression or measure symptom severity (Nezu et al., 2000), previous research has shown that a score of 16 or above can distinguish depressed from non-depressed individuals (Comstock & Helsing, 1976). Results of this study indicated that approximately 40% of women in this sample scored a 16 or above on the depression scale. This coincides with several research studies that found that over one third of college women report mild to severe depressive symptoms (Beeber, 1998; Peden et al., 2000a; Peden et al., 2000b; Reed et al., 1996). Three percent of participants in this study reported using prescription medication for depression, which is lower than the 6% of women who reported current use of prescription medication for depression in the National College Health Assessment Web Summary (ACHA, 2004). Nevertheless, the findings may suggest an under-treatment in the depressive symptoms of college women. However, because the researcher did not ask about alternative treatments the participants were currently using for depression (i.e. counseling), inferences about whether the participants are under-treated for depressive symptoms can not be decisively determined. General research has shown that only one third of adults seek help for depression despite the fact that treatment can significantly help in 80% of cases (NIMH, 2000). The
findings are concerning given that serious potential consequences of depression include suicidal behaviors and the increased risk for other medical, physical, psychological, academic, and social problems (McGrath et al., 1990; Weissman, Wolk, Goldstein, et al., 1999). However, the negative correlation between peer, mentor, and community relational health and depression may be a potential inroad for practitioners and researchers to decrease the levels of depression and potentially intervene before the severity of the depression increases.

**Peer Relational Health**

The third hypothesis stated that there are no significant racial differences in the peer relational health of college women. The results of this research support the rejection of this hypothesis. Results did not show that the relationship between peer relational health and depressive symptoms differed across race. However, the results indicated that there are racial differences in levels of peer relational health, but they were not large enough to be detected using post-hoc tests. The lack of detectable racial differences in peer relational health scores is inconsistent with prior research measuring peer relational health in college women, which showed Black college women had significantly lower levels of peer relational health than White and Latina women (Goldman, 2001). However, it is consistent with research on women’s friendships that suggests that peer support is valuable to women of a wide range of racial and ethnic backgrounds (Collier, 1996; Knickmeyer et al., 2002).

The correlation between peer relational health and depressive symptoms, regardless of race, suggests that peer relational health may be a protective factor against depression in college women. The results indicate that with every point increase in peer relational health there is a .40 decrease in depression scores. The finding is consistent with
previous research that shows that positive friendship experiences contribute to the psychological adjustment and well-being of young people (Brown, Way, & Duff., 1999; Veroff, 1997; Rubin, 1985). Peer relationships have been found to provide support and a basis on which one can develop her identity (Schultz, 1991). The findings also support research that suggests that the lack of a confiding, intimate relationship and relationships lacking perceived quality are associated with depression in women (Aseltine et al., 1994; Nelson, 1996; O’Neil & Mingie, 1988).

Demographic data examining peer relationships indicated that over 80% of the sample reported that their closest friend was female. This finding is similar to the results of the study in which the Relational Health Indices was validated (Liang et al., 2002). In that study, the authors found that 93% of participants reported that the friend they identified was female. These findings are not surprising given that across the lifespan, there is a tendency to have more same-sex friendships than cross-sex friendships (Veniegas & Peplau, 1997). Even though there is a trend for close friends to be the same sex throughout the lifespan, having same-sex friendships may be particularly relevant in late adolescence (Gilligan, 1982; Kaplan et al., 1991). Developmentally, college is a time “of rapid consolidation of female friendship” (Kaplan et al., 1991, p. 128). Therefore, age of the participants may have played a role in the number of participants who reported a same-sex peer as their closest friend. Additional explanations for the high percentage of female friends identified by the participants may be the psychological benefits for having a close female friend. The impact of same-sex friendships for women generally leads to increased mental, physiological, and social well-being and that there is a relationship among the absence of same-sex friendships and loneliness, depression, and
psychosomatic illness (Knickmeyer et al., 2002). The finding from this study strengthens the idea that relationships, particularly female friendships, may reduce the risk of depression in college women.

