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Self-Efficacy, Defensive Pessimism, and Social Support: Relationships to the College Adjustment of Minority Students

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VITA

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CHAPTER I

INTRODUCTION

The purposes of this study are to investigate the relations among self-efficacy beliefs, defensive pessimism, and satisfaction with social support; and to assess how these variables relate to the psychological and academic adjustment of minority undergraduate students. These variables were chosen because recent literature suggests that they are particularly important predictors of college academic performance and emotional adjustment, but have yet to be studied in minority populations.

Self-Efficacy

Bandura (1977, 1981, 1982, 1986a, 1986b, 1986c, 1989) has introduced the concept of self-efficacy as a framework to provide some insight into the process and prediction of behavior change. Self-efficacy refers to the beliefs one has about one's abilities to perform in situations that are perceived to be stressful and unknown. Self-efficacy is considered to play a significant role in determining: whether or not one will emit coping behavior, the quality of the coping behavior, as well as the duration of the coping behavior. Bandura (1977, 1981) hypothesized that the level

and strength of one's self-efficacy beliefs determine (a) whether behavior will be initiated (initiation hypothesis), (b) how much effort will be expended (effort hypothesis), (c) how long it will be sustained in the face of obstacles (persistence hypothesis), and (d) the level of mastery one obtains from feedback associated with persistent efforts (performance hypothesis). Bandura (1982) later suggested that self-efficacy beliefs should, through their influence on one's sense of behavioral and cognitive control, relate inversely to negative affective and syndromal states (e.g., depression).

In a test of the persistence and performance hypotheses in an academic setting, Lent, Brown, and Larkin (1984, 1986, 1987) investigated the relationship of self-efficacy expectations to academic performance and persistence in a sample of relatively high aptitude (as measured by A.C.T. scores) science and engineering students. They found that students who held strong, high self-efficacy beliefs about their ability to complete technical or scientific education, achieved higher grades and persisted longer in their majors, relative to those students who espoused low self-efficacy beliefs. These findings were confirmed by a one year follow-up. The authors also found that self-efficacy was the single, most significant variable in predicting grades and persistence in a scientific or technical major after controlling for aptitude. Thus, it appears that among a

homogeneous group of relatively high achieving subjects, having strong beliefs in one's ability to perform well academically may serve to enhance academic performance and promote increased academic persistence. Left unanswered by the Lent et al. studies, however, is the question of whether academic self-efficacy beliefs relate to students' psychological reactions to the demands of the university environment. It also seems worthwhile to explore the significance of the concept of self-efficacy with populations, other than high achieving students to ascertain whether the hypothesized relationship between self-efficacy and academic performance holds up in less homogeneously "gifted" students.

Defensive Pessimism

In addition to self-efficacy beliefs, other strategies have been shown to relate to academic achievement and performance in high ability student populations, as well as contribute to psychological strain. Norem and Cantor (1986a, 1986b, 1987) have studied the cognitive strategies that other people employ to assist them in harnessing their feelings of anxiety when facing "risky situations", and have studied extensively the role of defensive pessimism in academic performance and psychological strain among honors students. Defensive pessimism describes a strategy that is employed in preparation and anticipation of failure, in an attempt to protect one's self-esteem. Upon entering the so-

called risky situation, one ignores one's history of prior successes, and subsequently lowers expectations about one's ability to perform successfully within this situation. The authors alternatively hypothesized that an optimist is not guided by these anticipatory negative expectations, but seems to approach these tasks with a more positive attitude, with the acquisition of success being the primary goal. Failure is dealt with as it is encountered, without any anticipatory preparation. The strategy of optimism is not bound by anticipatory attributions of the situation, and an optimist can protect self-esteem if failure should occur, with post hoc attributions. It was found (Norem & Cantor, 1986b) that students who had a high need for achievement, but who also espoused a high fear of failure, were more likely to employ a defensively pessimistic outlook, rather than an optimistic stance. The studies of Norem and Cantor (1986a, 1986b, 1987) have also shown that defensive pessimists used this strategy to cushion themselves in advance of any risky situation. In studies of honors students at the University of Michigan, the strategy of defensive pessimism was found to be positively associated with academic performance and negatively associated with psychological distress, especially during the freshman year.

Thus, defensive pessimism represents another personal resource potentially relevant to psychological and academic adjustment and merits further investigation. It is

particularly important to assess the effects on less academically "successful" student populations. One wonders, for example, whether the defensive pessimism strategy is more adaptive for academically less successful students than for honors students (as studied by Norem & Cantor).

Social Support

Social support represents one more variable of interest in this study that may play a significant role in enhancing academic performance and protection from psychological strain. Cohen and Wills (1985) have provided evidence for social support as being positively associated with the maintenance of a sense of well-being, and negatively associated with psychological symptomatology.

Brown, Brady, Lent, Wolfert, and Hall (1987) have studied the role of perceived social support among college students in their studies assessing the psychometric characteristics of the Social Support Inventory. Satisfaction with social support is an important concept, and refers to a positive affective response to the subjective appraisal of congruence between one's interpersonal desires and social environment. That is, there is a match between what one defines as being important to their emotional survival and what one receives from one's social network. The fit between a person's needs, personality characteristics or abilities, and how these relate to environmental characteristics/demands, forms the

basis of the theoretical framework of person-environment fit, upon which the Brown et al. studies were based. One of their three studies sought to look at the role of deficient social person-environment fit as predictive of strain and stress. The authors found that "lack of perceived social P-E fit and negative life events had direct and additive relationships with depression, anxiety, and psychosomatic symptoms" (p. 344). No data, however, were reported on the relationship between perceived social support and academic performance, although there have been suggestions in the literature that support should relate positively to performance in college.

Compas, Wagner, Slavin, and Vannatta (1986) studied students approaching or involved in the transition from high school to college on three different occasions: near the end of their senior year of high school, two weeks after college had begun, and three months into college. These authors were interested in how the life event of making the transition to college related to perceived social support and psychological symptoms. They found that there was a reciprocal relationship among the three variables, and that the nature of the relationships varied over the time period. The authors further stated that more research needs to be done to help to disentangle the interrelationship among the variables. It seems that those who are dissatisfied with their support networks are likely to develop or exhibit

signs of anxiety or depression. It is also conceivable that if one is dissatisfied with their support network or has a limited network, and also evidences symptoms such as anxiety or depression, these very symptoms may prevent or interfere with the development of the skills that are necessary. It is hoped that this study will provide additional data as to how satisfaction with social support relates to academic performance and psychological adjustment among minority students.

Summary

In summary, this study will attempt to extend the literatures on academic self-efficacy, defensive pessimism, and social support. First, the hypothesized relationships between these three constructs and academic performance and psychological adjustment have been studied exclusively with homogeneous samples composed of primarily white, high-achieving students. Thus, this study will attempt to assess whether the hypothesized relations hold true with minority students with low college admission test scores. Second, this investigation will be the first study to explore how the three constructs relate to one another and together predict academic performance and psychological adjustment. Third, it will also be the first investigation to test the relationship that Bandura (1982) hypothesized between self-efficacy beliefs and negative affective syndrome (e.g., depression). Fourth, it will be the first study to explore

how social support relates to academic performance. In all, it is hoped that the study will (a) add to the nomological networks of self-efficacy, defensive pessimism, and social support, and (b) contribute further data on predictors of minority student college performance and emotional strain.

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, relevant literature pertaining to self-efficacy, defensive pessimism, and social support will be examined.

Self-Efficacy

Bandura (1977, 1981, 1982, 1986a, 1986b, 1986c, 1989) introduced the concept of self-efficacy as a framework to provide some insight into the explanation and prediction of behavior change. Self-efficacy refers to the beliefs one has about one's ability to perform in situations perceived to be stressful and unknown. The concept of self-efficacy is said to play a significant role in determining whether or not one will use coping behavior, and in influencing the quality and duration of the coping behavior. Specifically, Bandura (1977, 1981) hypothesized that the level and strength of one's self-efficacy beliefs determine (a) whether behavior will be initiated (initiation hypothesis), (b) how much effort will be expended (effort hypothesis), (c) how long effort will be sustained in the face of obstacles (persistence hypothesis), and (d) the level of mastery one obtains from feedback associated with persistent

efforts (performance hypothesis). Moreover, Bandura (1982) suggested that self-efficacy beliefs should, through their influence on one's sense of behavioral and cognitive control, relate inversely to negative affective and syndromal states (e.g., depression and anxiety).

A consideration that is critical to a discussion of self-efficacy theory is the differentiation of outcome expectations from efficacy expectations (Bandura, 1977). The concept of outcome expectations refers to a person's appraisal that once a behavior has occurred, a certain outcome will follow. Efficacy expectations, however, occur prior to the behavior, and refer to a person's belief that he or she can carry-out the required behavior, to achieve the outcome. Unlike efficacy expectations, outcome expectations are devoid of the self-referent cognition concerning a person's ability to execute the behavior. "Of central interest to self-efficacy theory is the dynamic interplay among self-referent thought, action, and affect" (Bandura, 1982, p. 124). This "dynamic interplay" suggests the notion of reciprocal determinism, which captures the essence of social cognitive theory (Bandura, 1986c). Bandura has introduced a theoretical approach to human behavior that suggests that the interaction of "behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other" (Bandura, 1986c, p. 18). Thus, self-efficacy

represents a central element in explaining human action.

Four primary sources of efficacy expectations have been identified (Bandura, 1977): (1) performance accomplishments (past successes and failures), (2) vicarious experiences (actions that have been observed), (3) verbal persuasion (verbal feedback), and (4) physiological states (emotional arousal). Anxiety has been identified as a "coeffect" of efficacy expectations, such that anxiety level covaries with the level and strength of self-efficacy expectations. Thus, as level and strength of self-efficacy increases, anxiety level decreases, and as self-efficacy decreases, anxiety level increases. Self-efficacy theory posits that "psychological procedures, whatever their form, alter the level and strength of self-efficacy" (Bandura, 1977, p. 191). This theory has been put to test in a variety of behavioral domains, including career interests and vocational development (Betz & Hackett, 1981, 1983, 1986; Campbell & Hackett, 1986; Hackett, 1985; Post-Kammer & Smith, 1985, 1986; Taylor & Betz, 1983; Rotberg, Brown, & Ware, 1987) and academic achievement and persistence among college students (Brown, Lent, & Larkin, 1989; Lent, Brown, & Larkin, 1984, 1986, 1987; Lent & Hackett, 1987).

Hackett and Betz (1981) highlighted the effect of the socialization process for men and women, and how significant differences exist between the genders, and thereby affect future academic and vocational choices and interests. The

authors asserted, for example, that an early emphasis and exposure to different types of performance accomplishments were gender-differentiated. Thus, early experiences for boys served to provide them with important performance accomplishments that seemed likely to lead them to an increased familiarity with geometric concepts. Boys were more likely to receive increased exposure to math-related behaviors, thus, leading them to be more likely to choose careers within this area. The authors have asserted that it is not only the differential exposure that is significant, but how it translates into eventual and future avoidance behavior on the part of women. More specifically, the authors' contention is that women have typically received minimal exposure to traditional math-related activities, and thus have not had the opportunities to develop a strong sense of mathematics self-efficacy, with an end result that many women avoid both mathematical tasks and future mathematically oriented vocational areas. Many women typically maintain an extremely low sense of mathematics self-efficacy. The authors have viewed the socialization process as the primary source from which efficacy expectations are derived. The assertion is that efficacy expectations serve as significant cognitive mediators for future behaviors. On the basis of this contention, it would be important to provide women with an opportunity for a different type of socialization process if increased

mathematics self-efficacy in women is to be achieved. Betz and Hackett (1983) extended their studies of mathematics self-efficacy to an exploration of gender differences in the choices of science-based majors and self-efficacy expectations of college students. They found a positive relationship existed between high mathematics self-efficacy and choice of science as a college major. They also found that males evidenced stronger science-efficacy expectations than females.

Lent et al. (1984, 1986, 1987) have been instrumental in extending self-efficacy research within the career domain, by assessing how efficacy expectations relate to academic persistence and performance among science and engineering undergraduate students. The authors' first study (1984) investigated how self-efficacy expectations related to participants' academic success and persistence in pursuing science and engineering college majors. Participants in the study were enrolled in a career planning course for students interested in science and engineering majors. The authors were interested in the significance of self-efficacy expectations for completing the educational requirements of these majors, how efficacy expectations related to objective measures of aptitude (Math Preliminary Scholastic Aptitude Test Scores (Math PSAT), high school ranks), and college achievement (cumulative grade point average), and to ascertain if gender differences existed for

contemplating scientific majors (traditionally male dominated careers). The findings indicated that level and strength of self-efficacy expectations were related to academic success and persistence. More specifically, students who received high self-efficacy scores were found to have achieved higher grades and persisted longer than those with low self-efficacy scores. They found that efficacy scores were somewhat significantly related to the objective measures of academic ability. No gender differences were found, and this constitutes new and significant data, relative to the previous findings of the studies within the career development discussion.

Another important finding of this study is the realization that self-efficacy theory may help to explain a multifaceted set of academic behaviors in addition to the varied, more target specific set of behaviors (phobias, pain management, addictive behaviors) to which it has been traditionally applied.

Lent et al. (1986) worked to extend this finding. The purpose of this second study was to assess the role of self-efficacy beliefs, in addition to ability, past achievement, and interest measures in predicting academic success and persistence, as well as range of perceived career options within the scientific domain. In addition, the authors sought to clarify the concept of self-efficacy by looking at how it related to self-esteem and career indecision. The

findings of this study revealed that self-efficacy ratings were related to academic measures, vocational interests, and range of perceived career options. The authors also determined that self-efficacy expectations added significantly to ability in the prediction of performance and persistence. Self-efficacy expectations can be useful in the prediction of the academic performance of a homogeneous group of high achievers. It was also demonstrated that the concept of self-efficacy is distinct and separate from self-esteem and career indecision.

In their most recent study, Lent et al. (1987) sought to compare self-efficacy theory in the prediction of academic and career behavior with two other notable theoretical approaches to conceptualizing career behavior: person-environment congruence (vocational stability achieved through fit of personality and environment) and consequence-thinking (vocational stability achieved by a priori consequences before commitment to change). The authors used regression analyses to determine the best predictor of academic persistence and performance, perceived career options, and career indecision from the different theoretical approaches to career decision making. Self-efficacy expectations were found to be the best predictors of academic success and persistence, with both the person-environment fit measure and consequence measures adding little to the results. The area of career decision making,

however, revealed different findings. Self-efficacy as well as the congruence approach were significant in predicting career decidedness, with self-efficacy being the best predictor. When assessing the interrelationship among the variables, some noteworthy findings emerged. The authors concluded that positive academic self-efficacy ratings were associated with person-environment (technical science) congruence, few reports of negative consequences of primary major choice, and greater reports of positive results of decisions.

