SEPARATION-INDIVIDUATION AND COPING: CONTRIBUTIONS TO FRESHMAN COLLEGE ADJUSTMENT

by

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This study investigated how college adjustment was influenced by the level of separation-individuation and problem-focused coping strategies of freshmen students. Independent variables included Problem-focused Coping (measured by the Adolescent-Coping Orientation for Problem-focused Experiences), Positive Separation Feelings from parents (measured by the Conflictual Independence subscale of the Psychological Separation Inventory and the Separation-Individuation Test of Adolescence), and Independence from Parents (measured by the Functional, Attitudinal, and Emotional Independence subscales of the Psychological Separation Inventory); the dependent variable was college adjustment (measured by the Student Adaptation to College Questionnaire). College freshmen (n = 87) from a mid-sized southeastern university in the United States completed the scales at the end of their first year.

A path analysis using an ordinary least squares regression approach indicated that Freshmen students with higher Positive Separation Feelings and Problem-focused Coping strategies reported higher college adjustment. Also, the path analysis showed no direct effect of Independence from Parents on College Adjustment. However, there was a moderate indirect effect (through Problem-focused Coping) on college adjustment. Additional analyses revealed a significant multivariate effect for gender and parents' marital status. Separate path analyses indicated that higher Independence

from Parents was associated with lower Problem-focused Coping for both genders. Also, females and males who scored higher on Positive Separation Feelings from parents tended to report higher levels of college adjustment. Problem-focused Coping was a significant predictor of college adjustment significant predictor of adjustment for males only.

Results suggested that counseling interventions addressing ways to manage feelings about separating from home and the degree of independence from parents could be implemented to help freshmen resolve developmental tasks and, in turn, adjust better to college. In addition, programs that teach problem-focused coping strategies could be designed which help freshmen develop the resources needed to cope with the various college adjustment difficulties that arise, and thus reduce the number of students who fail to complete college.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Attending college for the first time can be a frightening and threatening experience for students (Blimling & Miltenberger, 1984). For most entering freshmen, college represents a new and formidable experience as they leave the familiar environments of home and high school. The unfamiliarity of this experience challenges the individual's personal security, need for acceptance, and need for comfort (Blimling & Miltenberger, 1984). Traditional-aged students often have difficulty adjusting not only because of the uncertainty regarding their new and unfamiliar environment, but also because they doubt whether they will be able to meet the expectations of parents and friends, in addition to the expectations they have for themselves (Blimling & Miltenberger, 1984). Leaving home, separating from family, friends, and neighborhood, is one of a handful of experiences which will have a lasting effect on an individual's future development (Margolis, 1981).

Chickering (1969, 1993), a human developmental theorist who has focused on college students, believed that one of the major developmental challenges for many adolescents involves adjusting to college. Most researchers agree that, for traditional-aged college freshmen, adjustment means learning to master the various academic, social/environmental, and personal factors within their environment (Baker & Siryk, 1984; Russell &

Petrie, 1992). Baker and Siryk (1984) found that good adjusters differ from poor adjusters in many ways. For instance, those who adjust well to college can typically manage their educational demands, interpersonal experiences at the university, and psychological distress better than poor adjusters. In contrast, students struggling to adjust to college tend to have lower grade point averages, experience more stress (Russell & Petrie, 1992), seek counseling more frequently, and have a higher attrition rate (Baker & Siryk, 1986). In sum, most researchers believe that adjusting to college requires the ability to manage both the internal and external challenges of the student's college environment (Hanfmann, 1978).

When the majority of students enter the university they are still immersed in their family of origin emotionally, psychologically, geographically, and often financially (Arnstein, 1980). Leaving home for college thus represents a physical as well as a psychological separation from parents (Lapsley, Rice, & Shadid, 1989). According to the psychodynamic view, this process of separation-individuation from parents is the principal developmental task of adolescence (Blos, 1979). In general, separation-individuation refers to the process of increasing one's sense of differentiation from parents and achieving some degree of self-definition (Rice, 1992). Essentially, the late adolescent is learning to move from dependence on parents to dependence on self (Rice, 1992). It is believed that the successful completion of these tasks contributes to ego mastery (Blos, 1962).

Recently, researchers have begun to explore how separating from parents affects adjustment to college (Hoffman, 1984; Hoffman & Weiss, 1987; Lapsley, Rice, Shadid, 1989; Lopez, Campbell, & Watkins, 1986; Rice et al., 1990). Recent research (Rice et al., 1990) has identified two separation-individuation factors that relate differently to adjustment: (a) independence from parents and (b) positive feelings associated with separating from parents. Results suggest that gaining independence from parents is less related to college adjustment than previously thought. Instead, it appears that students who report positive feelings about separating from parents (i.e., not angry, resentful, or anxious about separating) are those who report healthy adjustment to college (Rice et al., 1990; Rice, FitzGerald, Whaley, & Gibbs, in press).

Lapsley et al. (1989) found that the initial separation period for freshmen is particularly stressful, since freshmen tend to report more psychological dependencies on mother and father and poorer social and personal-emotional adjustment to college than do upperclassman. In addition, gender differences frequently have been observed during this initial period of separation, with men typically reporting greater independence than women, particularly on measures of emotional, functional, and attitudinal independence from parents (Lopez, Campbell, & Watkins, 1988b, Rice et al., 1990). These results are in line with the suggestion that there may be different pathways to adjustment for men and women in their freshman year of college, each being an exaggeration of their normal developmental trajectories (Holmbeck & Wandrei, 1993).

Nevertheless, overall findings of separation-individuation studies suggest that the capacity to maintain and regulate a healthy relationship with parents is critical to the mental health of the first year college student (Hoffman & Weiss, 1987; Lapsley et al., 1989; Lavine, Green, & Millon, 1986; Lopez et al., 1988a; Rice et al., 1990).

Clearly, stresses during the transition to college also require freshmen to mobilize various coping resources (Gibson & Brown, 1992). Folkman and Lazarus (1980) stated that, although coping includes any effort to manage a situation, the best strategies are a problem-focused and/or an emotion-focused approach. In support of these findings, Aspinwall and Taylor (1992) found that certain coping strategies facilitate psychological well-being better than others when applied correctly. Many researchers have found active efforts, such as problem-focused coping and seeking social supports, are associated with good adjustment to stressful events (Cronkite & Moos, 1984; Dunkel-Schetter, Feinstein, Taylor, & Falke, 1992; Holahan & Moos, 1986, 1987a). In contrast, others have found that passive coping strategies, such as withdrawing from or avoiding difficulties, produces adverse responses to stressful life circumstances (Cronkite & Moos, 1984; Felton & Revenson, 1984; Felton, Revenson, & Hinrichsen, 1984; Holahan & Moos, 1986, 1987a; Quinn, Fontana, & Reznikoff, 1987; Bolger, 1990; McCrae & Costa, 1986; Rohde, Lewinsohn, Tilson, & Seeley, 1990). In addition, the proper use of coping strategies depends upon the individual's adaptation abilities and his/her perception of the event (Folkman & Lazarus, 1980).

For college freshmen, effective coping involves learning a variety of active strategies to separate-individuate from parents and adjust to the college environment (Perosa & Perosa, 1993). Little information is available, however, regarding what strategies they use and how these strategies help them deal with the various developmental tasks related to leaving home and going to college. At present, the literature suggests that there is a relationship between separation-individuation and college adjustment during the transition from home to college for freshman. Knowledge of the coping behaviors of freshmen may provide a clearer picture as to how they manage these transitional issues.

Purpose of the Study

The purpose of this study was to explore the coping strategies college freshmen use in adjusting to college and separating-individuating from parents. Presently, little is known about the cognitive or behavioral strategies college freshmen use to cope with the strains of the college environment. In addition, researchers have yet to explore whether problem-focused copers have more positive feelings about separating from parents or a greater degree of independence from parents. Thus, this study also investigated whether freshmen with problem-focused coping strategies are more successful in adjusting to college. Also, the two dimensions of separation-individuation, independence from parents and positive feelings about separating from parents, were examined in terms of how these dimensions influence a student's ability to adjust to the college environment. Lastly, this study explored whether problem-focused copers

can influence more positively the two factors of separation-individuation. The results of this study will benefit student development professionals by increasing their understanding of the methods college freshman use to adapt to college. Because counseling interventions often center on enhancing a client's problem-solving, interpersonal communication, and emotional regulation, research that illuminates successful types of coping strategies is warranted.

Need for the Study

The transition from home to college is one of the most difficult, naturally-occurring life adjustments a late adolescent has to make. Research has shown that many students simply are not ready to meet the rigorous psychological, emotional, and academic realities of higher education (Francis, McDaniel, & Doyle, 1987). As a result of this inadequate preparation, many universities experience an attrition rate of up to 20% by the end of the freshman year alone (Mallinckrodt & Sedlacek, 1987). Although many believe that students are not properly prepared to make the transition to college, little is known about the coping strategies of students who successfully make this transition. While much has been written about the use of coping strategies for adults in major life transitions and in medical settings, research rarely has been focused on how late adolescents cope with life transitions such as separating from home or adjusting to college. Without a clear understanding of how college freshmen cope with the transition into college, it is difficult for student development professionals to design interventions that can teach the

necessary survival skills. If coping strategies used by adults are similar to those used by adolescents, then this literature can be considered as a basis for understanding the coping behaviors of college freshmen. By determining which strategies are most effective for managing a student's adjustment to college, student development practitioners can anticipate coping behaviors and better address needs. This study has provided initial information to inform student development programming aimed at helping freshman successfully adjust to college.

Statement of the Problem

This study explored the types of coping strategies college freshmen use to adjust to college and separate-individuate from parents. The following research questions were based on the conceptual model depicted in Figure 1:

1. Is there a direct relationship between freshmen coping abilities, as measured by the Adolescent-Coping Orientation for Problem Experiences (A-COPE; Patterson & McCubbin, 1987) scale, and the total college adjustment score, as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984)?
2. Is there a direct relationship for freshman between the two dimensions of separation-individuation (i.e., positive feelings of separating from parents and independence from parents), as measured by the Psychological Separation Inventory (PSI; Hoffman, 1984) and the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon 1986), and the total college adjustment score?

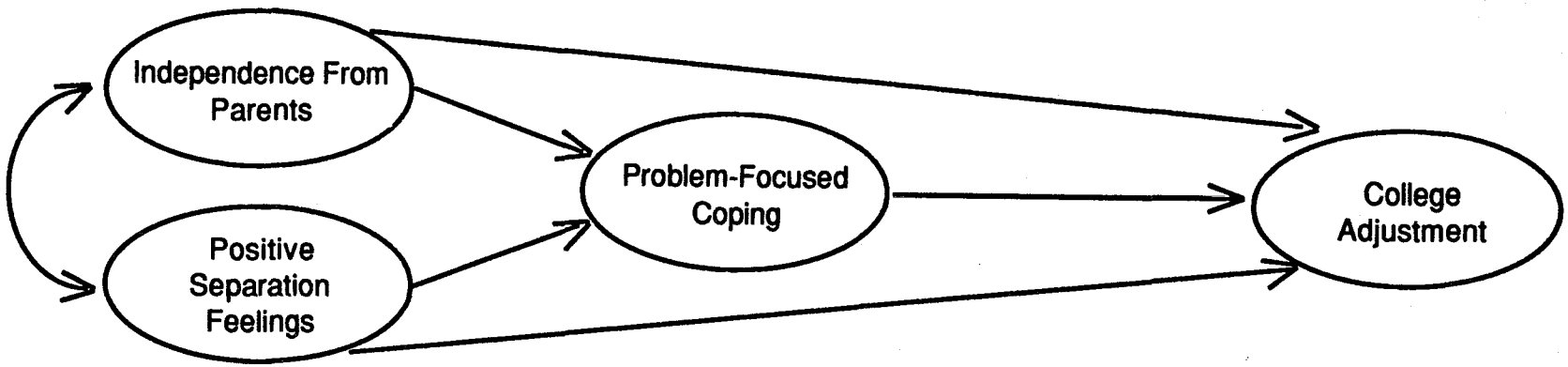


Figure 1. Conceptual Model

3. Does a freshman's ability to cope mediate the relationship between positive feelings of separating from parents and the total college adjustment score?
4. Does a freshman's ability to cope mediate the relationship between independence from parents and the total college adjustment score?

Definition of Terms

Adjustment to college--refers to four factors necessary for adapting to the college environment, namely academic adjustment, social adjustment, personal-emotional adjustment, and goal commitment/institutional attachment (Baker & Siryk, 1984). For the purposes of this study, adjustment to college was measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).

Coping--refers to effortful or purposeful reactions to stress, thus excluding reflexive or automatic responses (Lazarus & Folkman, 1984; Murphy, 1974). Lazarus and Folkman (1984) maintained that focusing on effortful responses avoids the pitfall of defining coping too broadly to include everything an individual does in relating to the environment. In addition, coping can be viewed as "constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Coping is not limited to successful efforts but includes all purposeful attempts to manage stress regardless of effectiveness.

Coping strategies--refer to the cognitive or behavioral actions that young adults use to manage stress associated with tension producing situations (Compas, 1987). Coping strategies can be divided into two categories: problem-focused coping or avoidance coping (Ebata & Moos, 1994). Problem-focused coping strategies include developing self-reliance, developing social-support, solving family problems, seeking spiritual support, investing in close friends, seeking professional support, engaging in demanding activity, and being humorous. Avoidance coping strategies include venting feelings, seeking diversions, avoiding problems, and relaxing. For the purpose of this study, only a derived problem-focused coping score was used. The problem-focused coping score will be measured by the Adolescent-Coping Orientation for Problem Experiences Scale (A-COPE; Patterson & McCubbin, 1987).

Separation-individuation--refers to the process of "increasing one's sense of self-differentiation from parents and achieving some degree of self-definition" (Rice, 1992, p. 203). The process involves moving from dependence on parents to increasing dependence on self. Two separation-individuation factors will be measured in this study: Positive Separation Feelings and Independence from Parents (Rice et al., 1990). The Separation Anxiety scale of the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986) will be used as one indicator of separation feelings. The Conflictual Independence subscale from the Psychological Separation Inventory (PSI; Hoffman, 1984) will be used as another indicator. In addition, the Functional, Emotional, and Attitudinal

Independence subscales of the PSI will serve as general indicators of Independence from Parents (Rice et al., 1990).

Organization of the Study

The study is presented in five chapters. Chapter I is an introduction to adjustment to college, separation-individuation, and the use of coping strategies by college freshman. It provides an overview of the process of separation-individuation as it is related to adjustment to college for traditional-aged college freshmen. It links problem-focused coping as a potential mediating variable between the direct relationship between separation-individuation and adjustment to college. Chapter One includes the purpose of the study, need for the study, statement of the problem, and definition of terms.

Chapter II, Review of the Related Literature, is comprised of three major sections: adjustment to college, separation-individuation, and coping. The review of college adjustment literature is divided into three broad areas: academic adjustment, social adjustment, and personal adjustment. The review of the literature related to separation-individuation includes theoretical origins of the construct, application of the construct to late adolescent college students, and separation-individuation influences on adjustment for traditional-aged college freshmen. The review of coping defines the term and describes the types of strategies used by late adolescents to cope with adjustment problems and implications for college adjustment.

Chapter III describes the methodology to be in the study and includes information regarding instruments, participants, procedures, and methods of data analysis.

Chapter IV presents results of the data analysis. Discussion of the analyses and results parallel the research questions.

Chapter V includes a summary of the study, discussion of conclusions, and implications for the field. After an examination of limitations of the study, recommendations for further research are offered.

CHAPTER II

REVIEW OF RELATED LITERATURE

The literature relevant to this study can be divided into three major sections: adjustment to college, separation-individuation, and coping. Adjustment to college is one of the primary tasks of college freshmen. Adjustment involves learning to manage the academic, social, and personal/emotional factors which shape the college experience (Baker & Siryk, 1984). During this adjustment period freshmen also experience the developmental crisis of separating from parents, peers, and the home environment. The process of separation-individuation has been viewed by some as the primary developmental task of late adolescence (Erikson, 1968). For students to make the successful transition from home to college, they must draw upon personal resources to cope with the various adjustment difficulties that arise. Coping strategies of freshmen may play a significant role in determining how well freshmen adapt to this transition phase of adulthood.

Student Adjustment to College

The transition to college is marked by complex challenges in emotional, social, and academic adjustments (Chickering, 1969). While it is believed that some students find ways to make this transition constructively, others feel overwhelmed and unable to effectively meet the demands of their new environment. The typical 17 or 18 year old probably

does not have a realistic idea about what to expect from college (Blimling & Miltenberger, 1990). Thus, almost all students go through an adjustment phase when they enter the university, with each student varying in his/her pace of development (Blimling & Miltenberger, 1990).

Recently, the adjustment difficulties of college students have gained the attention of college administrators and mental health professionals (Gerdes & Millinckrodt, 1994). In particular, many universities are concerned by the alarming statistics of college student attrition during the first two years of school. In a national study, Tinto (1987) reported that 40% of all college entrants leave higher education without a degree, and 75% of these students drop out in the first two years of college. In addition, Tinto (1987) found that 56% of a typical entering class did not graduate from that college. Mallinckrodt and Sedlacek (1987) reported that attrition rates as high as 20% are common during the freshman year alone. Due to these alarming statistics, many universities are now beginning to examine the process of college adjustment to better understand the reasons underlying student attrition. To date, previous research on college adjustment has focused on academic, social, and personal/emotional adjustment factors (Baker & Siryk, 1984).

Academic Adjustment

Early studies on academic adjustment focused on academic ability as a predictor of college student retention. Many researchers found high school grade point average (GPA) and test scores from the Scholastic Aptitude Test (SAT) and American College Testing Program (ACT) were

strong predictors of college academic success (Malloch & Michael, 1981; Mathiason, 1985; Weitzman, 1982). In addition, Lin and McKeachie (1970) found that study skills and academic motivation made independent contributions to academic achievement beyond that of aptitude measures such as SAT scores. Yet, despite the unique contributions of such factors as study skills and motivation, Mathiasen (1985) found high school grades and test scores remained the best predictors of college grade point averages (GPA). Although academic performance is a major predictor of college adjustment, it explained less than half the variance in students' decisions to drop-out (Pantages & Creedon, 1978).