**Mentor Relational Health**

The fourth hypothesis stated that there are no significant racial differences in the mentor relational health of college women. The results of this research support the rejection of this hypothesis. Results did not show that the relationship between mentor relational health and depressive symptoms differed across race. However, results did show significant racial differences in the levels of mentor relational health among college women. The results indicate that mentor relational health is lower in Asian college women than in White college women. The effect size for this finding was small, and because of the disparity between the sample sizes for White and Asian college women, the racial differences found in this study must be interpreted within the context of this limitation. One reason for the lower mentor relational health scores among Asian women may be the lack of racially similar students, faculty, and staff from which to associate. Asian undergraduate women make up the smallest percentage of undergraduate students at the University of Florida compared to Blacks, Whites, and Latinas (University of Florida, 2002a). Moreover, Asian faculty make up only 10% of the total full-time and part-time faculty population, Asian women faculty make up only 2% of the total full-time and part-time faculty population, and women of color faculty members make up only 5% of the faculty population (University of Florida, 2002b). Differences in depression scores in previous research have been linked to the under-representation of people of color, including students, faculty, and staff, at undergraduate colleges (Gore & Aseltine, 2003).
An additional finding related to mentor relational health was that it was negatively associated with depressive symptoms in college women. The results indicate that with every point increase in mentor relational health there is a .15 decrease in depression scores. The results are inconsistent with previous research, which did not find a significant correlation between mentor relational health and depression (Liang et al., 2002) or disordered eating (Goldman, 2001). Additionally, unlike this study, Goldman (2001) did not find racial differences in the mentor relational health of college women. The findings of this study uphold the view that support from non-parental adults is important during the college years and contributes to healthy psychological development. This research also parallels findings that suggest the perception of a secure mentor relationship has positive benefits for college students (Soucy & Larose, 2000; Spencer, 2000) and may serve to buffer the stress of important adult transitions (Liang et al., 2002).

Demographic data indicate that over 72% of the sample reported that their most important mentor was female. This finding is similar to the results of the study in which the Relational Health Indices was validated (Liang et al., 2002). In that study, the authors found that 70% of participants indicated that their mentor was female. Moreover, the results support prior research on adolescent and late adolescent females that found that over 85% of young women identified another woman as their mentor (Rhodes& Davis, 1996). Potential reasons for why women identify other women as their mentors include feeling a closer identification with someone of the same sex and feeling that there is less of a power differential within the relationship (Scott, 1992).
Interestingly, only 25% of the mentors the participants identified were members of the college faculty or staff. This finding is somewhat similar to Liang and colleague’s (2002) study of a relational approach to mentoring college women, which found that 35% of participants identified mentors who were not members of the college faculty or staff. The results are consistent with previous research that found that some of the most significant positive benefits for college women come from informal mentoring interactions outside of the classroom (Nora et al., 1996). Because the researcher did not ask the participants to identify who their mentors were if they were not faculty or staff, conclusions about whether one category of mentor relationship may be more helpful than another as a protective factor against college women’s depression can not be made. Also, these results may have been different if the researcher had defined the meaning of the term mentor more explicitly for the participant and if the researcher collected data from women at a university or college with a smaller student to staff ratio. Nonetheless, it seems that the presence of a growth-fostering mentor relationship is beneficial to college women and may serve as a protective factor against depression.