Multon, Brown, and Lent (1989) have completed a meta-analytic investigation of the relation of academic self-efficacy beliefs to academic performance and persistence. Their findings indicate that the relationship between self-efficacy beliefs and academic performance may be more significant for low achieving students. The authors, however, have pointed out that the differences in the performances of low achievers and average achievers may be more related to methodological factors than to essential theoretical factors. Their findings also indicate that interventions designed to enhance self-efficacy may contribution to an increased relationship between self-efficacy and performance. Thus, the authors have suggested that future studies focus on the development of interventions that contribute to increased efficacy. They also have suggested that future studies clarify the

significance of the persistence to self-efficacy. They have encouraged further studies on the relationship between self-efficacy and aptitudes, and their effect on academic success and persistence.

Brown, Lent, and Larkin (1989) have assessed the relation of academic aptitude to academic achievement as measured by grade point average and retention. The authors reanalyzed their data from earlier studies (Lent et al., 1986, 1987) to assess for the possibility of interaction effects between self-efficacy and academic aptitude and achievement. The results of their analyses revealed that interaction effects did exist relative to Educational Requirements-Strength (ER-S) self-efficacy and aptitude. More specifically, high ER-S self-efficacy corresponded to higher performance and persistence among lower aptitude students, while high aptitude students performed well regardless of ER-S self-efficacy beliefs. Alternatively, the measure of Academic Milestones-Strength (AM-S) demonstrated direct effects across all levels of aptitude, as high AM-S corresponded to high academic performance and persistence regardless of aptitude level. Thus, the authors suggest that the operationalization of self-efficacy plays a significant role in assessing its effects on academic persistence and performance. The authors have commented that ER-S self-efficacy may represent a form of motivation or effort expenditure relative to low aptitude students that

ultimately contributes to enhanced academic performance. Motivation, however, may play a less significant role in terms of academic performance for high ability students. The authors also have noted that the measure of Academic Milestones-Strength self-efficacy may represent beliefs concerning academic skills, which is required across all aptitude levels. The authors suggest that further studies be pursued with a more heterogeneous population, as their study represented students who fell in the high to moderate aptitude range. They also point out that their findings are again consistent with Bandura's (1986c) assertion that self-efficacy beliefs are most effective when they represent logically discriminating self-assessments of ability, thus, accounting for the findings that self-efficacy was more facilitative of academic performance for students of moderate (low) scholastic aptitude than for high aptitude students. They encourage that future studies address the facilitative effects of interventions to enhance academic self-efficacy.

Lent, Larkin, and Brown (1989) have studied the relation of self-efficacy beliefs to career interests of science and engineering students as measured by vocational interest inventories. Subjects were undergraduate students enrolled in a career planning course for science and engineering majors. The results of their study contributed to the discriminant validity of the concept of career self-

efficacy, as self-efficacy beliefs tended to significantly correlate with sets of interest scales of the Strong-Campbell Interest Inventory. The authors also suggest the importance of the reciprocal interaction between self-efficacy and interests, which, over time, may contribute to future educational and career choices and performances. The authors point to the importance of early developmental experiences and the significance of intellectually and academically enriched environments that can provide children with the opportunities for successful task mastery and motivation to pursue tasks, thus building perceived efficacy and motivation, and contributing to career development. Their suggestions are similar to those of Hackett and Betz (1981) who highlighted how early socialization experiences contributed to gender differences in career development. Brown, Lent, and Larkin (1989) have also suggested that longitudinal studies be pursued to assess for the effect of early developmental experiences and cognitive development on the development of perceived self-efficacy and career choices. They also suggest that two additional perspectives of "temporal lag" and "threshold effect", which Bandura (1986c) has discussed with regard to the development of perceived self-efficacy, may also prove to be relevant in future longitudinal studies. The concept of "temporal lag" is that interest and motivation for tasks or activities would increase over time after repeated and successful

mastery encounters, thus, increased interest would occur gradually rather than immediately following efficacy experiences (thus, temporal lag). "Threshold effect" is the concept that there may be a point at which self-efficacy levels off with regard to task interest, as high perceived self-efficacy may no longer contribute to increased interest.

It can clearly be seen that self-efficacy theory has been applied to a variety of behavioral domains and that self-efficacy beliefs play a significant role in career choice, academic achievement, and academic persistence.

Defensive Pessimism and Optimism

In addition to self-efficacy beliefs, defense pessimism (Norem & Cantor, 1986a, 1986b) has also been found to relate to academic performance and psychological strain in college students. Defensive pessimism is a strategy that is used in preparation and anticipation of failure, in an attempt to protect one's self-esteem. Upon encountering a so-called risky situation, Norem and Cantor have found that some students ignore their history of prior successes, and lower their expectations about their ability to perform successfully within the situation. Thus, this strategy serves the dual purposes of harnessing anxiety, (thereby allowing the students to implement tactics to confront the "risky" situation) and protecting self-esteem. The optimist on the other hand, is not guided by these anticipatory

negative expectations. The optimist seems to approach tasks with a more positive attitude. Failure, for the optimist is dealt with as it is encountered, post-hoc, without anticipatory preparation. Optimists are not bound by, nor do they employ, anticipatory expectations to prepare for failure. Optimists can protect self-esteem if failure should occur, with post-hoc attributions.

Norem and Cantor (1986b) have found that students who have a high need for achievement, but who also espouse a high fear of failure, are more likely to employ a defensively pessimistic outlook, rather than an optimistic stance. The authors also found that the a priori negative expectations of defensive pessimists were different from post-hoc self-protective strategies, such as illusory glow optimism (Lewinsohn, Mischel, Chaplain, & Barton, 1980) and attributional egotism (Snyder, Stephan, & Rosenfield, 1978). Defensive pessimism represents a coping strategy that occurs prior to the stressful situation and is used to deal with feelings of anxiety related to the upcoming situation. The latter two strategies, however, occur after efforts have been made to address the situation.

The self-handicapping strategy (Berglas, 1985; Berglas & Jones, 1978; Jones & Berglas, 1978) represents a different type of anticipatory self-protective strategy, in which the individual avoids the risky situation by withdrawing effort and sabotaging success in order to protect self-esteem. The

self-handicapper seems to be more concerned than the defensive pessimist about competence, and may fear that a failure experience may force them to reveal their self-doubts surrounding competence regarding the related tasks. Their strategy allows them to attribute any failure to non-competence binding factors (lack of effort, not enough sleep), thus, enabling them to save face in the end. Clearly, the two strategies differ, yet both provide some interesting information about anticipatory strategies employed by some individuals when faced with esteem threatening situations.

Norem and Cantor (1986a) have compared the anticipatory self-protective strategy of defensive pessimism and the post hoc, "cushioning" optimism strategy within an academic ("risky" situation) domain. They were interested in comparing pre-test expectations on an anagram test, as well as performance ratings, satisfaction ratings, and attributions following completion of the test. Within the two groups (defensive pessimists and optimists), half were given false feedback concerning success, and half were given false feedback concerning failure. A debriefing followed the false feedback, and predictions were once again measured to assess the effect of feedback on persistence.

The authors prescreened these participants (introductory psychology course members) with a nine item prescreening questionnaire designed to identify by self-

report, individuals who employed a defensively pessimistic strategy in academic situations. They found that pessimists differed significantly from optimists in pre-test expectations and performance ratings. Defensive pessimists held lower expectations, despite the fact that their ability levels, as measured by Grade Point Average were equivalent to so-called optimists. Differential responses were also found in the success/failure conditions. Defensive pessimists appeared to accept responsibility for both successes and failures. Optimists, on the other hand, employed "attributional egotism by taking responsibility for success and denying blame for failure" (p. 358). Both pessimists and optimists were found to be equally dissatisfied in the failure condition. Thus, their findings supported the hypothesis that the anticipatory pessimistic strategy cushioned as effectively in the face of failure as used by the optimists. Lastly, the authors found that both pessimists and optimists experienced satisfaction in the success condition, thereby establishing defensive pessimism as a distinct strategy that did not reflect an overall depressive demeanor.

Norem and Cantor (1986b) conducted two additional experiments to further explore the strategy of defensive pessimism. Their experiments sought to provide answers to several hypotheses. They hypothesized that defensive pessimists would evidence a higher degree of anxiety than

optimists, as measured on an anxiety inventory. Secondly, they hypothesized that pessimists would set lower expectations for future performance, despite past high performances. Thirdly, they hypothesized that despite high levels of anxiety and lowered expectations about performance, defensive pessimists would not differ from optimists in performance outcomes. The final hypothesis to be tested was to demonstrate that defensive pessimism was a strategy that evidenced specific goals; students employing this strategy used it to motivate themselves to work harder, as well as to control their anxiety and to avoid failure when approaching risky situations. The authors once again used their nine-item face valid prescreening questionnaire to categorize pessimists and optimists. The questionnaire was also instrumental in distinguishing realistic pessimists from defensive pessimists. These two groups differ in terms of their past histories. More specifically, realistic pessimists have a history of limited success, and their low expectations thus are based upon legitimate poor performances. Another group that falls within the realistic pessimists dimension are the depressed individuals, who are unable to accept or admit successes and whose low expectations hence are based (predicated) upon their distorted and global negative assessments. Again, defensive pessimists (who have histories of established successes) use the strategy as a motivating factor and controller of their

anxiety.

The authors found support for the first three hypotheses during their first experiment. Thus, despite high levels of anxiety and lowered expectations about performances, defensive pessimists did not differ in performance outcomes from optimists. The second experiment explored the notion that defensive pessimism was a goal-specific strategy, that was employed in risky situations in order to motivate individuals to work harder and to control anxiety. The authors attempted to interfere with the use of the defensive pessimism strategy, by providing encouragement to both defensive pessimists and optimists, before they completed the tasks. The findings revealed that defensive pessimists who were encouraged performed more poorly than non-encouraged pessimists, and encouraged and non-encouraged optimists. Norem and Cantor have suggested that the strategy of defensive pessimism is a specifically applied one (for risky situations) and its purpose appears to be a method of anxiety management, achieved by using low expectations as a motivating force.

Cantor, Norem, Niedenthal, Langston, and Brower (1987) have assessed the use of the defensive pessimism strategy from a life tasks perspective. They have assessed the life transition of going from high school to college and the coping mechanisms that are employed by students to facilitate adaptive functioning within this life task.

Their research has suggested that the cognitive strategy of defensive pessimism has been effective in harnessing anxiety. Thus, effectively translating the anxiety into a motivating force, without interfering with performance in academic situations. Norem et al. have found that the cognitive strategies that individuals have employed may be effective at one time, in response to a transition period, but may not be as effective at a later time. The authors have suggested the importance of social intelligence and flexibility as coping resources that facilitate adaptive changes in response to life tasks. The so-called "reading" or assessment of the life task and the ability to translate this reading into effective and appropriate action strategies for each life task, captures the essence of their belief in the adaptive functions of social intelligence (Cantor & Kihlstrom, 1987).

Cantor and Norem (1989) and Norem et al. (1987) have suggested that the defensive pessimism strategy initially may be effective, but it may not be without its costs. Cantor and Norem (1987, 1989) have investigated the longitudinal effects of the use of defensive pessimism. The authors have found evidence for this strategy to be effective within the achievement arena, but were also interested in its effects in social and emotional domains. The findings of their longitudinal study indicated that by the end of their junior year, defensive pessimists had

experienced a slight decline in their grade point averages relative to optimists, expressed a sense of greater global stress, and reported more psychological symptomatology (worry, sleeplessness), as well as feeling less satisfied with their lives. This picture was markedly different from the one presented during the defensive pessimists' freshmen year. The authors have suggested that a possible explanation for this global deterioration may be that these findings are in response to the emotional toll that such a strategy demands. They have asserted that the psychosocial restrictions imposed by this strategy may leave an individual feeling unmotivated, psychologically drained, and with a limited social support network. The authors also suggested that the strategy may have created more problems for the defensive pessimist, as they may have been ill-prepared or handicapped to effectively face new life tasks. The authors have also suggested that defensive pessimism may represent a coping strategy that has its costs and benefits, depending upon the situation and task at hand. Thus, flexibility in coping strategies may enhance effective coping if it is adaptive and sensitive to the life task at hand (Cantor & Norem, 1989).

Social Support

Social support remains one more variable of interest that may play a significant role in enhancing academic performance and protecting from psychological strain.

Social support can be defined as the resources that one may receive through interpersonal interactions with significant others such as relatives, friends, colleagues, and professionals (Cobb, 1976; Cohen & Syme, 1985). Social support can take many forms. It may be manifested as instrumental aid (monetary or environmental support or employment), informational support (information, suggestions, advice), emotional support (empathy, listening, trust), and appraisal support (feedback, affirmation) (House, 1981). The concept of perceived social support has been associated with decreased psychological symptomatology (Cohen & Wills, 1985).

Social support has been suggested to be an integral part of human existence across the life span. Bruhn and Philips (1984, 1987) have proposed a developmental theory to explain the role of social support throughout the lifespan. Using Erik Erikson's (1963) theory of social development as a guideline, the authors have identified supportive behaviors that correspond to the stages of the life cycle. More specifically, they have described behaviors that are learned at different developmental stages. These significant behaviors are associated with learning to give and reciprocate social support. Under the authors' theoretical approach, social support is a fluid concept that is responsive to the dynamic changes experienced in response to life events that occur throughout the lifespan. They

theorize that when an individual's needs for social support are largely met, this will contribute to an increased ability to give and receive social support.

Thoits (1986) has also promoted an approach to assist in understanding social support. She has reconceptualized social support by viewing it as a form of coping assistance. She has cited the similarities between social support and coping strategies as representing attempts to deal with stress. Coping strategies and social support represent attempts by the target individual, and the significant others within his or her network, to provide stress management.

A basic assumption underlying much of the research on social support is that social is positively related to psychological well-being (Cohen & Wills, 1985; Heller, Swindle, & Dusenbury, 1986; Kessler & McLeod, 1985; Mitchell, Billings, & Moos, 1982; Rook & Dooley, 1985; Turner, 1981). Mitchell et al. (1982) have also suggested the need for assessing the role of social support in the coping process, in an attempt to more fully assess the effect of social support on well-being. The authors have stated that a more specific assessment of the types of support that are related to life-events and the coping mechanisms that are elicited by these life-events will assist in future research and planning for preventive interventions.

In discussing social support and its effect on well-being, two theoretical models have emerged. The buffering model proposes that social support serves as protection for individuals undergoing stress, thus "buffering" them from the negative consequences of stressful episodes (Caplan, 1974; Cobb, 1976; Cohen, Sherod, & Clark, 1986; Dean & Linn, 1977; Rabkin & Struening, 1976; Rook, 1987). The direct effect model posits that social support is beneficial to well-being regardless of stressful encounters (Cohen, Teresi, & Holmes, 1986; Mitchell et al., 1982; Monroe, Bromet, Connell, & Steiner, 1986; Turner, 1981; Williams, Ware, & Donald, 1981). There is evidence to substantiate both models when assessing social support and its relationship to well-being or psychological adjustment. Criticisms abound, however, as the social support literature has been fraught with problems of definition and measurement (Barrera, 1986; Lieberman, 1986; McCormick, Siegert, & Walkey, 1987; Procidano & Heller, 1983; Thoits, 1982, Wilcox & Vernberg, 1985). Research has also revealed that measurement techniques and conceptualization of social support will contribute to differential effects when assessing direct effects and buffering processes (Cohen & Syme, 1985; Cohen & Wills, 1984; Kessler & McLeod, 1985; Landerman, George, Campbell, & Blazer, 1989; Thoits, 1985). It has been found that buffering effects are associated with measurement techniques that assess availability of

resources, whereas direct/main effects are typically found when degree of network integration is assessed.

