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Current literature suggests that college student attrition is related to a student's ability to adjust to the social, academic, and structural components of college (Baker & Siryk, 1989; Pascarella, 1979). Research has shown that personality variables, such as optimism and coping, and integration into the college environment predict students' adjustment to college (Aspinwall & Taylor, 1992; Pascarella & Terenzini, 1975). However, none of the research available has investigated how the combination of personality characteristics and integration into the sport environment impact the college adjustment of athletes (Melendez, 2007). The purpose of this research was to examine the relationship between optimism, coping strategies, and sport integration as it influences college student-athlete adjustment. A questionnaire packet was used to measure optimism, coping, perceptions of sport integration, and college adjustment. Results of multiple regression analysis revealed that commitment to one's team and sport goals, and one's use of positive reframing, instrumental support, denial, and self blame were significant predictors of athletes' overall adjustment to college. This finding supports the hypothesis that for student-athletes successful integration into specific sport structures in combination with certain personality characteristics can effectively improve adjustment to college.

THE EFFECTS OF OPTIMISM, COPING STRATEGIES, AND THE SPORT TEAM

ENVIRONMENT ON COLLEGE ATHLETE ADJUSTMENT

by

Brett C. Haskell

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Approved by

_____
Committee Chair

To my husband Brian, and my family, Marty, Chris, Keenan and Bobbi for your

unconditional love and support.

APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty of The

Graduate School at The University of North Carolina at Greensboro.

Committee Chair_____

Committee Members_____

_____

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Date of Acceptance by Committee

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Date of Final Oral Examination

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CHAPTER I

INTRODUCTION

Collegiate attrition has long been a concern in higher education; many institutions spend significant financial and investigative resources attempting to determine the reasons for college dropout in an effort to enhance the rates of college persistence. Formerly, administrators had assumed that college drop-out was the result of poor academic performance. However, after reviewing of the literature, Tinto (1975) proposed an alternative hypothesis; college attrition was actually the product of poor adjustment to college. Tinto (1975) defined college adjustment as a student's ability to successfully integrate one's attitudes and values into that of his/her college environment including: peers, faculty, and the institutional structure. Thus, both college adjustment and integration have become an important topics among collegiate administrators and researchers.

While nearly all of the available research on the topic of collegiate adjustment and attrition has investigated the general student population; there are a variety of sub-cultures within that population which must adjust to unique environments. One specific sub-culture is that of student-athletes. In the 2005-2006 academic year, 375,000 college students were concurrently competing in National Collegiate Athletic Association (NCAA) sports (NCAA, 2006). Athletes are a distinctive population of college students faced with unique challenges which impact their ability to adjust to college. According

to the NCAA, 24.1% of male athletic teams and 8% of female athletic teams registered academic progress rates below the NCAA cut-off (NCAA Academic Reform Research, 2006). Scores below the cutoff represent programs which do not meet the academic success and graduation standards accepted by the NCAA. It has been proposed by previous research that the unsatisfactory collegiate academic progress of athletes may be due in part to a failure to adjust to the challenges that are involved in balancing an athletic and academic career (Carodine, Almond, & Gratto, 2001; Melendez, 2006). Specific burdens placed upon this population include, excessive time invested to practice and competition in sport, media scrutiny, physical exhaustion, and injuries, balancing social activities with athletic and academic pursuits, balancing a variety of potentially challenging relationships (e.g., coach, teammates, and family), and the termination of one's athletic career (Broughton & Neyer, 2001; Carodine, Almond & Gratto, 2001). It is very likely that both the process and products of student-athlete adjustment mirror that of the general student population, but may also have unique components which differentiate them from this population.

In his model of attrition, Tinto (1975) suggested that a student comes in to college with a specific set of academic, family, skill, and personality characteristics and the interaction of these characteristics with the institutional environment determines the student's integration. If the student successfully modifies his individual characteristics to match the characteristics of the institution, then he will adjust more successfully and will be less likely to drop out of school (Pascarella & Terenzini, 1991). Based upon this theory, Tinto (1975) developed his model of adjustment and attrition (see Figure 1).

Figure 1. Tinto (1975) Model of Institutional Departure
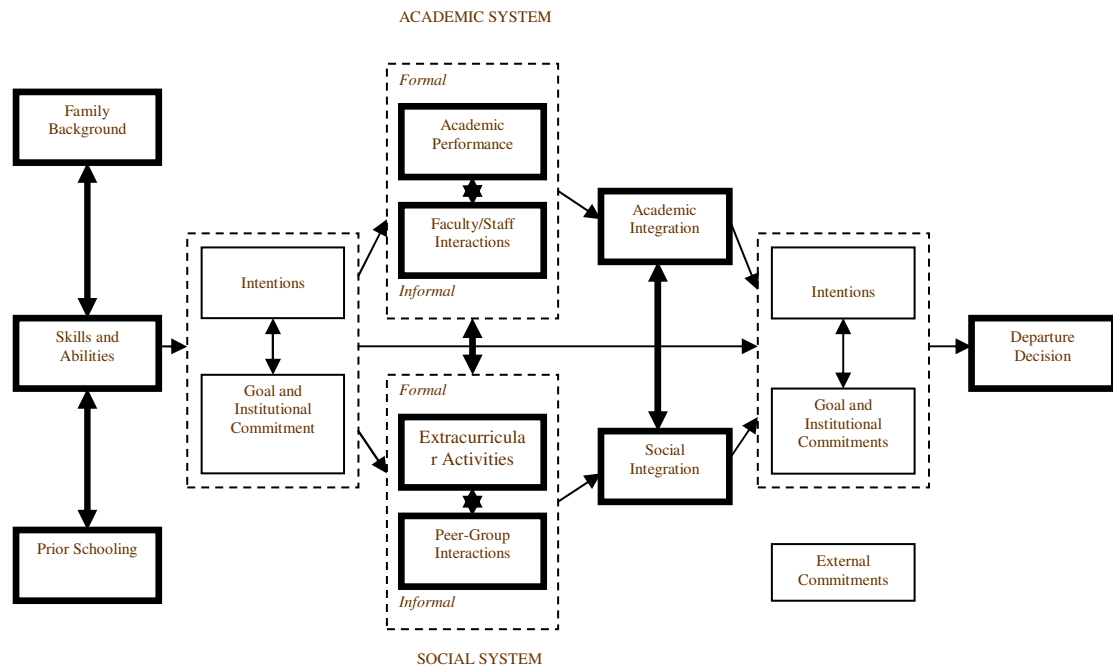
Based upon Tinto's (1975) theoretical framework, Pascarella and Terenzini

(1979) tested the relationship between college adjustment/integration and attrition.

They found that integration was a significant predictor of later college dropout, but the

types of integration that were important differed by gender (Pascarella & Terenzini,

1979). Specifically, Pascarella and Terenzini (1979) discovered that peer integration was

the best predictor of attrition among women, while institutional/goal attachment was the

best predictor of college withdrawal among men. Additionally, they found that the

interaction between certain individual factors (i.e. parents' education level) and certain

environmental factors (i.e. faculty concern for student development) enhanced the

predictive validity of their model with regard to attrition (Pascarella & Terenzini, 1979).

As a result, Pascarella (1985) developed a new model of adjustment and attrition (see Figure 2). Within this model, Pascarella (1985) suggested that five components influence collegiate attrition including: the structural/organizational characteristics of institutions, student background/precollege traits, interactions with agents of socialization, institutional environment, and quality of student effort. Pascarella theorized that the structural environment of the institution and the characteristics of the individual impact one another and subsequently influence the student's ability to adjust socially and to the institutional environment. Moreover, the student's adjustment to social networks and to the institution combine with the student's entering characteristics to determine the quality of the student's effort toward college. Finally, Pascarella (1985) proposed that social adjustment, quality of student effort, and student traits predict collegiate attrition. In sum, this model suggests that collegiate attrition is the product of a student's ability to adjust to college; and that college adjustment is based on the combination of individual factors and environmental factors.

While the development of these two models ignited research in the area of college adjustment, it wasn't until several years later that a valid and reliable measure of adjustment was developed (Baker & Siryk, 1984b, 1989). The Student Adaptation to College Questionnaire (SACQ) provides both a consistent tool for assessing college adjustment and a reliable working definition of it. That definition states that college adjustment is multifaceted and requires students to make a variety of adjustments within several contexts and some strategies for adjusting are more effective in enabling them to adapt to college (Baker & Siryk, 1984b, 1989).

Figure 2. Pascarella's (1985) General Causal Model for Assessing the Effects of Differential College Environments on Student Growth and Development
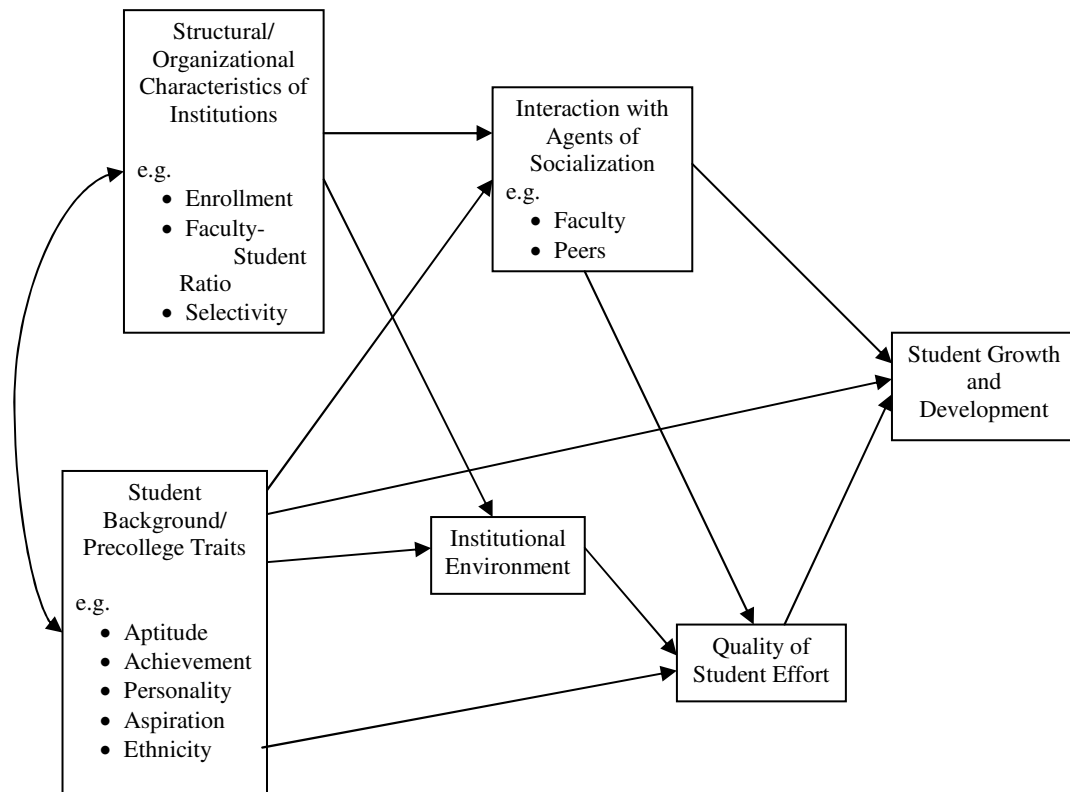
Interestingly, as a result of both Tinto (1975) and Pascarella's (1985) models, two lines of research evolved, which include: (1) explorations of the relationship between environmental factors and adjustment, and (2) explorations of the relationship between individual factors and adjustment. However, since their original 1979 study, minimal research has explored the combination of individual and environmental factors on college adjustment. Environmental factors explored include: peer-group relations, relations with faculty, and institutional/goal commitment; where findings indicate that adjustment to these factors significantly predicts college attrition (Brooks & DuBois, 1995; McGrath &

Braunstein, 1997; Pascarella & Terenzini, 1979). Specifically, social integration, interaction with university faculty, and academic integration are significant predictors of withdrawal for both men and women, while institutional/goal attachment is significant predictor for men only (Pascarella & Terenzini, 1979). Moreover, Brooks and DuBois (1995) found that daily hassles, turning to social support, ratings of support need, and satisfaction of support were significantly correlated to college adjustment. These findings all indicate that a student's ability to adjust to the college environment significantly impacts one's decision to persist or withdraw from that institution.

In addition to environmental factors, research has also shown that individual factors influence college adjustment. Individual factors explored include: demographic factors, individual aptitude, and personality factors. Pascarella and Terenzini (1979) found that the demographic factors including, gender, parental education, academic/intellectual development, and perceived importance of graduation determined which types of integration (social, academic, or faculty) predicted withdrawal. Furthermore, Brooks and DuBois (1995) found that variables of individual aptitude such as ACT scores and GPA were positively correlated to college adjustment. While personality factors which have been found to predict adjustment include: emotional stability, surgency/intellect, self-esteem, locus of control, self-efficacy, and parental attachment (Brooks & DuBois, 1995; Mattanah, Hancock, & Brand, 2004; Moony, Sherman & Lo Presto, 1991; Ramos-Sanchez & Nichols, 2007). These findings indicate that individual factors may play a critical role in a student's ability to integrate and adjust to specific college environments.

Interestingly, while the aforementioned literature was evolving within higher education, researchers in psychology were examining the role of personality and coping strategies on college adjustment independent of the Tinto (1975) and Pascarella (1979) frameworks. Within this literature, support for the individual personality characteristic of optimism emerged as an important predictor of the coping strategies that students employ, and both optimism and coping strategies impact students' adjustment to college (Aspinwall & Taylor, 1992; Montgomery, Haemmerlie, & Ray, 2003). Specifically, higher levels of optimism were positively related to the use of active coping strategies (e.g. positive reinterpretations) and were negatively correlated to the use of avoidant coping strategies (e.g. denial) (Aspinwall & Taylor, 1992). In turn, active coping was positively correlated to successful college adjustment, while avoidant coping was negatively correlated to successful college adjustment (Aspinwall & Taylor, 1992). Based upon these findings, it can be hypothesized that optimists have developed adaptive coping strategies which enable them to recognize their problems and actively engage in solving them. Therefore, optimists are more inclined to have both better physical and mental well-being because they are better equipped to deal with the difficult situations they encounter.