The broad concept of academic adjustment involves more than simply a student's scholarly potential. Some researchers acknowledge such factors as motivation and commitment to academic goals as important intangibles in the academic equation (Baker & Siryk, 1984; Edwards & Waters, 1981; Neumann, Finaly, & Reichel, 1988). For example, Edwards and Walters (1981) found that achievement motivation moderated the relationship between academic ability and GPA, with high achievement motivated students obtaining stronger ability-GPA relations and showing more persistence in their academic efforts than lower achievement motivated students. Further, Hollenbeck, Williams, and Klein (1989) found that students with a high need for achievement demonstrated a higher commitment to difficult goals than those with a low need for achievement. Baker and Siryk (1984a, 1984b, 1989) found that motivation to learn, taking action to meet academic demands, a clear sense of purpose, and a general

satisfaction with the academic environment also are important components of academic adjustment.

Self-efficacy has been described as another important variable in academic success. Self-efficacy theory, developed by Bandura (1977), attempts to explain behavioral change from a cognitive-behavioral perspective. Within this theory, self-efficacy refers to a person's belief about his or her ability to successfully perform a given task or behavior (Bandura, 1972). In a test of this theory, Lent, Brown, and Larkin (1984) revealed that college students reporting higher self-efficacy for educational requirements generally achieved higher grades and demonstrated greater persistence than those reporting low self-efficacy. In a follow-up study, Lent (1986) examined the degree to which measures of self-efficacy, ability, achievement, and interest served as predictors of academic success. Although math PSAT scores and high school rank made significant contributions to the variance in GPA, self-efficacy was found to be the most useful variable in predicting grades and academic persistence. Further support of self-efficacy beliefs was provided by O'Brien, Brown, and Lent (1990) in their study of the self-efficacy beliefs of at-risk college students. Their findings revealed that self-efficacy is most facilitative of academic performance when the student's beliefs are relatively congruent with their academic ability.

A closely held notion to self-efficacy is achievement motivation. Achievement is based on the assumption that individuals seek to identify the causes of both their successes and failures in achievement (Weiner,

1979, 1985). When applying this model to an academic realm, Platt (1988) found that persistence in school and future academic performance are likely to be enhanced when students are able to attribute their prior successes to both aptitude and hard work. Similarly, Clifford (1986) investigated the role of failure attributions on subsequent attitude and performance measures. Results of this study revealed that, when students were able to attribute their failures to poor strategies, it allowed them to avoid the guilt associated with not trying and to avoid the feelings of being incapable or inadequate (Clifford, 1986). Thus, Clifford (1986) concluded that positive strategies derived from the lessons learned by academic failure could lead to more constructive future efforts.

Social Adjustment

Social adjustment is a second critical dimension to college student persistence. Many researchers have suggested that social and environmental factors (e.g., family, campus, peers) may be as important as academic factors to a student's ability to adjust and succeed in college (Barney, Fredericks, Fredericks, & Robinson, 1987; Brown, Alpert, Lent, Hurt, & Brady, 1988; Huebner & Corazzini, 1984; Mallinckrodt, 1988; Pantages & Creedon, 1978; Taylor & Whetstone, 1983). In an early comprehensive review of the literature, Zilli (1971) indicated that the social domain was an important factor to be considered when explaining college student underachievement. More recently, Gerdes and Mallinckrodt (1994) concurred and went on to suggest that the important elements of social

adjustment include social supports, campus environment, and student involvement.

Social support. Some of the most commonly reported crises in the freshman year involve difficulties in social adjustment manifest in feelings of homesickness and loneliness (Houston, 1971; Lokitz & Sprandel, 1976; Rich & Scovel, 1987). Mallinckrodt (1988) reported that perceptions of insufficient support predict attrition for both Black and White students, and a number of studies noted the benefits of peer and family support on physical and psychological health (Brown, Alport, Lent, Hunt, & Brady, 1988; Cohen & Hoberman, 1983; Curtona, 1986). Yet, only a few studies have investigated the direct or buffering effects of social support on academic performance and adjustment. Okun, Sandler, and Baumann (1988) found that the quality of a student's academic life was enhanced when positive achievements were reinforced by peers, faculty, and family members. In addition, they found that these social supports also buffered the negative effects of life events on the quality of the students' academic lives. Students experiencing negative life events and low amounts of support reported less satisfaction with their academic lives than those who were supported. Thus, social support networks are an extremely important component of adjusting to the college campus environment (Chickering, 1969; Hays & Oxley, 1986).

Campus environment. Another prominent aspect affecting social adjustment is the campus environment. Astin (1985) suggested that the campus environment is a complex entity with the potential to influence a

student's academic success and adjustment. Campus environment has been operationalized and investigated in a variety of ways. Pascarella (1985) and Janosik, Creamer, and Cross (1988) reported the beneficial effects of residing on-campus versus commuting to college. Pascarella (1985) concluded that students residing on-campus expressed more satisfaction with college, reported higher levels of self-esteem and educational aspirations, and were more likely to remain in school than were commuter students. It is believed that living on-campus indirectly influences a student's intellectual ability and interpersonal self-concept by positively affecting social interactions with peers and faculty (Pascarella, 1985). Janosik et al. (1988) reported that students express higher levels of self-competence when they are in environments that provide emotional support, minimal competition, and a higher degree of self-governance.

The campus environment can be extended past the place of residence. Pascarella (1985) found that interaction with faculty can indirectly influence a student's educational aspirations. In addition, others have found that the quality of the informal contact with faculty can play a role in maintaining enrollment (Lenning, Beal, & Sauer, 1980; Pascarella, 1980; Terenzini et al., 1981; Terenzini & Wright, 1987). Pascarella (1985) concluded that the significance of the influence of faculty upon students may be moderated somewhat by gender and college size, with smaller institutions demonstrating more positive student faculty interactions.

Student involvement. In a national study, Astin (1977) challenged the previously held notion that size, selectivity, prestige, predominant race of the school, and type of institution have the greatest direct effect on the student's academic and social self-concepts. Astin (1977) concluded that these characteristics have only indirect effects on student self-concepts through students' academic and social experiences. Pascarella and Terenzini (1991) asserted that "what happens to students after they arrive on campus has a greater influence on academic and social self-concepts than does the kind of institution the student attends" (p. 184).

Recent evidence has suggested that students can increase their positive academic experiences by becoming more involved in their campus community and, particularly, by interacting socially with peers and faculty (Astin, 1991). This is especially true since the majority of students spend most of their time doing other things than attending class and studying (Boyer, 1987; Kuh, Schuh, Whitt, & Associates, 1991; Wilson, 1966). It is believed that if some of those hours were spent being actively involved, students more likely would be satisfied with their social life, living environment, academic major, contacts with faculty, and the college overall (Boyer, 1987). Most researchers agree that students who are more involved in campus activities are more likely to persist through graduation (Astin, 1977; Kapp, 1979; Kegan, 1978; Kuh et al., 1991; Pascarella & Terenzini, 1991).

Personal/Emotional Adjustment

During the transition from high school to college, most students question their relationships, self-worth, and direction in life (Chickering, 1993). This period of introspection forces many students to question their identity, which may lead to tremendous personal crises (Henton, Lamke, Murphy, & Hayes, 1980). It has been suggested that the newness of the college environment presents major adjustment difficulties for most freshman students. Blimling and Miltenberger (1990) stated that a student's self-confidence can be easily undermined in a new environment in which basic security and self-esteem needs are challenged by peers and the new environment. Research to explore these personal-emotional adjustment difficulties typically has focused on both the students' psychological and physical reactions.

Some researchers have suggested that the personal-emotional problems of many college students often are manifested as psychological distress, low self-esteem, anxiety, or depression (Gerdes & Mallinckrodt, 1994). In fact, research on counseling centers indicates that the primary observed disorder among college students is depression (Sherer, 1985; Vredenburg, O'Brien, & Kramer, 1988). Chickering (1969) stated that these unmanaged emotional problems can affect students in a variety of unhealthy ways. For some, these feelings are reflected in common problems such as residence hall damage or roommate conflict. For others, more extreme behaviors, such as exploitive sexual encounters, various forms of chemical dependency, or excessive academic anxiety, become

evident. Chickering (1969) stated that part of the developmental process for college students is to learn how to achieve a flexible control over feelings and develop new, more appropriate modes of expression.

Another area of extensive investigation has been the relationship between life stress and areas of academic adjustment (Garrity & Ries, 1985; Harris, 1973; Loyd, Alexander, Rice, & Greenfield, 1980). Research findings generally support the notion that life stress is inversely correlated with academic performance. For example, Harris (1973) found that first year college students with lower GPAs experienced significantly more life stress than those with higher GPAs. DeMuse (1985) also found that low-stress students perform better across six indexes of classroom performance. Garrity and Ries (1985) corroborated these findings by demonstrating that recent negative events were inversely correlated with college grades. Moreover, researchers have indicated that college student performances suffer significantly only after they have experienced at least 12 independent life events (Loyd, Alexander, Rice, & Greenfield, 1980). In sum, Pappas and Loring (1985) found that highly stressful college conditions will consistently predispose students to dropping out of school.

In conclusion, Baker and Siryk (1984, 1989) have stated that college adjustment is a multifaceted process that involves demands varying in kind and degree. Managing these demands requires a variety of coping responses or adjustments which vary in effectiveness. Although distinctions between types of adjustments are not always sharp, this review has identified three broad areas that may have an important influence on a

freshman's ability to persist in college. Academic aspects of adjustment have received the most attention in the literature; few studies have examined all three areas in a single investigation (Gerdes & Mallinckrodt, 1994).

Psychological Separation-Individuation

Although early theories of psychological separation and individuation were focused primarily on separation issues within the first three years of life (Freud, 1946, 1969), a major extension of Freudian theory to the study of late adolescents was offered by Blos (1962, 1979). According to Blos (1979), adolescents initiate a "second individuation" process that, in several respects, parallels the dynamics of the "first individuation" described by Mahler (1963). It is during the second individuation or separation, Blos (1979) suggested, that the adolescent is attempting to shed "family dependencies" through an emotional disengagement in the parent-adolescent relationship. He also believed that the successful resolution of these separation-individuation tasks is important because it can lead to the mastery of a variety of adaptational challenges (Blos, 1962).

Although the process of separation-individuation has been conceptualized in a number of ways (Blos, 1962; Bowen, 1976; Minuchin, 1974), in general it refers to the process of "increasing one's sense of differentiation from parents and achieving some degree of self-definition. The process involves moving from dependence on parents to an increasing independence from parents" (Rice, 1992, p. 230). Since adjustment to college involves renegotiation of the parent-child relationship, Robbins

(1989) suggested that the study of separation-individuation could further the understanding of the adjustment difficulties of college students.

Accordingly, researchers have expressed a growing interest in the process of separation-individuation as it relates to college student adjustment (Rice, 1992; Rice, Cole, & Lapsley, 1990). Some have found that the tasks involved in separating and individuating from parents have particular relevance during a late adolescent's transition from home to college (Kenny, 1987; Lopez et al., 1988; Rice, 1992; Rice et al., 1990). Thus, a fuller understanding of separation-individuation as applied to late adolescent students may have implications for planning interventions to offset college adjustment difficulties. The concept is described below, and studies related to college adjustment reviewed in some detail.

Fortunately, advances in instrument development have kept pace with theory development of separation-individuation (Lopez, 1993). In fact, the study of separation-individuation has been greatly facilitated by several recently designed measures of psychological individuation (Hoffman, 1984; Levine, Green, & Millon, 1986). Hoffman's measure, the Psychological Separation Inventory (PSI) has proven to be a reliable and valid index of separation-individuation. According to Hoffman (1984), separation-individuation is a multidimensional construct that can be assessed through self-report of functional independence (FI), emotional independence (EI), conflictual independence (CI), and attitudinal independence (AI) from mother and father. Since its introduction in 1984, the PSI or its subscales have been used in studies of various developmental tasks and/or issues for

late adolescents, including vocational identity and career commitment (Bluenstein et al., 1991; Lopez, 1991), religious devoutness (Richards, 1991), ego identity (Lopez, Watkins, Manus, & Hunton-Shoup, 1992; Palladino & Bluenstein, 1991), and eating disorders (Friendlander & Siegel, 1990). In addition, the PSI has been used extensively in studies of late adolescent adjustment to college (Hoffman & Weiss, 1987; Lapsley, Rice, & Shadid, 1989; Lopez, 1991; Lopez, Campbell, & Watkins, 1986, 1988a, 1988b; Rice, 1992; Rice, Cole, & Lapsley, 1990).

Psychological Separation and College Adjustment

Early studies using the PSI supported the view that separation-individuation is associated with college adjustment. In particular, Hoffman (1984) found significant relationships between the conflictual, emotional, and attitudinal independence subscales and indices of college adjustment for both males and females. For example, conflictual independence (absence of excessive angry or resentful feelings toward parents), emotional independence, and attitudinal independence were related to personal-emotional adjustment and academic adjustment (based on global ratings regarding problems with academic courses). In a follow-up study, Hoffman and Weiss (1987) reported a positive relationship between problematic separation from parents (conflictual dependence) and self-reported emotional problems. Extensive interrelationships between various dimensions of separation-individuation and have been substantiated in subsequent studies (Lapsley et al., 1989; Lopez et al., 1988),

along with the use of stronger measures of college adjustment (SACQ; Baker & Siryk, 1984).

Recent research with the PSI has been directed toward testing whether men and women chart different paths toward psychological separation or toward improved college adjustment (Lapsley et al., 1989; Lopez, Campbell, & Watkins, 1986; Rice, 1992). Early findings by Lopez et al. (1986) indicated that men scored significantly higher than women on several of the eight separation subscales. Similarly, Lapsley et al. (1989) found that men reported greater functional, emotional, and attitudinal independence from mother and greater emotional independence from father than did women. Yet, more recent research findings using larger sample sizes have contradicted these findings (Rice, 1992). Rice (1992) reported that although mean scores on the PSI and SACQ were different for men and women, these differences were not statistically significant. Thus, Rice (1992) concluded that these mean differences between men and women may not be clinically important.

Despite the evidence that men and women do not chart gender specific paths toward psychological separation or college adjustment, Rice (1992) found that certain correlates of separation-individuation differentially predicted college adjustment for men and women. For example, Rice found that separation-individuation for women was significantly associated with social adjustment and to a lesser degree with personal-emotional adjustment. Conversely, for men separation-individuation was significantly associated with emotional adjustment and

to a lesser degree with social adjustment. Hence, Rice (1992) concluded that although men and women do not differ in terms of average independence from parents, there appeared to be important gender specific separation-individuation associations with college adjustment.

Relatedly, the family dynamics of college students have received some attention in the literature of psychological separation and college adjustment. Previous studies have linked symptoms of poor college adjustment to family conflict (Hoffman & Weiss, 1987) and weak marital alliances (Teyber, 1983a, 1983b). For example, Hoffman found that, for both men and women, the greater the conflictual dependence (i.e., lower CI scores) of the student on either parent, the higher the reported frequency of psychological symptoms. Similarly, Lopez et al. (1988b) found that depressed college students reported significantly lower conflictual independence from parents, higher attitudinal independence, and generally high levels of family dysfunction. Subsequent research has revealed that conflictually independent relationships with parents have been significantly associated with measures of college adjustment for males and females (Lapsley et al., 1989; Rice, 1992).

Freshman Adjustment to College

Recently, researchers have attempted to determine whether the potential crisis of the freshman transition to college is mediated by progress in psychological separation (Lapsley, Rice, & Shadid, 1989; Rice, 1992). This line of research has attempted to identify whether freshmen are more poorly adjusted than a comparable sample of upperclassman and if they

would show more psychological dependencies on parents than upperclassman (Lapsley et al., 1989). In addition, in a longitudinal study of some of these students, Rice (1992) sought to determine whether freshmen would experience higher levels of independence from parents and increases in adjustment to college over time. The first study (Lapsley et al., 1989) was based on a sample of 130 freshmen and 123 upperclassmen from a Catholic university in the midwest; the second study (Rice, 1992) based its conclusions on the 81 juniors (from the original 130 freshmen) who participated in the follow-up study two years later.

Using a cross-sectional design, Lapsley et al. (1989) found that college freshmen reported more psychological dependencies on mother and father than did upperclassman. Freshmen showed more functional and attitudinal dependence on both mother and father and more emotional dependence on mother than did upperclassman (Lapsley et al., 1989). Conversely, upperclassman revealed more conflictual dependencies on father than did freshmen (Lapsley et al., 1989). The authors (Lapsley et al., 1989) concluded that separation tasks across the PSI dimensions do not evolve uniformly.

Lapsley et al. (1989) also reported that college freshmen revealed more adjustment problems than did upperclassman. In particular, freshmen experienced more difficulties with social and personal-emotional adjustment than did upperclassman. Further, a strong relationship also was found between college adjustment and psychological independence from mother and father. The authors noted that this relationship was

more pervasive than others previously reported in the literature (Hoffman & Weiss, 1987).

Finally, in exploring patterns of relationship between the PSI dimensions and those of college adjustment subscales, Lapsley et al. (1989) reported that psychological separation did not predict college adjustment across the board. For example, no significant relationships were found between PSI and social adjustment indexes for freshmen or juniors. Also, no significant relationships were reported between the PSI and academic adjustment for freshmen. The PSI, however, did make strong contributions toward a freshman's emotional adjustment to college.

Despite the significance of many of these findings, Rice (1992) raised questions concerning several patterns reported in the results. He hypothesized that these insignificant PSI and college adjustment relationships might be more attributable to the cross-sectional nature of the design (i.e., comparing different samples of freshmen and juniors) then to the patterns of relation between constructs.

Using a longitudinal design, Rice (1992) reported that freshmen expressed increases in psychological independence from parents and adjustment to college from freshmen to junior year. He found increases in functional, emotional, and conflictual independence dimensions of the PSI and increases in the academic, social, and personal-emotional subscales of the SACQ. Thus, freshmen were reported better able to manage their daily affairs, less emotionally dependent on parents, and less angry and resentful toward parents by their junior years. The only dimension on

either measure that did not change overtime was the attitudinal independence subscale on the PSI. Rice (1992) concluded that the lack of changes in attitudinal scores was notable since college is supposed to be a time to challenge those previously held beliefs and values of parents.