Social support has also been studied from the dimensions of a functional or structural perspective. The structural approach assesses the existence of social bonds and the descriptive aspects of the social network. Thus, the structural approach would inquire as to the number of friends, relatives, and colleagues, and the degree of interactions that occurs with each individual cited or reported. Therefore, the structural approach assesses the degree of embeddedness that an individual has within their social network.

Alternatively, a functional approach to assessing social support focuses on determining the perceptions of the functions that interpersonal connections serve. Determining the perceived support, sufficiency and the perceived satisfaction of the interpersonal relationships characterizes a functional approach to assessing social support. The functional approach focuses on the individual's perceptions of social support resources. Thus, a psychological sense of the person's support network can be ascertained by inquiring about how they perceive their support network; are their interpersonal transactions meeting emotional needs, providing tangible forms of assistance, or relatedness. Functional measurement approaches to social support represent a subjective

dimension in assessing social support.

Cohen and Willis (1985) found that the types of measures that are used to assess social support play a significant role in the findings. In reviewing the literature on social support, the authors found that measures that were functionally focused, tended to provide evidence to support the buffering hypothesis. Alternatively, structural measures tended to provide evidence for the main effect hypothesis. They also suggested that the structural measures that were used may have been measuring the concept of companionship as opposed to an individual's degree of embeddedness within their social network. Rook (1987) has investigated the concept of companionship and found that it plays a significant role in adaptation and emotional well-being, sometimes more so than does social support. Rook found a positive association between social support and psychological distress, for individuals reporting low levels of life stress. She asserted that social support represents a concept that is complicated, conditional and dependent upon contextual factors. Further studies to assess social support and companionship and their contribution to psychological well-being are encouraged.

In assessing the relationship between social support and psychological well-being/adjustment, the measures most often used to assess adjustment have been measures of

anxiety, depression, and self-esteem (Fiore, Coppel, Becker, & Cox, 1986; Hirsch, 1980; Hobfoll, Nadler, & Leiberman, 1986; Mitchell et al., 1982; Turner, 1981). The majority of studies have found that as social support decreases, psychological symptomatology increases (Holahan & Moos, 1981, 1982; Monroe, 1983; Rubio & Lubin, 1986). Hirsch (1985) has stressed that coping and social support reflect one dimension of the individual's attempt to achieve successful adaptation/adjustment, and that the individual as well as environmental factors must be assessed. Mitchell and Trickett (1980) have also stressed the importance of assessing the individual as well as assessing the environmental determinants of social support, which highlights the complexity of the concept of social support. The focus on individual determinants of social support points to the role of individual personality characteristics such as social competence, self-esteem, anxiety, depression, and general well-being and how these factors affect perceptions of social support and the ability to reciprocate social support. The significance of situational/ environmental factors, as well as personality, dispositional factors, and demographic factors (Brewin, MacCarthy, & Furnham, 1989; Caldwell & Reinhart, 1988; Cauce, Felner, & Primavera, 1982; Cohen, Sherrod, & Clark, 1986; Lakey, 1989; Leavy, 1983; Roos & Cohen, 1987; Sandler & Lakey, 1982; Sarason, Sarason, & Shearin, 1986; Slavin & Compas, 1989) of

the individual are essential and relevant dimensions in evaluating the significance of social support. Assessment of these factors assists in the untangling of the relationship between the individual and "the complexities of social life and its role in adaptation" (Coyne & DeLongis, 1986).

Monroe et al. (1986) have raised questions about the relationship between social support, depressive symptomatology, and life events. The authors have highlighted the importance of accurate and sensitive assessment of social support and psychological disorder, as they suggest the potential for "reverse causation" or the role that psychological disorder may play in reporting or perceiving the availability of social support. Other authors (Procidano & Heller, 1983; Rook, 1985; Tolsdorf, 1976) have also questioned the role of psychopathology in the process of perception of social support, and how the presence of pathology may interfere with the perception, receipt, and utilization of social support.

Monroe, Imhoff, Wise, and Harris (1983) investigated the relationship among life events, social support, and the prediction of psychological symptoms under stressful conditions (final-examination period) for college students enrolled in an introductory psychology class. The authors found that social support interacted differentially with regard to symptomatology. Those students who lived at home

were found to manifest fewer depressive symptoms. It was also found that perceived high undesirability of events scores and low levels of support were related to the greatest number of symptoms. Life events and social support also evidence an interactional relationship. It was reported that students who had experienced few life events and had high social support, tended to report fewer anxiety symptoms, as opposed to those individuals who had high event-high social support, who reported the greatest amount of anxiety symptoms at follow-up.

Sarason, Sarason, Hacker, and Basham (1985) assessed the differences in social skills level and physical attractiveness of male and female participants who had rated themselves as being either high or low in social support. The findings indicated that there were consistent differences in social skills level in individuals who assessed themselves as being high or low in social support. The study demonstrated a correlation between social skills and perceived social support. A causal relationship, however, with social skills being a prerequisite for perceived social support could not be established. The authors did assert the possibility that social skills may lead to increased social support through more frequent encounters of social situations which provide opportunities to elicit and establish support. Alternatively, Sarason et al. also stated that social support may assist in the

practice and development of social skills, as the presence of a social network may allow. While a causal relationship between social skills and social support was not indicated, this study provided some interesting findings in terms of highlighting the importance of social support and its benefits.

Slavin and Compas (1989) also raised the question of confounding measures of social support with outcome measures. The authors specifically sought to address the relationship between social support and depression symptoms and the problem of confounded measurement between these constructs. The authors assessed the construct and discriminant validities of measures of social support and depression. They employed interview and questionnaire measures for both constructs and utilized the multitrait-multimethod matrix approach. The findings revealed that the depression measures evidenced solid convergent and discriminant validity. Social support measures resulted in variable findings depending upon the type of assessment that was used. Objective, or structural measurement resulted in moderate convergent and discriminant validity. Subjective measures of social support resulted in unsatisfactory validity. The authors suggested that future studies need to increase the similarities of conceptual and operational definitions of social support variables, and use variable measurement techniques in order to improve convergent

validity of social support measures.

Life events create changes in people's lives and successful adaptation to life events is dependent upon the type of coping behavior that is elicited as well as emitted. Thus, adjusting to life events and changes is dependent upon the cognitive, emotional, as well as behavioral reactions of the individual. Cobb (1976) aptly defined the processes of coping and adaptation: "Coping in my language means manipulation of the environment in the service of the self and adaptation means change in the self in an attempt to improve person-environment fit" (p. 311). The individual, therefore, is likely to turn to their social support system as a means of finding assistance for coping with the changes that are elicited by the transition. It is also likely that during transition periods, individuals are most vulnerable to the onset of symptomatology, as their support systems are also in the transition phase. Compas, Wagner, Slavin, and Vannatta (1986) studied students approaching or involved in the transition from high school to college. The authors were interested in how the life event of making the transition to college related to perceived social support and psychological symptomatology. They assessed these students at three different intervals: near the end of their senior year in high school (time 1), two weeks after college had begun (time 2), and three months into their freshman year of college (time 3). The authors found that there was

a reciprocal relationship between social support, life events, and psychological symptomatology rather than a linear relationship. More specifically, the experience of a life transition changed the relationship of these variables. The results indicated that a significant percentage of psychological symptomatology that was evidenced at the time 2 period, was accounted for during the first assessment by ratings of negative life events and satisfaction with social support. Therefore, the authors felt that they were able to identify students who might be at risk for the development of psychological symptomatology as they found that support measurements at time 1 were significantly related to time 2 symptoms. Thus, the authors asserted that symptomatology was greatest at the most significant period of stress (time 2), where students were involved in the transition of adjusting to the college experience. The findings led the authors to suggest that "at-risk" students could be identified prior to exposure to the stressful life event of adjusting to college. Thus, they suggested that interventions be implemented to focus on the development of adaptive coping skills in the face of stressful life events as well skills related to the development and facilitation of satisfaction with social supports. The authors concluded that early interventions are critical, as there findings seemed to suggest a vulnerable period (prior to and concurrent with the life transition).

Brown, Brady, Lent, Wolfert, and Hall (1987) have also worked with college students to assess perceived social support and its relation to the normative life transition of adjusting to college. Brown et al. have presented three studies that have addressed the issue of perceived social support and the psychometric characteristics and counseling uses of a theory-derived measure of social support, the Social Support Inventory (SSI). The first of these three studies assessed the psychometric properties of the SSI. The authors assessed the internal consistency and the concurrent and construct validities of the Social Support Inventory. The SSI is a unique instrument that has embedded the concept of perceived social support into a theoretical framework that attempts to measure satisfaction with social support by assessing the person-environment fit. Thus, the SSI assesses the fit between the individual's espoused needs and the degree of perceived reciprocation or responsiveness from the environment. In analyzing concurrent validity, perceived fit scores derived from the SSI were assessed to explore their relationship to two direct measures of satisfaction: subjective satisfaction (SS) and general satisfaction (GS). The correlation of the direct measures of satisfaction (SS and GS) and three alternative measures of social support were also examined to compare the usefulness of conceptually discrete assessments of social support as operational indices of satisfaction.

Criterion validity was assessed by using the following measures as criterion indices to assess the association of perceived fit (SSI-PF) scores to hypothesized emotional, physiological, and behavioral indices of discontent. Anxiety and depression indices were used to represent the emotional dimension, with psychosomatic symptoms addressing the physiological, and health risk behaviors representing the behavioral dimension. The authors also analyzed the role of perceived support relative to the buffering and direct effects hypotheses of social support. The authors hypothesized that a "lack of social P-E fit is a significant source of stress and will independently and additively be predictive of strain" (p. 340).

The results of the first study revealed that the SSI evinced high internal consistency, with notable reliability results for the perceived-fit scale of the SSI. The authors tentatively concluded that the need-strength difference scores that were used to estimate perceived fit and satisfaction represented a reliable procedure. These results are qualified as tentative as the authors have called for future studies to replicate their findings as well as to further explore the consistency of the difference scores and the coefficients of stability. The results of this study also revealed that the SSI-PF correlated with the direct measures of satisfaction as well as with independent measures of emotional, physiological, and behavioral strain.

The SSI-PF demonstrated more significant relationships with criterion satisfaction measures than did the other representative measures of support or Need-Satisfaction component scales. Thus, the results of Study I revealed that lack of satisfaction with social support represented a significant stressor, and that "perceived P-E fit and negative life events had direct and additive relationships with depression, anxiety, and psychosomatic symptoms" (p. 344). Further conclusions were made regarding the role of perceived social support not as a buffer of stress, but as a source of stress reduction.

The second of the three studies completed by Brown et al. addressed the potential influence of a person's mood state in completing the Social Support Inventory (SSI). The authors sought to address the criticism of the concept of dissatisfaction with social support being just as much a result as a cause of depression (Monroe, 1983; Slavin & Compas, 1989). Brown et al. employed a mood induction procedure and two mood simulation conditions to assess the effects of transient mood states in the completion of the SSI. Their findings revealed that the SSI is mood independent and not subject to the bias of transient mood states.

In their third study, Brown et al. employed the SSI as a diagnostic instrument in an intervention study to assist lonely and dissatisfied college students in their adjustment

to college by attempting to enhance their perceived support. The authors worked with seven undergraduate students who were referred, due to their expressed difficulty in adjusting to college life. During the intake and baseline phase of the study, an assessment of the individual's perceived support, satisfaction with the social dimensions of college life, as well as the degree of perceived loneliness was made. The SSI was completed during the intervention phase prior to the first meeting of the diagnostic phase. The first meeting revolved around the client and counselor discussing the client's history of interpersonal relationships, perception of the problem and goals for the remaining intervention sessions. The counselor scored the SSI between the first and second sessions and highlighted the items with the highest N-S difference scores and lowest subjective satisfaction ratings. During the second session, a diagnostic card sort of the items identified with the highest N-S difference scores and lowest subjective satisfaction ratings occurred with the subject sorting item cards into groups, in terms of similarity and related themes. The result of this card sort was a set of target need themes identified by each subject to be used during the remaining sessions. These themes were important contributions to goal-setting and intervention techniques. Four areas of difficulties were addressed in discussion sessions: inadequate network, lack of skill,

anxiety based inhibition, or unrealistic expectations. The diagnostic stage led to a problem-solving stage, where strategies to address the target goal were implemented. The final phase involved the maintenance stage where strategies were employed to assist in maintaining achieved goals. The maintenance stage employed a preparedness model (Brown & Heath, 1984). This model focused on the development of cognitive and behavioral strategies to cope with future problems.

The results of the third study revealed that five out of the seven clients reported improvements in perceptions of perceived fit and support. Four out of the seven also reported positive changes in measures of loneliness and satisfaction with college. Despite their limited population sample, the authors were content with these preliminary results that affirmatively answered questions regarding an SSI derived intervention and its effect on perceptions of person-environment fit, changes in reported feelings of loneliness, and satisfaction with college.

Hays and Oxley (1986) studied the development of social networks and adaptation/well-being among freshmen students making the transition to college. The authors found that the structural and functional components of the freshmen networks varied during the course of the college term, and their contribution to adaptation also varied over time. Initially dormitory residents were found to have a greater

number of mutual friends as compared to commuter students. Commuting students were also found to initially have more intimate networks, although the degree of intimacy increased in the networks of dormitory residents over time. Network size did not differ for the two groups. It was also found that gender differences existed. Female students reported receiving more emotional, task, and informational support from their peers, than did male students. Students who lived in dormitories also reported experiencing more socialization with their peers than did commuter students. Thus, this study contributed to a greater understanding of the dynamic forces of the structural and functional aspects of social support and their role in enhancing adaptation during the life transition of adjusting to college.

Summary

The constructs of self-efficacy, defensive pessimism, and social support have all been reviewed. All three concepts represent cognitive strategies or coping resources that contribute to academic performance accomplishments, anxiety management, and psychological adjustment and satisfaction. These constructs, however, have been limited to homogeneous samples of academically successful caucasian students. Thus, these variables have not been studied in a population of minority college students, with low college admission test scores. The following chapters will describe the results of the study undertaken by the author, where the

variables of self-efficacy, defensive pessimism, and perceived satisfaction with social support are assessed as to how they relate to the academic performance and psychological adjustment of freshmen minority college students. It is hoped that the results of this study will provide greater insight into the factors that contribute to successful transitions from high school to college for minority students. It is also hoped that the results of this study might have implications for prevention programs which attempt to assist in enhancing psychological well-being and academic preparedness and persistence.