While the previous literature offers insight into the causes of attrition among the general student population, there are a variety of cultural groups within institutions that must adjust to unique college environments in order to succeed (Swartz-Kulstad & Martin, 1999). As previously mentioned, one cultural group that has unique experiences with specific challenges in college is student athletes (Melendez, 2007). It is likely that an

individual student athlete's ability to successfully adjust to both their athletic and institutional environment is determined by the interaction between individual and environmental factors. Specifically, an athlete's level of optimism may influence his/her ability to adjust to the dual demands of being a student and athlete (Venne, Laguna, Walk, & Ravizza, 2006). High levels of optimism may enhance an individual's physical and psychological well-being and may increase his use of active coping strategies (Scheier & Carver, 1993). Improved psychological and physical well-being combined with actively dealing with adversity may enable athletes to adjust better to the demands of college and sport. Moreover, if an athlete has resources and a high level of optimism he/she will be more likely to continue trying to achieve his/her goals in both sport and school.

<center>Research Purpose and Directions</center>

The purpose of the current research was to examine how individual athlete factors and perceptions of sport team environment (integration) together predicted college adjustment. Specific individual factors of interest included: optimism, active coping, and avoidant coping. Perceptions of the sport team environment/integration included: teammate relations, informal relations with coaches, sport-team/goal commitment, and coaches concern for player development. Because it was theorized by Tinto (1975) and Pascarella (1985) that college adjustment is the product of a combination of individual factors and environmental factors, it was hypothesized that the combination of an athlete's level of optimism, his use of active or avoidant coping strategies, and the athlete's level of integration into his sport environment would be significant predictors of

college adjustment. Specifically, higher levels of optimism, the use of more active coping strategies, the use of less avoidant coping strategies, and higher ratings of integration into the sport team environment would predict higher ratings of overall college adjustment. While lower levels of optimism, the use of less active coping strategies, the use of more avoidant coping strategies, and lower ratings of integration into the sport team environment would predict lower ratings of overall college adjustment. This study was intended to shed additional light on the factors that may predict student-athletes' successful adjustment to college.

CHAPTER II

REVIEW OF THE LITERATURE

Collegiate attrition is a topic that has received significant attention from collegiate administrators and researchers alike. Given the financial and emotional resources provided to students by parents, institutions, and the government, it is very important to understand the reasons for and ways to prevent college-student withdrawal (Brooks & DuBois, 1995). Research has demonstrated that lower rates of attrition are the product of successful student adjustment/integration into the college environment. Yet, it remains unclear how individual factors and environmental factors may predict successful or unsuccessful adjustment. The following literature review is devoted to exploring the psychosocial factors which are known to influence collegiate attrition (i.e. college adjustment) as well as the relationships among factors which impact college adjustment (Aspinwall & Taylor, 1992; Melendez, 2007; Pascarella & Terenzini, 1979).

College Adjustment and Attrition

Initially, college administrators assumed that students who withdrew from college did so as a result of poor academic performance. However, in a review of the literature available in higher education, Tinto (1975) found that the research did not support this hypothesis. As a result, Tinto (1975) proposed that attrition was actually the product of adjustment, which included multiple dimensions beyond just academic success. Ultimately, Tinto (1975) hypothesized that adjustment was determined by a student's

ability to successfully integrate into a new college environment. Integration is the degree to which the student's attitudes and values match that of his peers and faculty at the university, as well as the student's ability to maintain the formal and informal structural components necessary for association with the college or subgroups within the college (Tinto, 1975). This conceptualization of adjustment and integration provided the foundation from which Tinto (1975) developed his model of adjustment and attrition (see Figure 1).

Based on Tinto's (1975) theory, Pascarella and Terenzini (1979) began to explore the relationship between adjustment and attrition. Pascarella and Terenzini (1979) completed a longitudinal study exploring the influence of the relationship between individual factors, social integration, and academic integration on retention. They examined 763 undergraduate students at a residential university with an approximate enrollment of 10,000. The study included two measurements developed specifically for their study. The first questionnaire was given to assess college expectations and individual factors prior to enrollment, and the second questionnaire was given during the second semester of the first year of college to assess the students' levels of integration into the institution. Integration consisted of several categories including peer group relations, academic and intellectual development, informal relations with faculty, faculty concern for teaching and student development and institutional goal commitment. Student attrition was gathered from the university records and used as the outcome variable.

Pascarella and Terenzini (1979) found that aside from gender, none of the individual factors measured before enrollment were significant predictors of later attrition. However, academic and social integration as well as institutional/goal commitment each predicted later attrition rates. Additionally, Pascarella and Terenzini (1979) found that that the predictive validity of each type of integration differed by gender. Specifically, peer-group integration was the best predictor of attrition among women, whereas institutional/goal attachment was the best predictor of attrition among men. Also, women who reported frequent contacts with faculty to discuss personal problems were more likely to persist in college than women who didn't, while men who reported more contacts with faculty to discuss a personal problem were less likely to persist in college than men who didn't. Additionally, the interaction between individual factors and student-faculty relationships was significant (see Figure 3). This research not only supported that adjustment to college is a critical variable influencing attrition, it also suggested that both individual and environmental factors played a key role in the college adjustment process.

Table 1:. Significant Interactions between Individual Factors and Student-Faculty Relationships (Pascarella & Terenzini, 1979).

Interaction	F	p <
Level of parents education x Contacts to discuss issues related to future career	4.13	.05
Academic/intellectual development (AID) x Faculty concern for teaching and student development	16.59	.01
Level of parents education x Faculty concern for teaching and student development	9.34	.01
Importance of graduating from college x Faculty concern for teaching and student development	9.35	.01

Subsequently, Baker and Siryk (1984b, 1989) developed a multidimensional measurement of college adjustment which assesses the various structures that a college student must integrate into in order to adapt to college (Baker & Siryk, 1984). This measurement, called the Student Adaptation to College Questionnaire (SACQ) derived from Tinto (1975) and Pascarella and Terenzini's (1979) multidimensional models of attrition and adjustment, is intended to both help identify students at risk of poor adjustment and to be a dependent variable for studies exploring the predictors of adjustment (Baker & Siryk, 1984). Additionally, through the development of the SACQ Baker & Siryk (1984b, 1989) further clarified the operational definition of adjustment declaring that adjustment is "multifaceted and includes demands varying both in kind and degree. These demands require a variety of coping responses (or "adjustments") that will themselves vary in effectiveness (Baker & Syryk, 1989, p. 1)." The SACQ measures overall adjustment and four conceptual constructs of adjustment including: academic, social, personal/emotional, and institutional/goal attachment. The development of the SACQ has improved the quality and consistency of the research exploring the predictors of adjustment and attrition.

Additional, subsequent researchers have looked at an assortment of variables using the SACQ which may influence college student adjustment. In a longitudinal study over six years, Gerdes and Mallinckrodt (1994) investigated the influence of academic standing on attrition as mediated by adjustment. In this study, 208 college undergraduates were given pre-enrollment surveys assessing expectations about adaptation to college. Seven weeks after the start of the term, participants completed a follow-up survey

assessing actual adjustment to college. Six years later, participants' academic status was obtained from university records. Gerdes and Mallinckrodt (1994) used two instruments to measure adjustment; the first, the Anticipated Student Adaptation to College Questionnaire (ASACQ), was given as the pre-enrollment measurement to assess expectations of college adjustment. The second, the SACQ, was used in the follow-up testing to measure actual adjustment.

Gerdes and Mallinckrodt (1994) found that reasons for attrition differed depending upon academic standing. Specifically, predictors of persistence for students in good academic standing included informal contacts with faculty, satisfaction with course quality, and a sense of self-confidence. In contrast, predictors of persistence for students in poor academic standing included satisfaction with extracurricular activities, freedom from anxiety, and an absence of thoughts about dropping out. These findings suggest that college adjustment is not the same for all students; rather, it is an idiosyncratic experience which depends upon the interaction between the individual student and his/her environment.

Subsequently, Brooks and DuBois (1995) attempted to further clarify the relationship between individual and environmental factors. They explored the predictive validity of individual and environmental factors separately as well as the interaction between the individual and the environment. In addition to the collection of demographic information, 56 first-year college students completed the Goldberg Big-Five Factor Markers, Adolescent Perceived Events Scale (APES), Arizona Social Support Interview Schedule (ASSIS), Problem-Solving Inventory (PSI), Self-Perception Profile for College

Students (SPPCS), Brief Symptom Inventory (BSI), and SACQ.

Findings revealed that although both individual and environmental factors predicted college adjustment, individual factors accounted for a greater percentage of the variance than environmental factors (Brooks & DuBois, 1995). Factors which were positively related to social adjustment included: family income, ratings of surgency/intellect, and ratings of support satisfaction. For personal/emotional adjustment significant positive predictors included family income and ACT score. Similarly, emotional stability and surgency/intellect were positively correlated with adjustment, while poor problem-solving, daily hassles, turning to social support, and ratings of social support need were negatively associated with adjustment. These findings differed from the Pascarella and Terenzini (1979) findings because they explored individual personality factors whereas Pascarella and Terenzini (1979) explored only individual demographic and aptitude factors (i.e. pre-college characteristics). Thus, Brooks and Dubois' (1995) research solidified the importance of both individual and environmental factors and further demonstrated the complexity of factors which influence college adjustment.

In addition, McGrath and Braunstein (1997) explored how demographic, financial, academic and integration factors influence collegiate attrition. In this study 353 college freshman completed the College Student Inventory (CSI) and additional demographic, academic, and financial information was obtained from their academic records. McGrath and Braunstein (1995) then compared those students who returned after their freshman year to those who didn't across these variables. They found that demographic variables including: age, gender, race and ethnicity, marital status, father's

and mother's educational backgrounds, student's families native language, distance from students' homes to the college, and participation in the residential life program, were not significant predictors of attrition. However, some demographic, academic, financial and integration factors were significant predictors of attrition including: socioeconomic background, academic variables, high school GPA, SAT scores, first semester college GPA, participation in the financial aid program, initial impressions of the institution, and initial impressions of the other students. Yet, following a stepwise regression analysis, only first semester GPA and students' initial impressions of their peers were significant predictors of freshman attrition. Indicating that students' levels of integration with (or adjustment to) their peers plays a critical role in their decision to remain in college during the first year.

Based upon these findings, subsequent researchers have explored specific cultural groups whose process of adjustment may be distinctively different than the general college population. Swartz-Kulstad and Martin (1999) suggested that although individuals are influenced by their environment, they retain their cultural identity while integrating into that environment. Therefore, research exploring the individual by environment interaction upon college adjustment must be contextually sensitive to specific cultural factors.

Working from the idea that an individual's level of integration into specific academic and social structures may differ across cultural groups, Melendez (2007) examined differences in adjustment between athletes and non-athletes. Using the SACQ in cross-sectional study of 101 college student athletes and 106 non-athletes, Melendez

(2007) found that athletes reported higher levels of academic adjustment and institutional attachment than non-athletes. These findings suggest that college student athletes have a unique adjustment experience as compared to non-athletes. Specifically, athletes must learn to balance the demands of collegiate sport along with the demands of collegiate academics. This provides additional evidence supporting that individual, environmental, and cultural factors play a significant role in the adjustment process.

Independent of the previous literature, which evolved out of higher education studies, research evolving from theories of positive psychology have also explored how individual factors may predict college adjustment. None the less, findings from psychology generally fit into the larger theoretical frameworks established by Tinto (1975) and Pascarella and Terenzini (1979). In a hallmark study, Aspinwall and Taylor (1992) explored the relationship between personality characteristics (optimism, self-esteem, locus of control, and mood) and coping strategies (active and avoidant) and their impact upon college student adjustment. In a longitudinal study of 672 first year college students, Aspinwall and Taylor (1992) first measured individual factors using the Life Orientation Test (LOT), Rosenberg Self-Esteem Inventory (SES), Rotter's Locus of Control Scale, Burger's Desire for Control Scale, the Affects Balance Scale (ABS), and the Ways of Coping Instrument and they measured social support using the UCLA Social Support Inventory. This survey administration was completed two weeks following first year enrollment. A follow up survey was administered later that same year during the winter quarter to assess college adjustment, which included measures of adjustment including: Index of Well-Being, the Percieved Stress Scale, four items from the Dunkel-

Schetter and Lobel assessment of academic stress, nine items developed for the study to measure college adjustment, Cohen-Hoberman Inventory of Physical Symptoms (CHIPS), 3 questions regarding perceived health, and a 20 item measure of motivation developed for the study. Finally, in the spring semester, participants' cumulative GPA and SAT scores were obtained from the university records.

Using structural equation modeling, Aspinwall and Taylor (1992) found that positive mood, higher optimism, and the use of active coping were predictive of better adjustment to college, while avoidant coping was predictive of poorer adjustment. Furthermore, they found a positive relationship between the use of social support as a coping strategy and the constructs of positive mood, optimism, desire for control, and being a woman. Also, the relationships between adjustment to college and the constructs of mood, optimism, and desire for control were mediated by active coping. Individuals who had positive moods, high optimism, and high desire for control used active coping strategies which predicted successful adjustment. Conversely, the relationships between adjustment to college and the constructs of locus of control, self-esteem, negative mood and optimism were mediated by avoidant coping. Individuals who had low locus of control, low self-esteem, negative mood, and low levels of optimism use avoidant coping strategies. This study has important implications regarding the college adjustment process. It suggests that individual factors not only impact college adjustment; they may actually impact the strategies that an individual employs to deal with the stressors related to adjustment. This type of research is critical because it not only establishes what types of individuals adjust successfully; it also helps to explain why some individuals adjust

successfully while others don't.

In another study from psychology, Montgomery, Haemmerlie, and Ray (2003) replicated the Aspinwall and Taylor (1992) findings using the SACQ. In a cross-sectional study of 300 undergraduate students, Montgomery et al. (2003) examined the relationship between optimism (LOT), self-esteem (Rosenberg's SES), loneliness (UCLA Loneliness Scale), and college adjustment (SACQ). They found that optimism was positively correlated with the SACQ total adjustment score, each of the SACQ sub-scores, and the Rosenberg SES. LOT scores also correlated negatively with the UCLA Loneliness Scale. This study, which employed a validated and widely used measure of college adjustment, connects findings from the Aspinwall and Taylor (1992) multidimensional conceptualization of adjustment (including a conglomeration of measures) and the Tinto model of adjustment (which included the combination of individual and environmental factors, see Figure 1) (Tinto, 1975). Therefore although Aspinwall and Taylor's (1992) research was not conceptualized using the Tinto (1979) or Pascarella (1985) frameworks, it can be deduced that they were measuring a similar construct of college adjustment because Montgomery et al. (2003) replicated the findings of Aspinwall and Taylor (1992) using a measure (the SACQ) developed to assess adjustment as defined by Tinto (1979) and Pascarella (1985). Thus providing support for the hypothesis that optimism as measured by the Life Orientation Test-Revised (LOT-R) may be predictive of college adjustment as measured and defined by the SACQ.