Rice (1992) also explored the association between psychological separation and college adjustment during the transition from the freshman to the junior year of college. He found that separation-individuation did not appear to influence academic adjustment in the freshman or junior year. However, significant associations were found between separation-individuation and social and personal-emotional adjustment to college for women but not for men. Specifically, greater dependence on father was associated with better social adjustment, whereas greater conflictual independence with mother was associated with better personal-emotional adjustment to college. Thus, daughters who experience angry relations with mothers and distant relationships with fathers may be at risk for adjustment difficulties in college. There were, however, no statistically significant student-parent relations during the freshman year for men.

Rice (1992) concluded that possible limitations to his study were the demographics of subjects involved as well as the timing of the measures. For example, since subjects came from a predominantly Catholic private university, their conservative intellectual experiences during their college lives may have influenced their scores on the PSI and SACQ indexes. A possible alternative explanation is that the interaction between separation-

individuation and college adjustment measures becomes more pronounced past the point of their initial transition into college (Rice, 1992). Rice (1992) noted that the timing of data collection was not an unimportant consideration during the initial (Lapsley et al., 1989) survey. His study assessed freshmen in the second week of October, one week before fall break. Rice (1992) suggested that additional studies are needed with students at different points during their college experiences to more fully clarify the patterns of interaction between PSI and SACQ scores.

Two Dimensions of Psychological Separation

Although the PSI has been the most widely used measure for assessing the relation between psychological separation and college adjustment, many researchers have noted that not all of the PSI subscales are strong predictors of indexes of adjustment. For example, Hoffman and Weiss (1987) and others (Lopez et al., 1986) have found that conflictual independence was the subscale most positively correlated with academic, emotional, and social adjustment. Other subscales of the PSI do not consistently correlate with indexes of adjustment. Some researchers (Rice, Cole, & Lapsley, 1990) have noted that these results show that negative, angry, or conflictual reactions to psychological separation may hinder a student's ability to adjust to college. In contrast, other researchers have found that functional, emotional, and attitudinal independence from parents seems less important to college adjustment (Lopez et al., 1986; Lapsley, Rice, Shadid, 1989). Hoffman and Weiss (1987) concluded that these findings may be attributable to the "particular element of

psychological health one is investigating and how psychological health is defined" (p. 162). Hoffman (1984) and Lopez et al. (1988) concluded that these findings may be the result of the multifaceted nature of psychological individuation in that some areas of individuation are more relevant to college adjustment than others.

Recent investigations using the PSI have begun to more fully clarify the relationship between dimensions of the PSI and those indexes of college adjustment. By employing a factor analysis and structural equation model to analyze multiple measures of separation-individuation, family cohesion, and college adjustment, Rice et al. (1990) found the presence of two distinct dimensions of separation-individuation that were only modestly correlated with each other, yet quite differently correlated with measures of college adjustment. The first factor, independence from parents, was determined by the final commonality estimates of the functional, emotional, and attitudinal subscales of the PSI. This factor reflects adolescents' ability to manage their daily responsibilities, freedom from needing parents' approval, emotional support, and the ability to develop beliefs distinct from their parents. The second factor, positive separation feelings, was measured by the conflictual independence subscale of the PSI and the separation anxiety subscale of the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986). Positive separation feelings are reflected by hopeful, nonanxious, and unresentful reactions to a variety of separation experiences. Rice et al. (1990) found that these two dimensions related differently to college adjustment. For example,

although the normative process of gaining independence from parents appeared unrelated to college adjustment, the second dimension, positive separation feelings, was strongly correlated with college adjustment.

Thus, Rice et al. (1990) concluded that the successful management of affective responses associated with parent separation may be the more important index of college adjustment for those students confronted by the adaptational challenges of the college environment. They suggested that future researchers attend to the existence of two separation-individuation factors (independence from parents and positive separation feelings) and the different ways they relate to college adjustment. In addition, since positive separation feelings strongly predicted college adjustment, the authors suggested that more research needs to be undertaken which addresses how late adolescents can learn to manage their emotional responses related to separation-individuation and college adjustment.

Coping

Coping has been viewed as a stabilizing factor for helping individuals adapt during stressful life transitions (Lazarus & Folkman, 1984; Moos & Billings, 1982). Although there are many ways to define coping (Moos & Billings, 1982), most definitions include purposeful cognitive or behavioral responses to life demands (Lazarus & Folkman, 1984; Moos & Billings, 1982). Essentially, coping serves as a necessary resource for managing the distress associated with life changes. Recently, some have suggested that the proper use of coping strategies can positively influence a person's growth and development and prevent the onset of a host of psychological or

somatic problems (Compas, 1987). Effective coping strategies, then, may be critical to managing late adolescent life transitions such as leaving home and entering college.

The following sections describe coping by identifying its function and usage during life stress situations. In addition, it is important to understand the influencing factors that contribute to the choice of coping responses. Although coping has been studied extensively in adult life transitions, recent studies have shown that these strategies also can be applied to adolescent populations (Compas, 1987). Thus, a fuller understanding of coping processes with college freshmen has implications for helping students cope with the demands of separating from home and adjusting to college.

Coping Process

The understanding of coping processes is a critical aspect of contemporary theories of stress (Holahan & Moos, 1987a). Coping has been viewed as a critical factor in helping individuals maintain psychosocial adjustment during stressful periods (Lazarus & Folkman, 1984; Moos & Billings, 1982). At its most general level, coping has been defined as "any efforts at stress management" (Cohen & Lazarus, 1979, p. 220) or the "things that people do to avoid being harmed by life strains" (Pearlin & Schooler, 1978, p. 2). Recent conceptualizations have asserted that coping is a purposeful response to life stress (Lazarus & Folkman, 1984; Murphy, 1974). Research in this area has been directed toward developing coping theory, determining coping responses, and exploring how coping strategies

influence adjustment. Recent research has demonstrated that all three factors are important for adolescents during life transitions.

Coping for adolescents can be hierarchally organized into broad categories of problem- and emotion-focused responses (Compas, Malcarne, & Fondacaro, 1988). Lazarus and Folkman (1984) distinguished between problem-focused strategies (efforts to modify the source of stress) and emotion-focused responses (attempts to regulate the emotional distress caused by the stressor). Although emotion-focused approaches can be active, usually these responses are oriented toward avoiding dealing with the source of stress (Lazarus & Folkman, 1984). Studies of coping reveal that both problem- and emotion-focused coping are used in almost all stressful situations (Folkman & Lazarus, 1980; 1985), and that the use of problem- or emotion-focused strategies varies in effectiveness across different types of stressors (Forsythe & Compas, 1987). In general, greater use of problem-focused methods has been associated with better adjustment, whereas emotion-focused responses have been associated with poorer outcomes (Compas et al., 1988; Ebata & Moos, 1991; Glyshaw, Cohen, & Towbes, 1989).

Drawing from these broad theories of coping, Patterson and McCubbin (1987) developed an instrument to assess more specifically the types of coping patterns and behaviors adolescents use during life transitions. The Adolescent-Coping for Problem Experiences was conceived with the belief that adolescents need to manage both individual demands and those related to the family and community for healthy

development (McCubbin & Patterson, 1987). McCubbin and Patterson (1987) asserted that successful coping is achieved when the adolescent is simultaneously able to fit into the family and the community, which generally consists of peers, school, and social networks. A factor analysis of the instrument resulted in 12 factors that reflect direct action, seeking family and peer support, and indirect or avoidant coping responses such as ventilating feelings and seeking diversions. McCubbin and Patterson (1987) found that although adolescents use 12 types of behaviors to cope with life stress, these behaviors often address more than one function (solve problems and manage stress). In addition, the authors found the A-COPE instrument was most helpful for determining the types of behaviors adolescents use to manage the tensions associated with stressful events (McCubbin & Patterson, 1987). In studies using the A-COPE instrument, some have suggested that it is the only useful measure for determining how individuals relate to family members and peers in their efforts to cope with life stress (Perosa & Perosa, 1993).

In their research, McCubbin and Patterson (1987) have reasserted that coping is a multidimensional process. Yet, their findings have revealed that coping strategies vary extensively in function and usage (McCubbin & Patterson, 1987). For example, although some have found that a particular coping style (problem-focused) is more effective for certain situations (Compas et al., 1988), there is no single strategy that is effective for all types of stress (McCubbin & Patterson, 1987; Compas, 1987). Instead, studies reveal that one coping strategy may be adaptive for dealing with one

stressor, but may be maladaptive when used in a different context or at a different point in time to the same stressor (Compas, 1987). Since the choice of strategy can vary, researchers have recently begun exploring the factors that influence the selection of approaches adolescents use to manage life stress.

Determinants of Coping

Although problem- and emotion-focused coping approaches have been linked to psychological adjustment, these approaches only offer a potential point of therapeutic intervention (Holahan & Moos, 1987). To modify an individual's range and choice of coping strategies, a fuller understanding of the demographic, situational, and contextual influences of coping must be gained (Ebata & Moos, 1994). This understanding has implications for how late adolescent freshmen manage the process of separating from home and adjusting to college.

Demographic factors. Although one might expect a positive relationship between age and coping, previous research findings have been unclear. For example, several studies have demonstrated that older adolescents use more emotion-focused responses than do younger adolescents (Brown, O'Keefe, Sanders, & Baker, 1986, Compas et al., 1988; Hanson et al., 1989). While others have reported results that conflict with these results (Stark, Spirto, Williams, & Guevremont, 1989). In an attempt to clarify personal correlates with coping approaches, Ebata and Moos (1994) found that older adolescents do in fact use more problem-focused approaches. In addition, their findings revealed that age effects were

largest in the cognitive responses to life stress. These findings are consistent with others who theorize that older adolescents should have more advanced coping skills because they have to deal with more internal and external stressors than do their younger peers (Ebata, Petersen, & Conger, 1990; Larson & Amussen, 1991). Implications of recent studies suggest that although late adolescents have a greater range of coping skills than their younger peers, these coping skills are far from being fully developed by the age of 18 (Ebata & Moos, 1994).

In terms of gender and coping style, most researchers have found that patterns of coping for males and females are similar (Patterson & McCubbin, 1987; Compas, 1987). However, a few have noted that women appear more likely than men to seek social supports (Dise-Lewis, 1988; Patterson & McCubbin, 1987; Stark et al., 1989). Nevertheless, Ebata and Moos (1994) stated that most studies of adolescents have not properly controlled for other factors that may account for gender differences (e.g., social ecology).

Situational factors. Lazarus and Folkman (1984) argued that situational factors play an important role in shaping the coping strategies individuals choose. In particular, Lazarus et al. (1984) found that the stressful demands of certain situations require different styles or strategies of coping. For example, adolescents and adults have been found more likely to use problem-focused efforts to cope with situations that they appraise as being challenging and controllable (Lazarus & Folkman, 1984). Others have found that emotion-focused strategies typically are used in situations

appraised as being a threat, loss, or uncontrollable (Carver et al., 1989; Compas et al., 1988; Forsythe & Compas, 1987; Lazarus & Folkman, 1984; McCrae, 1984; Moos et al., 1990). McCrae (1984) concluded that the type of stressor significantly affects the coping responses of individuals, with the most pronounced differences between positively challenging events (using problem-focused strategies) and those life events that are negative involving loss or threat (using emotion-focused strategies).

Contextual factors. Contextual variables, such as family, peers, and the environment also have been strongly related to coping strategies. Some have found that these support structures are important influences on coping decisions because they provide emotional support, tangible assistance, and information guidance (Heller & Swindle, 1983; Moos & Mitchell, 1982). In this regard, persons with more social resources are less likely to use avoidance coping strategies (Holahan & Moos, 1987). For instance, women who lack family support are more prone to engage in avoidance coping (Cronkite & Moos, 1984). In addition, avoidance coping also has been linked to more family conflict (Moos & Moos, 1984). Moreover, individuals in supportive families have been found to be engaged in more problem-focused coping and less avoidance coping than individuals in less supportive families (Moos & Billings, 1982).

In addition to family variables, coping efforts can be influenced by the accumulation of negative events in the environment (McCubbin, Needle, & Wilson, 1985). Researchers have found a quick succession of negative events may put a strain on an individual's ability to mobilize resources to

cope with a particular problem (Ebata & Moos, 1994). For example, Hanson et al. (1989) found that adolescents with diabetes used more avoidant emotion-focused strategies when experiencing an excessive amount of negative events. Also, McCubbin, Needle, and Wilson (1985) found that excessive environmental demands can lead to the development of adolescent health risk behaviors such as smoking cigarettes, drinking alcohol, and smoking marijuana, as well as emotion-focused coping strategies such as venting feelings and seeking social supports.

In sum, researchers have found that the availability of social supports (e.g., family) and fewer chronic strains facilitate the use of problem-focused coping (Hanson et al., 1989; Shulman, Seiffge-Krenke, & Samet, 1987; Stern & Zevon, 1990). Fewer social resources and more chronic strains decrease the use of problem-focused responses and may increase the use of avoidance strategies of coping (Hanson et al., 1989; Shulman, Seiffge-Krenke, & Samet, 1987; Stern & Zevon, 1990). Although research on demographic, situational, and contextual correlates of coping is a new extension of the literature, these factors clearly influence the choice of coping strategies late adolescents use during stressful life situations.

Coping and College Adjustment

Leaving home and moving into a college dormitory is a major upheaval for most 18 year old students (Fisher, 1988). The transition involves leaving family and friendship networks (Compas et al., 1986). In addition to adjusting to new living arrangements, freshmen are adapting to

new roles within family and society in general (Pennebaker, Colder, & Sharp, 1990). Further, most face more difficult courses and greater levels of social and academic pressure than ever before (Baker & Siryk, 1985). Not surprisingly, this transitional experience has been closely associated with loneliness, depression, and increased physical health problems (Fisher, 1988; Fisher, Murray, & Frazer, 1985). Fisher (1988) concluded that one of the biggest causes of adjustment difficulties for college students is that they spend an inordinate amount of time thinking about their precollege lives, and not enough time attempting to assimilate into their new environments.

In many respects, the transition to college is an ideal time for studying coping processes with college freshmen (Pennebaker et al., 1990). The transition into college represents a time when late adolescents are confronted with new academic, social, and personal-emotional challenges (Compas et al., 1986). These demands have been conceptualized to be a source of risk and vulnerability (Bloom, 1971; Coelho, 1979). Yet, although this transitional period appears to be a critical point of an individual's development, studies of coping and college adjustment are rare.

Previous studies on coping and college students have been focused primarily on the personal and emotional factors related to college adjustment. For example, Compas et al. (1986) studied the relationship between life events, perceived social support, and psychological symptoms among late adolescents in transition from high school to college. They found that life events, perceived social support, and psychological symptoms among late adolescents in transition from high school to college

were reciprocally related across time and during major life transitions (Compas et al., 1986). In addition, since life events and social supports accounted for significant portions of the variance of psychological symptoms, each represent appropriate targets for preventive intervention (Compas et al., 1986). The findings of Compas et al. (1986) were particularly noteworthy because they highlighted the fact that life transitions represent important sources of vulnerability for college freshmen.

A more recent study (Pennebaker, Colder, & Sharp, 1990) used coping in an experimental design in an attempt to reduce the risk of psychological symptoms among college students. Pennebaker et al. (1990) hypothesized that a student's coping abilities could be facilitated by a confrontational writing technique. Their logic, based on their previous studies (Pennebaker & O'Heeron, 1984), was that by addressing fundamental developmental problems, students could recognize and assimilate their solutions into better ways to manage their adjustment difficulties. Results from this study revealed that the mere act of writing about thoughts and feelings concerning the transition to college reduced health center visits over a 4-5 month period for the treatment group as compared to a control group (Pennebaker et al., 1990). These authors concluded that if freshmen can learn to confront their thoughts and feelings about college, positive health effects are likely to follow (Pennebaker et al., 1990).

Another study (Jorgensen & Dusek, 1990) examined the relationship between coping strategies (as measured by A-COPE) and a measure of psychosocial adjustment among college freshmen. The Inventory of

Psychosocial Development (IPD; Constantinople, 1969) was used to assess the first six crises of development as postulated by Erikson (1959, 1963, 1968). Results of the Jorgensen and Dusek (1990) study suggested that the successful resolution of psychosocial crises is positively correlated with problem-focused coping strategies, such as developing self-reliance and optimism and developing social support. Conversely, the use of emotion-focused approaches were related to poorer psychosocial adjustment (Jorgensen & Dusek, 1990). Jorgensen and Dusek (1990) concluded that adolescent coping styles and psychosocial adjustment are interrelated, and that this association has been developed by late adolescence.

More recently, Aspinwall and Taylor (1992) attempted to examine the relationship between coping and indices of college adjustment. For this study, Aspinwall and Taylor (1992) used the Index of Well-Being (Campbell, Converse, & Rogers, 1976), the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), four items on the Dunkel-Schetter (1990) academic stress scale, and a self-reported adjustment to college inventory developed by the authors. Results of the Aspinwall and Taylor (1992) study suggested that active coping and seeking social support predicted better adjustment to college. Avoidant coping, in turn, predicted less successful adjustment to college. The authors concluded that adjustment to college is directly amenable to active coping efforts that reduce the stress of college, such as planning schedules, studying more effectively, and seeking academic and personal counseling.

Although Aspinwall and Taylor's (1992) study calls attention to the success in using active coping strategies with various college student adjustment issues, more powerful measures for assessing college student adjustment have been devised, such as the Student Adaptation to College Questionnaire (Baker & Siryk, 1984). By combining the A-COPE instrument and the SACQ, a broader and more valid and reliable understanding of college student adjustment may result.