CHAPTER III

METHODOLOGY

The purpose of this study was to assess the variables of self-efficacy, defensive pessimism, and social support, and ascertain how these variables relate to the psychological and academic adjustment of freshman minority students. A self-efficacy instrument was used, as were instruments assessing defense pessimism and social support. Measures of anxiety, depression, subjective well-being (happiness), and self-esteem were used to assess psychological adjustment. Grade point averages (G.P.A.) from the end of the academic year were used as indices of academic adjustment.

Method

Respondents

Respondents were 62 (48 female and 14 male) minority undergraduates who were voluntary participants in a minority access and retention program. Minority students were invited to participate. Their invitation was based upon their marginal college entrance test scores (American College Test (ACT) or Scholastic Aptitude Test (SAT)), although the students generally had average to above average

high school Grade Point Averages (G.P.A.). The Program provided each interested student with a minority upperclassman, who acted as their peer counselor throughout the academic year. Three academic institutions offered this program. The institutions consisted of two medium size universities, and one small college, all located in a large Midwestern metropolitan city. One university served as the administrative institution in coordinating the programs with the other institutions. The Programs at all three institutions were run under the authorization of the Vice President for Academic Affairs at the administrative institution. A letter documenting that permission was granted to the investigator to execute the study has been included in Appendix A.

The respondents were 62 (48 female and 143 male) freshmen minority students (age: M = 18.73, SD = 1.32). Of this sample, 100% were single. The breakdown of the living arrangements was as follows: 66.1% were living with family, 27.4% were living in a dormitory, 3.2% were living in a sorority/fraternity, and 3.2% were living in an apartment/house with roommates. The racial/ethnic composition was 30.6% Asian, 35.5% Black, 30.6% Hispanic, 3.2% Native American. Table 1 describes the demographic characteristics of the respondents.

Table 1

Demographic Characteristics of Sample (N = 62)

Demographic Variable	N	(%)	M(SD)
Race/Ethnicity			
Asian	19	(30.6)	
Black	22	(35.5)	
Hispanic	19	(30.6)	
Native American	2	(3.2)	
Gender			
Female	48	(77.4)	
Male	14	(22.6)	
Student Status			
Freshman	57	(91.9)	
Sophomore	2	(3.2)	
Other			
Dating Status			
Not Dating	25	(40.3)	
Dating No One Person	8	(12.9)	
Dating One Person Primarily	11	(17.7)	
Dating One Person Exclusively	18	(2.9)	
Marital Status			
Single	62	(100)	
Living Situation			
Living with Roommates	24	(38.7)	
Living with Family	38	(61.3)	
Living Situation (A)			
Living with Family	41	(66.1)	
Dormitory	17	(27.4)	
Sorority/Fraternity	2	(3.2)	
Apartment/House with Roommates	2	(3.2)	
Employment Status			
Not Working	23	(37.1)	
Working Part-time	39	(62.9)	

Table 1 (continued)

Demographic Variable	N (%)	M(SD)
Age		18.73(1.32)
ACT		18.67(3.15)
GPA		2.58(.628)

Note: ACT = American College Test Composite Score (Aptitude Estimate)
GPA = Cumulative 1st Year Grade Point Average

Procedure

The subjects were first contacted by mail, with a letter that explained the intent of the study (See Appendix B for a copy of the letter). The students were then contacted by telephone by the investigator to ascertain whether they wished to participate, and to arrange a meeting time. The examiner met with the students from each University Program in a group format, and distributed the questionnaires. Subjects completed a Consent Form, a Demographic Information Form (DIF), and seven questionnaires during the Spring Semester. Consent Forms appeared as the first item in the series of questionnaires (See Appendix C for a copy of the Consent Form). The seven questionnaires consisted of a self-efficacy measure, the Optimism-Pessimism Prescreening Questionnaire, the Social Support Inventory, the Beck Depression Inventory, the Self-Rating Anxiety Scale, the Happiness Measures (subjective well-being

(SWLS)), and the Rosenberg Self-Esteem Scale (See Appendix D for copies of the instruments). The questionnaires were randomly ordered.

Measures

The Demographic Information Form (DIF) contained standard demographically oriented questions; gender, race/ethnicity, marital status, living situation, employment status, and age.

The self-efficacy measure (Undergraduate Courses Questionnaire (UCQ)), consisted of 18 items (courses representing core curricula). The measure assessed the level of self-efficacy by determining students' estimates of confidence in their ability to fulfill educational requirements of the core curriculum. Students were asked to respond affirmatively or negatively in assessing their perceived ability to successfully complete the course requirements to pass each course that was listed. For each affirmative response they were asked to indicate the strength of their answer by rating it on a 10-point scale. The measure assessed level of self-efficacy by summing the number of subjects that respondents believed that they could complete. Strength of self-efficacy was estimated by dividing the summed strength estimates (which were derived from the 10-point scale estimate) by 18, the total number of courses listed. The reliability estimate for the self-efficacy level was assessed by using the coefficient alpha

for internal consistency reliability. The alpha coefficient for reliability was .80. The self-efficacy level estimate correlated with the self-efficacy strength estimate with a coefficient of r = .66.

The self-efficacy questionnaire was based upon the procedures employed by Lent et al., 1984. In this study Lent et al. had undergraduate students involved in a science and engineering career planning course complete self-efficacy measures. The measures assessed the students' perceived ability to complete the educational requirements and job tasks of science and engineering related fields. Participants rated the level and strength of their self-efficacy in regard to their perceived ability to fulfill educational and job requirements. The authors reported a test-retest reliability coefficient of .89, over an eight week time frame for the strength dimension. An alpha coefficient of internal consistency reliability for the self-efficacy strength measure was also reported to be .89. Their findings also revealed that the self-efficacy strength measure correlated significantly with the self-efficacy level estimate, at r = .81. The authors also found that those students who espoused high educational self-efficacy with regard to science and engineering courses tended to perform better academically, and persisted longer in the majors (science and engineering) over the course of the next year following the career course, when compared to students

who espoused low self-efficacy. Thus, their instrument of self-efficacy seemed to be a reliable measure for assessing academic self-efficacy.

The Optimism-Pessimism Prescreening Questionnaire (O-PPQ; Norem & Cantor, 1986a) was used to assess defensive pessimists and optimists. The O-PPQ contains nine statements pertaining to thoughts and behaviors in academic situations; four items characterize a pessimistic approach, four items also represent an optimistic viewpoint, and one control question that asks subjects the degree to which they have performed well in the past. The control question is an important item, in that it serves to differentiate defensive pessimists from realistic pessimists (individuals whose expectations match their history of poor performance). The respondents rate the items on an 11-point scale, ranging from not at all true of me to very true of me rating. An optimism-pessimism score was calculated by subtracting the sum of the endorsement of the four pessimistic questions (1,4,6, and 8) from the four optimistic items 2,5,7, and 9). The authors found that from the initial sample total, items 1, 2, 3, and 6, were most predictive of the total optimism-pessimism scores. Item by item correlations with total scores revealed the following: r's > .57. Respondents from the optimistic and pessimistic thirds of the distribution on these questions were identified for use of defensive pessimism and optimism. As was done with the authors

research (Cantor & Norem, 1987), only respondents in the optimistic and pessimistic thirds of the distribution who had also strongly endorsed item three were included and identified as using the optimistic or defensive pessimism strategies. A strong endorsement of item 3 was characterized by a rating of greater than or equal to eight. In the present study, the alpha coefficient was .69.

The Optimism-Pessimism Prescreening Questionnaire was based on the work of Norem and Cantor, 1986a, 1986b; Cantor and Norem, 1987; and Cantor, Norem, Brower, Niedenthal, and Langston, 1987. A current article describes analyses of data were Cantor et al. (1987), employed the Optimism-Pessimism Prescreening Questionnaire in a longitudinal study assessing students making the transition from high school to college. The authors used data from a group of core honors students who were surveyed during their freshmen year of college, and who represented a sample of students that were part of a longitudinal study. The authors were interested in developing an understanding of the process that helps individuals to effectively cope with and master stressful life tasks. More specifically, they were interested in studying cognitive strategies that assist in translating one's life goals into effective action. The authors found that defensive pessimists were more negative in their view of anticipated achievement situations, but they did not generalize their negative outlook to other arenas, such as

the social-interpersonal arena.

The Social Support Inventory (SSI; Brown, Brady, Lent, Wolfert, & Hall, 1987), was used to assess satisfaction with social support. The SSI contains 39 need statement items. The subjects respond on a 7-point scale (1=None, 7=Very Much) to identify need strength ("How much of this type of help or support have you needed in the past month?") and perceived supply ("How much of this type of help or support have you received in the past month?"). A total perceived fit score (SSI-PF) is calculated by subtracting perceived supply (s) from need strength (N) ratings and summing across the 39 items. The greater the discrepancy score, the lower the rating of satisfaction. The SSI also contains a direct, subjective satisfaction measure ("How satisfied have you been with what you have received in terms of this type of help or support in the past month?", 1=Not at all satisfied, 7=Very Satisfied). A total subjective satisfaction score (SSI-SS) is achieved by summing the ratings across all 39 items. Coefficient alpha correlations were used to assess the reliability of the SSI-PF, N-strength, perceived supply S, and subjective satisfaction SSI-SS scales. The alpha coefficients were as follows: fit score = .96, N = .97, S = .96, and satisfaction = .97.

The Social Support Inventory (SSI) is based upon the research of Brown et al. (1987). The authors have completed studies to introduce the inventory and to assess its

psychometric characteristics. The SSI is a theory derived measure that was designed to assess perceived social support and the antecedent processes that contribute to an understanding of how perceptions of support are developed. Their studies have addressed the psychometric properties of the SSI. The SSI was derived from the theoretical framework of a person-environment fit model of satisfaction (Multon & Brown, 1987). Internal consistency measures of reliability revealed the alpha correlations for the SSI-PF=.95, SSI-SS=.96, N (need strength)=.96, and S (perceived supply)=.93. Thus, the instrument demonstrated good reliability. It was also found that the perceived fit scale represented a valid measure of satisfaction with social support among college students.

The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was used to assess depression, as a form of psychological strain. The BDI consists of 21 categories that describe behavioral symptoms of depression. Each category consists of four to five self-evaluative statements that are ranked according to the severity of the symptomatology (neutral to maximal severity). Each statement has a corresponding numerical value (0-3), to identify severity. The range of scores is from 0 to 63. Beck has reported reliability coefficients ranging from .86 -.93. In this current study, the coefficient alpha was equal to .81.

The BDI has been used frequently with college student samples and has been shown to be a reliable and valid instrument among this population. Bumberry, Oliver, and McClure (1978) have confirmed that the BDI is a valid and reliable instrument when used with college students to assess depression. The authors administered the BDI to a group of college students to assess the applicability and concurrent validity of the BDI with college students. They found that the BDI was a valid measure of depression among university students, especially when the criteria to assess psychiatric depression was used as a guideline.

The Happiness Measures (SWB; Fordyce, 1978) were used to assess degree of happiness which was viewed as a measure of subjective well-being. The Happiness Measures consisted of two items. The first item consists of an 11 point happiness scale that contains descriptive statements of perceived happiness/unhappiness. The respondent is to choose the one statement that best describes their average of experienced happiness. The second item requires the respondent to provide average percentages of the times they feel happy, unhappy, and neutral (their percentages will total 100%). The scores provide a percentage and rating of overall happiness. The author reported a two week test-retest reliability of .86 and a four-month reliability coefficient of .67 for the measures. In a study that evaluated subjective well-being measures, it was found that

item one in the measure demonstrated the highest correlations with life satisfaction and everyday affect, and the authors encouraged more consistent usage as a valid and reliable measure of subjective well-being (Diener, 1984; Larsen, Diener, & Emmons, 1984). In the present study, the mean rating for experienced happiness was 6.65, the mean percentages were as follows: happiness % = 52.58, unhappiness % = 19.63, and neutral = 27.79.

In a study designed to enhance happiness (Fordyce, 1977), community college students participated in a variety of pilot programs to increase their feelings of happiness. The Happiness Measures were employed to assess happiness/ subjective well-being (SWB). The Happiness Measures reflected improvements in reported experiences of happiness across all pilot programs. The author encouraged further research into instruments designed to measure happiness, although the HM has been documented as being a reliable and valid measure for such a subjective experience as happiness.

The Self-Rating Anxiety Scale (SAS; Zung & Cavenar, 1980), was used to assess anxiety. The SAS consists of 20 self-descriptive items that are rated as how they have applied to the respondent during the past week. The items are rated on a four point scale (ranging from none or a little of the time, to most or all of the time). A score of 1, 2, 3, or 4 is given to each item, depending upon if one answered positively or negatively. A low score is

indicative of less anxiety, whereas a high score characterizes high anxiety. The maximum possible score is 80. The raw score is converted to a decimal and multiplied by 100, to describe the amount of anxiety that is assumed to be measured by the scale. Concurrent validity coefficients resulted in a correlation of r = .75. Internal consistency estimates of reliability resulted in a coefficient alpha of .84. Thus, the SAS has satisfactory psychometric characteristics to be used as an instrument to assess anxiety. The present study yielded a mean score of 31.55, with the range extending from 23-61. It appears that the students in this study can be characterized, according to the SAS, as ranging within the normal range with anxiety not present, to having some students who may be experiencing minimal to moderate anxiety. The coefficient alpha for reliability in this study was a = .81.

In a study of the cross-cultural uses of the SAS among nonpsychiatric samples, Miao (1976) used the SAS to assess anxiety levels among college students in Taiwan. The results revealed that among the 900 college students studied, their scores on the SAS generally fell within the normal range/lack of anxiety level. The reported mean was 42.3, with a standard deviation of 8.3.

The Rosenberg Self-Esteem Scale (R-SES; Rosenberg, 1965) was used to assess self-esteem. The R-SES consists of 10 self-descriptive items that are rated on a four-point

scale (ranging from strongly agree to strongly disagree). Higher scores correspond to greater feelings of self-esteem. Rosenberg has reported a test-retest reliability coefficient of .85. In the present study, the mean score on the R-SES was 23.94 (SD = 2.95). The range of the scores extended from a total score of 13 to a score of 29.

Rosenberg (1965) tested approximately 4600 high school students who attended school in New York. Reliability for this sample was reported to be Cronbach alpha = .77 (Wylie, 1989). Rosenberg also found that students who scored high on the scale also reported that they were active participants in extracurricular activities.

Grade Point Averages (G.P.A.) from the end of the first year of college were used to measure academic performance. The mean G.P.A. was $\bar{X}$ = 2.58 (s.d.=.63), and the range extending from .94-3.83.

The reliability coefficients, means, standard deviations, and ranges of all of the instruments and measures that were used in this study are summarized in Table 2.