<div align="center">Critique of the Adjustment/Attrition Literature</div>

Initial studies of college adjustment explored the effects of the individual x

environment interaction on adjustment. However, in the last two decades no one has revisited how the combinations of these individual and environmental factors influence the current adjustment of collegiate populations. In fact, current literature examining college adjustment has taken two distinct directions, one exploring environmental factors which impact adjustment and attrition, and the other exploring individual factors which impact adjustment and attrition. Additionally, research occurring within these two lines has developed across several disciplines resulting in a lack of cohesive literature regarding college adjustment. Although research on adjustment originated in Higher Education, additional literature has emerged from the philosophies of Positive Psychology out of the discipline of Counseling Psychology. Within the higher education literature, individual factors of interest have typically included both demographic and student aptitude information (Brooks & DuBois, 1995; Gerdes &Mallinckrodt, 1994; Pascarella & Terenzini, 1979), while within positive psychology individual factors have been examined related to personality and coping strategies (Aspinwall & Taylor, 1992; Montgomery et al., 2003). Contrary to individual factors, environmental factors, which have only been examined within higher education, have included: peer interaction, faculty interaction, social support, and institutional attachment (Baker & Siryk, 1989; Brooks & DuBois, 1995; Pascarella & Terenzini, 1979).

The common purpose of all the research on college adjustment is to identify students at risk for dropout in order to develop programming that would enhance attrition. Previous studies have examined specific environments, specific individual characteristics and the combination of both the individual and environment which influence collegiate

adjustment. However, the available literature fails to account for cultural influences and specific collegiate environments such as sport participation which may impact college adjustment (Melendez, 2007).

<div align="center">Environmental Factors and Adjustment/Attrition</div>

Integration

Pascarella and Terenzini (1979) found that individual demographic factors alone did not predict withdrawal, but that the interaction between the individual factors and the college environment (integration) did significantly predict college dropout. The relationships between individual factors and integration differed by gender, where the interaction between parent education and contacts with faculty to discuss their future career, and the interaction between the students' academic/intellectual development and the faculty concern for student development significantly predicted later college dropout among men (Pascarella & Terenzini, 1979). Among women, it was found that the interactions between, parental education and faculty concern for student development, importance of graduating and faculty concern for student development, and the interaction between the importance of graduating and the peer group relations significantly predicted later college dropout (Pascarella & Terenzini, 1979).

McGrath and Braunstein (1997) found that student's initial impressions of the institution (institutional adjustment) and the students at that institution (social adjustment) were significant predictors of retention, providing additional support for the predictive validity of adjustment with regard to attrition. These findings continue to support the multidimensional models developed by Tinto and Pascarella, which emphasize the

importance of the relationship between the person and the college environment as it impacts adjustment to and withdrawal from college (Pascarella & Terenzini, 1991).

Findings regarding the influence of the college environment on adjustment and withdrawal suggest that both the student's ability to successfully integrate within his peer group and within his institution are critical factors influencing college adjustment and dropout (Pascarella & Terenzini, 1991). Pascarella and Terenzini (1979) found that social integration was the best predictor of withdrawal among women, where institutional attachment was the best predictor of withdrawal among men. Interestingly, academic and social integration were significant predictors of withdrawal for both men and women. Institutional/goal commitment was a significant predictor only for men (Pascarella & Terenzini,1979), and contact with faculty regarding development and campus concerns was an important factor related to institutional/goal commitment which predicted withdrawal for men (Pascarella & Terenzini, 1979). For women, peer-group relationships were a particularly important factor related to social integration which predicted later dropout (Pascarella & Terenzini, 1979).

In addition to Pascarella and Terenzini's (1979) finding that college adjustment/integration predicted withdrawal, Brooks and DuBois's (1995) study also supported the relationship between environmental factors and adjustment. Specifically, environmental factors such as daily hassles, turning to social support, and ratings of support need were negatively correlated with overall adjustment. Also, an individual's level of satisfaction with support was positively correlated with grades and social adjustment (Brooks & DuBois, 1995). The combination of these findings indicate that a

student's individual fit to the intuitional environment including the other students, faculty, and overall university are important factors which influence a student's ability to adapt to and persist at that university. Thus, it is likely that a student's ability to integrate into specific cultural environments he is a part of, may have a critical influence on his successful adjustment to and persistence in college. Considering the relative influence of competitive sport upon the college environment for student athletes it is likely that a student athlete's ability to integrate into the college and sport environment could greatly determine the student's overall college adjustment (Melendez, 2007).

Sport Integration and Adjustment of College-Athletes

Research has shown that involvement in college athletics influences a student's ability to adjust successfully to college (Melendez, 2007). Specifically, Melendez (2007) found that athletes actually adjusted better than the general college population as measured by the SACQ. One of the benefits associated with sport participation is that it offers athletes access to social networks which provide them with a specific structure for peer integration. Also, sport affords athletes the opportunity to exhibit leadership which, in turn, can increase their motivation to succeed in both sport and school (Melendez, 2007). Unfortunately, participation in college sport can also place additional stress upon students, such as risk of physical injuries and strain, sport expectations from others, limited free time, failure to explore and develop alternative career options, as well as difficulty dealing with sport termination (Broughton & Neyer, 2001; Carodine et al., 2001; Melendez, 2007). Therefore, while involvement in college athletics may improve some athletes' ability to navigate college structures, for others who integrate less

successfully into the sport environment involvement in collegiate athletics may add additional stress to an already struggling student. The impact that participation in sport has upon an individual student tends to vary greatly. Thus, it is important to explore how both integration into the sport team environment and the individual factors which differentiate the athletes ability to integrate influence overall college adjustment. (Broughton & Neyer, 2001; Carodine et al., 2001; Melendez, 2007).

<div align="center">Individual Factors and Adjustment/Attrition</div>

Demographic and Aptitude Factors

Pascarella and Terenzini (1979) found that individual/demographic factors that define a student prior to college entrance (i.e., race, academic aptitude, parental income, parental education, high school achievement, etc.) could not predict later college withdrawal. However, they did find that demographic differences determined which types of integration predicted withdrawal. Specifically, differences in gender, parent education, academic/intellectual development, and perceived importance of graduation predicted the importance of specific types of integration (i.e. peer integration) with regard to student withdrawal. Although, Pascarella and Terenzini (1979) did not find that individual demographic factors alone were significant predictors of withdrawal, later research found individual factors to be significant predictors of college adjustment, which, in turn, was a significant predictor of withdrawal (Aspinwall & Taylor, 1992; Brooks & DuBois, 1995; McGrath & Braunstein, 1997; Montgomery et al., 2003; Pascarella & Terenzini, 1979). Moreover, Brooks and DuBois (1995) found that ACT scores (academic aptitude) were positively correlated with GPA and college adjustment as measured by the SACQ. These

findings suggest that some student individual demographic factors may play a role in college adjustment/withdrawal, but individual aptitude factors are better predictors of adjustment than demographic factors.

Individual Personality Factors

There is more conclusive evidence supporting the link between individual personality factors and college adjustment than exists for the relationship between demographic/aptitude factors and college adjustment. Specifically, Brooks and Dubois (1995) found that individual levels of emotional stability and surgency/intellect were both significantly correlated to overall adjustment as measured by the SACQ. In a study of 88 female undergraduate students exploring the relationship between academic locus of control, self-esteem, geographical distance from home, and college adjustment, Moony, Sherman, and Lo Presto (1991) found that high self-esteem and an internal academic locus of control were predictive of successful college adjustment. While Ramos-Sanchez and Nichols (2007) determined that high self-efficacy at the beginning of the first year of college predicted better adjustment to college at the end of the first year. In a longitudinal study, Mattanah, Hancock, and Brand (2004) examined the relationship between parental attachment and college adjustment for college students. They found that the relationship between student/parent attachment and college adjustment was mediated by the personality construct of separation-individuation; such that when a student is more securely attached to her parents she has less anxiety about being separated from them and she subsequently adjusts better to college. These studies suggest a valuable relationship between individual personality factors and college adjustment which has been further

substantiated in the psychology literature.

Research originating in the positive psychology theories has contributed to our understanding of how individual factors impact college adjustment. Specifically, Aspinwall and Taylor (1992) found that individual personality factors are a significant determinant of the differences in individual responses to the challenges of college, and subsequent adjustment. Aspinwall and Taylor (1992) discovered among college students individual levels of optimism exerted a direct influence on later college adjustment (Aspinwall & Taylor, 1992). Montgomery et al. (2003) also found that dispositional optimism as measured by the LOT-R was significantly associated with all of the adjustment factors measured by the SACQ in a college student population. Aspinwall and Taylor (1992) found that optimism was significantly related to the coping strategies employed by college freshman. Specifically, they found that individuals with higher levels of optimism used more active coping strategies while individuals with lower levels of optimism employed more avoidant coping strategies. These coping strategies were then found to be related to later college adjustment. The use of active coping strategies was positively related to college adjustment, whereas avoidant coping strategies were negatively associated with college adjustment. Among the individual personality factors examined by Aspinwall and Taylor (1992), optimism and coping emerged as the most relevant to college adjustment. Considering the literature available regarding the influence of each of these constructs on health, well-being, and persistence, it is likely that the presence of optimism and the use of active coping strategies may impact college adjustment.

Optimism. Optimism is a dispositional characteristic that predisposes individuals to expect that good things will happen (Carver & Scheier, 2003; Scheier & Carver, 1985). Optimism impacts college adjustment because it enhances well-being, resilience, active coping, and persistence (Aspinwall & Taylor, 1992). According to the expectancy-value model how optimistic an individual is determines how motivated they will be to achieve their goals (Scheier & Carver, 1985). Furthermore, an individual's level of optimism is moderated by how important the goal is to him (value), and how confident the person is about the attainability of his goal (expectancy) (Scheier & Carver, 1985). It is important to note that according to the expectancy-value model, Scheier and Carver (1985) believed that optimism represents a construct of expectancy, which presumes that in general good things will happen; optimism is not only situation-specific. These expectations include the perceptions that an individual's set of skills will lead to desirable outcomes (self-efficacy), the perception of the self as in control of desired outcomes (internal locus of control), and also a more general component in which an individual expects favorable outcomes in most situations regardless of his personal skills or control (Carver & Scheier, 2003).

Implications of optimism. Seligman (2000) reported that individuals who are highly optimistic tend to report better moods, are more persevering and successful, and experience better health. Dispositional optimism has been shown to be related to lower levels of psychological distress among employees, cancer patients, pregnant women and college students (Scheier & Carver, 1992). Scheier and Carver (1992) found that among college students optimism was a significant predictor of perceived stress, depression,

loneliness, and social support over time. Thus, higher levels of optimism were associated with lower levels of perceived stress, depression and loneliness, and higher levels of social support among college students (Scheier & Carver, 1992). Montgomery et al. (2003) also found that higher ratings of optimism were correlated to higher levels of psychological functioning as determined by the SACQ. In addition to improved psychological functioning, optimism has been linked to improved physical functioning. Specifically Scheier, Matthews, Owens, Magovern, Lefebvre, Abbott and Carver (1989) found that coronary artery bypass surgery (CABS) patients who had higher levels of optimism were significantly less likely to infarct during surgery, and were more likely to reach certain behavioral milestones after surgery before their pessimistic counterparts. In light of this research and the findings of Aspinwall and Taylor (1992) and Montgomery et al. (2003) it is possible that optimists adjust more successfully to college because they have more sound psychological and physiological health than pessimists.

Coping strategies. Scheier and Carver (1993) suggested that the reason behind optimists' superior psychological and physical well being compared to that of pessimists, is their use of more active coping strategies. Research suggests that optimists use more direct action in solving their problems, make better plans to deal with adversity, and accept the reality of the difficult situations they encounter more so than pessimists (Scheier & Carver, 1993). Previous studies have shown that optimism is correlated to both problem-focused coping and positive reinterpretations of stressful events (Scheier & Carver, 1992). Likewise, optimism is also negatively correlated to the denial of stressful events (Scheier & Carver, 1992). Thus, it appears that optimists have developed adaptive

coping strategies which enable them to recognize their problems and actively engage in solving them, therefore optimists are more inclined to have both better physical and mental well-being because they are better equipped to deal with the difficult situations that they may encounter.

It has typically been assumed that optimists are superior copers because they use more problem focused and active/approach coping, thus taking their problems into their own hands. However, in a meta-analytic review of the literature regarding the relationship between optimism and coping Nes and Segerstrom (2006) suggested that there are four types of coping including: problem-focused-coping, emotion focused coping, active (approach) coping, and avoidant coping. However, coping style is typically not categorized across all combinations, such as approach-problem focused coping, approach-emotion focused coping, avoidant-problem focused coping and avoidant-emotion focused coping. Additionally, they propose that optimists are actually more effective in coping with adverse situations not only because they generally employ active/approach coping, but also because they are better able to match the most relevant approach coping strategy (problem/emotion) to a given situation than pessimists. Therefore, optimists are actually more flexible regarding the coping strategies they employ enabling them to adjust better in adverse situations than pessimists (Nes & Segerstrom, 2006).

Role of Optimism and Coping Strategies in Athlete Adjustment to College

Both Aspinwall and Taylor's (1992) and Montgomery et al.'s (2003) studies extensively examined the effects of personality characteristics on early college

adjustment, but neither explored the unique role that participation in athletics might play in the adjustment process of college students be it positive or negative. Clearly, college athletes are a population that has a very distinct set of challenges when trying to succeed in school (Carodine et al., 2001; Melendez, 2007). Moreover, they are part of a unique cultural entity which has different academic, institutional, and group structures they must integrate into. It is highly likely that the additional demands of collegiate sport impact an athlete's ability to adjust to college, but it is also probable that the degree and direction of that influence may differ according to the individual athlete's personality traits and coping strategies (Aspinwall & Taylor, 1992; Melendez, 2007; Montgomery et al, 2003).

Athlete Optimism

Dispositional optimism may be a particularly important contributing factor in an athlete's positive or negative response to the stress resulting from participation in collegiate athletics. Individuals who have higher levels of dispositional optimism are likely to have positive expectations regarding their ability to succeed in college and sport (Czech et al., 2002; Scheier & Carver, 1985). If these individuals value both academic and athletic success, then they will engage in self-regulatory behaviors and coping strategies which will enhance their opportunities for success, thereby increasing their ability to adjust to these new demands (Aspinwall & Taylor, 1992; Scheier & Carver, 1985, 1993).