Summary

In sum, research on coping has suggested that there is no single style or strategy of coping that is adaptive in all situations. Although problem- and emotion-focused strategies have been shown to be important in coping with life stress, Ebata and Moos (1994) have suggested that problem-focused coping is a higher level coping strategy for managing late adolescent stress (Ebata & Moos, 1994) Yet, despite these recent conclusions, clearly more studies are needed concerning coping and late adolescent populations (Compas, 1987). In particular, research is needed to determine whether coping strategies can help adolescents during developmental life transitions. A particular point of interest has been the transition from home to college for late adolescents. During this critical period of development, freshmen must separate-individuate from parents while also learning how to adapt to the new college environment. Further studies may help determine whether problem-focused coping can help mediate the relationship between separation-individuation and college adjustment. Results may help university administrators plan

interventions that teach students better ways to cope during this developmental period. This study is aimed at further clarifying the relationship of separation-individuation and college adjustment, and the potential mediating effects of coping. It extends research in the following ways: 1) measuring the variables at a later point in time during the college freshman year, 2) using reliable and valid measures of each variable, and 3) applying measures to a freshman population from a rural public institution in the southeast.

CHAPTER III

METHODOLOGY

This chapter presents the design and methodology for the study, including research hypotheses, instruments, participants, procedures, and statistical procedures to be used.

Hypotheses

The following hypotheses were tested:

1. Freshman problem-focused coping strategies, as measured by the Adolescent-Coping Orientation for Problem Experiences (A-COPE; Patterson & McCubbin, 1987) scale, will have a direct effect on college adjustment, as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).
2. Positive separation feelings from parents, as measured by the Psychological Separation Inventory (PSI; Hoffman, 1984) and the Separation Anxiety subscale of the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986), will have a direct effect on college adjustment, as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).
3. Freshman independence from parents, as measured by the Functional, Attitudinal, and Emotional Independence subscales of the Psychological Separation Inventory (PSI; Hoffman, 1984), will have a direct effect on college adjustment, as measured by the

Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).

4. Problem-focused coping strategies will mediate the direct relationship between freshman positive separation feelings from parents and college adjustment.
5. Problem-focused coping strategies will mediate the direct relationship between freshman independence from parents and college adjustment.

Instruments

Participants will complete the Student Adaptation to College Questionnaire (Baker & Siryk, 1984), the Adolescent-Coping Orientation for Problem Experiences (Patterson & McCubbin, 1987), the Psychological Separation Inventory (Hoffman, 1984), the Separation Anxiety subscale of the Separation-Individuation Test of Adolescence (SITA; Levine, Green, Millon, 1986), and a demographic questionnaire.

The Student Adaptation to College Questionnaire

The Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984) (Appendix A, items 1 - 67) is a 67-item self-report measure developed to assess four features (subscales) of college adjustment, academic, social, and personal-emotional adjustment, and goal commitment-institutional attachment. This instrument also yields an overall adjustment score derived from the four subscales. An assumption underlying the development of the scales was that "adjustment is multifaceted and includes demands varying in both kind and degree.

These demands require a variety of coping (or 'adjustments') that will themselves vary in effectiveness" (Baker & Siryk, 1986, p. 181). The scale items are statements that allude to one of many aspects of the experience of adjusting to college. The student is asked to assess how well he/she is dealing with a particular aspect of his/her adjustment using a 9-point Likert format (1 = applies very closely to me; 9 = doesn't apply at all to me). High scores on the subscales represent better adjustment.

The academic adjustment subscale consists of 24 items that refer to the educational demands of the college experience. The social adjustment subscale contains 20 items that assess how well adolescents deal with interpersonal experiences (e.g., meeting people, making friends, and joining groups). The personal-emotional subscale consists of 15 items concerning whether the student is experiencing general psychological distress or the somatic consequences of distress. Finally, the goal commitment/institutional attachment subscale consists of 18 items measuring the degree of institutional affiliation the student feels toward the university. The total score can be derived by summing responses on the 67 items.

Scale items were drawn from a review of the literature and extensive interviews with college freshmen. The resulting 52 items were tested across three years with freshman students at a small private school in the Northeast. Various reliability and validity checks were conducted with this sample. Items were deleted and added as indicated by this pilot testing, resulting in the current 67-item scale.

Reliability was established using Cronbach's (1951) alpha to estimate internal consistency for each of the four subscales (Baker, McNeil, & Siryk, 1985). Fifteen items were added to the original scale to improve reliability of the subscales, especially the Personal/Emotional adjustment scale, because the original version had coefficient alphas in the .70s. Baker and Siryk (1984) reported the alphas for the current scale range from .84 to .88 for Academic Adjustment, .90 to .91 for Social Adjustment, .81 to .85 for Personal Emotional Adjustment, .90 to .91 for Attachment subscale, and .93 to .95 for the Full Scale. Intercorrelations among the subscales range from .36 to .87; the higher values occurred in the comparisons of Social Adjustment and Goal Commitment/ Institutional Attachment subscales, as would be expected because they share several common items (Baker & Siryk, 1986). Baker and Siryk (1986) reported that the range of correlations among the three subscales that did not share common items was from .36 to .64.

Criterion-related validity was established by demonstrating theoretically-consistent relationships between the subscales and several independent variables, including grade point average, appeals for service from the campus psychological services, attrition, and involvement in social activities. Dahumus, Bernardin, and Bernardin (1992) reported significant positive correlations (.17 to .53, $p < .01$) between Academic Adjustment and grade point average. Significant negative correlations (-.23 to -.42, $p < .01$) were found between the Social Adjustment scale and attrition. In addition, there were significant negative correlations (-.23 to -

.34, $p < .01$) between the Personal/Emotional Adjustment subscale and whether students had made contact with the campus counseling center during their freshman year. The Attachment subscale was found to be significantly correlated with attrition in the predicted direction (-.27 to -.41, $p < .01$). Full scale scores also revealed a significant negative correlation (-.18 to -.33, $p < .01$) with attrition.

The Psychological Separation Inventory

The Psychological Separation Inventory (PSI; Hoffman, 1984) (Appendix C, items 1 - 138) is a 138-item inventory designed to measure four aspects of parent-adolescent independence presumed to "theoretically underlie the construct of psychological separation" (Hoffman, 1984, p. 173). The PSI contains separate subscales measuring four constructs in each parent-adolescent relationship. Functional Independence (FI) (13 items) assesses the adolescent's ability to manage personal affairs without the help of parents. Emotional Independence (EI) (17 items) assesses the adolescent's expressed freedom from excessive need for parent approval, closeness, and emotional support. Conflictual Independence (CI) (25 items) measures the adolescent's freedom from excessive anger, guilt, resentment, and mistrust for each parent. Attitudinal Independence (AI) (14 items) assesses the extent to which the adolescent espouses attitudes and values that are distinct from those of parents (Hoffman, 1984).

To respond to the PSI, subjects indicate how accurately each item is self-descriptive on a 5-point rating scale (0 = not at all true of me, 4 = very true of me). The scales are scored by adding the ratings for each and then

subtracting this number from the total number possible for each scale, so higher scores reflect greater psychological separation.

In designing this measure, Hoffman (1984) drew from both psychoanalytic (Kline, 1972) and structural family theories (Teyber, 1981). The psychoanalytic perspective of healthy individuation processes in late adolescence is marked by the adolescent's relinquishing his or her psychological dependence on parents for emotional, functional, and attitudinal needs (Lopez & Gover, 1993). The structural family perspective calls attention to the harmful effects of excessively close parent-adolescent relationships and, in particular, the negative influence of cross-gender alliances (i.e., mother and son versus father, father and daughter versus mother) on the adolescent's adjustment during this developmental period (Lopez & Gover, 1993). To address these concerns, Hoffman acknowledged the importance of assessing the nature of psychological separation within each parent-adolescent relationship.

To construct the PSI, Hoffman (1984) generated a large pool of items, which was then sorted by independent raters into three independence categories. The AI items were added to the inventory item pool only after this initial sort to eliminate ambiguous FI, EI, and CI items. Subscales were further refined through the elimination of items with low item-total correlations and through the use of confirmatory factor analysis. These procedures resulted in the final total of 138 items, with 13 FI, 17 EI, 25 CI, and 14 AI items for each mother and father scale.

Reliability was established using Cronbach's (1951) alpha to estimate internal consistency coefficients for each of the four PSI subscales. Coefficients ranged from .73 to .94 in several studies (Hoffman, 1984; Lapsley et al., 1989; Rice, 1990). Interscale correlations indicated that mother scales were highly correlated with father scales for each of the four attributes (range = .71 to .91). Test-retest reliability correlations after 2 to 3 weeks ranged from .49 to .96 (Hoffman, 1984). Additional cross validation studies were conducted to replicate the reliability of the PSI using samples of 130 college freshmen (Rice, 1992) and an additional 123 upperclassmen (Lapsley, Rice, & Shadid, 1989). For both samples the reliability of the instruments again held strong. Using Cronbach's alpha, Rice (1992) noted that the subscales alphas ranged from .79 to .91. Similarly, Lapsley et al. (1989) stated that the reliability coefficients for the PSI subscales for the Mother and Father dimensions were as follows: FI, EI, CI, and AI for Mother, alpha = .84, .89, .86, and .83 respectively; for FI, EI, CI, and AI for Father, alpha = .86, .73, .80, and .82, respectively.

Criterion validity of the PSI has been supported by positive correlations between subscale scores and indexes of adolescent adjustment (Hoffman, 1984; Lapsley et al., 1989; Lopez et al., 1988). Validity estimates also have been estimated through confirmatory factor analysis. Rice et al. (1990) found that Functional Independence, Emotional Independence, and Attitudinal Independence subscales loaded significantly onto a general Independence from Parents factor, whereas Conflictual Independence loaded onto a factor representing an affective dimension of separation from

parents (Rice, 1990). Factor loadings for the PSI subscales ranged from .46 to .92 (Rice et al., 1992).

Construct validity was established by testing the prediction that greater psychological separation of male and female adolescents from their parents would be related to better personal adjustment. To assess this prediction, the PSI was correlated with the Personal Adjustment subscale of the Adjective Check List (Gough & Heilbrun, 1980) and with general indices of academic and relational adjustment. These measures of personal and academic adjustment were significantly related to the PSI subscales (Hoffman, 1984).

The Separation-Individuation Test of Adolescence

The Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986) (Appendix D, items 1 - 14) is a 86-item self-report inventory developed to assess nine dimensions of adolescent attachment behavior presumed to be important to the early childhood separation-individuation process explicated by Mahler (1968, Mahler et al., 1975). The nine subscales of the SITA are: Separation Anxiety, Engulfment Anxiety, Nurturance Seeking, Peer Enmeshment, Teacher Enmeshment, Need Denial, Rejection Expectancy, and Healthy Separation. To respond to the SITA, participants indicate how accurately a series of attitudinal statements about relationships with parents, teachers, and peers accurately reflect themselves on a 5-point Likert scale (5 = "strongly disagree or is never true of me," 1 = strongly agree or is always true of me"). Totals for each subscale are derived by adding the raw scores for

each item, dividing by the number of items in each scale, and multiplying that score by 10.

Following the lead of Rice et al. (in press), only the 14 items of the Separation Anxiety subscale will be used for this study, since these items tap into the dimension of "positive separation feelings" which was found to be highly correlated with college adjustment (Rice et al., 1990). The Separation Anxiety subscale consists of 14 items that refer to fears of losing emotional or physical contact with others. Higher scores on the scale indicate greater separation anxiety.

The SITA was derived through a three step validation process (Loevinger, 1957). First, a rating procedure was employed to assess the theoretical relationship between the scale items and their intended meanings by experts who sorted items into logical subscales. Second, a factor analysis was used to explore correlations between each item and the total scale scores (Levine et al., 1986). Third, an analysis of variance procedure was conducted to compare scale scores with other measures of relevant concepts (e.g., adolescent personality dimensions) (Levine et al., 1986). These procedures yielded a total of 103 items, with 14 representing the Separation Anxiety dimension.

Reliability was established using Cronbach's (1951) alpha to estimate internal consistency for each of the nine subscales with clinical and nonclinical populations (Levine & Saintonge, 1993). Levine and Saintonge (1993) reported that the alphas ranged from .64 to .85 for the clinical population and .64 to .88 for the nonclinical sample. The Separation

Anxiety subscale alpha was reported to be .68 for the clinical population and .77 for the nonclinical sample. These findings were consistent with other reports for Separation Anxiety (Holmbeck & Wandrei, 1993; McClanahan & Holmbeck, 1992; Rice et al., 1990).

Criterion-related validity was established by comparing SITA scores with scores on the Millon Adolescent Personality Inventory (MAPI; Millon, Green, & Meagher, 1982). Levine et al. (1986) found that subjects categorized as anxious moody on the MAPI achieved higher scores on the Separation Anxiety subscale. In addition, McClanahan and Holmbeck (1992) reported that Separation Anxiety was negatively correlated with several indices of positive adjustment (e.g., self esteem, -.29, and social support, -.08), including college adjustment (-.25), and was positively correlated with several indices of maladaptive functioning (e.g., depression, .27, loneliness, .13).

The Adolescent-Coping Orientation for Problem Experiences

The Adolescent-Coping for Problem Experiences (A-COPE, Patterson & McCubbin, 1987) (Appendix B, items 1 - 54) is a 54-item self-report inventory designed to assess adolescent coping style and behavior. The objective of this questionnaire is to provide an assessment of how the adolescent manages the developmental tasks confronted during the transition from childhood to young adulthood (Newcomb, 1987). Respondents are asked to decide how often they use the specified behaviors when they are confronted with life stress. Respondents use a 5-point Likert scale ranging from never (1) to most of the time (5).

The scale measures the degree to which adolescents use a combination of 12 behaviors for helping them manage problems or difficult situations: Venting Feelings (i.e., the expression of feelings verbally), Seeking Diversions (i.e., explore recreational activities and sedentary activities), Developing Self-reliance (i.e., how individuals use personal resources to handle life circumstances), Developing Social-Support (i.e., activities that emphasize an individual maintaining social support networks), Solving Family Problems (i.e., degree to which problem solving is undertaken with parents and siblings), Avoiding Problems (i.e., use of drugs, alcohol, and cigarettes), Seeking Spiritual Support (e.g., going to church or talking with clergy), Investing in Close Friends (e.g., being with someone you care about), Seeking Professional Support (i.e., seeking assistance from a counselor), Engaging in Demanding Activity (e.g., physical activity and school work), Being Humorous (e.g., joking or making light of a situation), and Relaxing (i.e., day dreaming, listening to music, riding in the car, and eating). Raw scores on the designated items are obtained by summing the responses to each item, with higher scores indicating greater perceived emphasis on the particular coping behavior (McCubbin & Patterson, 1981). Nine select items (7, 8, 19, 24, 26, 28, 42, 46, 49) are reversed scored (i.e., 5 = 1, 4 = 2, 3 = 3). Also, a problem-focused coping score can be derived by summing the respondents' score for the items under the subscales of developing self-reliance, developing social support, solving family problems, seeking spiritual support, investing in a

close friend, seeking professional support, engaging in demanding activity, and being humorous.

The development of the A-COPE began with a group of 30 10th, 11th, and 12th graders completing the Adolescent-Family Inventory of Life Events and Changes (A-FILE; McCubbin, Patterson, Bauman, & Harris, 1981). The answers for this inventory were used as a stimulus for interviewing each respondent. In interviews, the adolescents were asked how they managed the most difficult personal life stress, the most difficult life stress faced by a family member, and difficult life events in general. Their responses were used to generate the original 95 items of the A-COPE inventory. Patterson and McCubbin (1987) described these items as "reflecting both desirable and undesirable behaviors and as representing the three primary coping functions: 1) direct action, 2) altering meaning, and 3) managing tension" (Patterson & McCubbin, 1987, p. 230). These 95 items were then administered to a group of 467 junior and senior high school students who indicated on a 5-point scale how often they used each of the 95 behaviors when they felt tense or when they were confronted with difficulties. On the basis of the sample's responses, 27 items were removed from the scale either because of infrequent use or minimal variance. The remaining 68 items were factor analyzed, resulting in 54 items with factor loadings of .40.

Reliability was established using Cronbach's (1951) alpha to estimate internal consistency for each of the 12 factor scales separately and combined (Patterson & McCubbin, 1987). These alphas ranged from .50 to

.76, with a mean of .70. Item scale correlations were .75 for the Venting Feelings scale, .75 for the Seeking Diversions scale, .75 Developing Reliance and Optimism scale, .75 Developing Social Support scale, .71 Solving Family Problems scale, .71 Avoiding Problems scale, .72 Seeking Spiritual Support scale, .76 Investing in Close Friends scale, .50 Seeking Professional Support scale, .67 Engaging in Demanding Activity scale, .72 Being Humorous scale, and .60 Relaxing scale.

Concurrent validity studies include an examination of the relationship between 8 of the 12 coping scales and the examinee's reported use of cigarettes, beer, wine, liquor, and marijuana. A significant pattern of correlations supporting concurrent validity were obtained, ranging from - r = -.21 to .25 (Newcomb, 1987).

Demographic Questionnaire

Several demographic items were added to the questionnaire to gather descriptive information about the participants. The questions (Appendix E, items 1 - 11) include age, gender, ethnicity, place of residence (i.e., residence hall, off-campus apartments, living at home), parent's highest level of education (e.g., high school, trade school, some college), parent's marital status (i.e., single, married, divorced), and size of home town (e.g., less than 2,500). Responses were collected for descriptive purposes and to make an exploratory check on any relationships the variables might have to the independent and dependent variables.

Participants

Participants for this study were freshmen from East Carolina University, a mid-sized, four-year postsecondary institution in Greenville, North Carolina. Located in the eastern region of North Carolina, the majority of East Carolina's students typically come from the eastern part of the state. Approximately 20% of the students attending the institution are from families who live outside the state of North Carolina.

All freshmen enrolled in the course "Freshman and the University" (taught only to first and second semester college freshmen) during Spring Semester 1994 (N = 120) volunteered to participate. The final sample consisted of 87 students since 26 freshmen were absent and 7 instrument packets were incorrectly completed on the day of testing.

From this sample of 87, there were slightly more male students (n = 47; 54%) than female students (n = 40; 46%). The ethnic representation of the classes was predominantly White (87%), followed by a small representation of other races including Black (8%), Asian (1%), Hispanic (1%), and Other (3%). The age of the students ranged from 18 to 21, although the majority (79%) were either 18 or 19 years old (see Table 1). In addition, a majority (86%) of the students lived in residence halls.