**Community Relational Health**

The fifth hypothesis stated that there are no significant racial differences in the community relational health of college women. The results of this research support the rejection of this hypothesis. That is, there was statistical evidence to support the assertion that there are racial differences in the community relational health of college women. Specifically, the results indicate that community relational health is lower in Black college women than in White and Latina college women. The effect size for this finding was small, but the findings can be interpreted with greater confidence than prior findings since the Black, White, and Latina group sizes were more similar. The finding that
community relational health scores were lower for Black women was consistent with past research with samples of college women (Goldman, 2001). These results offer support for previous research, which found that Black women who attend predominately White colleges and universities are less likely to perceive the college environment as supportive compared to White women (Downie, 1998). The findings of this research study are concerning given that there is a significant association between feelings of alienation and higher attrition rates in Black college women (Tomlinson-Clarke, 1998). Downie (1998) emphasized the need for social supports within the college community to offset negative life events contributing to higher levels of depression in women of color. One explanation for the findings may be that the researcher asked the participants to rate their relationship with or involvement in the university community. The results with respect to racial differences may have been different if the researcher allowed participants the ability to identify community affiliations outside the university community.

Regardless of race, community relational health was found to be significantly related to depressive symptoms in college women. The results indicate that with every point increase in community relational health there is a .43 decrease in depression scores. This supports the argument that the presence of a growth-fostering relationship to one’s college community creates resistance to depressive symptoms for college women. This is similar to previous research that showed that a sense of belonging is inversely related to depression in college students (Hagerty et al., 1996) and that network quality is predictive of depression and anxiety in an ethnically diverse sample of college students (VanderVoort & Sorikov, 2000). Also, Mears (2002) found that, for college women, an
absence of connection to their college community is strongly associated with measures of psychological distress.

**Limitations of the Study**

Although the overall results may be generalizable to college-aged women at a predominately White institution in the southeast, they should be interpreted within the context of this study. There were a number of limitations in this study, which include the sampling procedures, recruiting minority participants at a predominately White university, self-reporting, and data collection techniques. One of the primary concerns was the sampling procedure. Due to state privacy laws, the researcher was unable to access a random sample of undergraduate female students; therefore, a convenience sample was used. By using a convenience sample, particularly to gather information on a subject as personal as relationships and depressive symptoms, the type of respondents who participated in the study may have been affected. Furthermore, the potential for self-selection bias exists, since over 60% of participants received extra credit for their participation. It is likely that students who were recruited for the study but did not need extra credit or were not offered extra credit did not participate. In this study, the participants who were recruited were either attending class or members of a campus organization. Research has shown that depressed students tend to miss class (Heiligenstein et al., 1996) and isolate themselves socially (Gotlib & Hammen, 2002). Consequently, there is a potential that the most severely depressed women were not surveyed, and the sample may not be representative of college women as a whole. Another limitation of the sampling procedure involved the recruitment of participants through organizational listservers. Since the researcher relied on listserver moderators and/or organizational contact persons to distribute information about the study to their
listserver members, the response rate and details about who the information reached was unclear.

Additionally, since the researcher gathered data at a predominately White institution, it was difficult to reach women of color through classrooms and listservers. The overall proportion of White women to women of color on this campus is 2.2 to 1 (University of Florida, 2002). Another problem regarding race is that the researcher had the participant choose the racial category with which they most identified. This forced choice may have caused some women to mark “other” or to choose a category that might not have been representative of their identity. In retrospect, to improve upon these limitations, the researcher could have continued to collect survey information from women of color after the main data collection was completed and should have allowed the participant to write in her racial category rather than forcing a choice.

Participant self-reporting bias must also be addressed as a limitation in this study. There is no way to know whether the participants’ responses accurately represented their experiences of depressive symptoms or their relationships with their closest peer, most important mentor, and their college community. The retrospective nature of the instruments required that the participants think back on the interactions they have had in their relationships over time. Additionally, data was gathered relatively close to final examinations, which may have affected students’ responses. Finally, due to the nature of collecting information in a non-controlled setting and using correlational analyses, inferences about causal relationships cannot be made. Therefore, the direction of the relationship between relational health and depressive symptoms remains unclear.
Implications of the Findings and Recommendations