Little research has explored the role of optimism in sport. Venne, Laguna, Walk and Ravizza (2006) examined the difference in optimism between athletes and non-athletes and found no differences between first year collegiate athletes and first-year

collegiate non-athletes, or between first year collegiate athletes and final year collegiate

non-athletes. They did report that final year collegiate athletes had significantly higher

ratings of optimism than first year collegiate athletes, first year collegiate non-athletes,

and final year collegiate non-athletes.

One explanation for this finding could be that athletes who have lower ratings of

optimism are less able to endure the challenges that are associated with high level

collegiate competition and may drop out of athletics before their final year of

competition. A reduction in the number of low-level optimists throughout the four years

of collegiate sport could have produced the significant difference between first and final

year athletes levels of optimism among this sample. This explanation would then support

the hypothesis that higher levels of optimism foster more adaptive coping strategies

which allow athletes to endure the strain and challenges of athletic competition and adjust

more successfully in turn enabling them to persevere in both sport and academics.

Peterson (2000) proposed if an individual has some general resources and a high

level of optimism then one will be likely to continue trying to achieve one's goals even in

the face of difficulties and adversity. From this perspective, individuals are not free from

common sense regarding the realities of situations, rather when an opportunity exists,

optimism is a strategy that "frees them to achieve the goals they set" (Peterson, 2000, p.

51). The ability of optimists to persevere in spite of difficulties and adversity may help

explain why college students who rate themselves as having higher optimism are likely to

adjust more successfully to college and in turn achieve better grades (Aspinwall &

Taylor, 1992). Similarly, the ability of an athlete to continue to strive for his goals despite

some setbacks and difficulties would also represent perseverance, which may be fostered by an athlete's high level of optimism. Thus, it would appear that the effects of optimistic thinking, including: emotional and physical well-being, adaptive coping strategies and perseverance, would enhance an athlete's ability to strive for and achieve his goals, and would in turn make the adjustment from being a high school athlete and student to a college athlete and student less difficult.

Athlete Coping Strategies

It is likely that the impact of optimism on coping strategies plays an important role in an athlete's ability to adjust to the dual demands of collegiate sport and academics thus improving one's ability to persevere. Two studies have focused on the use of specific coping strategies among athletes. The first study addressed the connection between optimism and the use of active coping strategies (or problem-focused coping) in an athlete population. Grove and Heard (1997) found that among athletes dispositional optimism was positively correlated with problem-focused coping strategies, and was negatively correlated with emotion-focused (avoidant) coping strategies when experiencing the stress of a performance slump. It is proposed by Grove and Heard (1997) that although problem focused coping is generally useful, there are specific circumstances in which it could be potentially harmful. For example athletes reporting high levels of optimism may be so inclined to engage in problem-focused coping that they negate some of their healthy emotions (Grove & Heard 1997). These optimistic problem-focused copers may become overaggressive in their attempts to "fix" a current problem or stressor thereby increasing fatigue, frustration and stress. Although Grove and

Heard's (1997) concerns are theoretically valid, the overwhelming empirical support

continues to suggest that problem-focused coping generally improves both physical and

emotional well-being (Scheier & Carver, 1992).

      Yi, Smith and Vitaliano (2005) found that athletes' use of active coping strategies

reduced athletic time loss when faced with extreme levels of negative life event stress,

while avoidant coping was related to greater athletic time loss. Based upon the collective

findings, it is likely that dispositional optimism increases athletes' use of problem-

focused coping, while subsequently reducing their use of emotion-focused coping

(Aspinwall & Taylor, 1995; Scheier & Carver, 1992; Yi, Smith & Vitaliano, 2005). The

use of problem-focused coping enhances student-athletes' ability to manage and reduce

their level of stress, which enhances both their physical and emotional well-being, thus

allowing them to adjust successfully in both academics and athletics.

Conclusions

      It is important to understand the reasons for college student adjustment so that

institutions can determine ways to minimize the percentage of students who voluntarily

dropout of college. Initially higher education institutions assumed that students withdrew

from college as a result of poor academic performance, but early studies in the area of

attrition failed to connect college dropout to poor academic performance (Tinto, 1975;

Pascarella & Terenzini, 1979). In actuality, Tinto (1975), Pascarella and Terenzini (1979)

found that college dropout was not significantly related to academic failure as was first

hypothesized, but was actually more strongly related to college student integration or

adjustment. Not only did the early literature establish that academic failure was not a

significant predictor of collegiate dropout, it also provided firm support that collegiate dropout was likely the product of a student's failure to integrate successfully into his college of choice (Tinto, 1975; Pascarella & Terenzini, 1979). As a result of these findings, research in the area of collegiate attrition became interminably linked to explorations of college adjustment and integration.

The existing literature regarding collegiate adjustment has taken two distinctive directions, based on the conceptual models of student adjustment and attrition that were developed by Tinto (1975) and Pascarella (1979) (see Figures 1 & 2). The first direction is the exploration of those variables which the student brings into college or variables related to the person, while the second is the investigation of those variables the student encounters once they enter college or variables related to the college environment (Aspinwall & Taylor, 1992; McGrath & Braunstein, 1997; Montgomery et al., 2003; & Pascarella & Terenzini, 1979). The purpose in researching personal and environmental variables related to college adjustment is ultimately to predict student adjustment outcomes and based upon those findings, develop programming that may enhance student adaptation.

Research examining individual factors has included variables such as high school GPA, standardized test scores, family income, parental education, involvement in extracurricular activities in high school, racial background, educational aspirations, actual college academic success, and most recently personality variables including optimism, self-esteem, locus of control, and coping (Aspinwall & Taylor, 1992; McGrath & Braunstein, 1997; Montgomery et al., 2003;& Pascarella & Terenzini, 1979).

Alternatively, research exploring the environmental characteristics which influence

collegiate adjustment have included variables such as peer-group relationships, social

support, contact with faculty, the nature of the relationships with family, institutional

attachment, as well as unique cultural environments experienced in college (Aspinwall &

Taylor, 1992; Gerdes & Mallinckrodt, 1994; McGrath & Braunstein, 1997; Montgomery

et al., 2003; & Pascarella & Terenzini, 1979). Findings of the various studies have

provided overwhelming support for Tinto and Pascarella's models by establishing a clear

connection between the variables associated with the person and the environmental

characteristics they encounter (Pascarella & Terenzini, 1991). Furthermore, it has been

recognized that the combination of these variables influences the student's ability to

adjust to college (Pascarella & Terenzini, 1979, 1991).

Current literature examining the role of the environment on college adjustment

has explored specific populations within the larger university environment that have

unique needs with regard to the adjustment process (Melendez, 2007; Swartz-Kulstad &

Martin, 1999). For example, Melendez (2007) argued that collegiate athletes have a

variety of environmental demands which are drastically different from those of the

typical college student. Some of these demands include excessive time spent in sport

practice and competition, media scrutiny, balancing social activities with athletic and

academic pursuits, and balancing a variety of potentially challenging relationships (e.g.,

coach, teammates, and family) (Broughton & Neyer, 2001; Carodine et al., 2001).

Additionally, Carodine et al. (2001) suggested that an athlete's lack of skill in dealing

with these additional environmental demands can result in failure to attend to the diverse

cognitive, psychosocial, and developmental tasks that are before them. Furthermore, Melendez (2007) found that the adjustment of athletes was significantly different than the adjustment of the general college student population. Specifically, athletes recorded significantly higher ratings on the SACQ than did non-athletes indicating that some component of a student athletes' experience plays a critical role in their adjustment process. We have empirical evidence to supporting the hypothesis that college student athletes adjust differently than the general college population, indicating that environmental influences within athletics play a role in the college adjustment of athletes. However each athlete's process of adjustment is idiosyncratic. While some athletes successfully adjust others will flounder and eventually exit the sport, the university, or both (Melendez, 2007). These within group differences indicate that involvement in sport alone cannot predict college adjustment. Therefore, in addition to the role of the sport environment, multiple other variables such as individual characteristics must be a factor in the adaptation of student-athletes to college.

Extensive research has also examined individual characteristics which may either promote or disengage successful adjustment (Pascarella & Terenzini, 1975; McGrath & Braunstein, 1997; & Tinto, 1975). At this time explorations of the individual characteristics which impact collegiate adjustment have begun to examine personality characteristics which may be related to enhanced integration and improved academic performance (Aspinwall & Taylor, 1992; & Montgomery et al., 2003). Specifically, Aspinwall and Taylor (1992) studied the influence of optimism, locus of control, self-esteem, and coping strategies on the adjustment process of college students. Aspinwall

and Taylor (1992) found that while optimism had a direct and significant impact on college adjustment, locus of control and self-esteem could only predict adjustment when mediated by active or avoidant coping strategies. Additionally, Montgomery et al. (2003) also found that optimism was a significant predictor of college adjustment.

Given the literature available regarding optimism, it is not at all surprising that both a person's level of optimism and his use of active vs. avoidant coping strategies have emerged as significant predictors of later adjustment. A great deal of research has demonstrated the importance of optimism on goal-directed behavior (Aspinwall & Taylor, 1992; Carver & Scheier, 2003; Makikangas et al., 2004; & Scheier & Carver, 1992; 1993). The literature has also linked optimism to the individual strengths that enable goal achievement (Aspinwall & Taylor, 1992; Carver & Scheier, 2003; Makikangas et al., 2004; & Scheier & Carver, 1992; 1993). Also, much of the research suggests that the construct of optimism enhances an individual's use of active coping, which leads to enhanced well-being allowing the individual to persevere longer in an attempt to obtain her goals (Peterson, 2000; & Scheier & Carver, 1992; 1993). Likewise, optimistic individuals are more resilient as a result of their positive expectations, physical and psychological well-being, and ability to actively cope, which enhances their capacity to positively respond to stress and perform to the best of their abilities. Considering this information, it is completely logical to assume that an individual's inclination to view outcomes as generally positive and to engage in active coping strategies would enhance his/her ability to adapt to new collegiate experiences.

Optimism and coping styles may be even more critical variables for student-athletes than student non-athletes given the specific environmental demands they are faced with. Although minimal research exists exploring the effects of optimism on athletes, initial studies have shown that athletes later in their careers have higher ratings of optimism than do non-athletes, athletes with high levels of optimism engage in more active coping, and the use of active coping strategies improves an athletes ability to handle stress and adversity (Grove & Heard, 1997; Venne et al., 2006; Waddell, 2003; Yi et al., & 2005). These findings indicate that optimism does play an important role in the college sport experience, and may be a contributing factor in an athlete's overall adjustment to college and sport. Moreover, research exploring the impact of sport participation on college adjustment has been limited to comparisons between athletes and non-athletes failing to account for individual differences, such as optimism, which may be a determining factor in either the positive or negative influence of sport participation on college adjustment (Melendez, 2007).

There currently exists a lack of information regarding the persistence of athletes in college. While the National Collegiate Athletic Association (NCAA) currently reports the graduation rates of student-athletes who complete their athletic eligibility, this data does not accurately reflect student-athlete attrition rates from either sport or school. The reporting of graduation data by the NCAA allows schools to exclude students who do not return to school so long as they would have been eligible had they returned. Likewise, the NCAA allows schools to include student-athletes who transferred to another program and graduated from another school as a graduate of their athletic department. Since this

reporting does not accurately account for the number of students who discontinue playing sports prior to finishing their eligibility or the number of student athletes who drop out of a particular institution before they graduate there is no way to fully measure student-athlete attrition rates from either sport or school.

Also, no literature has explored the impact of the relationship between personality characteristics and environmental demands on college adjustment among student athletes. Although there are a multitude of environmental and personality variables which may impact adjustment, it has become clear throughout the literature that some factors may play a more critical role in the integration process than others. Despite the overwhelming support establishing the relationship between optimism, coping strategies, perseverance, and adjustment within the general psychology literature, only one study thus far has explored these specific relationships among athletes (Waddell, 2003). It is very likely that both the environmental demands of the team and the personality characteristics of the individual play a critical role in an athlete's ability to successfully adjust to college, and subsequently persist in both sport and school.

Purpose of the Present Study

Due to the limited research examining the relationship between optimism, coping strategies, and athletic integration on college adjustment among student athletes, this study was developed to address issues related to the impact of the relationship between optimism, coping strategies and sport team integration on student athlete adjustment. Based upon prior research, it was hypothesized that the combination of an athlete's level of optimism, his use of active or avoidant coping strategies, and the athlete's perception

of his sport environment would be significant predictors of college adjustment.

CHAPTER III

METHOD

The purpose of this study was to explore the impact of optimism, coping strategies, and sport team integration on the overall college adjustment among student-athletes. Specifically, the following research question was addressed:

1. Does the combination of an athlete's level of optimism, his/her use of active or avoidant coping strategies, and the athlete's perception of his/her integration into the sport team predict the student-athlete's college adjustment?

Research Design

This research implemented a correlational design to explore the relationships between optimism, coping strategies, sport team integration, and college adjustment among college student-athletes. External validity was enhanced by recruiting a sample that included males and female, freshman and sophomore student-athletes from all NCAA Division I and II sanctioned sports ($N = 32$). Internal validity was enhanced by using established (reliable and valid) measures of optimism, coping, and college adjustment. Participant selection based on the aforementioned criteria helped to eliminate some confounds due to differential competitive sport levels. Specifically, NCAA Division I and II athletes can receive athletic scholarships, while NCAA Division III athletes can not, and this may differentially impact their perception of their adjustment and subsequent decision to withdraw from an institution.

The method of data collection was questionnaire. Specific variables of interest included: level of optimism, use of specific coping strategies, perception of team sport integration, perception of social and academic integration, and college adjustment. In addition to these variables, demographic/descriptive information was also collected including: age, gender, sport, year in school, race (census categories), playing status (never play, sometimes play, always play), type of scholarship received, current cumulative GPA, and intention to continue in the university and in the sport. The predictor variables were optimism, coping strategies, and perception of sport team integration, while the dependent variable was college adjustment.