Students parents' education levels were quite varied, with fathers tending to have higher levels of education than mothers (see Table 2).

The majority of the students in the sample were from intact families (63%), with the remainder from families whose parents were either separated or divorced (37%). The self-reported size of the students' home

Table 1

Age of Freshmen

Age	n	%
17	0	0
18	34	39.1
19	45	51.7
20	6	6.9
21	2	2.3

Table 2

Highest Level of Parents' Education

	Father		Mother	
Education Level	n	%	n	%
Did Not Complete High School	3	3.4	2	2.3
High School Graduate	13	14.9	18	20.7
Trade School or Business School	4	4.6	5	5.7
Some College	17	19.5	26	29.7
College Graduate	28	32.2	25	28.7
Some Graduate Study	5	5.7	4	4.6
Completed Graduate School	17	19.5	7	8.0

town varied from less than 2,500 people (13%) to over 250,000 (23%) (see Table 3).

Table 3

Population of Home Town

Population	n	%
Less than 2,500	11	12.6
2,500 - 9,999	23	26.4
10,000 - 49,999	20	23.0
50,000 - 249,999	13	14.9
Over 250,000	20	23.0

Procedures

East Carolina University

The director of the Freshman and the University program granted permission to use his four classes as participants for this study. Students received extra credit from their instructor for participating in the research project.

The researcher invited the freshman students to participate during the last class period of the Spring Semester. At this time the purpose and procedures of the study were described, including the specific activities

involved in completing the instruments. Students who agreed to participate signed the informed consent and then completed the instruments.

Research packets included instructions, the SACQ, A-COPE, PSI, SITA, and a demographic questionnaire (in that order). Responses were recorded on the instrument; no student required more than 40 minutes to complete the instruments and some finished in 20 minutes. Completed instruments were collected by the researcher and sealed in an envelope.

Instruments and demographic questionnaire sheets were key punched into the VAX computer system at the University of North Carolina at Greensboro. Analyses were conducted using the SAS data analysis program. Description of the specific analyses follows.

Data Analysis

Descriptive Statistics

Using the SAS statistical package, descriptive statistics including means, standard deviations, and frequency distributions were used to describe the freshman participants on each instrument (SACQ, A-COPE, PSI, Separation Anxiety subscale of the SITA) and each demographic item.

Path Analysis

To test the five research hypotheses, a path analysis using an ordinary least squares regression approach was conducted using the full scale SACQ score. The first regressed Problem-focused Coping on Positive Separation Feelings and Independence from Parents. These analyses provided an explanation of the relation between the Problem-focused Coping and the two independent variables.

The second regressed the Student Adaptation to College Questionnaire (SACQ) scores on Problem-focused Coping, Positive Separation Feelings, and Independence from Parents. These analyses clarified the mediating effects that the A-COPE scores had upon the direct relationship between the Positive Separation Feelings from parents index and the total SACQ score. In addition, these analyses clarified the mediating effects that the A-COPE scores had upon the direct relation between the Independence from Parents index and the total SACQ score. Finally, these analyses clarified the direct relation between Problem-focused Coping and the total SACQ score.

CHAPTER IV

RESULTS AND DISCUSSION

This chapter consists of the statistical analyses used to test the research hypotheses described in Chapter III. First, instrument reliabilities for each measure were calculated. Second, descriptive statistics, including means, ranges, and standard deviations were completed to describe the students' responses on the various instruments in the questionnaire. Third, a correlation matrix was used to present the relationships among the variables. Finally, to test the model presented by the five hypotheses, a path analysis was used.

Instrument Reliabilities

The first analysis estimated the instrument reliabilities with Cronbach's coefficient alpha. The reliability coefficient for the SACQ full scale was .91. Regarding A-COPE problem-focused scores, the alpha was .85. For the Independence from Parents score (which was derived by combining the Functional, Emotional, and Attitudinal Independence subscales of the PSI), the alpha was .97. The Positive Separation Feelings score (which was derived by combining the Conflictual Independence subscale of the PSI with the Separation Anxiety subscale of the SITA), had an alpha of .89. Hence, all of the measures used in this study demonstrated adequate internal consistency.

Descriptive Statistics

Descriptive statistics for each measure are presented in Table 4 (descriptive statistics for individual subscales are listed in Appendix G). For the dependent measure, Student Adaptation to College Questionnaire, scores ranged from 227 to 540 (M = 406.69, SD = 59.6). These scores are slightly lower than reported norms for a second semester college freshman population (M = 423.5, SD = 78.2) (Baker & Siryk, 1989). The SACQ mean score for females in the sample was 391.28 (SD = 61.0) and was 419.42 (SD = 55.6) for males (see Table 5). Regarding parents' marital status, the mean score for freshman students from intact families was almost equal (M = 407.36, SD = 61.0) to the mean score for freshmen from divorced or separated families (M = 406.02, SD = 57.6) (see Table 6).

For the independent variable Problem-focused Coping, taken from the Adolescent-Coping Orientation for Problem Experiences instrument, scores ranged from 70 to 133 (M = 99.51, SD = 12.40). These scores are slightly higher than the norms reported by McCubbin and Patterson (1987) (M = 94.95) for adolescents (13 - 18 years). Regarding gender, the mean score for females was 102.3 (SD = 10.9) and 96.1 (SD = 13.3) for males (see Table 5). The mean score for freshman students from intact families (M = 100.44, SD = 13.02) was slightly higher than the mean for divorced or separated families (M = 97.03, SD = 11.2) (see Table 6).

Subscales of the Psychological Separation Inventory and the Separation-Individuation Test of Adolescence were combined to develop two separate measures of psychological separation; Positive Separation

Table 4

Ranges, Means, and Standard Deviations for SACQ, A-COPE, PSI (subscales), SITA (subscale)

Variable	Range	M	SD
SACQ (Full Scale)	227-540	406.69	59.63
A-COPE (PF)	70-133	99.51	12.40
PSF (composite)	106-230	182.40	26.24
IFP (composite)	30-338	183.92	61.60
Psychological Separation Inventory:			
Functional Independence	5-103	59.02	21.06
Emotional Independence	19-133	77.18	25.50
Attitudinal Independence	5-104	47.32	22.40
Conflictual Independence	76-192	150.00	23.50
SITA subscale (SA)	8-48	32.76	7.42

Note: SACQ = Student Adaptation to College Questionnaire; A-COPE = Adolescent-Coping Orientation for Problem Experiences; PSF = Positive Separation Feelings; IFP = Independence from Parents; SITA = Separation-Individuation Test of Adolescence (Separation Anxiety Subscale)

Table 5

Means, and Standard Deviations for SACQ, A-COPE, PSI (subscales), SITA (subscale) by Gender

	Females		Males	
Variable	M	S.D.	M	S.D.
SACQ (Full Scale)	391.28	60.97	419.42	55.61
A-COPE (PF)	102.30	10.85	96.10	13.30
PSF (composite)	178.56	26.88	186.24	24.96
IFP (composite)	161.04	57.20	203.28	58.96
Psychological Separation Inventory:				
Functional Independence	52.26	19.76	65.00	20.56
Emotional Independence	64.26	22.78	88.06	22.44
Attitudinal Independence	44.24	21.56	49.84	22.96
Conflictual Independence	148.50	25.00	151.00	22.50
SITA (subscale) (SA)	29.82	7.42	35.28	6.58

Note: SACQ = Student Adaptation to College Questionnaire;
A-COPE = Adolescent-Coping Orientation for Problem Experiences;
PSF = Positive Separation Feelings; IFP = Independence from Parents;
SITA = Separation-Individuation Test of Adolescence (Separation Anxiety Subscale)

Table 6

Means, and Standard Deviations for SACQ, A-COPE, PSI (subscales), SITA (subscale) by Freshman Parents' Marital Status

	Intact		Dev./Sep.	
Variable	M	S.D.	M	S.D.
SACQ (Full Scale)	407.36	60.97	406.02	57.62
A-COPE (PF)	100.44	13.02	97.03	11.16
PSF	187.52	24.32	173.44	26.24
IFP	161.92	56.32	222.64	51.92
Psychological Separation Inventory:				
Functional Independence	51.48	20.02	72.02	16.64
Emotional Independence	64.26	25.50	81.60	25.84
Attitudinal Independence	40.88	19.88	58.52	21.84
Conflictual Independence	154.50	22.50	141.50	23.00
SITA (SA)	33.04	7.84	32.20	6.86

Note: SACQ = Student Adaptation to College Questionnaire;
A-COPE = Adolescent-Coping Orientation for Problem Experiences;
PSF = Positive Separation Feelings; IFP = Independence from Parents;
SITA = Separation-Individuation Test of Adolescence (Separation Anxiety Subscale)

Feelings and Independence from Parents. For Positive Separation Feelings, the Conflictual Independence subscale of the PSI and the Separation Anxiety subscale of the SITA were combined to form one score. Scores on the Conflictual Independence subscale of the PSI ranged from 76 to 192 (M = 150.0, SD = 23.5). These scores were slightly higher than those reported by Lapsley et al. (1989) (M = 146.14) for first semester freshmen. Scores on the Separation Anxiety subscale of the SITA ranged from 8 to 48 (M = 32.76, SD = 7.42). These scores were somewhat higher than those reported by Levine et al. (1986) (M = 27.73, SD = 5.6). Means and standard deviations for the composite Positive Separation Feelings scores are listed in Table 4. These scores indicated that the freshmen from the sample population (M = 182.4) were slightly less positive in their feelings toward separating from parents than the one other group freshmen described in the literature using the composite score (M = 192.1) (Rice, Fitzgerald, Whaley, & Gibbs, in press).

The mean score on the Conflictual Independence subscale of the PSI for females was 148.5 (SD = 25.0) and was 151.0 (SD = 22.5) for males. These scores were slightly higher than those reported by Lapsley, Rice, and Shadid (1989) (M = 146.14) for first semester freshmen. The mean score on the Separation Anxiety subscale of the SITA was 29.82 (SD = 7.42) for females and 35.28 (SD = 6.58) for males. Again, these scores were higher than those reported by other researchers (M = 27.73, SD = 5.6) (Levine et al., 1986). Means and standard deviations by gender for the Positive Separation Feelings composite score are listed in Table 5. These scores indicate that

the female freshmen (M = 178.56) were slightly less positive in their feelings toward separating from parents than the male freshman (M = 186.24) in the sample. Regarding parents' marital status, the mean score for freshman students from intact families was slightly higher (M = 187.52, SD = 13.0) than the mean score of those freshmen from divorced or separated families (M = 173.44, SD = 26.2) (see Table 6).

For Independence from Parents, three subscales of the PSI (Functional Independence, Emotional Independence, and Attitudinal Independence) were combined to form a single score. Scores on the Functional Independence subscale of the PSI ranged from 5 to 103 (M = 59.02, SD = 21.1). These scores were very close to those reported by Lapsley, Rice, and Shadid (1989) (M = 57.33) for first semester freshmen. Scores on the Emotional Independence subscale of the PSI ranged from 19 to 133 (M = 77.18, SD = 25.5). These scores were almost the same as those reported by Lapsley et al. (1989) (M = 78.38) for first semester freshmen. The scores on the Attitudinal Independence subscale of the PSI ranged from 5 to 104 (M = 47.32, SD = 22.4). These scores were almost identical to those reported by Lapsley et al. (1989) (M = 47.82) for first semester freshmen. Means and standard deviations for the Independence from Parents composite scores are presented in Table 4. The freshmen in this sample appear more independent from parents (M = 183.92) than those first semester freshmen described in the literature (M = 164.1) (Rice, Fitzgerald, Whaley, & Gibbs, in press).

Males in the sample had higher scores on all of the independence subscales. The mean score on the Functional Independence subscale of the PSI was 52.26 (SD = 19.8) for females and 65.0 (SD = 20.6) for males. Male scores were slightly higher and female scores were slightly lower than those reported by Lapsley, Rice, and Shadid (1989) (M = 57.33) for first semester freshmen. The mean score on the Emotional Independence subscale of the PSI for females was 64.26 (SD = 22.8) and for males was 88.06 (SD = 22.4). Male scores were higher and female scores were lower than those reported by Lapsley et al. (1989) (M = 78.38) for first semester freshmen. The mean score on the Attitudinal Independence subscale of the PSI for females was 44.24 (SD = 21.56) and was 49.84 for males. The average male score in this sample was perhaps slightly higher and the female perhaps slightly lower than that reported by Lapsley et al. (1989) (M = 47.82) for first semester freshmen.

Means and standard deviations by gender for the Independence from Parents composite score are presented in Table 5. The mean scores indicated that the female freshmen (M = 161.04) in the sample were less independent from parents than were the male freshmen (M = 203.28). Male scores were higher and female scores lower than those first semester freshman described in the literature (M = 183.53) (Rice et al., in press).

Mean scores by parents' marital status for the Independence from Parents composite score are presented in Table 6. Freshman students from intact families had lower scores (M = 161.92, SD = 56.3) than those freshmen from divorced or separated families (M = 222.64, SD = 51.9).

Correlational Analyses

As a preliminary step to the main analysis (path analysis), a correlation matrix was computed to examine the relationships among the variables in the model. The intercorrelations among Positive Separation Feelings (PSF), Independence from Parents (InFP), Problem-focused Coping (P-fC), and Student Adjustment to College Questionnaire (SACQ) are reported in Table 7. There were two moderate correlations: Problem-focused Coping with Independence from Parents (r = -.49) and SACQ with Positive Separation Feelings (r = .45).

Table 7

Correlations among Positive Separation Feelings, Independence from Parents, Problem-focused Coping, and Student Adjustment to College

Variable	InFP	P-fC	SACQ
Positive Separation Feelings (PSF)	-.09	.05	.45
Independence from Parents (InFP)		-.49	-.13
Problem-focused Coping (P-fC)			.25

Note. PSF = Positive Separation Feelings; InFP = Independence from Parents; P-FC = Problem-focused Coping; SACQ = Student Adjustment to College Questionnaire.

Path Model Analyses

To test the model represented by the research hypotheses, a path analyses using an ordinary least squares regression approach was employed. The first regressed Problem-focused Coping on Positive Separation Feelings and Independence from Parents (see Table 8). Independence from Parents was a significant predictor of Problem-focused Coping (b = -.282, p < .0001). The R-square for this first equation was 24% (Adjusted R-square = 22%).

Table 8

First Ordinary Least Squares Equation for Path Analysis Regressing Problem-focused Coping on Positive Separation Feelings and Independence from Parents

Variable	b	SE	Beta	p
Positive Separation Feelings	.003	.095	.003	.975
Independence from Parents	-.282	.055	-.492	.0001

The second ordinary least squares regressed the Student Adaptation to College Questionnaire (SACQ) scores on Problem-focused Coping, Positive Separation Feelings, and Independence from Parents (see Table 9). Problem-focused Coping and Positive Separation Feelings were both

significant predictors of college adjustment (SACQ). The R-square for this second equation was 24% (Adjusted R-square = 23%).

Table 9

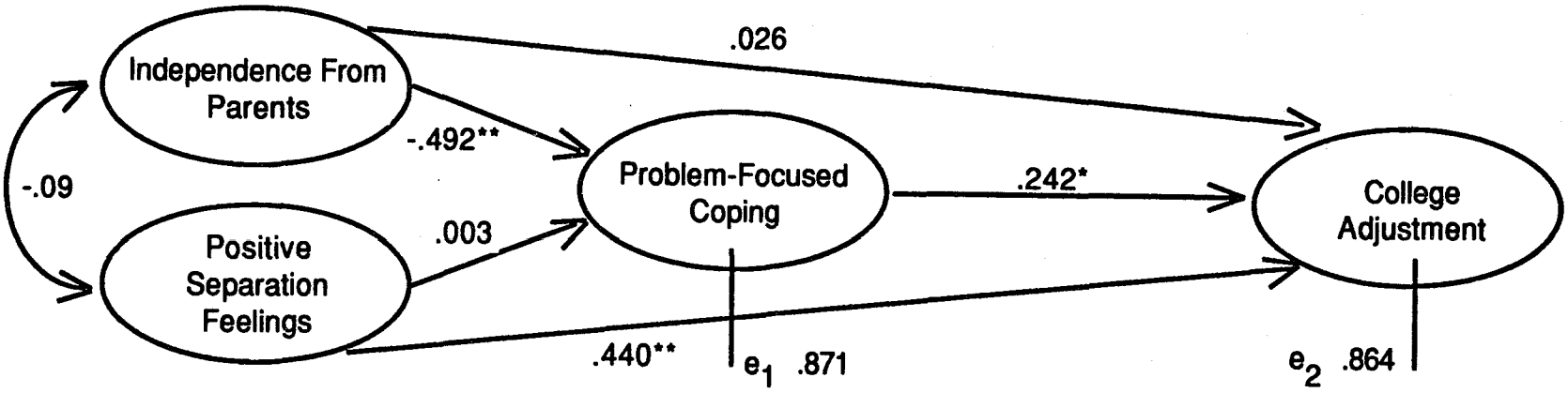
Second Ordinary Least Squares Equation for Path Analysis Regressing Student Adaptation to College Questionnaire on Problem-focused Coping, Positive Separation Feelings, and Independence from Parents

Variable	b	SE	Beta	p
Problem-focused Coping	.533	.240	.242	.03
Positive Separation Feelings	.961	.208	.440	.0001
Independence from Parents	.03	.138	.026	.82

Figure 2 presents the full path model with all coefficients including residual path coefficients. Table 10 presents a summary of the direct, indirect, and total effects of each exogenous and endogenous variable on the outcome of college adjustment (SACQ). The total effects on SACQ were .83.

Hypothesis 1

Freshman coping strategies, as measured by the Adolescent-Coping Orientation for Problem Experiences (A-COPE; Patterson & McCubbin, 1987) scale, will have a direct effect on college adjustment, as measured by



Note: * p=.03; ** p=.0001

Figure 2. Full Conceptual Model

Table 10

Summary of the Direct, Indirect, and Total Effects on the Outcome of College Adjustment

Variable	Direct Effect	Indirect Effect	Total Effect
Problem-focused Coping	.242*	--	.242
Positive Separation Feelings	.440**	.0007	.4407
Independence from Parents	.026	.119*	.145
Total Effects	.708	.1197	.8277

Note: * p=.03; **p=.0001

the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).