Implications for Theory

The theoretical framework used in this study was the Relational-Cultural theory, which emphasizes the contextual, responsive, and process factors involved in the relational nature of human experiences (Jordan, 1997a). The results of this study offers empirical evidence in support of the RCT assertion that connected relationships are crucial to women’s psychological development. It also lends support to the notion that placing an emphasis on interdependence rather than independence and autonomy may be genuinely healthy for college women’s development. Further, the study helps to clarify the criticism of RCT that it may not be applicable to women of color. The results indicated that Black, Latina, White, and Asian female college students all showed a negative relationship among peer, mentor, and community relational health and depressive symptoms. Therefore, the qualities of mutual engagement, authenticity, and empowerment, which are core relational qualities that RCT outlines theoretically, seem to hold relevance with respect to their relationship to depressive symptoms for a racially diverse sample of college women. This research seems to dispute the criticism regarding the applicability to women of color and instead strengthens the idea that growth-fostering relationships are protective and beneficial for women from a broad range of racial groups. This follows earlier research showing that this model and other relational models can be applicable for women of color (Garcia-Coll, 1992; McRae, 2000; Turner, 1997; Tatum, 1997).

A majority of the research using RCT as a theoretical framework has been qualitative or case studies exploring different aspects of the theory. This research study
adds to the growing body of quantitative research that suggests that developing and maintaining connected, growth-fostering relationships is critical to women’s psychological well-being. Further, the study contributes to the literature examining the relational health construct. Overall, this research contributes to the understanding of the relational domain of depression in college women and the role that connections with peers, mentors, and their college community play in fostering or inhibiting healthy psychological functioning. Although the findings suggest that connected peer, mentor, and community relationships may protect college women from depression, these three types of relationships are certainly not the only protective factor for college women that mental health professionals and college administrators must rely on to ensure the most positive psychological development of college women.

Implications for Practice

The results of this research contribute to the understanding of the relationship among growth-fostering peer, mentor, and community connections and depression in a racially diverse sample of college women. The practical implications of this research are applicable to mental health and student affairs professionals and college health educators who are responsible for creating and implementing outreach and prevention programming and clinical interventions for college students. It is important to understand that peer, mentor, and college community relationships that possess the relational qualities of mutual engagement, authenticity, and empowerment/zest seem to play a role in protecting against depressive symptoms in college women.

Campus counseling resources have become a significant entry for young adults into the mental health care system. However, although depressive symptoms are experienced by many college students, and are often serious, research has shown that only a small
number of students seek professional help (O’Neil & Mingie, 1988). That is why it is important for not only mental health resources on college campuses to recognize the significant association among peer, mentor, and community relationships and depression, but for health education programs and student services such as housing, student unions, and leadership organizations to incorporate this information within their respective programs. Also, counseling and other social services are often seen as “supplementary” student services and are usually the first to suffer during budget crises. This research points to the debilitating effects that lack of outreach services, mentor programs, and community building initiatives could have on the psychological well-being of college women.

Although the women in this study were not a clinical sample per se, the results point out several implications for the practice of mental health professionals including the need to assess clients for growth-fostering relationships, the potential benefit of encouraging students to develop peer, mentor, and college community connections, and the need for culturally relevant outreach and prevention programs for depression. The negative relationship between relational health and depression suggests that there are clinically relevant dimensions of relational functioning that influence women’s psychological well-being. Therefore, it may be important for mental health professionals to assess clients’ relationships for the qualities of mutual engagement, authenticity, and empowerment/zest, and to assist clients in developing those relational qualities in their relationships if they are lacking. The results of this study along with previous research (Genero et al., 1992) lend support for interventions for depression based on the Relational-Cultural theory’s model.
Aside from mental health interventions for depression, developmental intervention strategies at the campus environmental level are necessary to facilitate college women’s relational health. The Relational Cultural theory suggests that women begin to feel out of touch with themselves, disconnected, and unsupported when their basic relational needs are not met (Surrey, 1991). The results of this study support this idea and indicate that a greater connection with one’s college community is related to less depressive symptoms regardless of race in college women. Colleges and universities must examine their school’s climate to determine whether the relational needs of their female students are being met. As part of campus wide outreach, prevention, and intervention strategies for depression, formal peer, mentor, and community building programs that are accessible to diverse groups of women are needed. The programs should emphasize building mutual engagement, authenticity, and empowerment among its participants. Since there is evidence that racial differences exist in the levels of mentor and community relational health, it is also critical that mentor and community development initiatives take racial differences into consideration. Universities, particularly those with a predominately White population, may have to work harder to make women of color feel included and connected. This is particularly relevant since women of color often feel a stigma related to accessing student services (Sue & Sue, 1972). Outcome goals for participants in campus programs should included the “five good things” that characterize growth-fostering relationships including increased zest (vitality), increased ability to take action (empowerment), increased clarity, increased self-worth, and a desire for more relationships. Also, rather than exclusively emphasizing goals that relate to self-sufficiency and autonomy for college students, universities should send a message to
students that college is also a place to develop connections and establish an identity based on growth-fostering relationships with others. Finally, community-level interventions must also work to improve faculty and staff’s understanding of the qualities in peer, mentor, and community relationships that are beneficial to women’s well-being. For example, workshops for faculty, housing staff, advisors, and student affairs leaders could address these specific relational issues that impact psychological development in college women.