Hypotheses and Data Analyses

1. There will be a significant relationship between academic self-efficacy and adjustment to college among "at risk" minority students.

a) There will be a significant positive relationship between academic self-efficacy and academic performance as measured by first year G.P.A..

Table 2

Summary Data on Dependent and Independent Variables

Variable	M	SD	Range	Reliability
SEL	34.74	2.22	26-36	.80
SES	128.74	27.77	45-180	.89
RSES	23.94	2.95	13-29	.51
DEFPES	68.90	9.59	50-86	.69
SWB	6.65	2.09	0-10	
SWBH	52.58	21.80	10-90	
SWBU	19.63	13.88	3-60	
SWBN	27.79	17.13	0-80	
SAS	31.55	6.63	23-61	.81
SSN	177.77	53.59	56-262	.97
SSR	160.29	50.06	44-264	.96
SSS	185.76	48.10	49-268	.97
SSFIT	41.98	41.40	0-187	.96
BDI	10.21	7.06	0-29	.81
ACT	18.67	3.15	11-28	
GPA	2.58	.63	.94-3.83	

SEL = Self-Efficacy Level. SES = Self-Efficacy Strength, RSES = Rosenberg Self-Esteem Scale. DEFPES = Defensive Pessimism Questionnaire. SWB = Subjective Well-Being. SWBU = Subjective Well-Being Unhappiness Percentage. SWBN = Subjective Well-Being Neutral Percentage. SAS = Self-Rating Anxiety Scale. SSN = Social Support Need Scale. SSR = Social Support Received Scale. SSS = Social Support Satisfaction Scale. SSFIT = Social Support Fit Score. BDI = Beck Depression Inventory. ACT = American College Test Score. GPA = Grade Point Average.

b) There will be a significant negative relationship between academic self-efficacy and psychological distress as measured by the Beck Depression Inventory.

c) There will be a significant negative relationship between academic self-efficacy and psychological distress as measured by the Self-Rating Anxiety Scale.

d) There will be a significant positive relationship

between academic self-efficacy and subjective well-being as measured by the Happiness Measures.

2. There will be a significant relationship between defensive pessimism and adjustment to college among "at risk" minority students.

a) There will be a significant positive relationship between defensive pessimism and academic performance as measured by first year G.P.A..

b) There will be a significant negative relationship between defensive pessimism and psychological distress as measured by the Beck Depression Inventory.

c) There will be a significant negative relationship between defensive pessimism and psychological distress as measured by the Self-Rating Anxiety Scale.

d) There will be a significant positive relationship between defensive pessimism and subjective well-being as measured by the Happiness Measures.

3. There will be a significant relationship between perceived satisfaction with social support and adjustment to college among "at risk" minority students.

a) There will be a significant positive relationship between perceived satisfaction with social support and academic performance as measured by first year G.P.A..

b) There will be a negative relationship between perceived satisfaction with social support and psychological distress as measured by the Beck Depression Inventory.

c) There will be a negative relationship between perceived satisfaction with social support and psychological distress as measured by the Self-Rating Anxiety Scale.

d) There will be a positive relationship between perceived satisfaction with social support and subjective well-being as measured by the Happiness Measures.

Questions

How do the three variables (self-efficacy, defensive pessimism, and satisfaction with social support) singly and in combination predict psychological and academic adjustment to college? In essence, what is the interrelationship among the three variables, and which variable(s) serve(s) as the best predictor(s) of psychological and academic adjustment to college?

Data Analyses

The primary three hypotheses will be tested by employing Pearson Product Moment and Eta Correlations. The Eta correlation will be used to test for nonlinear relationships that might be present, and the Pearson Correlations will be used to assess for the presence of linear relationships.

A regression analysis will be employed to assess the interrelationship among the three variables (self-efficacy, defensive pessimism, and satisfaction with social support), and how these variables singly and in combination predict psychological and academic adjustment to college. The

regression analyses will attempt to find the best set of predictors of academic and psychological adjustment to college from among the three variables. In regression analyses predicting academic performance (G.P.A. at end of first year), prior aptitude will be controlled by entering aptitude test scores (ACT), first, into the regressions. In the regressions predicting depression, anxiety, and subjective well-being, self-esteem scores and demographic variables identified through preliminary analyses as being significantly related to depression, anxiety, and subjective well-being will be controlled by entering them first into the regression analyses.

This chapter has described the instruments that were used to assess self-efficacy, defensive pessimism, and social support. Academic adjustment was measured by reporting cumulative grade point averages, for the end of the first year of college. Psychological adjustment was measured by assessing depression, anxiety, self-esteem, and general happiness (subjective well-being). The instruments that were used to assess these variables were also described. The mean scores of all of the instruments that were used have been reported in this chapter. In the next chapter, the results of the study will be reported, and the best predictor(s) of academic and psychological adjustment from among the variables of self-efficacy, defensive pessimism, and social support will be discussed.

CHAPTER IV

RESULTS

Data Analyses

Reliability

Coefficient alpha correlations were employed to estimate the reliability (internal consistency) of the instruments. Table 2 sets forth the coefficient alpha correlations as well as the means, standard deviations, and ranges for all of the instruments. The alpha correlations ranged from .51 to .97. The lowest alpha correlation was found on the Rosenberg Self-Esteem Scale. The highest correlations (ranging from .96 to .97), which were found on the Social Support Inventory, represent the first set of reliability coefficients on the SSI using a sample of minority college freshmen. Thus, the SSI appears to be an internally consistent instrument for use among minority college students.

The data were analyzed by using Pearson Product Moment Correlations and Eta Correlations to assess linear and nonlinear relationships. Table 3 displays the Pearson and Eta correlations between independent and dependent variables.

Table 3

Correlations (Pearson and Etas) Between Dependent and Independent Variables

Independent Variable	Dependent Variable BDI	SAS	RSES	SWB	SWBH	SWBU	SWBN	ACT	GPA
SEL	-.18 (.54)	-.24* (.62)[a]	.14 (.36)	.26* (.36)	.16 (.34)	-.18 (.44)	-.06 (.41)	.19 (.45)	.31** (.53)
SES	-.24* (.87)	-.29** (.91)	.18 (.76)	.23* (.88)	.27* (.89)	-.26* (.87)	-.13 (.90)	.06 (.89)	.21 (.88)
DEFPES	.14 (.63)	.08 (.64)	-.02 (.76)	.12 (.71)	.26* (.72)	-.05 (.58)	-.28* (.79)	-.04 (.51)	-.12 (.77)
SSN	.23* (.92)	.38** (.95)	-.36** (.98)	.11 (.95)	.09 (.97)	.24* (.93)	-.30** (.99)[a]	-.09 (.99)[a]	.05 (.97)
SSR	-.12 (.99)[a]	-.13 (.94)	.12 (.99)	.32** (.998)[a]	.43*** (.98)	-.30** (.99)	-.30** (.98)	-.04 (.98)	.02 (.91)
SSS	-.31** (.96)	-.27* (.97)	.25* (.97)	.23* (.99)[a]	.26* (.96)	-.35** (.98)	-.04 (.96)	-.04 (.98)	.06 (.98)
SSFIT	.38** (.88)	.40** (.95)[a]	-.47*** (.89)	-.24* (.74)	-.30** (.83)	.46*** (.93)	.02 (.82)	-.02 (.94)	.03 (.93)[a]

Note: Correlation in Parentheses is the Eta correlation. Correlation outside of Parentheses is the Pearson Correlation.

Table 3 (continued)

[a]Eta Coefficient is significantly larger than the Pearson Correlation Coefficient, $p < .05$

SEL = Self-Efficacy Level. SES = Self-Efficacy Strength. DEFPES = Defensive Pessimism Questionnaire. SSN = Social Support Need Scale. SSR = Social Support Received Scale. SSS = Social Support Satisfaction Scale. SSFIT = Social Support Fit Score. BDI = Beck Depression Inventory. SAS = Self-Rating Anxiety Scale. RSES = Rosenberg Self-Esteem Scale. SWB = Subjective Well-Being (Happiness Measure). SWBH = Subjective Well-Being Happiness Percentage. SWBU = Subjective Well-Being Unhappiness Percentage. SWBN = Subjective Well-Being Neutral Percentage. ACT = American College Test Score. GPA = Grade Point Average.

*$p < .05$
**$p < .01$
***$p < .001$

The results are presented according to the hypotheses. The following results have been obtained with regard to the predictions based on the first hypothesis, namely, that There will be a significant relationship between academic self-efficacy and adjustment to college among "at risk" minority students:

1a) There will be a significant positive relationship between academic self-efficacy and academic performance as measured by first year GPA.

Self-efficacy level correlated significantly with end-of-the-year grade point average (r = .31, $p < .05$). Thus, students who espoused positive beliefs in their ability to succeed academically, tended to perform well academically, as evidenced by higher end-of-the-year grade point averages. Eta correlations were not significant, suggesting that the relationship between self-efficacy beliefs and grade point average is largely linear.

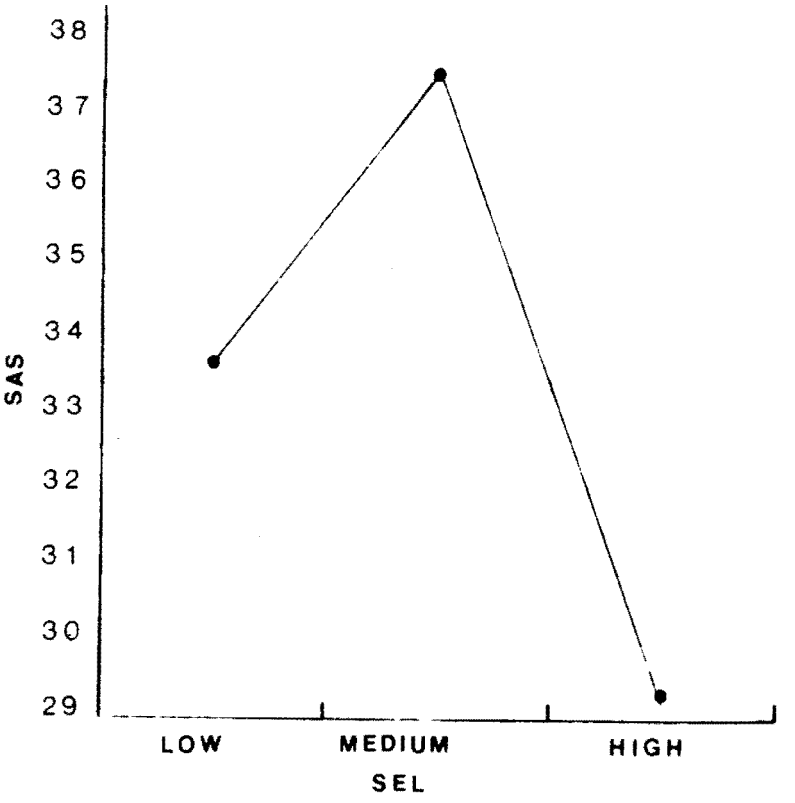
1b) There will be a significant negative relationship between academic self-efficacy and psychological distress as measured by the Beck Depression Inventory.

Self-efficacy strength correlated significantly negatively with the Beck Depression Inventory (BDI) (r = -.24, $p < .05$), while the Eta correlations were not significant. Thus, students with greater confidence in their academic abilities tended to have lower psychological distress as measured by the BDI, and this relationship was linear.

1c) There will be a significant negative relationship between academic self-efficacy and psychological distress as measured by the Self-Rating Anxiety Scale.

Self-efficacy strength (r = .29, $p < .001$) and level (r = -.24, $p < .05$) correlated significantly in the negative direction with the Self-Rating Anxiety Scale (SAS). Thus, students with higher self-efficacy ratings tended to have lower psychological distress as measured on the SAS. The Eta correlation was also significantly larger than the Pearson correlation for the level ratings [$F(5,55) = 5.95$, $p < .05$] (See Table 3), suggesting a nonlinear relationship between level of self-efficacy and anxiety. Overall, the data suggest that the mean differences between the anxiety ratings of the low and middle self-efficacy level groups were not significant. Thus, these groups show essentially the same levels of anxiety. The mean differences between the anxiety ratings of the middle and upper self-efficacy level groups, however, were significant. Those in the upper self-efficacy level group tended to have lower anxiety ratings (M = 29.37) than the anxiety ratings (M = 37.6) $t(48) = 12.28$, $p < .05$ (See Figure 1) of the middle self-efficacy level group. Thus, it appears that self-efficacy is associated with low anxiety only among those with high self-efficacy beliefs.

Figure 1. SAS x SEL. The last data point represents the average of 40 scores (64%), as 40 respondents all had the maximum possible total SEL score of 36. The two other data points represent means of the remaining data (lower and middle scores).



1d) There will be a significant positive relationship between academic self-efficacy and subjective well-being as measured by the Happiness Measures.

The Pearson correlation results revealed that measures of self-efficacy level (r = .26, $p < .05$) and strength (r = .23, $p < .05$) both correlated significantly with the overall rating of subjective well-being. Thus, the greater the number of subjects in which a student felt that he or she could succeed academically, the more likely it was that he or she reported overall ratings of happiness. In addition, the stronger the confidence rating (as measured by the strength of self-efficacy), the higher the overall rating of subjective well-being. In the ratings of the percentage of time that a student felt happy, unhappy, or neutral, only the happiness and unhappiness percentages correlated significantly with self-efficacy. More specifically, strength of self-efficacy correlated significantly with percentage of time that the student felt happy (r = .27, $p < .05$). Thus, those students who believed in their abilities to succeed academically were more likely to feel happy more of the time. Moreover, there was a significant negative correlation between self-efficacy strength and unhappiness measurements (r = -.26, $p < .05$). Thus, the students who had high self-efficacy strength ratings were less likely to report feelings of unhappiness. No significant Eta correlation results were found with regard to this

hypothesis, suggesting that the relationship of self-efficacy and happiness and unhappiness is linear.

Overall, the results for the first hypothesis (i.e., that there will be a significant relationship between academic self-efficacy and adjustment to college among "at risk" minority students), revealed that self-efficacy was significantly related to first year grade point average and adjustment measures that assessed depression, anxiety, and subjective well-being. Further, in all but one case the results were linear, suggesting that increasing self-efficacy beliefs was associated with increased grades and happiness and decreased depression across all levels of self-efficacy. For anxiety, on the other hand, it appeared that only students in the highest range of efficacy beliefs reported little anxiety.

The following results have been obtained with regard to the predictions based on the second hypothesis, namely, that There will be a significant relationship between defensive pessimism and adjustment to college among "at risk" minority students:

2a) There will be a significant positive relationship between defensive pessimism and academic performance as measured by first year GPA.

The results of the Pearson and Eta correlations failed to support the hypothesis (See Table 3).

2b) There will be a significant negative relationship

between defensive pessimism and psychological distress as measured by the Beck Depression Inventory.

The Pearson and Eta correlation results failed to support this hypothesis (See Table 3).