Results of the path analysis presented above support this hypothesis. Freshman students with higher problem-focused coping skills reported higher college adjustment (p = .03).

Hypothesis 2

Positive Separation Feelings from parents, as measured by the Psychological Separation Inventory (PSI; Hoffman, 1984) and the Separation Anxiety subscale of the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986), will have a direct effect

on college adjustment, as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).

Results of the analysis presented above support this hypothesis. Freshman students with higher positive separation feelings reported higher college adjustment ($p = .0001$).

Hypothesis 3

Independence from Parents, as measured by the Functional, Attitudinal, and Emotional Independence subscales of the Psychological Separation Inventory (PSI; Hoffman, 1984), will have a direct effect on college adjustment, as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984).

Results of the path analysis presented above did not support this hypothesis. There was no direct relationship between freshman independence from parents and college adjustment.

Hypothesis 4

Problem-focused Coping strategies will mediate the direct relationship between freshman positive separation feelings from parents and college adjustment.

The path analysis (presented above) showed no relationship between positive separation feelings from parents and problem-focused coping. Thus, there could be no mediating effect.

Hypothesis 5

Problem-focused Coping strategies will mediate the direct relationship between freshman independence from parents and college adjustment.

The path analysis (see Figure 2) showed no direct effect of independence from parents on college adjustment. However, there was a moderate indirect effect (through problem-focused coping) of .119 on college adjustment. This indirect effect lends some support, though small, to problem-focused coping mediating the relationship between independence from parents and college adjustment.

Group Differences

Early studies on the effects of psychological separation on college adjustment reported group differences for both gender and parents' marital status (Lopez et al., 1986; Rice, 1990). Although Rice's (1992) more recent longitudinal study contradicted these earlier findings, a follow-up multivariate analysis of variance was used to determine whether gender and parents' marital status influenced the freshmen in this sampled population (for means and standard deviations see Table 6). Alpha was set at .05 for the multivariate analysis and .0125 for each of the four follow-up univariate analyses. Results are presented in Table 11.

There was a significant multivariate effect for gender ($p = .0023$). Univariate results showed a significant gender effect on Independence from Parents ($p = .005$) and a trend toward significance on SACQ ($p = .0347$),

Table 11

Significant Effects of MANOVA for Gender and Marital Status on Four Variables

Variable	Gender	Div/Sep	Interaction
MANOVA	.0023	.0001	--
SACQ	.0347	--	--
Problem-focused Coping	--	--	
Positive Separation Feelings	--	.0142	--
Independence from Parents	.005	.0001	--

Note: Gender = Combined scores for males and females; Div/Sep = Divorced or Separated; Interaction = Interaction effect of Gender and Divorced/Separated

with males scoring higher on both of these variables (203.28 versus 161.04 on Independence from Parents and 419.42 versus 391.28 on SACQ).

There also was a significant multivariate effect for marital status ($p = .0001$). Univariate analyses revealed a significant marital status effect on Independence from Parents ($p = .0001$) and a trend toward significance on Positive Separation Feelings ($p = .0142$). Students from divorced/ separated families had higher scores on Independence from Parents (222.64 versus 161.92). However, students from intact families had higher scores on Positive Separation Feelings (187.52 versus 173.44).

Additional Path Model Analyses

Given a trend toward a significant gender effect on the measure of college adjustment (SACQ) reported earlier, separate path analyses were run for each gender. These two path models utilized an OLS regression approach identical to the original path model. Results for each gender are presented separately.

Females

In the first equation, Problem-focused Coping was regressed onto Independence from Parents and Positive Separation Feelings (see Table 12). The R-square for this first ordinary least squares regression was 26% (Adjusted R-square = 22%). Independence from Parents was a significant predictor (p = .0009) of coping for females (N = 40). This relationship was negative. Thus, females who had higher Independence from Parents had lower Problem-focused Coping scores. In the second equation, college adjustment (SACQ) was regressed onto Problem-focused Coping, Positive Separation Feelings, and Independence from Parents (see Table 13). The R-square for the second regression was 30% (Adjusted R-square = 25%), with Positive Separation Feelings being the only significant predictor (p = .0016). Higher Positive Separation Feelings were associated with higher adjustment.

Males

An identical path model was performed for the male sample (N = 47). The first equation yielded an R-square of 19% (Adjusted R-square = 16%)

Table 12

Regression of Problem-focused Coping on Positive Separation Feelings and Independence from Parents for Females

Variable	b	SE	Beta	p
Positive Separation Feelings	-.100	.123	-.120	.4245
Independence from Parents	-.285	.080	-.530	.0009

Table 13

Regression of Student Adaptation to College Questionnaire on Problem-focused Coping, Positive Separation Feelings, and Independence from Parents for Females

Variable	b	SE	Beta	p
Problem-focused Coping	.520	.417	.202	.2198
Positive Separation Feelings	1.08	.315	.498	.0016
Independence from Parents	-.027	.234	-.020	.9082

(see Table 14). As for females, Independence from Parents was a significant predictor of Problem-focused Coping (p = .003). Again, the relationship was negative. Males with greater Independence from Parents

Table 14

Regression of Problem-focused Coping on Positive Separation Feelings and Independence from Parents for Males

Independent Variable	b	SE	Beta	p
Positive Separation Feelings	.124	.149	.113	.4095
Independence from Parents	-.270	.086	-.421	.0033

had lower Problem-focused Coping scores. The R-square for the second regression was 25% (Adjusted R-square = 20%). Both Problem-focused Coping and Positive Separation Feelings were significant predictors of student adjustment (p = .0277 and p = .0283, respectively) (see Table 15).

In sum, for these follow-up analyses, higher Problem-focused Coping, Gender, and Positive Separation Feelings were associated with higher college adjustment.

A More Parsimonious Model

In view of the path coefficients and regression analyses, a more parsimonious was specified and tested. Variables that had limited effect on the outcome variable were removed from the model. Specifically, the

Table 15

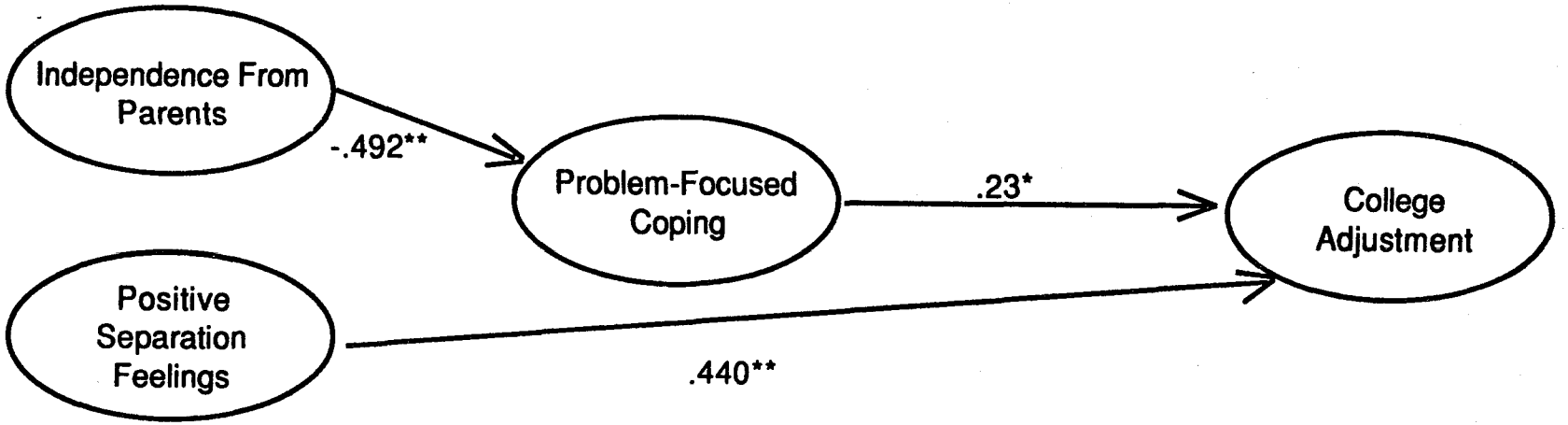
Regression of Student Adaptation to College Questionnaire on Problem-focused Coping, Positive Separation Feelings, and Independence from Parents for Males

Variable	b	SE	Beta	p
Problem-focused Coping	.653	.290	.335	.0277
Positive Separation Feelings	.647	.285	.302	.0283
Independence from Parents	-.070	.181	-.056	.7013

relations of College Adjustment on Independence from Parents and Problem-Focused Coping on Positive Separation Feelings were removed from the model. The path analysis of the revised model for all subjects is presented in Figure 3.

In the revised model, the relation between Problem-focused Coping on Independence from Parents was significant (b = -.492, p = .0001) and the model was slightly strengthened (Adjusted R-square = .23). The remaining variable (Independence from Parents) in the first ordinary least squares regression of the revised model accounted for 23% of the variance in Problem-Focused Coping.

Also in the revised model, results were significant for College Adjustment on Problem-Focused Coping (b = .23, p = .02) and College Adjustment on Positive Separation Feelings (b = .440, p = .0001). In



Note: * p=.02; ** p=.0001

Figure 3. Revised Conceptual Model (All Subjects)

addition, the model for the second ordinary least squares regression was slightly improved (Adjusted R-square = .24). Variables in the revised model accounted for 24% of the variance in College Adjustment.

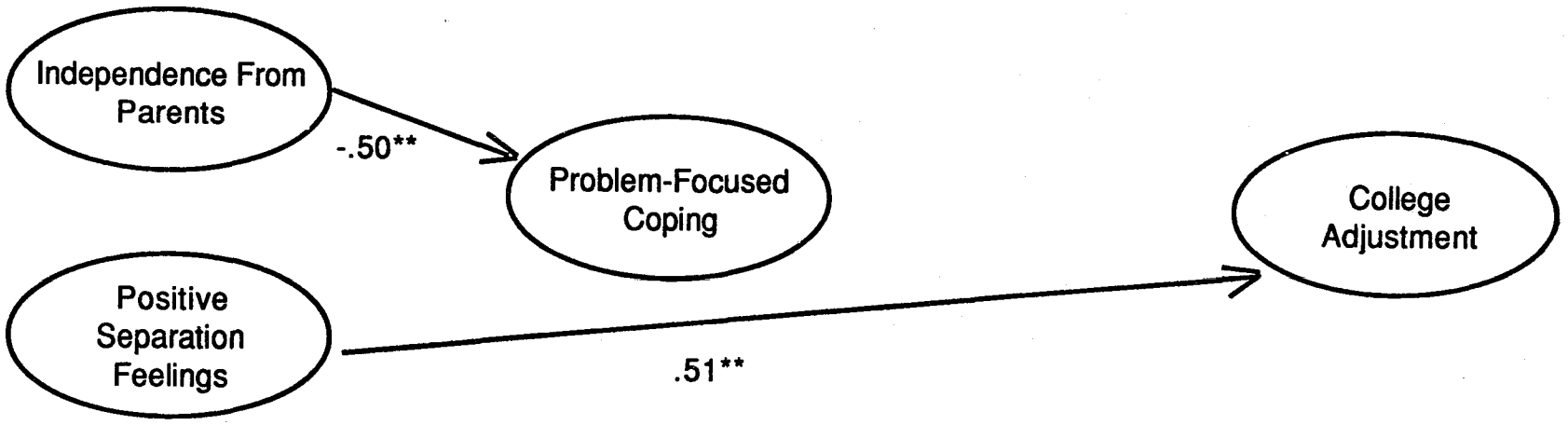
Gender Differences in the Revised Model

Additional analyses were conducted to determine if the revised "best-fit" model above would improve when calculated separately for females and males. A "best-fit" model is defined here as the model providing the largest Adjusted R-square value for the outcome variable with the fewest number of predictor variables possible.

Female Subjects

The "best-fit" model for female subjects included the variables Problem-Focused Coping on Independence from Parents and College Adjustment on Positive Separation Feelings. The revised model for female subjects is presented in Figure 4. When the revised model was used to predict Problem-Focused Coping on Independence from Parents among the female subjects for the first ordinary least squares regression, results were significant (Adjusted R-square = .22, b = -.50, p = .001). The variables in the revised model for the first ordinary least squares regression accounted for 23% of the variance in Problem-Focused Coping for female subjects.

For the second ordinary least squares regression with female subjects, the revised model was used to predict College Adjustment on Positive Separation Feelings. The results for the second ordinary least squares regression were significant (Adjusted R-square = .24, b = .51, p = .0008). The variables in the revised model for the second ordinary least



Note: * p=.001; ** p=.0008

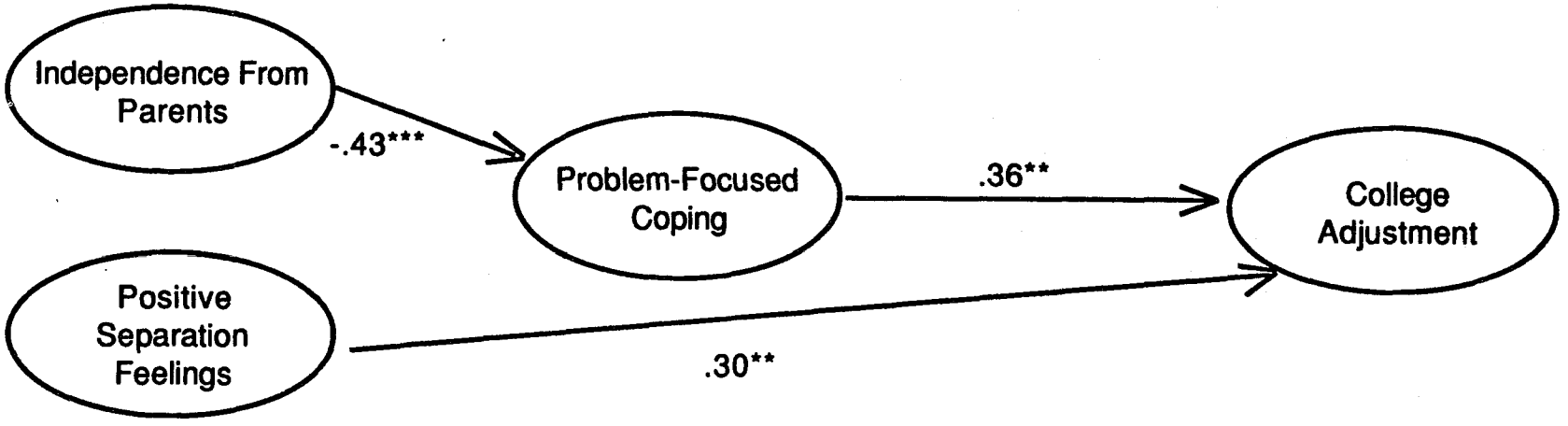
Figure 4. Revised Conceptual Model (Females)

squares regression accounted for 24% of the variance in College Adjustment for female subjects.

Male Subjects

The "best-fit" model for male subjects included the same variables as the best-fit model for all subjects. The revised model for male subjects is presented in Figure 5. When the revised model was used to predict Problem-Focused Coping on Independence from Parents among the male subjects for the first ordinary least squares regression, results were significant (Adjusted R-square = .16, b = -.43, p = .0028). The variables in the revised model for the first ordinary least squares regression accounted for 16% of the variance in Problem-Focused Coping for male subjects.

For the second ordinary least squares regression with male subjects, the revised model was used to predict College Adjustment on Positive Separation Feelings and Problem-Focused Coping. The results for the second ordinary least squares regression were significant for College Adjustment on Positive Separation Feelings (b = .30, p = .0271) and for College Adjustment on Problem-focused Coping (b = .359, p = .009). The adjusted R-square for the second ordinary least squares regression was .21. Thus, the variables in the revised model for the second ordinary least squares regression accounted for 21% of the variance in College Adjustment for male subjects.



Note: * p=.03; ** p=.009; ***p=.002

Figure 5. Revised Conceptual Model (Males)

CHAPTER V

SUMMARY, LIMITATIONS, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

This chapter consists of five sections: summary of the research, limitations of the study, conclusions that may be drawn from the study, recommendations for further research, and implications for counselors and student affairs professionals.

Summary

This study was an examination of how psychological separation-individuation and coping affects freshman college adjustment. It examined how the relationship between freshman college adjustment and two constructs of separation-individuation, namely Positive Separation Feelings and Independence from Parents, are influenced by Problem-focused Coping. According to previous research, college freshmen with Positive Separation Feelings from parents are more inclined to adjust well to college, whereas Independence from Parents appears to be unrelated to successful adjustment to the college environment (Rice, Cole, & Lapsley, 1990). In addition, active coping strategies have been demonstrated to have direct effects on a wide range of measures assessing adjustment to college (Aspinwall & Taylor, 1992). In previous studies exploring the relation between Positive Separation Feelings and Independence from Parents (Rice, Cole, & Lapsley, 1990; Rice, Fitzgerald, Whaley, & Gibbs, in press)

and college adjustment, only freshmen from a small private Catholic university in the Midwest were used, whereas this study attempted to examine the relationships with freshmen from a mid-sized public university in the Southeast. Also, this study expanded the literature on college adjustment and that on coping to include coping style as a mediating variable in the relation between psychological separation-individuation and college adjustment.

The first hypothesis involving the relationship between Problem-focused Coping strategies and college adjustment was supported. Freshmen scoring high in Problem-focused Coping were better adjusted to college. This held true for both genders. Previous studies had shown that active coping strategies can have a direct effect on a variety of indices of college adjustment, yet their effects were minimal from a practical standpoint (r = .09, p = .01) (Aspinwall & Taylor, 1992). The present study confirms those findings with stronger measures of coping (A-COPE, Patterson & McCubbin, 1987) and adjustment to college (SACQ, Baker & Siryk, 1984), and with a direct effect between the two (r = .24; p = .03). These findings are relevant to the research of Ebata and Moos (1994), who found that late adolescents tend to use Problem-focused Coping approaches to cope with life adjustments more so than younger adolescents. Ebata, Petersen, and Conger (1990) suggested that late adolescents use more Problem-focused approaches because they have to deal with more internal and external stressors than their younger peers. Thus, the freshmen in the

sample appear to be using the appropriate coping strategies for their developmental concerns.