Informal peer, mentor, and community connections should also be encouraged within the college environment since formal programs do not always create the growth-fostering connections that they hope to facilitate. For example, workshops provided by health educators or mental health outreach staff for female students might include information on the types of connections and relationship qualities that may serve to protect against depressive symptoms. Programs that help college women seek out relationships in which they can develop growth-fostering qualities are needed. Moreover, since this study and other studies indicate that college women’s important mentors are often not college faculty or staff, programming should also concentrate on helping women to identify potential support systems and mentors outside of their college community.

Beeber (1998) suggests that the best strategy is to intervene with college women before depressive symptoms increase in frequency and severity. Counselors, administrators, and health educators can assist women to find ways to develop and maintain connected peer, mentor, and community relationships through developing programming that addresses the benefits of mutual engagement, authenticity, and
empowerment/zest in relationships. When left untreated, depression can worsen, last longer and possibly lead to suicidal behaviors. In addition, academic, physical, psychological, and social consequences of depression are problematic (Gotlib & Hammen, 2002; Heiligenstein et al., 1996). If interventions occur before the depressive symptoms lead to the onset of major depression, perhaps the course of chronic depression in some college women’s lives could be prevented.

**Recommendations for Future Research**

Liang et al. (2002) wrote, “In order to assure generalizability and to expand our understanding of the complexity of relational health and its impact on successful adjustment, it will be important to replicate these findings and to validate the RHI across gender, ethnic groups, and other diverse populations (p.32).” This study is one example of a response to the researchers’ request to continue investigating relational health; however, additional research is needed to clarify potential racial differences in peer, mentor, and community relational health in college women and in the general population of women.

The findings of this research begin to enhance the understanding of relationships that may serve as protective factors against depression across race in college women. Given that the study found significant relationships among depression scores and peer, mentor, and community relational health scores, future research is necessary to identify the ways in which peer, mentor, and community relationships can most effectively be fostered in college women. Additionally, given that racial differences in the levels of peer, mentor, and community relationships were found in this study, additional investigation is necessary to understand the causes of these racial differences. Looking
closer at the impact of students’ sense of connectedness to their university community and the peers and mentors within their community is warranted.

To increase the external validity of the results, it will be important for researchers to replicate this study using different sampling methods (i.e. using a random sample rather than a convenience sample), gathering data from multiple sites, and gathering data from a larger number of women of color. In order to learn more about the relationship between relational health and depression, it is important that researchers employ a similar research design using women from various age, racial, socioeconomic, and educational groups. Most of the previous research on depression in women has attempted to understand gender differences in depression. Research must begin to focus efforts specifically on women’s depression (Stoppard & McMullen, 2003) in order to develop outreach, prevention, and treatment programs based on women’s unique experiences (Hammen & Gotlib, 2002). Further, additional research examining potential racial differences in the levels of depression and relational health in the general population of women are needed in order adequately create and implement culturally relevant programming and mental health counseling interventions.