<div align="center">Participants</div>

Participants were to include 150 male and female freshman collegiate athletes who were at least 18 years of age. Participants were included if they were student-athletes in their freshman, redshirt-freshman, or sophomore year of NCAA eligibility and were in their first or second year of collegiate coursework. Students were excluded if they were not athletes, or they were not in their freshman, redshirt-freshman, or sophomore year of NCAA eligibility and/or were not in their first or second year of collegiate coursework. Moreover, participants must have completed at least three months of college coursework to participate. We intended to include four institutions in the data collection process. However, we had obtained our entire sample after collecting at only two schools. In order to reduce confounds due to the availability of athletic scholarships, student-athletes were only recruited from NCAA Division I and Division II programs. All NCAA Division I and II sanctioned sports available at each institution were contacted requesting

participation, however a sample from every sport was not obtained.

Measures

The instrument was a battery of questionnaires containing relevant demographic information as well as measures of optimism, coping strategies, perceived team sport integration, perceived social and academic integration, and college adjustment. Demographic questions were chosen based on their relevance to college adjustment as found in previous research and they defined/profiled this sample. The following is a detailed description of each of the measures.

Demographics

Relevant demographics included self-reported: sport, age, gender, race/ethnicity, playing status, type of scholarship received, current GPA, and intention to continue in the university and in the sport (see Appendix A). Sport, age and estimated cumulative current GPA were open ended self-report measures. Playing status included: (1) never play, (2) play sometimes, and (3) play regularly. Scholarship received included three choices: (1) no scholarship, (2) partial athletic scholarship, and (3) full athletic scholarship.

Attrition

The students' intention to withdraw or continue participating in their sport was measured on an 11 point scale (anchors: 0%, not at all; 100%, absolutely certain). The students' intention to withdraw or continue at their institution was measured on an 11 point scale (anchors: 0%, not at all; 100%, absolutely certain). Both the sport and academic attrition items were administered with demographic questions (See Appendix

A).

Optimism

      Optimism was measured using the Life-Orientation Test-Revised (LOT-R), developed and validated by Scheier, Carver, and Bridges (1994) (see Appendix B). The LOT-R demonstrated an acceptable level of internal consistency (Cronbach α = .78) among the validation sample of college students (Scheier, Carver, & Bridges, 1994). Also, the test-retest reliability was high (*r* = .56 - .79) at four months, 12 months, 24 months, and 28 months, indicating that the LOT-R is fairly stable over time (Scheier, Carver, & Bridges, 1994). The Cronbach α for this sample was .71.

      The LOT-R was used to measure an individual's general level of positive expectations for the future. The LOT-R is a 10 item self-report measure including four filler items. Respondents were asked to indicate on a 5 point Likert scale (0 – 4) how strongly they disagree or agree with each statement. Of the six scored items, three are worded in a positive direction and three are worded in a negative direction. The three negative items were reverse scored and all items were summed to derive a total optimism score, where higher scores are reflective of greater optimism. Total scores for the LOT-R may range between 0 – 24, for this sample participants' scores ranged from 4 to 24.

Coping

      Coping was measured using the Brief COPE (see Appendix C), a measure that was developed and validated by Carver (1997) based on the original COPE inventory (Carver, Scheier, & Weintraub, 1989). This measure was chosen because it contains items that measure both active and avoidant coping as well as problem and emotion

coping (Solberg-Nes & Segerstrom, 2006). The Brief COPE is a 28-item measurement of

coping that assesses 14 different strategies for coping, including: self-distraction, active

coping, denial, substance use, use of emotional support, use of instrumental support,

behavioral disengagement, venting, positive reframing, planning, humor, acceptance,

religion, and self-blame. Respondents were asked to rate on a 4 point scale (1, I usually

don't do this at all; 4, I usually do this a lot) how often they use that particular strategy

when they are encountering difficulties. To score the Brief COPE, 2 items are summed

for each of the 14 subscales. There is no total score for the Brief COPE, only coping

strategy sub-scores.

      The Brief COPE has demonstrated an acceptable level of reliability (Cronbach α's

range = .50 -.90) averaged across three administrations with a sample of community

residents (Carver, 1997). Furthermore; a factor analysis revealed that the subscale scores

were structurally the same as those in the COPE inventory supporting the validity of the

shorter measure (Carver, 1997; Carver et al., 1989). Among this sample, the Cronbach

α's for Self-Distraction and Venting were slightly weaker, .43 and .42 respectively.

However, the Cronbach α's for all other sub-scales ranged from .64 - .86.

College Adjustment

      College Adjustment was measured using the Student Adaptation to College

Questionnaire, a measure that was developed and validated by Baker and Siryk (1989).

The SACQ is a 67-item multidimensional measurement of college adjustment that

assesses four categories that characterize a student's adaptation to college. These

categories include academic adjustment, social adjustment, emotional adjustment, goal

commitment/institutional attachment (Baker & Siryk, 1989). Respondents are asked to rate on a 9-point Likert-scale (1, doesn't apply to me at all; 9, applies very closely to me) how closely each of the 67 statements applies to them. The academic adjustment section measured by ($n = 24$) is intended to measure the student's ability to cope with the demands that are typically experienced during college (Baker & Siryk, 1989). The social adjustment section measured by ($n = 20$) is intended to measure the student's ability to deal with the interpersonal responsibilities associated with the college experience (Baker & Siryk, 1989). The personal-emotional adjustment section measured by ($n = 15$) is intended to measure the student's psychological state during the college adjustment period (Baker & Siryk, 1989). The goal commitment/institutional attachment subscale measured by ($n = 15$) is intended to measure the students level of commitment to their academic goals, as well as the extent to which the student is connected to the particular institution they are attending. In addition to four subscale scores, the SACQ also produces a total adjustment score where higher scores are reflective of better adjustment to college.

The full-scale SACQ has demonstrated an acceptable level of reliability (Cronbach α's range = .92 - .94) as did each of the SACQ sub-scales (Cronbach α's range = .77 - .94). Moreover, the SACQ was significantly correlated with other standards of adjustment including GPA and membership in an academic honor society demonstrating construct validity between the SACQ and other measures of adjustment (Baker & Siryk, 1989). The current sample also demonstrated an acceptable level of consistency on SACQ totals (Cronbach α = .74), as well as each of the SACQ sub-scales scales

(Cronbach α's range = .87 - .93).

Social and Academic Integration

Social and academic integration was measured using a questionnaire developed for Pascarella & Terenzini's (1979) study of the relationship between integration and attrition (see Appendix D). The purpose of this measure, referred to as the SAI, was to assess how successfully the student had begun to integrate into the institution. The original scale contained 34 items assessing five categories of integration to college, which included: peer group relations, informal relations with faculty, faculty concern for teaching and student development, academic and intellectual development, and institutional/goal commitment. Respondents were asked to rate on a 4-point Likert-scale (1, strongly disagree; 4, strongly agree) how strongly they agree with each of the items. A factor analysis with the 34 items resulted in the items clustering in five categories, which were then used as the five dimensions of integration (Pascarella & Terenzini, 1979). Pascarella and Terenzini (1979) only included the two highest factor loaded items for each integration subscale, and thus, these same 10 items were used for the SAI in this study. Negatively worded items were reverse coded and scoring the measure yields five sub-scale scores representing each category, where higher scores reflect better integration for that category.

The SAI subscales demonstrated an acceptable level of reliability for peer group relations (Cronbach α = .84), informal relations with faculty (Cronbach α = .83), institutional/goal commitment (Cronbach α = .71), faculty concern for teaching and student development (Cronbach α = .82), and academic and intellectual development

(Cronbach α = .74) (Pascarella and Terenzini, 1979). Among this sample the scale

reliability for institutional/goal commitment was much lower (Cronbach α = .19).

However, other scale reliabilities were similar to the original sample, peer group relations

(Cronbach α = .80), informal relations with faculty (Cronbach α = .74), institutional/goal,

faculty concern for teaching and student development (Cronbach α = .64), and academic

and intellectual development (Cronbach α = .69)

Team Sport Integration

The athlete's level of team sport integration (TSI) was measured using a modified

version of the Pascarella and Terenzini (1979) instrument of social and academic

integration (SAI) (See Appendix E). The purpose of this measure was to assess how

successfully the student-athlete had begun to integrate into the athletic environment. The

TSI was created by altering the wording of the 10 items included in the Pascarella and

Terenzini (1979) measure of SAI to reflect athlete-specific relationships that may impact

the integration of student-athletes into their specific sport environment. The five SAI

subscales were adapted into sport specific measures of integration for this study, and

included: teammate relations, informal relations with coaches, sport-team/goal

commitment, coaches concern for player development and sport and athletic

development. The reliability demonstrated by each of the scales for this sample were as

follows: teammate relations (Cronbach α = .88), informal relations with coaches

(Cronbach α = .84), sport-team/goal commitment (Cronbach α = .42), coaches concern

for player development (Cronbach α = .66), and sport and athletic development

(Cronbach α = .56).

Scoring for the TSI paralleled that of the SAI where each of the five categories were derived from two items and summed (see Appendix E). Thus, the team sport integration measure yielded five subscales, where higher scores represented better integration for that category.

Procedures

After obtaining IRB approval, athletic directors at each of the institutions were approached requesting permission to contact their athletes regarding participation. Participants were then recruited by contacting head coaches from all eligible (NCAA sanctioned) teams at the two participating institutions. The coaches were informed of the testing procedures, and a rationale for the study and possible implications were provided to them in hopes that he/she would be interested in the potential findings and would allow his/her athletes to participate (see Appendix F).

After obtaining the coach's permission to participate, the researcher arranged to meet with the athletes to explain the purpose of the study. At that time, athletes were provided with an informed consent form which they read and signed if they chose to participate (see Appendix G). Questionnaires were administered to each team at one time by the primary researcher. The specific instructions for the administration and collection of the questionnaires are outlined in Appendix H.

Data Analysis

The purpose of the current research was to examine how individual athlete factors and perceptions of sport team environment (integration) together predict college adjustment. Specific individual factors of interest included: optimism, active coping, and

avoidant coping. Perceptions of the sport team environment/integration included: teammate relations, informal relations with coaches, sport-team/goal commitment, and coaches concern for player development. Because it was theorized by Tinto (1975) and Pascarella (1985) that college adjustment is the product of a combination of individual factors and environmental factors, it was hypothesized that the combination of an athlete's level of optimism, his use of active or avoidant coping strategies, and the athlete's level of integration into his sport environment would be significant predictors of college adjustment. The following analyses were intended to reflect this hypothesis.

Preliminary Statistical Analyses.

1. Frequency distributions were examined for all demographic variables.

2. Means and standard deviations were computed for all variables.

3. A Pearson correlation matrix was conducted to establish the strength of the linear relationships between the LOT-R, Brief COPE subscales, TSI subscales, and SACQ subscales, SACQ totals, and sport and institution attrition.

To Evaluate the Hypothesis

LOT-R, Brief Cope subscales (significantly correlated with SACQ totals), and TSI subscales (significantly correlated with SACQ totals) were entered into a stepwise multiple regression analysis to determine what factors predicted SACQ totals for student athletes.

Follow-up Analyses

1. A Pearson correlation matrix was conducted to establish the strength of the linear

relationships between the SACQ subscales, SACQ totals, TSI subscales, and SAI

subscales and sport and institutional attrition.

2. SACQ, TSI, and SAI subscales were entered into a stepwise multiple regression

    analysis to determine which factors predicted sport attrition.

3. SACQ, TSI, and SAI subscales were entered into a stepwise multiple regression

    analysis to determine which factors predicted institutional attrition.

4. 3 one-way ANOVAs were conducted to compare group differences in SACQ

    totals, SACQ subscales, LOT-R, SAI subscales, and TSI subscales across the

    following categories: gender, school, playing time, and scholarship recieved.

5. Finally, a repeated measures ANOVA was conducted to compare SAI subscales

    and TSI subscales among all student-athletes.

CHAPTER IV

RESULTS

This chapter presents the results of the analysis exploring those factors which influence the college adjustment and attrition of student athletes. First descriptive information and correlations among predictor and criterion variables were discussed. Then, the hypothesis that the combination of an athlete's level of optimism, his use of active or avoidant coping strategies, and the athlete's perception of his sport environment will be significant predictors of college adjustment was tested with a stepwise multiple regression analysis. Finally in follow-up analysis, the relationships between SACQ totals, SACQ subscales, TSI subscales, SAI subscales and sport and institutional attrition were explored. Individual differences among the predictor and criterion variables across gender, school, playing time received, and scholarships received were analyzed. Lastly, repeated measures ANOVA's were employed to clarify the differences between student-athletes SAI and TSI.

Preliminary Analysis

Descriptive Statistics

Participants included 159 male ($n = 90$) and female ($n = 69$) freshman and sophomore collegiate athletes who were between the ages of 18-28 ($M = 19.08$, $SD = 1.19$). Two institutions were included in the data collection process, one NCAA Div. I ($n = 97$) and one NCAA Div. I. ($n = 62$). Eleven NCAA sanctioned sports agreed to

participate including: track and cross country ($N = 45$), wrestling ($N = 27$), volleyball ($n = 20$), men's soccer ($n = 12$), men's basketball ($n = 11$), baseball ($n = 10$), softball ($n = 10$), women's basketball ($n = 9$), men's golf ($n = 7$), and women's swimming and diving ($n = 4$). The majority of the participants were white or Caucasian (not of Hispanic origin) ($n = 126$), and ethnic minorities included: Black or African American (not of Hispanic origin) ($n = 19$), Hispanic or Latino ($n = 7$), Asian ($n = 5$), and Native Hawaiian or other Pacific Islander ($n = 1$). Most of the participants reported playing always ($n = 77$), while ($n = 54$) reported playing sometimes, and ($n = 27$) reported never playing. Moreover, a large amount of the sample received a scholarship, specifically, ($n = 79$) reported receiving a partial scholarship, and ($n = 44$) reported receiving a full scholarship while only ($n = 36$) reported receiving no scholarship.

Mean scores with standard deviations and scale range for this sample ($n = 159$) across each of the predictor variables (i.e. LOT-R, Brief Cope subscales, TSI subscales, SAI sub-scales, and GPA) are presented in Table 2. Mean scores with standard deviations and scale ranges for this sample ($n = 159$) across each of the criterion variables (i.e. SACQ subscales, SACQ totals, sport attrition, and institutional attrition) are provided in Table 3.

Correlations

Pearson correlation coefficients among each of the predictor variables and criterion variables are provided in Table 4. As seen in Table 4, significant positive relationships were found between SACQ total scores and GPA, LOT-R, four TSI subscales (i.e. sport-team/goal commitment, teammate relations, sport and athletic

development and informal relations with coaches), four Brief COPE subscales (i.e.

instrumental support, positive reframing, active coping and emotional support). Thus,

higher ratings of sport-team/goal commitment, teammate relations, sport and athletic

development, informal relations with coaches, instrumental support, positive reframing

and active coping were significantly related to higher ratings of college adjustment.