2c) There will be a significant negative relationship between defensive pessimism and psychological distress as measured by the Self-Rating Anxiety Scale.

This hypothesis was not supported by the results of the Pearson and Eta correlation analyses (See Table 3).

2d) There will be a significant positive relationship between defensive pessimism and subjective well-being as measured by the Happiness Measures.

The Pearson correlation results revealed that there was a significant positive relationship between defensive pessimism and happiness percentage rating ($r = .26$, $p < .05$). There also was a significant negative relationship between unhappiness percentage rating and defensive pessimism ($r = -.28$, $p < .05$). Thus, individuals who reportedly used the defensive pessimism strategy were also more likely to have higher ratings of happiness and less likely to rate themselves as being unhappy. No Eta correlation results were significant, suggesting that the relationship is largely linear.

In summary, the results for the second hypothesis (i.e., that there will be a significant relationship between defensive pessimism and adjustment to college among "at

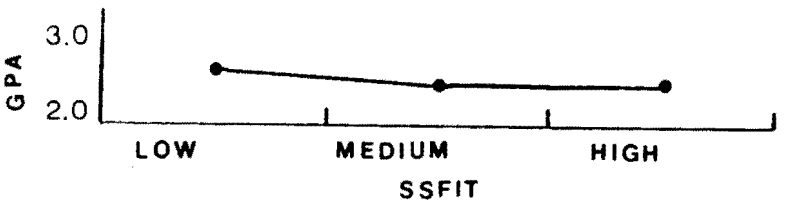
risk" minority students), revealed a significant relationship only between defensive pessimism and the measure of subjective well-being, as defensive pessimists were more likely to report higher ratings of happiness, and lower ratings of unhappiness.

The following results were obtained with regard to the third hypothesis, namely, that There will be a significant relationship between perceived satisfaction with social support and adjustment to college among "at risk" minority students:

3a) There will be a significant positive relationship between perceived satisfaction with social support and academic performance as measured by first year GPA.

The results revealed an Eta correlation that was significantly larger than the Pearson correlation between social support fit (as measured on the Social Support Inventory [SSI]) and G.P.A., [$F(40, 19) = 4.3$, $p < .05$] (See Table 3). This Eta correlation suggests a nonlinear relationship between social support fit and G.P.A.. However, a plot of the curvilinear relationship (See Figure 2), revealed no clear discernable pattern. Thus, the clearest interpretation of the results would be of no relationship between social support fit and academic performance.

Figure 2. GPA x SSFIT. The data points respectively represent the means of the lower, middle, and upper thirds of the data.



3b) There will be a negative relationship between perceived satisfaction with social support and psychological distress as measured by the Beck Depression Inventory.

The results revealed that social support satisfaction correlated significantly negatively with the BDI ($r = -.31$, $p < .01$), and that social support fit also correlated significantly with the BDI ($r = .38$, $p < .01$). Thus, both correlations suggest that the higher the levels of satisfaction with social support, the lower the level of reported depression. Eta correlations were not significant, suggesting that the relationship between social support and depression is largely linear.

3c) There will be a negative relationship between defensive pessimism and psychological distress as measured by the Self-Rating Anxiety Scale.

The results revealed that there was a significant negative correlation between social support satisfaction and the SAS ($r = -.27$, $p < .05$) and a significant positive relationship between social support fit and the SAS ($r = .40$, $p < .01$). These correlations suggest that the higher the satisfaction with social support, the lower the levels of reported anxiety, or conversely, the lower the person-environment fit, the higher the anxiety level. The Eta correlation was also significantly larger than the Pearson correlation for social support fit [$F (41,19) = 3.43$, $p < .05$] (See Table 3), suggesting a nonlinear relationship between social

support fit and anxiety. A plot of the curvilinear relationship (See Figure 3), reveals, however, an almost linear relationship between fit and anxiety, with a minor tendency for anxiety to accelerate more rapidly between moderate and low levels of fit, than between moderate and high levels of fit.

3d) There will be a positive relationship between perceived satisfaction with social support and subjective well-being as measured by the Happiness Measures.

Social support satisfaction correlated significantly with the general rating of subjective well-being on the Happiness Measures, (r = .23, $p < .05$). A significant negative correlation was also found with regard to social support fit and the general rating of subjective well-being on the Happiness Measures, (r = -.24, $p < .05$). The Eta correlation between social support satisfaction and general rating of subjective well-being was also significantly larger than the Pearson correlation [$F(51,9) = 5.41$, $p < .05$] (See Table 3), suggesting a nonlinear relationship. The plot of this relationship (See Figure 4), reveals a very clear curvilinear pattern in the data, indicating that social support satisfaction has little impact on subjective well-being except in the highest ranges of satisfaction.

In the ratings of the percentage of time that a student felt happy, unhappy, or neutral, both the happiness and unhappiness ratings correlated significantly with social

Figure 3. SAS x SSFIT. The data points respectively represent the means of the lower, middle, and upper thirds of the data.

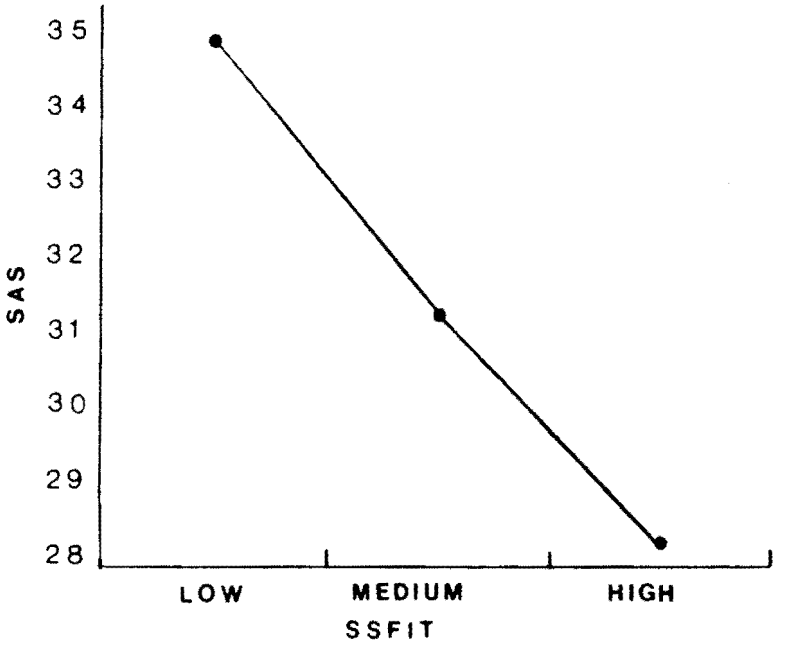
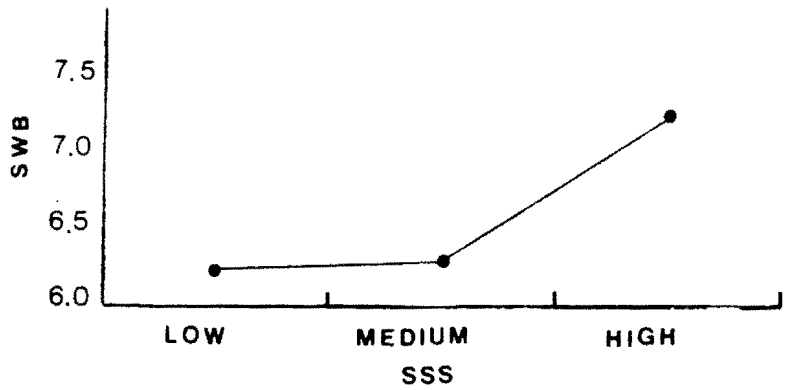
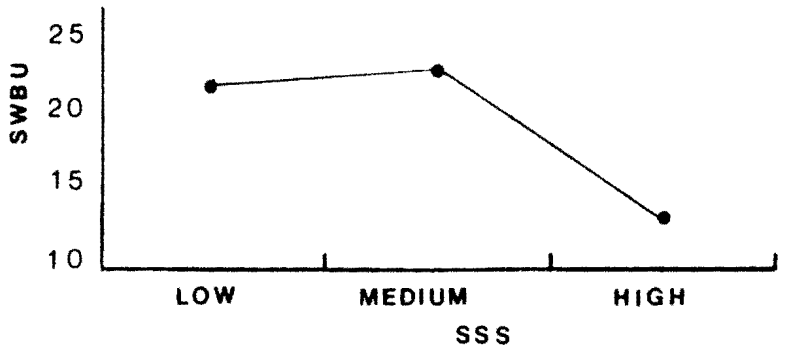


Figure 4. SWB x SSS. The data points respectively represent the means of the lower, middle, and upper thirds of the data.



support satisfaction and social support fit. More specifically, social support satisfaction correlated significantly with percentage of time that a student felt happy (r = .26, $p < .05$), and social support fit correlated significantly in the negative direction with the same variable (r = -.30, $p < .01$). Thus, those students who were satisfied with their social support tended to have higher percentages of happiness, whereas students with poor person-environment fit tended to report lower percentage ratings of happiness. In addition, social support satisfaction correlated significantly negatively with percentage ratings of unhappiness (r = -.35, $p < .01$), and social support fit correlated significantly with these ratings of unhappiness (r = .46, $p < .001$). Thus, students with high social support satisfaction tend to report low levels of unhappiness, whereas students with poor person-environment fit tend to report high percentage ratings of unhappiness. One Eta correlation was found to be significantly larger than the Pearson correlation with regard to social support satisfaction and percentage ratings of unhappiness. The pattern of curvilinearity evident in the relationship (See Figure 5), is complementary to the curvilinear relationship found for the subjective well-being total (See Figure 4). That is, support satisfaction seems to be associated with reduced unhappiness only for subjects in the highest range of satisfaction.

Figure 5. SWBU x SSS. The data points respectively represent the means of the lower, middle, and upper thirds of the data.



Overall, the results for the third hypothesis (i.e., that there will be a significant relationship between perceived satisfaction with social support and adjustment to college among "at risk" minority students), revealed that social support although not significantly related to first year grade point average, was related substantially to all adjustment measures.

Some additional interesting and significant Pearson correlations are found on Table 4. One such correlation was found with regard to self-efficacy strength and race (r = -.31, $p < .01$). Thus, students who espoused high self-efficacy strength were more likely to be Asians, with Hispanics and Native Americans being the most likely to espouse the lowest ratings of self-efficacy. Another significant Pearson correlation was found for individuals who were living with their family, as they were more likely to have reported neutral as their highest percentage rating on the Happiness Measures (r = .28, $p < .05$).

Self-efficacy level correlated significantly with social support fit (r = -.23, $p < .05$) (See Table 4). Thus, the higher the level of self-efficacy, the lower the SSI-fit score (low fit score equals high person-environment fit). There were also significant correlations of self-efficacy strength with social support satisfaction (r = .33, $p < .01$) (See Table 4) and with social support fit (r = -.34, $p < .01$) (See Table 4). Thus, high self-efficacy ratings were

Table 4

Correlations Between Some Independent, Dependent, and Demographic Variables

	RACE	LIVSITU	SSFIT	SSR	SSS
SES	-.31***	-.08	-.34**	.29**	.33**
SWBN	.09	.28*	.02	-.30**	-.04
SEL	-.21	.07	-.23*	.20	.16

SES = Self-Efficacy Strength. SWBN = Subjective Well-Being Neutral Percentage. SEL = Self-Efficacy Level. RACE = Race. LIVSITU = Living Situation. SSFIT = Social Support Fit Score. SSR = Social Support Received Scale. SSS = Social Support Satisfaction Scale.

*p < .05
**p < .01
***p < .001

related to greater ratings of social support satisfaction and higher person-environment fit.

In regard to the research question: How do the three variables (self-efficacy, defensive pessimism, and satisfaction with social support) singly and in combination predict psychological and academic adjustment to college?, the following results were obtained. In all analyses, step-wise regressions were run separately on each of the dependent variables (GAP, depression, anxiety, and happiness) with self-efficacy strength and level, defensive pessimism, social support perceived fit and satisfaction, and self-esteem scores entered as predictors. Table 5

summarizes the results of these analyses. For GPA, the only significant predictors to emerge from the regression analyses were self-efficacy strength ($B = .32$, $F(46,1) = 5.061$, $p < .05$), and self-efficacy level ($B = .43$, $F(46,1) = 10.131$, $p < .01$). In the regressions of psychological adjustment variables on the predictors, both social support perceived fit and self-esteem emerged as significant predictors of anxiety, depression, and happiness. Self-efficacy level also emerged as a significant predictor of overall well-being. Defensive pessimism did not contribute significantly to the prediction of psychological adjustment variables.

Overall, it was found that self-efficacy strength emerged as the best predictor of academic adjustment as measured by GPA, while self-esteem and social support fit emerged as significant predictors of psychological adjustment. The significance of these findings in relation to the hypotheses and the literature will be discussed in the next chapter.

Table 5

Regression Summary Tables

Variable	r	R	R^2	R^2change	F	Beta
GPA[a]						
ACT	.27	.27	.07	.07	3.69	.27
Self-Efficacy S	.21	.4048	.1638	.0895	4.41*	
GPA[a]						
ACT	.27	.27	.07	.07	3.69	.27
Self-Efficacy L	.31	.47	.22	.15	6.32**	.39
GPA[c]						
Self-Efficacy S	.21	.32	.10	.10	5.061*	.32
GPA[c]						
Self-Efficacy L	.31	.43	.18	.18	10.131**	.43
BDI[b]						
Self-Esteem	-.55	.55	.31	.31	26.46***	-.55
BDI[c]						
Self-Esteem	-.55	.55	.31	.31	26.46***	-.55
SAS[b]						
Self-Esteem	-.39	.39	.15	.15	10.62**	-.39
Social Support F	.40	.46	.21	.06	7.9***	.28
SAS[c]						
Social Support F	.40	.40	.16	.16	11.55***	.40
SWB[b]						
Self-Efficacy L	.26	.26	.07	.07	4.46*	.26
SWB[c]						
Self-Efficacy L	.26	.26	.07	.07	4.46*	.26
SWB-H[c]						
Social Support F	-.30	.30	.09	.09	6.123*	-.30
SWB-U[b]						
Self-Esteem	-.26	.26	.0685	.0685	4.414*	-.26
Social Support F	.46	.46	.21	.1446	7.99***	.43
SWB-U[c]						
Social Support F	.46	.46	.21	.21	16.003***	.46

Table 5 (continued)

Note: N = 62. GPA = Cumulative-1st Year Grade Point Average. ACT = American College Test Composite Score. BDI = Beck Depression Inventory. SAS = Self Rating Anxiety Scale. SWB = Subjective Well Being. SWB-H = Subjective Well Being-Happiness %. SWB-U = Subjective Well Being-Unhappiness %.