Summary

This chapter provided a discussion of the results, the study limitations, implications for theory and practice, and recommendations for future research. Overall, the findings indicated a significant negative association among depressive symptoms and peer, mentor, and community relational health in college women. Racial differences were found for depressive symptoms, mentor relational health, and community relational
Impairment from depression and depressive symptoms is a significant personal and societal issue. Rates of depression among college students have risen and cause serious personal suffering and a strain on college mental health resources. This study focused on the relational domain of depression; however, since the etiology of depression in women is multi-faceted, it is important to identify additional protective factors that can inform outreach, prevention, and treatment strategies at the college level and throughout adulthood (McGrath et al., 1990). While the college years have potential to provide women opportunities for relational connections, intellectual growth, and career development, it is clear that a number of college women are also dealing with psychological distress, specifically depressive symptoms. Additionally, women of color may be experiencing greater levels of depressive symptoms than White college women. How to best address the relational and mental health needs of college students remains a challenging question for individuals and groups invested in the interests of college women. However, it is hopeful that through development and maintenance of peer, mentor, and community relationships that encompass the qualities of mutual engagement, authenticity, and empowerment/zest, college women may be partially protected against depressive symptoms. Therefore, the benefits of growth-fostering relationships for college women are significant and are essential to consider when developing policies, programming, and interventions aimed at enhancing their psychological well-being.
APPENDIX A
INFORMED CONSENT

1. **Inclusion criteria to participate in the study:** You must be 18 years of age or older and you must be a currently enrolled college female at the University of Florida to participate in this research study.

2. **Purpose of the study:** The purpose of this research is to examine the relationship between feelings and relationships. There is a need to know more about college women’s peer, mentor, and community relationships and feelings that they experience. Participating in this research will advance the knowledge of administrators, counselors, and researchers invested in the well-being and development of college women.

3. **What you will be asked to do:** Your participation in this research will include the completion of 3 short questionnaires on-line.

4. **Duration/time:** It will take about 20 minutes to complete the questions.

5. **Discomforts and risks:** There are no risks in participating in this research beyond those experienced in everyday life. If you would like to speak with a counselor, you may contact University of Florida Counseling Center at 352-392-1575 or Student Mental Health Services at 352-392-1171.

6. **Benefits:** The benefits to participating in the study will be to learn more about your relationships and feelings. The benefits to society include a better understanding of the relationships and feelings of a diverse group of college women.

7. **Compensation:** No monetary compensation will be given as a result of participation in this study. If you are receiving extra class credit for your participation, please complete the on-line survey and email the researcher (see #11 for researcher contact email) with your name, professor/instructor’s name, and the date and time you completed the survey.

8. **Confidentiality:** Your identity will be kept confidential to the extent provided by law. You will only be required to provide your email address to the researcher. If you are receiving extra credit for your participation, you will be required to email your name, your instructor’s name, and the time and date you completed the survey. If you provide your name to the researcher, the researcher will only provide your name to your instructor. After the researcher provides your name to your instructor, the researcher will delete your name and there will be no way to match your name to your responses. All data will be stored in an encrypted database and will be anonymous.
Please note that there is only limited assurance of confidentiality due to the technology of the Internet.

9. **Voluntary participation:** Your participation in this study is voluntary. You can decline to answer specific questions without penalty and there is no penalty for not participating.

10. **Right to withdraw from the study:** You have the right to withdraw from the study at anytime without consequence.