Table 2: Descriptive Statistics for Predictor Variables

Measure	Subscales	Mean	SD	Range
GPA		2.98	.82	1.36 - 4.0
LOT-R		16.33	3.73	4 - 24
Brief COPE				
	Self Distraction	5.13	1.42	2 - 8
	Active Coping	5.85	1.84	2 - 8
	Denial	2.76	1.27	2 - 7
	Substance Use	2.56	1.09	1 - 8
	Emotional Support	5.02	1.66	2 - 8
	Instrumental Support	5.18	1.70	0 - 8
	Behavioral Disengagement	2.73	1.15	1 - 7
	Venting	3.93	1.34	2 - 7
	Positive Reframing	5.55	1.40	0 - 8
	Planning	5.64	1.50	0 - 8
	Humor	4.17	1.78	0 - 8
	Acceptance	5.28	1.45	0 - 8
	Religion	4.33	1.99	0 - 8
	Self Blame	4.09	1.65	0 - 8
TSI				
	Teammate Relations	6.86	1.30	2 - 8
	Informal Relations with Coaches	5.85	1.35	2 - 8
	Sport Institutional Commitment	6.82	1.07	4 - 8
	Coaches Concern for Athlete Development	5.59	1.61	2 - 8
	Sport and Athletic Development	6.22	1.24	2 - 8
SAI				
	Peer Relations	6.44	1.41	2 - 8
	Informal Relations with Faculty	5.63	1.35	2 - 8
	Institutional Goal Commitment	7.19	.83	4 - 8
	Academic Intellectual Development	6.30	1.09	2 - 8
	Faculty Concern for Student Development	5.22	1.39	2 - 8

Table 3: Descriptive Statistics for Criterion Variables

Measure	Subscale	Mean	SD	Range
SACQ	Total	414.88	91.67	230 - 546
	Academic Adjustment	143. 83	31.94	95 - 202
	Social Adjustment	128.48	31.09	42 - 176
	Personal Emotional Adjustment	128.48	31.09	43 - 132
	Attachment	100.76	24.85	17 - 135
Sport Attrition		9.09	1.83	1 - 10
Institution Attrition		9.35	1.46	2 - 10

Significant negative relationships were found between SACQ total scores and four Brief COPE subscales (i.e. behavioral disengagement, self-blame, substance use, and denial. Thus, higher ratings of behavioral disengagement, self-blame, denial, and substance use were significantly related to lower ratings of college adjustment.

Test of the Hypothesis

The hypothesis of this study was tested by calculating a stepwise multiple regression to examine the relevant contributions of each of the predictor variables to SACQ totals (see Tables 5 & 6). Predictor variables included the LOT-R, eight Brief COPE subscales significantly correlated with SACQ totals, and four TSI subscales significantly correlated to SACQ totals. The criterion variable was SACQ totals. As seen in Table 5, results show that only TSI sport-team/goal commitment, and four of eight Brief COPE subscales (i.e. positive reframing, instrumental support, denial, and self blame) make unique contributions in the prediction of SACQ totals $F(5,153) = 14.38$, $p < .01$. The combination of these variables accounted for 32% of the variance in student-athletes ratings of overall college adjustment. The predictive weight of each of the significant variables can be seen in Table 6.

Table 4: Pearson Correlations between all Predictor and SACQ Criterion Variables

		SACQ Total	SACQ Academic Adjustment	SACQ Social Adjustment	SACQ Personal Emotional Adjustment	SACQ Attachment	Sport Attrition	Institutional Attrition
GPA		.22**	.27**	.15	.12	.23**	-.03	.08
LOT-R		.28**	.26**	.22**	.33**	.25**	.13	.13
TSI								
	Sport-team/goal commitment	.39**	.34**	.36**	.33**	.44**	.48**	.35**
	Teammate Relations	.32**	.21*	.38**	.27**	.39**	.33**	.23**
	Sport and Athletic Development	.31**	.25**	.29**	.31**	.33**	.28**	.26**
	Informal Relations with Coaches	.28**	.23**	.29**	.21**	32**	.26**	.24**
	Coach Concern for Athlete Development	.10	.11	.10	.07	.10	.06	.13
Brief COPE								
	BC- Instrumental Support	.22**	.26**	.22**	.08	.25**	.05	.06
	BC- Positive Reframing	.21**	.21**	.19**	.15	.22**	.10	.19*
	BC- Active Coping	.16*	.12	.16*	.14	.18*	.10	.07
	BC-Emotional Support	.16*	.21**	.11	.07	.16*	.02	.07
	BC- Planning	.14	.18*	.09	.07	.13	.04	.06
	BC- Religion	.13	.15	.08	.12	.08	-.03	.15
	BC- Acceptance	.12	.13	.10	.07	.14	.10	.10
	BC- Humor	.04	-.01	.12	-.02	.11	.08	.08
	BC- Self Distraction	.00	.04	.01	-.14	.06	-.09	.02
	BC- Venting	-.07	-.01	-.05	-.19**	-.03	.00	-.05
	BC- Behavioral Disengagement	-.24**	-.19*	-.21**	-.27**	-.24**	-.03	-.05
	BC- Self Blame	-.30**	-.20**	-.25**	-.43**	-.21**	-.03	-.04
	BC- Substance Use	-.30**	-.25**	-.25**	-.30**	-.32**	-.14	-.30**
	BC- Denial	-.35**	-.32**	-.29**	-.37**	-.31**	-.17*	-.21**

*Correlation is significant at the .05 level (2-tailed)
**Correlation is significant at the .01 level (2-tailed)

Table 5: Model Summary: Stepwise Multiple Regression for Overall College Adjustment.

Predictor		β	t-value	Sig.
TSI				
	Sport-team/goal commitment	.31	4.5	.001
Brief Cope				
	Denial	-.17	-2.15	.03
	Positive reframing	.181	2.48	.01
	Self-blame	-.23	-2.93	.00
	Instrumental support	.16	2.15	.03

Table 6: Coefficients: Stepwise Multiple Regression for Overall College Adjustment

Step	Variable Entered	R	R^2	R^2 Change	F Change	Sig. F Change
1	TSI Sport-Team Goal Commit.	.39	.15	.15	28.19	.001
2	BC- Denial	.47	.22	.07	14.52	.001
3	BC- Positive Reframing	.52	.27	.04	8.74	.001
4	BC- Self-Blame	.55	.30	.03	7.31	.01
5	BC- Instrumental Support	.57	.32	.02	4.62	.03

Follow-up Analysis

Analysis of Attrition

Pearson correlation coefficients among adjustment (SACQ), integration (TSI and SAI), and attrition can be seen in Table 7. As seen in Table 7, these results indicate that the relationship between TSI scores and sport attrition are stronger and more consistent than the relationship between either SACQ scores or SAI scores and sport attrition. Likewise the relationship between the TSI scores and institutional attrition were stronger and more consistent that the scores between the SAI and institutional attrition. However, the SACQ scores displayed the strongest relationship with institutional attrition.

Table 7: Pearson Correlations between SACQ totals and subscales, TSI subscales, SAI subscales and Attrition.

Measure	Subscales	Sport Attrition	Institutional Attrition
SACQ		.33**	.49**
	Academic adjustment	.25**	.43**
	Social adjustment	.36**	.49**
	Personal emotional adjustment	.26**	.35**
	Institutional goal attachment	.41**	57**
TSI			
	Sport-team/goal commitment	.48**	.35**
	Teammate relations	.33**	.23**
	Sport and athletic development	.28**	.26**
	Informal relations with coaches	.26**	.24**
	Coach concern for athlete development	.06	.13
SAI			
	Academic intellectual development	.15	.21**
	Institutional goal commitment	.42**	.46**
	Informal relations with faculty	.17*	.20*
	Peer relations	.17*	.10
	Faculty concern for student development	-.07	-.04

 *Correlation is significant at the .05 level (2-tailed)
**Correlation is significant at the .01 level (2-tailed)

Next a stepwise regression analysis was run to examine the relevant contribution of each of the adjustment and integration scales on intention to persist in sport (see Table 8). As seen in Table 8, the combination of TSI sport-team/goal commitment, SACQ attachment, and SACQ academic adjustment significantly predicted student-athletes' intention to persist in their sport. The combination of these variables accounted for 30% of the variance in student-athletes intention to persist in sport participation. The predictive weight of each of the significant variables can be seen in Table 9.

Table 8: Model Summary: Stepwise Multiple Regression Analysis for Sport Attrition.

Step	Variable Entered	R	R^2	R^2 Change	F Change	Sig. F Change
1	TSI- Sport-Team/Goal Commit.	.48	.23	.23	47.69	.001
2	SACQ Attachment	.53	.28	.05	10.36	.001
3	SACQ Academic Adjustment	.55	.30	.02	4.16	.04

Table 9: Coefficients: Stepwise Multiple Regression Analysis for Sport Attrition

Predictor		β	t-value	Sig.
TSI				
	Sport-Team/Goal Commit.	.63	4.97	.001
SACQ				
	Attachment	.03	3.63	.001
	Academic Adjustment	-.013	-2.04	.04

Finally, a stepwise regression analysis was run to examine the relevant

contribution of each of the adjustment and integration scales on intention to persist in

school (see Table 10). As seen in Table 10, the combination of SACQ attachment, SAI

institutional goal attachment, and SAI peer relations significantly predicted student-

athletes' intention to persist at their school. The combination of these variables accounted

for 39% of the variance in student-athletes intention to persist at their university. The

predictive weight of each of the significant variables can be seen in Table 11.

Table 10: Model Summary: Stepwise Multiple Regression Analysis for Institutional Attrition

Step	Variable Entered	R	R^2	R^2 Change	F Change	Sig. F Change
1	SACQ Attachment	.57[a]	.33	.33	75.51	.001
2	SAI Institutional/Goal Commit.	.61[b]	.37	.04	10.09	.001
3	SAI Peer Relations	.62[c]	.39	.02	6.15	.01

Table 11: Coefficients: Stepwise Multiple Regression Analysis for Institutional Attrition

Predictor	β	t-value	Sig.
SACQ			
Attachment	.03	6.68	.001
SAI			
Institutional Goal Commitment	.47	3.63	.001
Peer Relations	-.18	-2.48	.01

Between-subjects Comparisons

Four MANOVA's were calculated comparing the LOT-R, Brief Cope subscales, TSI subscales, SAI subscales, SACQ totals and SACQ subscales across school, gender, playing time received and scholarship received. A significant main effect was found for gender, $F(31, 127) = 3.08$, $p < .001$, $\eta^2 = .43$. As seen in Table 12, women reported using the coping strategies of self-distraction, emotional support, instrumental support, venting, positive reframing, acceptance, and religion significantly more than men. Women also reported higher levels of academic and intellectual development, academic adjustment, and institutional goal attachment than did men.

A significant main effect was also found for school, $F(31, 127) = 2.07$, $p < .01$, $\eta^2 = .34$. Specifically, significant differences were found for use of the coping strategy of religion, $F(1, 158) = 11.27$, $p < .001$, $\eta^2 = .07$, and ratings of coach concern for athlete development $F(1, 158) = 6.26$, $p < .05$, $\eta^2 = .04$. The NCAA Div. II school reported greater use of religion as a coping strategy ($m = 4.97$, $sd = 2.02$) than the NCAA Div. I school ($m = 3.92$, $sd = 1.86$), and the NCAA Div. II school reported that their coaches were significantly more concerned with their development ($m = 5.98$, $sd = 1.51$) than the NCAA Div. I school ($m = 5.34$, $sd = 1.63$). No significant main effects were found for

either playing time received $F(62, 252) = 1.21$, $p > .05$, $\eta^2 = .23$, or scholarship received $F(62, 254) = 1.30$, $p > .05$, $\eta^2 = .24$.

Comparison of TSI and SAI

Finally, to examine similarities among student-athletes' perceptions of team/sport integration and social/academic integration a Pearson correlation was computed to examing the relationships between the SAI subscales and their modified TSI counterparts. Significant positive relationships were found among each of the five factors (see Table 13). This indicates that student-athletes who reported better levels of integration into their sport/team environment also rated themselves as having better social and academic integration.

To compare differences in student-athletes' perceptions of integration into the sport-team environment compared to social/academic integration five one-way repeated measures ANOVA's were computed comparing student athletes ratings from each of the SAI subscales to the modified TSI subscale counterparts. As seen in Table 15, three significant differences were found between the TSI and the SAI. Student athletes report having stronger relationships with their teammates than their college peers. Student athletes report a stronger commitment towards attending their institution and graduating from it than towards participating in and completing their eligibility in sport. Student athletes report that their coaches are significantly more concerned with their development than their faculty. No significant difference between TSI informal relations with coaches and SAI informal relations with faculty or between TSI sport and athletic development and SAI academic and intellectual development were found.

Table 12: Mean Comparisons of Criterion and Outcome Measures Across Gender.

Measure	Subscale	Mean women	Mean men	F	η^2
LOT-R		16.28	16.37	.03	.001
Brief Cope					
	Self distraction	5.62	4.76	15.98**	.09
	Active coping	5.86	5.84	.00	.001
	Denial	2.65	2.84	.89	.01
	Substance use	2.49	2.61	.46	.001
	Emotional support	5.71	4.49	24.41**	.14
	Instrumental support	5.78	4.71	17.16**	.10
	Behavioral disengagement	2.74	2.72	.01	.001
	Venting	4.29	3.66	9.26**	.06
	Positive reframing	5.81	5.34	4.42*	.03
	Planning	5.90	5.44	3.65	.02
	Humor	4.29	4.08	.56	.00
	Acceptance	5.71	4.96	11.26**	.07
	Religion	4.74	4.01	5.40*	.03
	Self blame	4.22	4.00	.67	.001
TSI					
	Teammate relations	6.83	6.88	.06	.001
	Informal relations with coaches	5.82	5.87	.05	.001
	Sport-team/goal commitment	6.80	6.84	.06	.001
	Coaches concern for player development	5.68	5.52	.38	.001
	Sport and athletic development	6.10	6.31	1.13	.01
SAI					
	Academic and intellectual development	6.55	6.11	6.59*	.04
	Peer relations	6.36	6.50	.37	.01
	Informal relations with faculty	5.71	5.57	.44	.01
	Institutional goal commitment	7.31	7.10	2.55	.02
	Faculty concern for student development	5.30	5.17	.38	.01
SACQ		433.35	400.72	5.08	
	Academic adjustment	153.41	136.48	11.71**	.07
	Social adjustment	132.38	125.49	1.93	.17
	Personal emotional adjustment	86.91	85.57	.13	.72
	Institutional goal attachment	106.77	96.17	7.40**	.01

†*df* =1   * Significant at the .05 level (2-tailed)
                       **Significant at the .01 level (2-tailed)

Table 13: Pearson Correlations between SAI and TSI subscales.