[a]ACT entered first into the equation to control for effects of prior academic aptitude.
[b]Self-Esteem entered first into the equation to control for self-esteem.
[c]Stepwise Regression.
*$p < .05$
**$p < .01$
***$p < .001$

CHAPTER V

DISCUSSION

The purposes of this study were to investigate the relations among self-efficacy beliefs, defensive pessimism, and satisfaction with social support; and to assess how these variables related to the psychological and academic adjustment of minority undergraduate students. These variables were chosen because recent literature has suggested that they are particularly important predictors of college academic performance and emotional adjustment, but they had not been studied in minority populations.

Respondents were 62 minority undergraduates who were voluntary participants in a minority access and retention program.

Overall, it was found that self-efficacy strength and level emerged as the best predictors of academic adjustment as measured by end-of-the-year Grade Point Average, while self-esteem and social support fit emerged as significant predictors of psychological adjustment. Self-efficacy level also emerged as a predictor of psychological adjustment. Thus, these findings, represented significant predictors of minority student college performance and emotional strain.

The results of the study provided strong support for the first hypothesis and the third hypothesis. With regard to the first hypothesis, the results revealed that higher academic self-efficacy level ratings correlated significantly with higher end-of-the-year grade point averages. The relationship between self-efficacy and psychological distress was also substantiated. Self-efficacy was found to be significantly related to psychological adjustment as measured by the BDI and SAS. Thus, if one espoused high self-efficacy beliefs, one was less likely to report feelings of depression or anxiety. A significant relationship was also found between self-efficacy and psychological adjustment, as evidenced on the Happiness Measures. It was found that high self-efficacy beliefs were associated with more positive ratings of general well-being and happiness, as well as decreased reports of percentage of time feeling unhappy.

The results for the third hypothesis revealed that there was a significant Eta correlation between social support fit and end-of-the-year grade point average that, however, could not be clearly identified from a plot of the curvilinear relationship. Social support satisfaction did, however, clearly correlate significantly with adjustment measures that assessed depression, anxiety, and subjective well-being (as measured on the Happiness Measures index). The data also indicated significantly larger Eta than

Pearson correlations between perceived satisfaction with social support and subjective well-being. Overall, it appears that increases in social support satisfaction are related to increases in subjective well-being. The results also indicated that individuals who are satisfied with their social support tend to have lower percentage ratings of unhappiness.

The results generally did not substantiate the second hypothesis, which was supported only by the correlation between defensive pessimism and adjustment to college as measured by the Happiness Measures index. More specifically, defensive pessimists were more likely to report higher percentage ratings of happiness, and lower ratings of unhappiness.

The results of the regression analyses suggested that self-efficacy strength and level represented the best predictors of academic adjustment from among the three predictor variables, while self-efficacy level also contributed to the prediction of overall well-being. The best predictors of psychological adjustment were self-esteem and social support fit.

The results suggest that self-efficacy represents a significant predictor of academic success for first year college minority students. From the study, it seems that those students who espoused strong beliefs in their abilities to confront academically stressful situations, and

who also believed in their ability to be successful, did indeed perform better academically than students who did not espouse such beliefs. This finding is consistent with research that has shown that academic self-efficacy beliefs can contribute to enhanced academic performance and persistence (Brown et al., 1989; Multon, Brown, & Lent, 1989). Brown et al. (1989) found that for a sample of those who were in the lower half of a group of undergraduate science and engineering majors with regard to aptitude measures, high academic self-efficacy beliefs corresponded to higher grade point averages. The authors qualified this finding by stating that the sample of students employed in their study was more likely to be rated as having moderate levels of aptitude relative to the general college population. Thus, self-appraisals of aptitude and ability must reflect a sense of accuracy in order to contribute to enhanced functioning. Another interesting finding from their study was that while self-efficacy beliefs contributed to enhanced academic performance for the lower (i.e., moderate) aptitude students, academic self-efficacy beliefs did not seem to be associated with academic performance for high aptitude students. In addition, Lent et al. (1984, 1986, 1987) found that self-efficacy was related to academic performance and persistence in pursuing science and engineering majors. Multon et al. (1989) also found that a significant relationship exists between academic self-

efficacy beliefs and academic performance. The authors found that the relationship between self-efficacy beliefs and academic performance may be more significant for low-achieving students than for students of average achievement (as measured by grade point averages). The students who participated in the present study, were classified as "at risk" students due to their relatively poor performance on standardized achievement tests. Thus, the present findings are very consistent with the Multon et al. (1989) study.

In the present study, self-efficacy was also generally associated with lower ratings of depression, anxiety, and lower percentage estimates of feelings of unhappiness, and higher ratings of general well-being and happiness. The finding that self-efficacy was associated with lower ratings of anxiety is consistent with Bandura's (1977) theory that anxiety will covary with the level and strength of efficacy expectations.

The results of the study also revealed that social support satisfaction and social support fit were variables that also correlated significantly with self-efficacy. Social support satisfaction seemed to be consistently related to strong feelings of self-efficacy, whereas low person-environment fit was related to low self-efficacy ratings. This finding suggests that environmental and social-interpersonal factors may indeed play a significant role in the development and maintenance of positive beliefs

in one's ability to succeed academically. One might ask, were the students in our sample who espoused high academic self-efficacy beliefs also able to generalize their positive feelings to other domains, i.e., social and interpersonal? It would be worthwhile to explore more fully the process of self-efficacy development, as well as the additional factors (i.e., outcome expectations, person-environment fit, and performance incentives and attributions) that were suggested by Lent et al., 1986.

With regard to the minority population that participated in the present study, one wonders what factors account for the ethnic and racial differences in efficacy beliefs (as Asian students tended to have consistently stronger positive academic self-efficacy beliefs, as opposed to Hispanic and Native American students). Are these differences related to the possibility that cultural background/development represents another noteworthy factor relating to the development of academic self-efficacy? This suggestion would be consistent with the early research of Hackett and Betz (1981) in their study of gender differences of the socialization process, and their view of the socialization process as being representative of the primary source from which efficacy expectations are derived. This bears upon the question whether any possible differences in early socialization practices (e.g., possible differences in early emphasis on, and exposures to, various types of

performance accomplishments) of various racial/ethnic minority groups may account for or contribute to differences in the development of academic self-efficacy expectations. One wonders if different cultural socialization experiences may be translated into future negative academic efficacy expectations, particularly in regard to minority groups whose members may have more commonly received limited early socialization (limited in the sense of little early academic enrichment). It would be worthwhile for future studies to explore more fully the differences in the academic self-efficacy expectations of the various minority groups by assessing these expectations at an earlier point in their lives. It would be desirable that the assessments occur during the latter part of grade school, and that longitudinal designs be pursued, in order to study any changes in efficacy expectations, especially any changes that might occur secondarily to ongoing socialization outside of the context of the family system.

Academic self-efficacy has proven to be an important factor in predicting academic success. Thus, it would also seem to be worthwhile to develop workshops, especially for entering college freshmen, directed at enhancing academic self-efficacy. Such workshops could be beneficial for those students who, from the outset of entering college, espouse low academic self-efficacy expectations but who evidence minimum aptitude for college success. Lent et al. (1986)

have also suggested that college career counselors consider offering programs to "assist clients in modifying their efficacy beliefs" (p. 268). Overall, the results of the present research warrant further extension and exploration of the hypothesis regarding self-efficacy expectations and their relation to academic success for college freshmen from minority groups.

The variable of defensive pessimism generally was not a significant factor in the results of the study. The one significant finding was that defensive pessimism correlated positively with the psychological adjustment measure of percentage of time feeling happy. Thus, persons who espoused a defensively pessimistic strategy would also be more likely to feel happy most of the time. The lack of findings with regard to this variable may be related to the possibility that this phenomenon is more related to a homogeneous population of consistent super-achievers (Norem & Cantor, 1986a, 1986b), as opposed to a heterogeneous population of minority students who have past performance ratings of high average to average.

The extent of the significant correlations with regard to the independent variables of social support satisfaction and social support fit is noteworthy. The relation of social support satisfaction to a decreased likelihood of reporting feelings of depression, anxiety, and unhappiness, and a greater likelihood of reporting feelings of high self-

esteem, and high levels of happiness and general well-being, point to the significant contribution that social support can make with regard to enhancing psychological adjustment. Conversely, poor person-environment fit was also associated with higher depression scores, higher anxiety scores, lower self-esteem, and higher unhappiness percentage ratings. These findings are especially consistent with the Brown et al. (1987) studies assessing the psychometric characteristics of the SSI, where the authors found similar correlational results between social support satisfaction scores and fit scores and anxiety and depression. The findings of the present study are also consistent with the results of previous studies that have found that as social support decreases, psychological symptomatology increases (Monroe, 1983; Rubio & Lubin, 1986). Mitchell and Tricket (1980) have suggested the need for an assessment of personality characteristics, whenever perceived satisfaction with social support is being assessed. The significance of personality factors in addition to social-environmental factors is an important dimension in assessing and evaluating the significance of social support as well as untangling the relationship between the individual and "the complexities of social life and its role in adaptation" (Coyne & DeLongis, 1986).

The results of the hierarchical regression analyses revealed that both self-esteem and social support fit were

the best predictors of psychological adjustment. These results highlight the significance of feelings of self-worth as well the significance of person-environment fit factors in predicting psychological adjustment. These findings suggest the need to consider the assessment of self-esteem levels of students prior to their starting college, and the ascertainment of whether they may be vulnerable to poor psychological adjustment to college, based upon their ratings of self-esteem. Dissatisfaction with social support also plays a significant role in predicting psychological adjustment. A social support workshop focusing on enhancing perceived social support may be a significant intervention tool for individuals who espouse poor person-environment fit. Brown et al. (1987) offered such a workshop in an attempt to enhance the adjustment of college students who reported much dissatisfaction with social support. Their findings, while based on an extremely small sample, suggest the benefits of such a workshop, as well as the use of the SSI as a diagnostic instrument. The findings that social support fit score is a significant predictor of psychological adjustment provide a basis for strongly considering the importance of social support in enhancing the adjustment of freshmen minority students.

Overall, the results of the study suggest that academic self-efficacy and social support represent significant variables that may contribute to enhanced academic

performance and psychological adjustment among minority college students. More specifically, the best predictors of academic performance were self-efficacy strength and level. The best predictors of psychological adjustment were self-esteem and social support fit, with level of self-efficacy also emerging as a predictor. Thus, these factors represent significant predictors of minority student college performance and emotional strain. It is recommended that further studies be pursued to continue to explore the relationship of these variables, in an effort toward improving minority student college adjustment.

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APPENDIX A

LOYOLA UNIVERSITY OF CHICAGO

INTER-OFFICE COMMUNICATION

To Anita Erazo
Minority Retention Program

Date March 7, 1988

From Dr. Alice B. Hayes
Vice President for Academic Affairs

Subject

Please advise the Institutional Review Board that the Minority Retention Program (STARS) is a project of Loyola University, DePaul University, and Mundelein College through their Hispanic Alliance. It is funded by the Illinois Board of Higher Education under the Higher Education Cooperation Act.

Loyola University is the lead institution in this project, and, as project coordinator, you are responsible for coordinating the activities at all three institutions and should include the students on all 3 campuses in your activities and studies. Students participating in the program have been advised that they will be included in research and evaluation studies and they have given consent in writing for access to grades and records. As part of the evaluation and analysis of this project, I have given you permission to conduct these studies with the participants of the program on all 3 campuses.

I have enclosed a copy of the grant agreement designating Loyola University as the administering institution and a copy of the signature page showing the agreement of the 3 presidents.

Alice B Hayes

COVER PAGE

ILLINOIS BOARD OF HIGHER EDUCATION
HIGHER EDUCATION COOPERATION ACT
FISCAL YEAR 1988 PRELIMINARY PROPOSAL FOR
INTERINSTITUTIONAL GRANTS

1. PROPOSAL TITLE: MINORITY ACCESS AND RETENTION PROGRAM

2. APPLICANT INSTITUTION: Loyola University of Chicago

Address: 820 North Michigan Avenue, Room 703

Chicago, IL 60611

President's Signature: [signature]

3. PROJECT DIRECTOR: (PLEASE TYPE) Alice B. Hayes, Ph.D.

Address: 820 North Michigan Avenue, Room 703

Telephone: (312) 670-2830

4. TOTAL HECA GRANT FUNDS REQUESTED: $113,027

COOPERATING INSTITUTIONS

(Please TYPE President's name beside signature)

Institution: DePaul University

Address: 25 East Jackson Boulevard

Chicago, IL 60604

President's Signature: [signature]

Institution: Mundelein College

Address: 6363 North Sheridan Road

Chicago, IL 60622

President's Signature: Sister Mary B. Breslin, R.S.M.

Institution:

Address:

President's Signature:

Additional cooperating institutions may be listed on the reverse side of this

and an audit of expenditures, such audit to be conducted by licensed certified public accountants. The evaluation of the project shall include systematic and objective procedures for appraising the project with respect to how closely the purposes were fulfilled and an explanation of any deviation therefrom.

ARTICLE XI - CONSTRUCTION

This agreement shall be construed and interpreted according to the law of the State of Illinois.

ARTICLE XII - AMOUNT OF GRANT

IBHE agrees to make a grant of $85,000 to Grantee, which grant is subject to the terms and conditions of HECA; the rules implementing that Act; the Illinois Grant Funds Recovery Act; and this agreement; Grantee hereby accepts such grant subject to said conditions.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the 20th day of October, 1987.

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

By: _____
Its Executive Director

GRANTEE

_____
Its Chief Executive Officer

HIGHER EDUCATION COOPERATION ACT

GRANT AGREEMENT
BETWEEN
ILLINOIS BOARD OF HIGHER EDUCATION
AND

LOYOLA UNIVERSITY OF CHICAGO

This Agreement entered into this 1st day of July, 1987 by and between the Illinois Board of Higher Education (IBHE) and Loyola University of Chicago (Grantee).

WHEREAS, IBHE is the administrative agency responsible for interinstitutional grants under terms of the Illinois Higher Education Cooperation Act (HECA); and

WHEREAS, the following qualified institutions, DePaul University, Loyola University of Chicago, and Mundelein College, have agreed to a cooperative project, "Minority Access and Retention Program: The 'STARS'" as envisioned by HECA; and

WHEREAS, Loyola University of Chicago has been selected by the participating institutions to fund and administer this cooperative project;

NOW, THEREFORE: IBHE and Grantee agree as follows:

ARTICLE I - SCOPE OF PROPOSAL

Grantee will assure that grant funds are used to carry out and execute the cooperative project proposed in the grant proposal which is attached as Exhibit A and is made a part of this agreement and is not modified in any way except as follows:

_____

_____

_____

_____

_____

_____

APPENDIX B

To: Students in the Minority Access and Retention Programs

From: Anita Erazo, Ed.M.
Director, Minority Access and Retention Program
Loyola University

Re: Request for Participation in a Research Project

Date:

I am writing to invite you to participate in a study of the college experience of minority students. The main purpose of the study is to ascertain what types of factors contribute most strongly to the academic success of minority students. You will be asked to respond to a series of six questionnaires. All your responses will be kept completely confidential. I will be contacting you by telephone within the next week to see if you want to participate, and to schedule a meeting with you. It should only take you about an hour to complete the questionnaires..