The second hypothesis suggested that Positive Separation Feelings from parents would have a direct effect on college adjustment. Results confirmed this hypothesis, and held true across gender. These findings confirm the previous research by Rice (1992), who found that differences between men and women did not reach statistical significance. Hence, freshmen who experience negative, angry, or resentful feelings associated with separating from parents are also those who will have greater difficulty managing their adjustment to college, regardless of whether they are male or female.

The third hypothesis attempted to determine if Independence from Parents had a direct effect on college adjustment. The results did not support this hypothesis, similar to Rice et al. (1990) who found no statistical significance for this construct. It appears that the rather normative process of gaining independence from parents has no direct effect on college adjustment. One conclusion from this finding could be that gaining independence from parents is unrelated to adjusting to college. Yet, an alternative hypothesis is that the three subscales of the PSI (Functional, Emotional, and Attitudinal Independence) may not be fully assessing the construct of developing independence as proposed by developmental theorists (Blos, 1967; Chickering, 1993; Erikson, 1968). Rice et al. (in press) suggested that this independence score may be tapping a construct more similar to unhealthy detachment than healthy autonomy. These assertions

are consistent with Chickering (1993), who suggested that healthy separation and individuation involves emotional independence, instrumental independence, as well as a sense of interdependence. The third component of Chickering's theory, interdependence, which represents "an awareness of one's place in and commitment to the welfare of the larger community" (p. 117), is not reflected in the PSI instrument. Chickering asserted that college students must learn to move through autonomy toward a sense of interdependence with others. When applying developmental theory to these research findings, then, it appears that the Independence from Parents construct may only partially reflect the developmental process of psychological separation-individuation.

The fourth hypothesis investigated whether Problem-focused Coping would mediate the direct relationship between freshman Positive Separation Feelings from parents and college adjustment. This hypothesis was not supported. Results from this study suggest that problem-focused coping strategies do not play a significant role in helping freshmen manage the affective experiences associated with separation-individuation as a predictor of college adjustment. These results also held true across gender. This finding is particularly interesting since the A-COPE instrument was developed to assess the behaviors adolescents use to negotiate this process. This finding thus contradicts Patterson and McCubbin's (1987) assertion that adolescent coping behaviors help mediate the process of moving from dependence on parents to an increasing independence from them (Patterson & McCubbin, 1987).

The fifth hypothesis maintained that Problem-focused Coping strategies would mediate the direct relationship between freshman Independence from Parents and college adjustment. The results supported this hypothesis, as there was a small indirect effect of Independence from Parents on college adjustment through Problem-focused Coping. This lends support to Problem-focused Coping serving as a mediating variable. The small magnitude of this finding is not surprising since Problem-focused Coping strategies are only beginning to emerge as a dominant coping method during late adolescence (Ebata & Moos, 1994). This effect may become larger as late adolescents continue to learn how and when to use Problem-focused Coping strategies appropriately.

In addition to serving as a mediating variable, a closer inspection of the results reveals that Independence from Parents was significantly negatively correlated with Problem-focused Coping (r = -.49). This finding held true for males (r = -.42) and females (r = -.53). This suggests that freshmen who are highly independent from parents use less problem-focused strategies and in turn adjust more poorly to college. Since Problem-focused Coping strategies play a significant role in adjusting to college, it appears that highly independent students may be at-risk for adjustment difficulties.

In summary, separation-individuation and Problem-focused Coping proved to be useful constructs in understanding freshman college adjustment. Positive Separation Feelings had the strongest direct effect on college adjustment at .44. In addition, Problem-focused Coping had a direct

effect of .24, whereas Independence from Parents had only a small indirect effect (.12) on college adjustment through Problem-focused Coping. These findings were consistent for males and females.

Gender differences which did emerge revealed that males scored higher on Independent from Parents and on adjustment to college than did females, particularly in the areas of social adjustment, personal-emotional adjustment, and attachment to the university. For both genders, those who were highly independent from parents used less Problem-focused Coping strategies, and thus were less likely to adjust well to college.

In total, freshman students with Positive Separation Feelings from Parents and high Problem-focused Coping strategies tended to adjust well to college. Students who were highly Independent from Parents may be at greater risk of adjustment difficulties since they tend to use fewer Problem-focused Coping strategies.

Exploratory analyses were also completed to assess how select family variables affected freshman college adjustment. Although there were no differences in levels of college adjustment or problem-focused coping between intact versus divorced/separated freshmen students, there were reported differences for Positive Separation Feelings and Independence from Parents, with students from divorced/separated families reporting lower levels of Positive Separation Feelings from parents and higher levels of Independence from Parents. These findings are consistent with subscales scores reported by Lopez, Campbell, and Watkins (1988b), who found that college students from divorced family backgrounds generally

report higher scores on the Emotional Independence, Functional Independence, and Attitudinal Independence scales but lower scores on measures of father-conflictual independence. Thus, divorced/separated freshmen tend to have less positive feelings about separating from parents and are more independent than freshmen from intact families.

Limitations of the Study

Limitations of this study fall into five major categories. The first category applies to the characteristics of the participants, particularly since they were based on the perceptions of white, middle class young adults. Since most students were middle class, the results cannot be extended to those of lower or higher economic standings. Although the racial representation of the participants in this study is similar to some other state schools in the North Carolina university system, the small number of minorities in the sample ($N = 11$) limits generalizability to minority populations. A further limitation in this category is that the freshmen in the sample were self-selected into the Freshmen and the University course, limiting the generalizability to all freshmen students in the university.

The second major category of limitations concerns the nature of self-report measures. In general, self-report measures may be subjected to various kinds of response bias (Edwards, 1970). It has been suggested that some subjects tend to respond to the social desirability of an item rather than the contents of the item (Rice et al., 1990). Moreover, Lopez (1986) suggested that the nature of college adjustment involves a process of students learning to conform to the expectations of the college environment.

Yet, although social desirability was not controlled for in this study, previous research (Rice et al., 1990) has demonstrated that measures of individuation and college adjustment were not saturated by social desirability.

A third limitation involves the timing of the study. For this study, data were collected during the second semester of the freshman year at the university. The results of this study do not rule out the possibility that previous problems in the students' parent relationships, for example, prior to the second semester, may make the students particularly vulnerable to adjustment difficulties. Thus, the model proposed may more accurately reflect the within time, "here-and-now" association between separation-individuation, coping, and college adjustment, rather than the across time, predictive association among the constructs. In addition, since the study was administered two weeks prior to exams, the students may have been more focused upon managing academic stressors than separation-individuation concerns. Even so, the results give us a glimpse of these constructs at work at a time period different from that in previous studies.

A fourth category of limitations involves the sample size. First, since a quarter of the sample population was not available on the date of testing, all results must be interpreted with some caution. Next, in follow-up analyses, this study found significant gender differences in independence from parents and college adjustment. These findings were contrary to the recent conclusions offered in the literature (Rice, 1992). The mean differences which emerged suggest that freshman males tend to be more

independent from parents whereas females tend to have more college adjustment difficulties. In contrast, Rice's (1992) longitudinal study, found that differences between men and women tapped by the PSI and SACQ did not reach statistical significance. In fact, Rice concluded that gender differences can be found but the effect sizes of those differences are too small to be clinically important. The gender differences found in this study were found through exploratory analyses and need to be confirmed with larger sample sizes.

The fifth potential limitation is that the pattern of results also may be accounted for by unassessed variables. As with any correlational method, a path model is only as good as the variables it contains. There is always the possibility that some unmeasured factors may account for the pattern of relations modeled in the present investigation. For example, Aspinwall and Taylor (1992) found that optimism and positive mood were correlated with both active coping and adjustment to college. Controlling for these variables may have removed some of the influence of potential predictors of coping and adjustment not included in the present model. Nevertheless, no control variable could eliminate entirely this concern.

A sixth potential limitation involves the A-COPE Problem-focused Coping score. Since this Problem-Focused coping score is derived from five factors, the actual score may misrepresent a freshman's ability to cope effectively. For example, those freshmen using only one Problem-focused Coping factor to manage stress will consistently score lower on their total Problem-focused Coping score. Thus, the total Problem-focused Coping

score may not always be the best predictor of a student's ability to manage stress. Future studies are needed to determine whether one Problem-focused Coping factor may serve as the best mediator of separating from home and adjusting to college.

Conclusions

The present study's findings were consistent with the literature in many regards. The positive relationship between Problem-focused Coping and college adjustment was in line with previous literature suggesting that college freshmen who actively approach their stressors through both self-reliance strategies and the support of others are those who will adjust better to college. The higher problem-focused coping scores in this study compared to the norms (ages 13 - 18) lends support to the notion that problem-focused coping strategies may continue to improve throughout late adolescence as found by Ebata and Moos (1994). In addition, the nature of college stressors also may accelerate a freshman's need to utilize higher level coping strategies to remediate the stressor. These results held true across gender.

The results of the relationship between Positive Separation Feelings and college adjustment were not surprising. Previous research findings indicated that freshmen who are free of anger, resentment, and guilt about separating from parents were those who are more likely to adjust better to college. Although there were no gender differences regarding Positive Separation Feelings, freshmen from divorced or separated families tended

to report higher levels of negative separation feelings. These results were consistent with the findings of Lopez, Campbell, and Watkins (1988b).

The effects of Independence from Parents on college adjustment appeared to be less clear cut than previously evident in the literature. Similar to the literature, there was no direct relationship between Independence from Parents and college adjustment. Yet additive to the literature was the detection of an indirect relationship between Independence from Parents and college adjustment through Problem-focused Coping. These findings indicate that freshmen who were more Independent from Parents were those who utilized less problem-focused coping strategies and, in turn, had a greater risk of adjustment difficulties. These results held true across gender and parents' marital status. These findings suggest that parent relationships may play a larger role in freshmen coping and college adjustment than once believed.

Recommendations for Future Research

Recommendations for future research are based on the results of this study and are designed, in part, to address the limitations outlined above.

Future studies should include larger and more diverse samples to validate the research findings on a broader scope. The need to survey ethnically diverse populations will continue to be an important component toward understanding the developmental concerns and differences of college students.

Expanded studies could use additional methods to confirm self-report data. Measures of social-desirability could be employed to determine the

degree of variance between the constructs that was a result of the students' attempting to conform to the college environment. In addition, these instruments could be administered to peers and parents to assess their perception of a student's degree of separation-individuation. For example, one might compare student perceptions of separation-individuation, coping, and college adjustment with roommates, resident assistants, or parental perceptions of the same variables. Although self-report measures have been proven to be useful strategies for assessing adolescent experiences (Armsden & Greenberg, 1987), a more complete understanding of the role of family relationship dynamics in promoting or inhibiting the development of adolescent identity needs to consider the parents' views of the adolescent as well. Finally, a qualitative component can be added to determine the students' degree of separation-individuation, coping, and college adjustment. For example, students could be observed in interactions with parents and peers or interviewed directly by a field researcher. Observational research on these interactions may be critical to uncovering verbal and nonverbal communication patterns that are relevant to healthy parent-peer relationships. Methods such as these could be designed to yield information to advance theory, for instrument development, and to enhance practice by identifying verbal and nonverbal competencies that facilitate adaptive parent-adolescent relationships.

Future studies of separation-individuation, coping, and college adjustment at different points in time are warranted. Such studies could more fully explore the nature of the late adolescent transitions by assessing

relationship variables prior to, and after the transition to, the university. These follow-up studies would better describe the stability or change in student-parent relationships, coping strategies, adjustment, and their interrelationships over time. In particular, studies of freshmen from divorced/separated families would be helpful. In addition, since problem-focused coping is directly related to and serves as a mediating variable for college adjustment, a pre-test post-test design could be used to determine whether teaching coping strategies can more significantly influence separation-individuation and college adjustment. Finally, follow-up studies could be used to assess whether different forms of problem-focused coping can be more effective than others as mediators of college adjustment. For example, there may be a specific strategy involved in problem-focused coping (e.g., engaging in demanding activity) that best mediates relation between separation-individuation and college adjustment. Future studies could use different types of problem-focused coping strategies as mediating variables to the proposed model.

Finally, further research could include other variables not added to this model. This research would focus on identifying other factors that influence an individual's ability and inclination to actively manage the stressors and strains of separating from home, coping, and adjusting to the college environment. Such factors could include personality variables (e.g., optimism, mood), contextual variables (e.g., quality, quantity, type of social support), or parenting style. In addition, other variables of comparison could include freshman living in residence halls, freshman residing off-

campus, or nontraditional freshman students. These variables may more fully clarify whether adjustment difficulties experienced by freshmen are the result of individual characteristics, existing resources, and/or the kind of parenting style with which the student was raised.

Implications for Counseling Practice

The positive relationship between Problem-focused Coping and Positive Separation Feelings on college adjustment for freshmen extends the literature on late adolescents. The indirect relationship between Independence from Parents and college adjustment through Problem-focused Coping sheds light into the role of coping in helping to manage a late adolescent's balanced relationships with parents and adjustment to college. It appears that freshmen who lack conflict with parents and approach their problems directly are those most likely to manage the stressors associated with the college environment. In contrast, freshmen who are highly independent from parents are more likely to have adjustment difficulties. Thus, intervention strategies can be instituted to help freshmen find ways to manage angry and resentful feelings toward separating from parents, to develop more interdependent relationships with parents, and to acquire the appropriate coping strategies for addressing their adjustment concerns.

The differences by gender imply that although both males and females struggle with Independence from Parents and college adjustment, these adjustment difficulties may be slightly more difficult for females. Counselors need to be aware of these differences both to help freshmen find

healthy ways to cope with their new found freedoms and to determine what strategies are most necessary for adjusting to college. At-risk students may need to be identified during admission to the university and be referred to programs which teach the necessary survival skills. In addition, since females tend to utilize social resources differently, special programs may need to be developed which teach them how to depend on parents and how to develop more effective coping strategies.

The instruments used in this study are valuable tools for counselors and student affairs professionals to use to identify students with separation-individuation, coping, and college adjustment difficulties. These instruments could be used as an assessment tool for developing programs which teach the necessary coping skills for separating from home and adjusting to college. As part of the freshman orientation program, student affairs professionals could administer these instruments, identify at-risk students, and implement strategies in the classroom or residence halls to address the students' concerns. For example, instructors for the course "Freshman and the University" could integrate the teaching of coping strategies and appropriate ways to develop less conflictual relationship with parents into their curriculum. For students, learning appropriate ways to manage their developmental concerns could make a difference in their ability to persist at the university.

Though this model explains 25% of the variance in the relationships between separation-individuation, problem-focused coping, and college adjustment, 75% of the variance is left unanswered still. Other

explanations for higher levels of college adjustment include personal factors (e.g., temperament), situational factors (e.g., perceived self-control), and contextual factors (e.g., level of student involvement). It is important that counselors and student affairs professionals working with college students investigate all possible factors that may be contributing to the students' ability to separate from home and adjust to college so that they can plan programs and services accordingly.

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APPENDIX A

STUDENT ADAPTATION TO COLLEGE QUESTIONNAIRE

APPENDIX B

ADOLESCENT-COPING ORIENTATION FOR PROBLEM EXPERIENCES

Purpose: This measure is designed to record the behaviors students find helpful to them in managing problems or difficult situations which happen to them or members of their families.

COPING is defined as individual or group behavior used to manage the hardships and relieve the discomfort associated with life changes or difficult life events.

Directions:

- Read each of the statements below, which describes a behavior for coping with problems.
- Decide *how often* you do each of the described behaviors when you face difficulties or feel tense. Even though you may do some of these things just for fun, please indicate only how often you do each behavior as a way to cope with problems.
- Circle one of the following responses for each statement:

1 - NEVER 2 - HARDLY EVER 3 - SOMETIMES 4 - OFTEN 5 - MOST OF THE TIME

Please be sure and circle a response for each statement.

NOTE: Any time the words parent, mother, father, brother or sister are used, they also mean step-parent, step-mother, etc.

When you face difficulties or feel tense, how often do you -	Never	Hardly ever	Sometimes	Often	Most of the time
1. Go along with parents' requests and rules	1	2	3	4	5
2. Read	1	2	3	4	5
3. Try to be funny and make light of it all	1	2	3	4	5
4. Apologize to people	1	2	3	4	5
5. Listen to music - stereo, radio, etc.	1	2	3	4	5
6. Talk to a teacher or counselor at school about what bothers you	1	2	3	4	5
7. Eat food	1	2	3	4	5
8. Try to stay away from home as much as possible	1	2	3	4	5
9. Use drugs prescribed by a doctor	1	2	3	4	5
10. Get more involved in activities at school	1	2	3	4	5
11. Go shopping; buy things you like	1	2	3	4	5
12. Try to reason with parents and talk things out; compromise	1	2	3	4	5
13. Try to improve yourself (get body in shape, get better grades, etc.)	1	2	3	4	5
14. Cry	1	2	3	4	5
15. Try to think of the good things in your life	1	2	3	4	5
16. Be with a boyfriend or girlfriend	1	2	3	4	5
17. Ride around in the car	1	2	3	4	5
18. Say nice things to others	1	2	3	4	5
19. Get angry and yell at people	1	2	3	4	5
20. Joke and keep a sense of humor	1	2	3	4	5
21. Talk to a minister/priest/ rabbi	1	2	3	4	5

When you face difficulties or feel tense, how often do you -	Never	Hardly ever	Sometimes	Often	Most of the time
22. Let off steam by complaining to family members	1	2	3	4	5
23. Go to church	1	2	3	4	5
24. Use drugs (not prescribed by doctor)	1	2	3	4	5
25. Organize your life and what you have to do	1	2	3	4	5
26. Swear	1	2	3	4	5
27. Work hard on school work or other school projects	1	2	3	4	5
28. Blame others for what's going wrong	1	2	3	4	5
29. Be close with someone you care about	1	2	3	4	5
30. Try to help other people solve their problems	1	2	3	4	5
31. Talk to your mother about what bothers you	1	2	3	4	5
32. Try, on your own, to figure out how to deal with your problems or tension	1	2	3	4	5
33. Work on a hobby you have (sewing, model building, etc.)	1	2	3	4	5
34. Get professional counseling (not from a school teacher or school counselor)	1	2	3	4	5
35. Try to keep up friendships or make new friends	1	2	3	4	5
36. Tell yourself the problem is not important	1	2	3	4	5
37. Go to a movie	1	2	3	4	5
38. Daydream about how you would like things to be	1	2	3	4	5
39. Talk to a brother or sister about how you feel	1	2	3	4	5
40. Get a job or work harder	1	2	3	4	5
41. Do things with your family	1	2	3	4	5
42. Smoke	1	2	3	4	5
43. Watch T.V.	1	2	3	4	5
44. Pray	1	2	3	4	5
45. Try to see the good things in a difficult situation	1	2	3	4	5
46. Drink beer, wine, liquor	1	2	3	4	5
47. Try to make your own decisions	1	2	3	4	5
48. Sleep	1	2	3	4	5
49. Say mean things to people; be sarcastic	1	2	3	4	5
50. Talk to your father about what bothers you	1	2	3	4	5
51. Let off steam by complaining to your friends	1	2	3	4	5
52. Talk to a friend about how you feel	1	2	3	4	5
53. Play video games (e.g., Space Invaders, Pac-Man), pool, pinball, etc.	1	2	3	4	5
54. Do a strenuous physical activity (jogging, biking, etc.)	1	2	3	4	5

APPENDIX C

PSYCHOLOGICAL SEPARATION INVENTORY

Directions: The following list of statements describes aspects of students' current relationship with both their biological mother and father. In the space next to the statement, please circle a number from "1" (Not at all true of me) to "5" (Very true of me) that tells how well each statement applies to you. If the statement does not apply, enter "1." Please be completely honest. Your answers are entirely confidential and will be useful only if they accurately describe you.