TSI	Teammate Relations	Informal Relations with Coaches	Coach's Concern for Athletic Development	Sport and Athletic Development	Sport/Team Goal Commitment
r	.41**	.36**	.54**	.39**	.64**
SAI	Peer Relations	Informal Relations with Faculty	Faculty Concern for Athletic Development	Academic and Intellectual Development	Institutional Goal Commitment

**Correlation significant at the .01 level (2-tailed)

Table 14: Mean Comparisons between TSI and SAI.

Construct	TSI mean	SAI mean	*F*	η^2
Team and peer relations	6.86	6.44	12.49**	.07
Sport/team and institutional/goal commitment	6.82	7.19	30.99**	.16
Coaches and faculty concern for student athlete development	5.59	5.22	10.10**	.06
Informal relations with coaches and faculty	5.85	5.63	3.18	.02
Sport/athletic and academic/intellectual development	6.22	6.30	.64	.01

† *df* = 1   *Significant at the .05 level (2-tailed)
                                   **Significant at the .01 level (2-tailed)

CHAPTER V

DISCUSSION AND CONCLUSIONS

Research on college student adjustment indicates that adjustment to college is the product of both individual and environmental factors (Brooks and Dubois, 1995; Pascarella & Terenzini, 1979; Tinto, 1975). Individual factors including demographic, aptitude and personality have been found to influence individual adjustment to college (Aspinwall & Taylor, 1992; Brooks and Dubois, 1995; Montgomery et al, 2003; Pascarella & Terenzini, 1979; Tinto, 1975). Integration into various structures of the college environment has also been found to impact college adjustment (Brooks and Dubois, 1995; Melendez, 2006; Pascarella & Terenzini, 1979; Tinto, 1975). Unfortunately, no research has examined what combination of individual and environmental factors specifically influence the college adjustment of student-athletes. Thus, this study aims to identify specific types of integration and personality factors which may impact the college adjustment of student athletes.

Preliminary Analysis

Preliminary analysis revealed that aside from the moderate use of self-distraction athletes engage more frequently in active coping rather than avoidant coping (see Table 2). This indicates that athletes more frequently used coping strategies which help them actively deal with adverse conditions. It was also found that student-athletes reported levels of optimism (LOT-R) which were noticeably higher ($M = 16.33$, $SD = 3.73$)

than the original sample of college students (*M* = 14.33, *SD* = 4.28) that Scheier et al. (1994) collected. The elevated level of optimism among the sample could be the reason that active coping was employed more frequently than avoidant coping. As has been previously reported, individuals who report higher levels of optimism also report using active coping strategies more frequently, and avoidant coping strategies less frequently than individuals who report lower levels of optimism (Aspinwall & Taylor, 1992; Nes and Segerstrom, 2006; Scheier & Carver, 1992, 1993).

Consistent with previous literature, higher levels of optimism (LOT-R), and the use of more active coping strategies (instrumental support, positive reframing, active coping, and emotional support) was significantly related to better overall college adjustment (SACQ totals) (see Table 4). In contrast, the use of more avoidant coping strategies (behavioral disengagement, self-blame, substance use, and denial) were significantly related to poorer overall college adjustment (SACQ totals). Several forms of sport/team integration (TSI teammate relations, sport and athletic development, informal relations with coaches, and sport/team goal commitment) were positively and significantly related to overall college adjustment (SACQ totals). Each of these findings lend support to the hypothesis that the combination of individual and environmental factors including personality and sport specific integration predict college adjustment.

<center>Test of the Hypothesis</center>

It was hypothesized that the combination of an athlete's optimism, use of active or avoidant coping, and integration into the sport environment would be significant predictors of college adjustment. This hypothesis was partially supported. Findings

revealed that commitment to one's sport and athletic goals (TSI sport-team/goal commitment), use of positive reframing, instrumental support, denial, and self blame made unique contributions in the prediction of college adjustment (see Table 5). While optimism and four of the TSI subscales were not significant predictors, results did indicate that aside from athletes' perceptions of their coaches concern for their development each of these factors were significantly correlated with athletes' ratings of college adjustment. This suggests that although optimism and some forms of athletic integration may not contribute relevant information to the prediction of student-athlete adjustment, they are involved in the process.

The major contribution of this study is the finding that student athletes' commitment to sport goals within their particular institution is important to their adjustment. This finding converges with the major theories of Tinto (1975) and Pascarella (1985) which suggest that commitment to one's goals and particular institution are meaningful contributors to college persistence. This finding enhances our understanding of the differences between the adjustment process of student-athletes and the general student body. For an athlete's commitment not only to his/her institution but to his/her actual sport/team within that institution weighs critically in his/her ability to adjust to that institution.

This finding provides additional support for the theory that specific coping strategies may enhance a student's ability to adjust to college. The use of positive reframing and instrumental support significantly predicted successful adjustment to college, while the use of denial, and self-blame significantly predicted poor adjustment to

college. This is directly parallel to the theories of Aspinwall and Taylor (1992) and Scheier and Carver (1993), such that the use of active methods of coping (e.g. positive reframing and instrumental support) enhances adjustment, while the use of avoidant coping strategies diminishes adjustment.

While optimism (LOT-R) did not make a unique contribution in the prediction of college adjustment for student athletes, its significant correlation with both overall college adjustment, and several of the coping strategy subscales indicate that it is a relevant construct with regard to college adjustment (see Appendix I). As previous literature has stated optimism predicts the use of more active coping strategies and less avoidant coping strategies. It could be hypothesized that although optimism did not directly predict student-athlete adjustment it may have moderated the coping strategies that student athletes employed when adjusting to college (Aspinwall and Taylor, 1992; Scheier and Carver, 1993). The current study was unable to examine this relationship because it lacked the necessary number of participants to compute a structural equation model.

These findings underscore the importance of both individual (coping) and environmental (integration) factors. The sport environment places specific demands on student athletes which they must resolve to successfully adapt to college. Individual characteristics play a role in how student-athletes approach that adaptation process. These findings imply that integration into aspects of the sport environment in combination with the use of certain coping strategies can reliably predict student-athlete adjustment to college. This indicates that for athletes developing a sense of belonging and commitment

to their team/sport within their institution is an important component of college adjustment. This could make meaningful contributions to the screening of and programming employed for student athletes. If administrators could find opportunities to improve athletes' sense of belonging within their individual sport, athletic department, and the institution they could enhance student-athletes' perceptions of successful adjustment. Additionally, direct training in self-regulation to improve the active-coping strategies of student-athletes may actually enable adjustment to college.

Follow-up Analysis

Attrition

Consistent with previous literature, it was found that college adjustment was significantly correlated with student-athletes' likelihood of persisting in both sport and school. Interestingly, our findings indicate for student-athletes team and sport integration appear to be more strongly and consistently related to both intention to persist in sport and school than social and academic integration (see Table 7). However, our regression analysis of attrition indicated that team sport integration (team-sport/goal commitment) was only a unique predictor of students' intention to persist in sport accounting for 23% of the variance in sport attrition scores; while institutional/goal attachment was the primary predictor of intention to persist in school accounting for 33% of the variance in institutional attrition (see Tables 8 & 10). These findings converge with the Tinto (1975) hypothesis and the Pascarella and Terenzini (1979) finding that adjustment and integration into the college environment is a crucial determinant of later college drop-out. This study extended the literature by clarifying the factors (i.e. integration into sport, and

poor coping) which determine why an athlete would discontinue sport participation

Findings indicate that for athletes integration into their specific sport environment plays an important role in attrition from sport. This differentiates student-athletes from non-athletes because one of the primary reasons student-athletes choose to attend a given institution is the sport program within which they are participating. Thus, if an athlete fails to adjust to his/her sport environment and chooses to discontinue sport participation she may also drop out or transfer to another institution. This indicates that for college student-athletes there are other factors in addition to general institutional integration and individual factors (i.e. personality variables) which contribute to their decision to persist in sport and/or school. This supports the notion that adjustment to both sport and school is critical in the college persistence of student-athletes, highlighting the relevance of programming aimed at enhancing student-athletes' ability to cope and integrate into their sport and institutional environments.

Between-subjects Comparison of Variables

Several significant differences were found among coping strategies (e.g. self-distraction, emotional support, instrumental support, behavioral disengagement, venting, positive reframing, acceptance, and religion) as a function of gender. Women reported using each of these coping strategies more frequently than men (see Table 7). While this is not necessarily consistent with the available literature, it may be that female student-athletes perceive their situation as more difficult than male student-athletes and must engage in more coping strategies to deal with this perceived adversity.

In addition to coping differences, women also report having significantly better academic and intellectual development and more successful academic adjustment than men (see Table 7). This may be because women are employing more coping strategies to deal with the demands of being both a student and athlete and are better able to adjust to the academic demands placed upon them.

Finally, two significant differences were found between the NCAA Division I and Division II schools. The NCAA Division II school reported greater use of religion as a coping strategy and reported that their coaches were significantly more concerned with their development than the Division I school. Unfortunately, while these findings may be interesting, it is difficult to know what may have caused them because we only collected data at two schools that differed on several factors (i.e. institution, NCAA Division-level, and geographical location) that may have influenced our results.

Comparison of TSI vs. SAI

To examine both the similarities and differences between student athletes' perceptions of integration into the social and academic environment with integration into their team and sport environment correlations and within-subjects comparisons were conducted between each of the SAI and TSI subscales (see Tables 13 & 14). Each of the subscales were significantly and positively correlated indicating that if a student-athlete integrates successfully into their sport environment they will also be likely to integrate successfully into the social and academic environments within their institution. Interestingly, the strongest correlation was between team-sport/goal commitment and institutional/goal attachment ($r = .64$, $p < .01$). This further highlights the relevance of a

student-athletes' commitment to their sport goals and sense of belonging on their team as

it may be impacting their general sense of belonging and commitment to their institution.

Additionally, no significant differences were found between SAI informal

relations with faculty and TSI informal relations with coaches, or SAI academic and

intellectual development and TSI sport and athletic development. However, three

significant differences were found between SAI peer relations and TSI teammate

relations, SAI institutional goal commitment and TSI team sport goal commitment, and

SAI faculty concern for student development and TSI coaches concern for student-athlete

development. Student-athletes rate themselves as having better relations with their

teammates than their peers and rate their coaches as being more concerned with their

athletic development than their faculty are concerned with their academic development.

Conversely, student-athletes rate themselves as being more committed to their

institutional and collegiate goals than to their team and sport goals.

Without assigning value to either sport team integration or social academic

integration, these results indicate that student athletes do in fact integrate into their team

and sport differently than they integrate into the social and academic structures of their

institution. Given the literature supporting the importance of integration into the college

environment on college drop-out, these findings suggest that integration into a student

athlete's sport-team is an additional component which makes unique contributions to

college adjustment and persistence. Thus, it would seem that when determining athletes

who may be at risk of poor adjustment or dropout, or developing programming to

enhance student-athlete adjustment and persistence specific attention should be paid to

the student-athletes integration into the sport team environment.

Implications

In this study integration into the team/sport environment emerged as a relevant component of both the adjustment and persistence of college student-athletes. Specifically, a high level of integration and commitment to ones' team and ones' sport goals accounted for 31% of the variance in student-athletes ratings of adjustment, and 23% of the variance in their intention to persist in their sport. This finding should help to inform university administrators' decisions regarding the implementation of programming to enhance the development of college student-athletes. While a variety of structures are in place to encourage student-athlete developmental programming within universities, program choice and curriculum are largely up to individual program directors. Often directors choose programming which they generally feel will be beneficial to the student-athlete; however the current findings may enhance their ability to make informed decisions regarding which programs may actually improve student-athlete welfare.

Specifically, enhancing an athletes' sense of belonging on their team at their particular institution in combination with fostering a strong commitment to their sport goals may improve the college adjustment, persistence, and success of student-athletes. Thus, administrators and directors should employ programming aimed at improving team-building, team-dynamics, and role development in order to foster these types of team/sport integration. Furthermore, promoting the use of more active methods of coping with adversity may actually enable student-athletes with the skills which will make the

process of adjusting to the demands of both sport and school easier. Directors could go so far as to employ sport-psychology consultants to improve the self-regulatory behaviors (i.e. self-talk, problem solving, activation management, etc.) of student-athletes so that they are equipped to deal with the adversities that accompany being a student-athlete.

Limitations

While the results of this study have important implications with regard to the adjustment and attrition of student-athletes the study was primarily exploratory and had several limitations.

Measurement Issues

Several potential measurement issues could have influenced the results of this study. First, the SAI measure developed by Pascarella and Terenzini (1979) was not rigorously validated during its development. While, the SAI did appear to provide appropriate content validity, the concurrent validity was not measured in relation to other questionnaires. Second, because the TSI measure was modified from the SAI to reflect sport specific forms of integration, it was only examined for scale reliability and concurrent validity to the SAI. Our results do indicate that the relationships between the TSI and SAI are strong and reliable, indicating that the TSI scale was measuring similar constructs as the SAI, yet in a different context (sport). However, both the TSI and the SAI had low scale reliability for team-sport/goal commitment and institutional/goal commitment. It may be that each subscale composed of two items each, are measuring two different constructs, commitment to ones team/institution, and commitment to ones sport/college goals (see Appendices D & E). While these two constructs have some

degree of overlap, a students' level of commitment to his/her sport/college goals may remain high while his/her commitment to his/her institution/team could actually be low. This scenario could have resulted in low scale reliability.

Moreover, because all college athletes regardless of the competition season were included in the sample, participants' perceptions may have differed depending upon where they were in their sport season. Finally, the mean LOT-R scores provided by the current sample ($m = 16.33$, $sd = 3.73$) are considerably higher than those from the original validation sample ($m = 14.33$, $sd = 4.28$) provided by Scheier, Carver, and Bridges (1994). The lack of variability in LOT-R scores may have influenced our inability to find optimism as a significant predictor of college adjustment.