Although you will probaly experience little personal benefit from participating, we hope that the results of the study will enable us to improve programs available to future minority students.

I am looking forward to your participation. Thank you for considering this request.

APPENDIX C

*Code #*_____

CONSENT TO PARTICIPATE IN A COUNSELING PSYCHOLOGY RESEARCH PROJECT

I, _____,state that I agree to participate in a project being conducted by Ms. Anita Erazo.

I understand that the primary purpose of the project is to learn more about minority undergraduate students and college adjustment.

The project involves completing six questionnaires.

I understand that all of the information that I provide will be kept private, and that Ms. Erazo will be the only person who will see my information. I also understand that I will be given a code number to conceal my identity. A code list which matches names and code numbers will be kept in a locked file, available only to Ms. Erazo.

I understand that I am free to withdraw my consent and to discontinue my participation in this project at any time without any negative consequences to me.

I have had the study described to me to my satisfaction and I have had the opportunity to ask questions.

The project has been fully explained to me and I have carefully read and understand the agreement, therefore I freely and voluntarily agree to participate in the study.

NAME(PLEASE PRINT)_____

Signature_____

Date_____

APPENDIX D

Code#_____

Demographic Information Form

Please answer all questions as completely as possible.

1. Age_____

2. Sex _____Male _____Female

3. Racial Ethnic Background (Please check one):

____Asian-Please specify_____/
____Black/____Caucasian(white)/____Hispanic/ ____Native American(American Indian)/ ____Other-Please specify_____

4. Marital Status (Please check one): ____Single (never married)/____Married/____Separated/____Divorced/ ____Widowed

5. Current Living Situation (Please check one):

____Living alone/____Living with roommate(s)/____Living with family/
____Living with partner(married or unmarried)/____Living with partner and children/____Living with children, no partner

5a. If living with roommate(s), check one:

____Dorm/____Sorority or Fraternity house/____Apartment or house/ ____Other (please specify):_____

6. Current student status (please check one):

____Freshman/____Sophomore/ ____Other (Please specify):_____

7. Dating Status in past month(Please check one):

___Not dating/___Dating, but no one person/___Dating, one person primarily/___Dating, one person exclusively/___Living together/ ___Married

8. Current Employment Status (Please check one):

___Not working/___Working part-time (Less than 40 hrs. per week) ___Working full-time (40 or more hours per week)

*Code#*_____

SWLS

1. Use the list below to answer the following question: In general, how happy or unhappy do you usually feel. Check the ***one*** statement below that best describes your ***average happiness***.

10. Extremely Happy (Feeling ecstatic, joyous, fantastic!)

9. Very Happy (Feeling really good, elated)

8. Pretty Happy (Spirits high, feeling good)

7. Mildly Happy (feeling fairly good and somewhat cheerful)

6. Slightly Happy (Just a bit above neutral)

5. Neutral (Not particularly happy or unhappy)

4. Slightly Unhappy (Just a bit below neutral)

3. Mildly Unhappy (Just a bit low)

2. Pretty Unhappy (Somewhat "blue", spirits down)

1. Very Unhappy (Depressed, spirits very low)

0. Extremely Unhappy (Very depressed, completely down)

2. Consider your emotions a moment further. ***On the average***, what percentage of the time do you feel happy? What percentage of the time do you feel unhappy? What percentage of the time do you feel neutral (neither happy nor unhappy)? Write down your best estimates, as well as you can, in the spaces below. Make sure the three figures add up to equal 100%. ***On the average***:

The percent of the time I feel happy:_____%

The percent of the time I feel unhappy:_____%

The percent of the time I feel neutral:_____%

Total: 100 %

Code#_____

O-PPQ

Rate each of the following items using the scale below to indicate how

true it is of you.

---1----2----3----4----5----6----7----8----9----10----11--

not at all true of me very true of me

RATING

____ 1. I go into academic situations expecting the worst, even though I know I will probably do OK.

____ 2. I generally go into academic situations with positive expectations about how I will do.

____3. I've generally done pretty well in academic situations in the past.

____ 4. I often think about what it will be like if I do very poorly in an academic situation.

____ 5. I often think about what it will be like if I do very well in an academic situation.

____ 6. I often think about what I would do if I did very poorly in an academic situation.

____ 7. I often try to figure out how likely it is that I will do very well in an academic situation.

____ 8. When I do well in academic situations, I often feel relieved.

____ 9. When I do well in academic situations, I feel really happy.

Code#_____

SAS

Please rate each of the following 20 items in terms of how they have applied to you *in the past week*.

(1)= None, or a little of the time

(2)=Some of the time

(3)=Good part of the time

(4)=Most or all of the time

	1	2	3	4
1.I feel more nervous and anxious than usual.	___	___	___	___
2.I feel afraid for no reason at all.	___	___	___	___
3.I get upset easily or feel panicky.	___	___	___	___
4.I feel like I'm falling apart and going to pieces.	___	___	___	___
5.I feel everything is alright and nothing bad will happen.	___	___	___	___
6.My arms and legs shake and tremble.	___	___	___	___
7.I am bothered by headaches, neck, and back pains.	___	___	___	___
8.I feel weak and get tired easily.	___	___	___	___
9.I feel calm and can sit still easily.	___	___	___	___
10. I can feel my heart beating fast.	___	___	___	___
11.I am bothered by dizzy spells.	___	___	___	___
12.I have fainting spells or feel like it.	___	___	___	___
13.I can breathe in and out easily.	___	___	___	___
14.I get feelings of numbness and tingling in my toes.	___	___	___	___
15.I am bothered by stomach aches and indigestion.	___	___	___	___
16.I have to empty my bladder often.	___	___	___	___
17.My hands are usually dry and warm.	___	___	___	___
18.My face gets hot and blushes.	___	___	___	___
19.I fall asleep easily and get a good night's sleep.	___	___	___	___
20.I have nightmares.	___	___	___	___

Code#_____

UCQ

Part I. Instructions:

For each course listed below, please indicate whether or not you feel you could successfully complete the course requirements to pass the course - assuming that you were motivated to make your best effort. For each YES, indicate how sure you are on the 10-point scale.

COURSES	Could you successfully complete course requirements?		If YES, how sure are you? Unsure 1 2 3 4 5 6 7 8 9 10 Completely Sure
1.Public Speaking	Yes	No	1 2 3 4 5 6 7 8 9 10
2.History	Yes	No	1 2 3 4 5 6 7 8 9 10
3.Political Science	Yes	No	1 2 3 4 5 6 7 8 9 10
4.English (Writing)	Yes	No	1 2 3 4 5 6 7 8 9 10
5.Literature	Yes	No	1 2 3 4 5 6 7 8 9 10
6.Statistics	Yes	No	1 2 3 4 5 6 7 8 9 10
7.Mathematics	Yes	No	1 2 3 4 5 6 7 8 9 10
8.Calculus	Yes	No	1 2 3 4 5 6 7 8 9 10
9.Biology	Yes	No	1 2 3 4 5 6 7 8 9 10
10.Chemistry	Yes	No	1 2 3 4 5 6 7 8 9 10
11.Physiology	Yes	No	1 2 3 4 5 6 7 8 9 10
12.Physics	Yes	No	1 2 3 4 5 6 7 8 9 10
13.Philosophy	Yes	No	1 2 3 4 5 6 7 8 9 10
14.Anthropology	Yes	No	1 2 3 4 5 6 7 8 9 10
15.Psychology	Yes	No	1 2 3 4 5 6 7 8 9 10
16.Sociology	Yes	No	1 2 3 4 5 6 7 8 9 10
17.Economics	Yes	No	1 2 3 4 5 6 7 8 9 10
18.Theology	Yes	No	1 2 3 4 5 6 7 8 9 10

Code#_____

R-SES

Circle the letters that tell how you feel:

SA = Strongly Agree

A = Agree

D = Disagree

SD = Strongly Disagree

1.On the whole, I am satisfied with myself.	SA	A	D	SD
2.At times I think I am no good at all.	SA	A	D	SD
3.I feel that I have a number of good qualities.	SA	A	D	SD
4.I am able to do things as well as most people.	SA	A	D	SD
5.I feel I do not have much to be proud of.	SA	A	D	SD
6.I certainly feel useless at times.	SA	A	D	SD
7.I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8.I wish I could have more respect for myself.	SA	A	D	SD
9.All in all, I am a failure.	SA	A	D	SD
10.I take a positive attitude toward myself.	SA	A	D	SD

SSI

Social Support Inventory

This questionnaire contains 39 items describing types of help or support we often need or want from other people. For each item, please give 3 ratings:

1. First: How much of this type of help or support have you wanted or needed in the past month? Place your rating in the "Needed" column and use the following scale:

   1 2 3 4 5 6 7
   None Very Much

2. Second: How much of this type of help or support have you received from others in the past month? Place your rating in the "Received" column and use the following scale:

   1 2 3 4 5 6 7
   None Very Much

3. Third: How satisfied have your been with what you have received in terms of this type of help or support in the past month? Place your rating in the "Satisfied" column and use the following scale:

   1 2 3 4 5 6 7
   Not at all Satisfied Very Satisfied

GIVE ALL THREE RATINGS TO EVERY ITEM

REMEMBER: You are rating what you have needed and received and your satisfaction over the *PAST MONTH*.

	NEEDED	RECEIVED	SATISFIED	ITEM
1.	------	------	------	Encouragement to face reality, no matter how difficult.
2.	------	------	------	Information about how others have handled situations similar to ones you may be experiencing.
3.	------	------	------	Information about how others have felt when confronted by situations similar to ones you may be experiencing.
4.	------	------	------	A model or example for you to follow.
5.	------	------	------	Knowledge that others are comfortable and willing to talk with you about the good feelings you have about yourself.
6.	------	------	------	Knowledge that others are comfortable and willing to talk with you about your hopes and plans for the future.
7.	------	------	------	Financial support to deal with emergency situations.

How much need/want:

1 2 3 4 5 6 7
None Very Much

How much received:

1 2 3 4 5 6 7
None Very Much

How satisfied:

1 2 3 4 5 6 7
Not at all Satisfied Very Satisfied

	NEEDED	RECEIVED	SATISFIED	ITEM
8.	------	------	------	Non-financial aid or services to reestablish or maintain an acceptable standard of living.
9.	------	------	------	Reassurance that it is quite normal to feel down at this time of your life.
10.	------	------	------	Information and guidance about how to cope with difficult situations.
11.	------	------	------	Information and guidance about how to change negative feelings about yourself.
12.	------	------	------	Reassurance that it is okay to feel good about yourself even when things are not going well.
13.	------	------	------	Non-financial aid or service to deal with emergency situations.
14.	------	------	------	Assurance that you belong to a group of caring people.
15.	------	------	------	Encouragement to talk about your feeling when you are feeling down and blue.
16.	------	------	------	Information and guidance about how to change self-defeating attitudes or behaviors.
17.	------	------	------	Assistance in realizing when you are thinking or acting in self-defeating ways.
18.	------	------	------	Assurance that you are loved and cared about.
19.	------	------	------	Encouragement to talk about your future hopes and plans in a positive way.
20.	------	------	------	Help to feel optimistic about your future.

How much need/want:

1 2 3 4 5 6 7
None Very Much

How much received:

1 2 3 4 5 6 7
None Very Much

How satisfied:

1 2 3 4 5 6 7
Not at all Satisfied Very Satisfied

	NEEDED	RECEIVED	SATISFIED	ITEM
21.	------	------	------	Information on sources of financial assistance.
22.	------	------	------	Reassurance that your fears and anxieties about the future are quite normal.
23.	------	------	------	Help in seeing positive things about your life no matter how bad things are going.
24.	------	------	------	Knowledge that others are comfortable and willing to talk with you about your feelings of insecurity or fear.
25.	------	------	------	Information about how someone else handled situations similar to ones you may be experiencing.
26.	------	------	------	Assurance that you are respected and valued no matter what is happening in your life.
27.	------	------	------	Reassurance that it is not unusual to feel hopeful about your future even when thing are not going well.
28.	------	------	------	Information about services that might be helpful to you.
29.	------	------	------	Reassurance that it is quite normal to feel down and blue when thinking about what's going on in your life.
30.	------	------	------	Encouragement to talk about the good aspects of yourself and your life.
31.	------	------	------	Assurance that you are needed by others.
32.	------	------	------	Financial assistance to reestablish or maintain an acceptable standard of living.

How much need/want:

1 2 3 4 5 6 7
None Very Much

How much received:

1 2 3 4 5 6 7
None Very Much

How satisfied:

1 2 3 4 5 6 7
Not at all Satisfied Very Satisfied

	NEEDED	RECEIVED	SATISFIED	ITEM
33.	------	------	------	Assurance that you are accepted no matter what is happening in your life.
34.	------	------	------	Encouragement to talk about your fears and insecurities.
35.	------	------	------	Knowledge that others are comfortable and willing to talk with you about the good things that are happening in your life.
36.	------	------	------	Help and assistance in setting realistic goals for yourself.
37.	------	------	------	Knowledge that others are comfortable and willing to talk about anything with you.
38.	------	------	------	Help and assistance in your efforts to change self-defeating attitudes or behaviors.
39.	------	------	------	Knowledge that others are comfortable and willing to talk with you when you are feeling down and blue.

Finally, please list below any other needs or wants that you have had in the past month that have not been adequately met by others.

Rev. 1/73

BDI — Code#_____

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statement in each group before making your choice.

1. 0 I do not feel sad.
1 I feel sad.
2 I am sad all the time and can't snap out of it.
3 I am so sad or unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life, all I can see is a lot of failures.
3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of things anymore.
3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
1 I feel guilty a good part of the time.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
1 I am disappointed in myself.
2 I am disgusted with myself.
3 I hate myself.

8. 0 I don't feel I am any worse than anyone else.
1 I am critical of myself for my weaknesses and mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.

9. 0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. 0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't cry even though I want to.

11. 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12. 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.

13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

14. 0 I don't feel I look any worse than I used to
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15. 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18. 0 My appetite is no worse than usual
1 My anpetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19. 0 I haven't lost much weight lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.

I am purposely trying to lose weight by eating less. Yes___ No___

20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems, that I cannot think about anything else.

21. 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

If you would like feedback concerning the results please complete the following:

*Name (please print)*_____

*Address (during the summer)*_____

*City, State, Zip Code*_____

APPROVAL SHEET

The dissertation submitted by Anita G. Erazo has been read and approved by the following committee:

Dr. Steven D. Brown, Director
Professor, Counseling and Educational Psychology,
Loyola University of Chicago

Dr. Gloria Lewis
Associate Professor, Counseling and Educational
Psychology, Loyola University of Chicago

Dr. Marilyn Susman
Assistant Professor, Counseling and Educational
Psychology, Loyola University of Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

4/15/91
Date

Director's Signature