11. **Whom to contact if you have questions about the study:** As a participant, you have the right to ask questions and have those questions answered. If you would like a copy of the final manuscript, please email the researcher. All questions should be directed to the principal investigator or her doctoral committee chairperson:

   Principal Investigator: Natalie F. Arce, M.Ed., Ed.S., N.C.C.
   Doctoral Candidate, Department of Counselor Education
   P.O. Box 117046, 1215 Norman Hall, University of Florida
   Gainesville, FL 32611-7046, (352) 392-0731
   Email: nfarce@hotmail.com

   Doctoral Committee Chairperson: James Archer, Jr., Ph.D.
   Professor, Department of Counselor Education
   1215 Norman Hall, University of Florida
   Gainesville, FL 32611, (352) 392-073
   Email: jarcher@coe.ufl.edu

12. **Whom to contact about your rights as a research participant in this study:**
   UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250;
   (352) 392-0433.

If you consent to participate in this research study, agree to the terms above, and meet the participation criteria, please click on the agree button below. Please print this page for your records and/or bookmark it for future reference.
Dear Student,

My name is Natalie Arce, and I am a doctoral candidate in the Department of Counselor Education at the University of Florida. Your help is requested to gather information about college women’s feelings and relationships. There is a need to know more about college women’s peer, mentor, and community relationships and feelings that they experience. Participating in this research will advance the knowledge of administrators, counselors, and researchers invested in the well-being and development of college women.

All surveys will be anonymous and you can withdraw from the study at any time. You will only be required to provide me with your email address. If you are receiving extra credit for your participation, please email your name, your instructor’s name, and the time and date you completed the survey to me at nfarce@hotmail.com. I will only provide your name to your instructor. Once I have provided him/her with that information, I will delete your name and there will be no way to match your name to your responses. All data will be stored in an encrypted database and will be anonymous.

The survey should take 20 minutes to complete. If you are interested in participating, please provide your email address below and return the bottom portion of the flyer to me. I will email you in several days with a direct link to the on-line survey. If you do not want to wait for the email, you can go directly to the website:

http://grove.ufl.edu/~tdbaker/surveys/index.php?survey=s1809738162

Once you reach the on-line survey, please read the informed consent carefully before participating. Thank you very much for your interest! If you have any questions about this research project, please do not hesitate to contact me at the email address below.

Sincerely,
Natalie Arce, M.Ed., Ed.S.
Doctoral Candidate
Department of Counselor Education
University of Florida

Please clearly print your email address below and return this portion of the flyer to me. Thank you.

Email address: __________________________________________________________
APPENDIX C
EMAIL LETTER TO LISTSERVER PARTICIPANTS

Dear Listserver Member,

My name is Natalie Arce, and I am a doctoral candidate in the Department of Counselor Education at the University of Florida. Your help is requested to gather information about college women’s feelings and relationships. There is a need to know more about college women’s peer, mentor, and community relationships and feelings that they experience. Participating in this research will advance the knowledge of administrators, counselors, and researchers invested in the well-being and development of college women.

The survey should take 20 minutes to complete. All surveys will be anonymous and you can withdraw from the study at any time. All data will be stored in an encrypted database and will be anonymous. I would appreciate your participation in this important study. Please go directly to the survey by clicking on the web address below or you may also cut and paste the link into your internet browser:

http://grove.ufl.edu/~tdbaker/surveys/index.php?survey=s1809738162

Once you reach the on-line survey, please read the informed consent carefully before participating. Thank you very much for your interest! If you have any questions about this research project, please do not hesitate to contact me at the email address below.

Sincerely,
Natalie Arce, M.Ed., Ed.S.
Doctoral Candidate
Department of Counselor Education
University of Florida
APPENDIX D
THE RELATIONAL HEALTH INDICES

Relational Health Indices Peer Scale

For questions 1 through 12, please click on the bubble next to the word that best applies to your relationship with a close friend (Note: participants were asked to choose from Never, Seldom, Sometimes, Often, or Always for each statement).

1. Even when I have difficult things to share, I can be honest and real with my friend.
2. After a conversation with my friend, I feel uplifted.
3. The more time I spend with my friend, the closer I feel to him/her.
4. I feel understood by my friend.
5. It is important to us to make our friendship grow.
6. I can talk to my friend about our disagreements without feeling judged.
7. My friendship inspires me to seek other friendships like this one.
8. I am uncomfortable sharing my deepest feelings and thoughts with my friend.
9. I have a greater sense of self-worth through my relationship with my friend.
10. I feel positively changed by my friend.
11. I can tell my friend when he/she has hurt my feelings.
12. My friendship causes me to grow in important ways.