	Not at all true				Very true
1. I like to show my friends pictures of my mother.	1	2	3	4	5
2. Sometimes my mother is a burden to me.	1	2	3	4	5
3. I feel longing if I am away from my mother for too long.	1	2	3	4	5
4. My ideas regarding racial equality are similar to my mother's.	1	2	3	4	5
5. My mother's wishes have influenced my selection of friends.	1	2	3	4	5
6. I feel like I am constantly at war with my mother.	1	2	3	4	5
7. I blame my mother for many of the problems I have.	1	2	3	4	5
8. I wish I could trust my mother more.	1	2	3	4	5
9. My attitudes about obscenity are similar to my mother's.	1	2	3	4	5
10. When I am in difficulty I usually call upon my mother to help me out of trouble.	1	2	3	4	5
11. My mother is the most important person in the world to me.	1	2	3	4	5
12. I have to be careful not to hurt my mother's feelings.	1	2	3	4	5
13. I wish that my mother lived nearer so I could visit her more frequently.	1	2	3	4	5

	Not at all true				Very true
14. My opinions regarding the role of women are similar to my mother's.	1	2	3	4	5
15. I often ask my mother to assist me in solving my personal problems.	1	2	3	4	5
16. I sometimes feel like I'm being punished by my mother.	1	2	3	4	5
17. Being away from my mother makes me feel lonely.	1	2	3	4	5
18. I wish my mother wasn't so overprotective.	1	2	3	4	5
19. My opinions regarding the role of men are similar to my mother's.	1	2	3	4	5
20. I wouldn't make a major purchase without my mother's approval.	1	2	3	4	5
21. I wish my mother wouldn't try to manipulate me.	1	2	3	4	5
22. I wish my mother wouldn't try to make fun of me.	1	2	3	4	5
23. I sometimes call home just to hear my mother's voice.	1	2	3	4	5
24. My religious beliefs are similar to my mother's.	1	2	3	4	5
25. My mother's wishes have influenced my choice of major at school.	1	2	3	4	5
26. I feel that I have obligations to my mother that I wish I didn't have.	1	2	3	4	5
27. My mother expects too much from me.	1	2	3	4	5

	Not at all true				Very true
28. I wish I could stop lying to my mother.	1	2	3	4	5
29. My beliefs regarding how to raise my children are similar to my mother's.	1	2	3	4	5
30. My mother helps me to make my budget.	1	2	3	4	5
31. While I am home on a vacation I like to spend most of my time with my mother.	1	2	3	4	5
32. I often wish that my mother would treat me more like an adult.	1	2	3	4	5
33. After being with my mother for a vacation I find it difficult to leave her.	1	2	3	4	5
34. My values regarding honesty are similar to my mother's.	1	2	3	4	5
35. I generally consult with my mother when I make plans for an out-of-town weekend.	1	2	3	4	5
36. I am often angry at my mother.	1	2	3	4	5
37. I like to hug and kiss my mother.	1	2	3	4	5
38. I hate it when my mother makes suggestions about what I do.	1	2	3	4	5
39. My attitudes about solitude are similar to my mother's.	1	2	3	4	5
40. I consult with my mother when deciding about part-time employment.	1	2	3	4	5
41. I decide what to do according to whether my mother will approve of it.	1	2	3	4	5

	Not at all true				Very true
42. Even when my mother has a good idea I refuse to listen to it because she made it.	1	2	3	4	5
43. When I do poorly in school I feel I'm letting my mother down.	1	2	3	4	5
44. My attitudes regarding environmental protection are similar to my mother's.	1	2	3	4	5
45. I ask my mother what to do when I get into a tough situation.	1	2	3	4	5
46. I wish my mother wouldn't try to get me to take sides with her.	1	2	3	4	5
47. My mother is my best friend.	1	2	3	4	5
48. I argue with my mother over little things.	1	2	3	4	5
49. My beliefs about how the world began are similar to my mother's.	1	2	3	4	5
50. I do what my mother decides on most questions that come up.	1	2	3	4	5
51. I seem to be closer to my mother than most people my age.	1	2	3	4	5
52. My mother is sometimes a source of embarrassment to me.	1	2	3	4	5
53. Sometimes I think I am too dependent on my mother.	1	2	3	4	5
54. My beliefs about what happens to people when they die are similar to my mother's.	1	2	3	4	5

	Not at all true				Very true
55. I ask for my mother's advice when I am planning my vacation time.	1	2	3	4	5
56. I am sometimes ashamed of my mother.	1	2	3	4	5
57. I care too much about my mother's reactions.	1	2	3	4	5
58. I get angry when my mother criticizes me.	1	2	3	4	5
59. My attitudes regarding sex are similar to my mother's.	1	2	3	4	5
60. I like to have my mother help me pick out clothing I buy for special occasions.	1	2	3	4	5
61. I sometimes feel like an extension of my mother.	1	2	3	4	5
62. When I don't write my mother often enough I feel guilty.	1	2	3	4	5
63. I feel uncomfortable keeping things from my mother.	1	2	3	4	5
64. My attitudes regarding national defense are similar to my mother's.	1	2	3	4	5
65. I call my mother whenever anything goes wrong.	1	2	3	4	5
66. I often have to make decisions for my mother.	1	2	3	4	5
67. I'm not sure I could make it in life without my mother.	1	2	3	4	5

	Not at all true				Very true
68. I sometimes resent it when my mother tells me what to do.	1	2	3	4	5
69. My attitudes regarding mentally ill people are similar to my mother's.	1	2	3	4	5
70. I like to show my friends pictures of my father.	1	2	3	4	5
71. Sometimes my father is a burden to me.	1	2	3	4	5
72. I feel longing if I am away from my father for too long.	1	2	3	4	5
73. My ideas regarding racial equality are similar to my father's.	1	2	3	4	5
74. My father's wishes have influenced my selection of friends.	1	2	3	4	5
75. I feel like I am constantly at war with my father.	1	2	3	4	5
76. I blame my father for many of the problems I have.	1	2	3	4	5
77. I wish I could trust my father more.	1	2	3	4	5
78. My attitudes about obscenity are similar to my father's.	1	2	3	4	5
79. When I am in difficulty I usually call upon my father to help me out of trouble.	1	2	3	4	5
80. My father is the most important person in the world to me.	1	2	3	4	5
81. I have to be careful not to hurt my father's feelings.	1	2	3	4	5

	Not at all true				Very true
82. I wish that my father lived nearer so I could visit him more frequently.	1	2	3	4	5
83. My opinions regarding the role of women are similar to my father's.	1	2	3	4	5
84. I often ask my father to assist me in solving my personal problems.	1	2	3	4	5
85. I sometimes feel like I'm being punished by my father.	1	2	3	4	5
86. Being away from my father makes me feel lonely.	1	2	3	4	5
87. I wish my father wasn't so overprotective.	1	2	3	4	5
88. My opinions regarding the role of men are similar to my father's.	1	2	3	4	5
89. I wouldn't make a major purchase without my father's approval.	1	2	3	4	5
90. I wish my father wouldn't try to manipulate me.	1	2	3	4	5
91. I wish my father wouldn't try to make fun of me.	1	2	3	4	5
92. I sometimes call home just to hear my father's voice.	1	2	3	4	5
93. My religious beliefs are similar to my father's.	1	2	3	4	5
94. My father's wishes have influenced my choice of major at school.	1	2	3	4	5
95. I feel that I have obligations to my father that I wish I didn't have.	1	2	3	4	5
96. My father expects too much of me.	1	2	3	4	5

	Not at all true				Very true
97. I wish I could stop lying to my father.	1	2	3	4	5
98. My beliefs regarding how to raise children are similar to my father's.	1	2	3	4	5
99. My father helps me to make my budget.	1	2	3	4	5
100. While I am home on a vacation I like to spend most of my time with my father.	1	2	3	4	5
101. I often wish that my father would treat me more like an adult.	1	2	3	4	5
102. After being with my father for a vacation I find it difficult to leave him.	1	2	3	4	5
103. My values regarding honesty are similar to my father's.	1	2	3	4	5
104. I generally consult with my father when I make plans for an out-of-town weekend.	1	2	3	4	5
105. I am often angry at my father.	1	2	3	4	5
106. I like to hug and kiss my father.	1	2	3	4	5
107. I hate it when my father makes suggestions about what I do.	1	2	3	4	5
108. My attitudes about solitude are similar to my father's.	1	2	3	4	5
109. I consult with my father when deciding about part-time employment.	1	2	3	4	5
110. I decide what to do according to whether my father will approve of it.	1	2	3	4	5

	Not at all true				Very true
111. Even when my father has a good idea I refuse to listen to it because he made it.	1	2	3	4	5
112. When I do poorly in in school I feel I'm letting my father down.	1	2	3	4	5
113. My attitudes regarding environmental protection are similar to my father's.	1	2	3	4	5
114. I ask my father what to do when I get into a tough situation.	1	2	3	4	5
115. I wish my father wouldn't try to get me to take sides with him.	1	2	3	4	5
116. My father is my best friend.	1	2	3	4	5
117. I argue with my father over little things.	1	2	3	4	5
118. My beliefs about how the world began are similar to my father's.	1	2	3	4	5
119. I do what my father decides on most questions that come up.	1	2	3	4	5
120. I seem to be closer to my father than most people my age.	1	2	3	4	5
121. My father is sometimes a source of embarrassment to me.	1	2	3	4	5
122. Sometimes I think I am too dependent on my father.	1	2	3	4	5
123. My beliefs about what happens to people when they die are similar to my father's.	1	2	3	4	5

	Not at all true				Very true
124. I ask for my father's advice when I am planning my vacation time.	1	2	3	4	5
125. I am sometimes ashamed of my father.	1	2	3	4	5
126. I care too much about my father's reactions.	1	2	3	4	5
127. I get angry when my father criticizes me.	1	2	3	4	5
128. My attitudes regarding sex are similar to my father's.	1	2	3	4	5
129. I like to have my father help me pick out the clothing I buy for special occasions.	1	2	3	4	5
130. I sometimes feel like an extension of my father.	1	2	3	4	5
131. When I don't write my father often enough I feel guilty.	1	2	3	4	5
132. I feel uncomfortable keeping things from my father.	1	2	3	4	5
133. My attitudes regarding national defense are similar to my father's.	1	2	3	4	5
134. I call my father whenever anything goes wrong.	1	2	3	4	5
135. I often have to make decisions for my father.	1	2	3	4	5
136. I'm not sure I could make it in life without my father.	1	2	3	4	5

APPENDIX D

SEPARATION-INDIVIDUATION TEST OF ADOLESCENCE

	Not at all true				Very true
137. I sometimes resent when my father tells me what to do.	1	2	3	4	5
138. My attitudes regarding mentally ill people are similar to my father's.	1	2	3	4	5

Directions: Listed below are a number of statements that best describe various feelings, attitudes, and behaviors that people have. Read each statement and then circle on your sheet:

1 - if the statement is *never true* for you or you *strongly disagree* with it.

2 - if the statement is *hardly ever true* for you or you *generally disagree* with it.

3 - if the statement is *sometimes true* for you or you *slightly agree* with it.

4 - if the statement is *usually true* for you or you *generally agree* with it.

5 - if the statement is *always true* for you or you *strongly agree* with it.

Please answer all of the questions. If you have difficulty answering a particular question, choose the response that is closest to your feelings on that item, even though you may not feel strongly one way or the other.

	Never true	Hardly ever true	Sometimes true	Usually true	Always true
1. Being alone is a very scary idea for me.	1	2	3	4	5
2. Often I don't understand what people want out of a close relationship with me.	1	2	3	4	5
3. I worry about death a lot.	1	2	3	4	5
4. Sometimes I think how nice it was to be a young child when someone else took care of my needs.	1	2	3	4	5
5. I frequently worry about being rejected by my friends.	1	2	3	4	5
6. I frequently worry about breaking up with my boyfriend/girlfriend.	1	2	3	4	5
7. I am quite worried that there might be a nuclear war in the next decade that would destroy much of the world.	1	2	3	4	5
8. The teacher's opinion of me as a person is very important to me.	1	2	3	4	5
9. I feel overpowered or controlled by people around me.	1	2	3	4	5
10. When I think of the people that are most important to me I wish I could be with them more and be closer to them emotionally.	1	2	3	4	5

	Never true	Hardly ever true	Sometimes true	Usually true	Always true
11. Before I go to sleep at night, I sometimes feel lonely and wish there were someone around to talk to or just be with.	1	2	3	4	5
12. The idea of going to a large party where I would not know anyone is a scary one for me.	1	2	3	4	5
13. I worry about being disapproved of by my teachers.	1	2	3	4	5
14. I would get upset if I found out my teacher was mad at me or disappointed in me.	1	2	3	4	5

Please complete the demographic questions on the other side of this page.

APPENDIX E

DEMOGRAPHIC

Please circle the response that best describes you.

1. How old are you?

   a. 17
   b. 18
   c. 19
   d. 20
   e. 21

2. What is your sex?

   a. Female
   b. Male

3. How do you describe yourself ethnically?

   a. Asian
   b. Black
   c. Hispanic
   d. White
   e. Other (please specify): _____

4. Where do you currently reside?

   a. Residence halls
   b. Off-campus apartments
   c. At home
   d. Other (please specify): _____

5. What is the highest level of education your father has obtained?

   a. Did not complete high school
   b. High school graduate
   c. Trade or business school
   d. Some college
   e. College graduate
   f. Some graduate study
   g. Completed graduate school

6. What is the highest level of education your mother has obtained?

   a. Did not complete high school
   b. High school graduate
   c. Trade or business school
   d. Some college
   e. College graduate
   f. Some graduate study
   g. Completed graduate school

7. Are your parents divorced or separated?

   a. No
   b. Yes

8. If your parents are divorced or separated, how long have they been divorced/separated?

   a. Under 1 year
   b. 1-3 years
   c. 4-6 years
   d. 7-10 years
   e. more than 10 years
   f. Does note apply

9. Which best describes the family you lived with when you graduated from high school?

   a. Father only
   b. Mother only
   c. Both mother and father
   d. Father and stepmother
   e. Mother and stepfather
   f. Biological relatives other than my parents (e.g., aunt, grandparents, uncle)
   g. Other (please specify): _____

10. If your family has changed since then, which best describes the change?

    a. Only mother remarried
    b. Only father remarried
    c. Both mother and father remarried
    d. Mother died
    e. Father died
    f. Both parents died

11. What is the approximate population of the town or city where you lived before coming to college?

    a. Less than 2,500
    b. 2,500 - 9,999
    c. 10,000 - 49,999
    d. 50,000 - 249,999
    e. Over 250,000

APPENDIX F

CONSENT LETTER

April 5, 1994

Mr. Don Joyner
Director of Freshman and the University
Brewster Building
East Carolina University
Greenville, North Carolina 27834

Dear Don:

I appreciate your willingness to include your classes as part of my dissertation research on contributing factors to freshman college adjustment. As we discussed during our phone conversation, your participation will involve announcing the testing date to your instructors and allowing your students to complete the instrument packet during their designated class time. Please allow between 30-40 minutes for your students to complete these questions.

As we discussed, I will be coordinating the study in each of your classes. This coordination will involve inviting the freshman students to participate during the beginning of the class period. At this time the purpose and procedures will be described including the specific activities involved in completing the instruments. Students who agree to participate will then sign an informed consent form and proceed to complete the instruments. I will assume responsibility for distributing and collecting the materials from the freshman participants. Please note that the procedures have been designed to ensure confidentiality of your students' responses. This aspect of the study is most important as it allows participants to respond more honestly when they feel the information will be held in confidence. I will remind the students prior to distributing the instruments that only group scores will be reported.

Since participation is voluntary, I hope that we can strongly encourage all students and staff to participate. Yet, please remember that each person is free to decide individually whether to complete the questionnaire.

Soon after the testing period, I will be analyzing the results of the study. I would be happy to share these results with you or present a program on the findings for your staff. If that is of interest to you, please let me know and I would be happy to discuss it with you in more detail at a later date.

Please review the materials I have included. If you have any questions about the study, the procedures described, or your participation, please do not hesitate to call me at home (910) 334-5178 or at work (910) 334-5636. I look forward to seeing you and your classes on April 20, 1994. Thank you for your assistance with this important part of my research.

Sincerely,

Alfred W. Smith
Doctoral Student