Internal Validity

Due to the correlational nature of this research we cannot know with certainty that any of the predictor variables caused any of the criterion variables. Likewise, due to the nature of the development of the SAI and TSI we cannot be certain that either test was actually measuring what it was supposed to measure. Additionally, there are a variety of other confounding psychosocial variables which could potentially influence both college adjustment and attrition but could not be measured.

External Validity

Due to the nature of using a regression analysis population specificity is a relevant concern with regard to these findings. The regression equation calculated will likely loose predictive power if it is applied to a sample outside of the characteristics of the current sample. The regression equation would likely suffer shrinkage if it were

applied to athletes competing at NCAA divisions other than I and II, if it were applied to athletes who were not participating in any of the sports included in the current sample, if it were applied to athletes who had not yet completed one semester of collegiate coursework, or if it were applied to student-athletes who were in their junior or senior seasons of eligibility.

Future Directions

The next step for this research is the development and validation of a measurement to assess the college adjustment of student-athletes. This measure should incorporate subscales measuring integration into the sport environment in addition to subscales that measure social and academic integration (similar to those already available). This measure would enable athletic departments and student-athlete welfare departments to measure the college adjustment of student-athletes. In doing this, departments may identify student-athletes who are at risk of dropping out of sport and/or school, and may then provide assistance which could improve their ability to cope with the adversity of sport and school.

Conclusions

Research on the general student population has suggested that in order for students to adjust successfully to college they must integrate their individual characteristics into the various structures of the college institution, and that successful integration will lead to persistence in college (Tinto, 1975; Pascarella & Terenzini, 1975; Brooks & DuBois, 1995). Literature indicates that certain personality characteristics such as optimism and coping differentiate the ways that students approach the process of

adjusting to different college environments. The literature available has only explored these relationships among the general student body; however, we know that there are a variety of unique sub-culture which must integrate into specific environments to be successful in college. One of these sub-cultures is that of student-athletes. While research on the college adjustment of athletes is limited, Melendez (2007) did find that student-athletes reported different levels of adjustment than non-athletes. This finding indicates that there are additional factors which impact the adjustment process of student athletes. Thus the purpose of the current study was to examine how relevant personality characteristics in combination with integration into the sport environment predict student-athlete adjustment and persistence in college.

This research found that for student-athletes higher levels of commitment to one's sport team and one's sport goals are predictive of better adjustment to college. Moreover, the use of more active coping strategies, and less avoidant coping strategies were also predictive of better adjustment to college. Finally this research found that among student-athletes, higher levels of commitment to one's sport team and one's sport goals predicted a greater likelihood to persist in sport. These findings generally suggest that for student-athletes integration into specific components of their sport and team within their institution may play an important role in their ability to adjust and persist in either sport and/or school.

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Appendix A

Relevant Demographic Information and Attrition

Age: (fill in) _____

Sport: (fill in) _____

Gender (circle):   Male   Female

Race/Ethnicity:

1. Native American or Alaskan Native
2. Asian
3. Black or African American
   (not of Hispanic origin)
4. Hispanic or Latino

5. Native Hawaiian or other Pacific
   Islander
6. White or Caucasian
   (not of Hispanic origin)

Current cumulative college GPA to date _____

What type of playing time do you receive? (circle one):

Never Play   Sometimes Play   Always Play

What type of athletic scholarship do you receive? (circle one):

Full Scholarship   Partial Scholarship   No Scholarship

Following this season/school year, how certain are you that you will continue playing on this team? (circle one number):

Not at all 0%   10%   20%   30%   40%   50%   60%   70%   80%   90% 100% **Absolutely certain**

Following this season/school year how likely are you to continue attending this institution?   (circle one number):

Not at all 0%   10%   20%   30%   40%   50%   60%   70%   80%   90% 100% **Absolutely certain**

Appendix B

The Life Orientation Test – Revised (Scheier, Carver, & Bridges, 1994).

For the questions below, try not to let your response to one statement influence your responses to other statements. There are NO correct or incorrect answers. Answer according to your own feelings, rather than how you think "most people" would answer.

0 = Strongly Disagree   1 = Disagree   2 = Neutral   3 = Agree   4 = Strongly Agree

_____ 1. In uncertain times, I usually expect the best.

_____ 2. It's easy for me to relax.

_____ 3. If something can go wrong for me, it will.

_____ 4. I'm always optimistic about my future.

_____ 5. I enjoy my friends a lot.

_____ 6. It's important for me to keep busy.

_____ 7. I hardly ever expect things to go my way.

_____ 8. I don't get upset too easily.

_____ 9. I rarely count on good things happening to me.

_____10. Overall, I expect more good things to happen to me than bad.

Appendix C

The Brief COPE (Carver, Scheier, & Weintraub, 1989)

There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU— not what you think "most people" would way or do. Indicate what YOU usually do when YOU experience a stressful event.

1	2	3	4
I usually don't do this at all	**I usually do this a little bit**	**I usually do this a medium amount**	**I usually do this a lot**

_____ 1. I've been turning to work or other activities to take my mind off things.
_____ 2. I've been concentrating my efforts on doing something about the situation I'm in.
_____ 3. I've been saying to myself "this isn't real.".
_____ 4. I've been using alcohol or other drugs to make myself feel better.
_____ 5. I've been getting emotional support from others.
_____ 6. I've been giving up trying to deal with it.
_____ 7. I've been taking action to try to make the situation better.
_____ 8. I've been refusing to believe that it has happened.
_____ 9. I've been saying things to let my unpleasant feelings escape.
_____ 10. I've been getting help and advice from other people.
_____ 11. I've been using alcohol or other drugs to help me get through it.
_____ 12. I've been trying to see it in a different light, to make it seem more positive.
_____ 13. I've been criticizing myself.
_____ 14. I've been trying to come up with a strategy about what to do.
_____ 15. I've been getting comfort and understanding from someone.

_____ 16. I've been giving up the attempt to cope.
_____ 17. I've been looking for something good in what is happening.
_____ 18. I've been making jokes about it.
_____ 19. I've been doing something to think about it less, such as going to movies,
 watching TV, reading, daydreaming, sleeping, or shopping.
_____ 20. I've been accepting the reality of the fact that it has happened.
_____ 21. I've been expressing my negative feelings.
_____ 22. I've been trying to find comfort in my religion or spiritual beliefs.
_____ 23. I've been trying to get advice or help from other people about what to do.
_____ 24. I've been learning to live with it.
_____ 25. I've been thinking hard about what steps to take.
_____ 26. I've been blaming myself for things that happened.
_____ 27. I've been praying or meditating.
_____ 28. I've been making fun of the situation.

Scale

1. Self-distraction
   a. Items: 1 and 19
2. Active coping
   a. Items: 2 and 7
3. Denial
   a. Items: 3 and 8
4. Substance use
   a. Items: 4 and 11
5. Use of emotional support
   a. Items 5 and 15
6. Use of instrumental support
   a. Items: 10 and 23
7. Behavioral disengagement
   a. Items: 6 and 16
8. Venting
   a. Items: 9 and 21
9. Positive reframing
   a. Items: 12 and 17
10. Planning
    a. Items: 14 and 25
11. Humor
    a. Items: 18 and 28
12. Acceptance
    a. Items: 20 and 24

13. Religion
    a.   Items: 22 and 27
14. Self-blame
    a.   Items: 13 and 26

Appendix D

Social and Academic Integration Measurement (Pascarella & Terenzini, 1979)

For the questions below, try not to let your response to one statement influence your responses to other statements. There are NO correct or incorrect answers. Answer according to your own feelings, rather than how you think your peers might answer.

1	**2**	**3**	**4**
Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**

1. _____ Since coming to this university I have developed close personal relationships with other students.
2. _____ My non-classroom interactions with faculty have had a positive influence on my personal growth, values and attitudes.
3. _____ It is important for me to graduate from college.
4. _____ Few of the faculty members I have had contact with are generally interested in students.
5. _____ I am satisfied with the extent of my intellectual development since enrolling in this university.
6. _____ The student friendships I have developed at this university have been personally satisfying.
7. _____ My non-classroom interactions with faculty have had a positive influence on my career goals and aspirations.
8. _____ I am confident that I made the right decision in choosing to attend this university.
9. _____ My academic experience has had a positive influence on my intellectual growth and interest in ideas.
10. _____ Few of the faculty members I have had contact with are generally outstanding or superior teachers.

Scale:

1. Peer Group Relations
   a. Items: 1 and 6
2. Informal Relations with Faculty
   a. Items: 2 and 7
3. Institutional/Goal Commitment
   a. Items: 3 and 8
4. Academic and Intellectual Development

        a. Items: 5 and 9
5. Faculty Concern for Teaching and Student Development
        a. Items: 4 and 10

Appendix E

Team Sport Integration Measurement

For the questions below, try not to let your response to one statement influence your responses to other statements. There are NO correct or incorrect answers. Answer according to your own feelings, rather than how you think your teammates might answer.

1	**2**	**3**	**4**
Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**

1. _____ Since coming to this university I have developed close personal relationships with my teammates.
2. _____ My non-sport interactions with my coaches have had a positive influence on my personal growth, values and attitudes.
3. _____ It is important for me to complete my eligibility in my sport.
4. _____ Few of my coaches are generally interested in their athletes.
5. _____ I am satisfied with the extent of my athletic development since enrolling at this university.
6. _____ The teammate friendships I have developed at this university have been personally satisfying.
7. _____ My non-sport interactions with my coaches have had a positive influence on my sport goals and aspirations.
8. _____ I am confident that I made the right decision in choosing to attend and participate in sport at this university.
9. _____ Few of my coaches are generally outstanding or superior coaches.
10. _____ My sport experience has had a positive influence on my athletic development and interest in improving technically.

Scale:

1. Teammate Relations
    b. Items: 1 and 6
2. Informal Relations with Coaches
    c. Items: 2 and 7
3. Institutional/Goal Commitment
    d. Items: 3 and 8
4. Sport and Athletic Development
    a. Items: 5 and 10

5. Coach Concern for Athlete Development
    e. Items: 4 an

Appendix F

E-mail to Coaches

Dear Coach/Student Athlete Academic Coordinator,

I am a graduate student studying sport psychology at the University of North Carolina at Greensboro. I am conducting a thesis as a formal part of my master's degree requirements. My study is an exploration of the relationship between optimism, coping strategies, and the sport environment on freshman college adjustment. Research examining the general college student population shows that individual (i.e. optimism and coping strategies) and environmental (i.e. peer and faculty relationships) factors are predictive of college adjustment, and adjustment is predictive of college dropout. By enhancing our understanding of the factors which promote healthy adaptation to college among athletes, we may be able to provide better interventions to enhance adjustment and reduce drop out in both sport and school.

I am writing to request the participation of the freshman athletes on your team in my study. If you agree to allow your athletes to participate I will come to your school at a time you deem appropriate, I will distribute a questionnaire packet, and I will collect the packets immediately. The questionnaires will take approximately a half an hour to complete. Following the completion of my study, I will provide you with a written summary of the findings.

If you are interested in participating you can e-mail me to set up a meeting time when I can distribute the questionnaire packet and the athletes can complete it.

Thank you for your consideration,

Brett C. Haskell
ESS M.S. Candidate
Specializing in Sport and Exercise Psychology
The University of North Carolina at Greensboro
bchaskel@uncg.edu

Appendix G

Informed Consent

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: <u>The Effects of Optimism, Coping Strategies, and the Sport Team Environment on the College Adjustment of Student-Athletes.</u>

Project Director: <u>Brett C. Haskell</u>

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PURPOSE AND PROCEDURES:

The purpose of this research is to expand our understanding of the factors which enhance or prohibit athletes from successfully adjusting to college. It is our hope that this research will improve the interventions available to assist student-athletes in the college adjustment process. If you agree to participate in this study you will complete a questionnaire regarding your outlook on the future, the coping strategies you use in stressful situations, and your experiences in college and athletics. Completion of the questionnaire will take approximately 20-40 minutes

POTENTIAL RISKS AND DISCOMFORTS:
There are no potential risks or discomforts associated with this study.

POTENTIAL BENEFITS:
Collegiate athletic programs will benefit from an improved understanding of the factors which promote or inhibit successful adjustment of student athletes to college.

By signing this consent form, you agree that you understand the procedures and any risks and benefits involved in this research. You are free to refuse to participate or to withdraw your consent to participate in this research at any time without penalty or prejudice; your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project.

The University of North Carolina at Greensboro Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at (336) 256-1482. Questions regarding the research itself will be answered by Brett Haskell by calling (402) 770-8506. Any new information that develops during the project will be provided to you if the information might affect your willingness to continue participation in the project.

By signing this form, you are affirming that you are 18 years of age or older and are agreeing to participate in the project described to you by Brett Haskell.

_____   _____
Participant's Signature*   Date

Appendix H

Instructions for Questionnaire Administration & Oral Consent Presentation

1. **READ** to participants:
   - Today I am going to give you a questionnaire regarding your outlook on the future, the coping strategies you use in stressful situations, and your experiences in college and in _____ (insert name of sport). Completion of the questionnaire will take approximately 30-40 minutes.
   - The first sheet you have been given is an informed consent, by signing that sheet you agree to participate in the study. It is important for you to recognize that any answers you provide are completely confidential. No personal identification will be linked to your packet. If you choose to participate in this study please read and sign the informed consent now.
   - Once you have signed the informed consent please place it in envelope 1.
2. Hand out the questionnaires.
3. **READ:**
   - I am now going to give you questionnaire. Please read the instructions before each section carefully. If you have any questions regarding what a specific item means please raise your hand and I will come and help you. It is critical to the research that you are as honest as possible. Do not answer the questions according to what you think you should say or feel, answer them according to how you ACTUALLY feel. When you are finished with your questionnaire please place it in envelope 2 (**show them the envelope**). Ok, you can go ahead and get started.

Appendix I

Pearson Correlations among LOT-R and Brief Cope Sub-scales

Scale	Subscale	LOT-R
Brief Cope		
	Self-Distraction	-.10
	Active-Coping	.31**
	Denial	-.27**
	Substance Use	-.15
	Emotional Support	.12
	Instrumental Support	.02
	Behavioral Disengagement	-.19*
	Venting	-.15
	Positive Reframing	.21**
	Planning	.02
	Humor	.06
	Acceptance	-.03
	Religion	.16*
	Self-Blame	-.37**

*Correlation is significant at the .05 level (2-tailed)
**Correlation is significant at the .01 level (2-tailed)