Relational Health Indices Mentor Scale

For questions 13 through 23, please click on the bubble next to the word that best applies to your relationship with your most important mentor (Note: participants were asked to choose from Never, Seldom, Sometimes, Often, or Always for each statement).

13. I can be genuinely myself with my mentor.
14. I believe my mentor values me as a whole person (e.g. professionally, academically and personally).
15. My mentor’s commitment to and involvement in our relationship exceeds that required by his/her social/professional role.
16. My mentor shares stories about his/her own experiences with me in a way that enhances my life.
17. I feel as though I know myself better because of my mentor.
18. My mentor gives me emotional support and encouragement.
19. I try to emulate the values the values of my mentor (such as social, academic, religious, physical/athletic).
20. I feel uplifted and energized by interactions with my mentor.
21. My mentor tries hard to understand my feelings and goals (academic, personal, or whatever is relevant).
22. My relationship with my mentor inspires me to seek other relationships like this one.
23. I feel comfortable expressing my deepest concerns to my mentor.

**Relational Health Indices Community Scale**

For questions 24 through 37, please click on the bubble next to the word that best applies to your relationship with or involvement in the university community (Note: participants were asked to choose from Never, Seldom, Sometimes, Often, or Always for each statement).

24. I feel a sense of belonging to this community.
25. I feel better about myself after my interactions with this community.
26. If members of this community know something is bothering me, they ask me about it.
27. Members of this community are not free to just be themselves.
28. I feel understood by members of this community.
29. I feel mobilized to personal action after meetings within this community.
30. There are parts of myself I feel I must hide from this community.
31. It seems as if people in this community really like me as a person.
32. There is a lot of backbiting and gossiping in this community.
33. Members of this community are very competitive with each other.
34. I have a greater sense of self-worth through my connection with this community.
35. My connections with this community are so inspiring that they motivate me to pursue relationships with other people outside this community.
36. This community has shaped my identity in many ways.
37. This community provides me with emotional support.
APPENDIX E
CENTER FOR EPIDEMIOLOGICAL STUDIES DEPRESSION SCALE

Please click on the bubble next to the word that best describes how often you felt or behaved this way during the past week (Note: participants were asked to choose from Rarely or none of the time [0-1 days], Some or little of the time [1-2 days], Occasionally or a moderate amount of the time (3-4 days), or Most or all of the time [5-7 days]).

1. I was bothered by things that usually didn’t bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not get “going”.

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APPENDIX F
DEMOGRAPHIC QUESTIONS

1. Please click on the bubble next to the racial group with which you most strongly identify:
   • Black, African American, or Caribbean American
   • White, Caucasian, or European American
   • Hispanic or Latina
   • Asian American or Pan-Asian American
   • Native American
   • Other

2. Please click on the bubble next to your current year at this university:
   • First year
   • Second year
   • Third year
   • Fourth year
   • Fifth year or more

3. What is your age?

4. What is your major?

5. Are you currently taking prescription medication for depression?
   • Yes
   • No

6. Please click on the bubble next to the gender of the close friend you identified:
   • Male
   • Female

7. Please click on the bubble next to the gender of the mentor you identified:
   • Male
   • Female

8. Is the mentor you identified a member of the college faculty or staff?
   • Yes
   • No
9. Please indicate the way that you were recruited for participation in this study:

- Classroom
- Campus Listserver
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Natalie Frances Arce was born on December 4, 1977, in Jacksonville, Florida. She received her Bachelor of Science degree in 1999, and her Specialist in Education degree in 2001, from the University of Florida. After graduation, she will work at the University of Florida Counseling Center and will continue to work toward licensure as a Licensed Mental Health Counselor.