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Literature suggests that sport enjoyment is the greatest predictor of athletes' sport commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). Research has also shown that satisfaction and involvement opportunities are the greatest predictors of "want to" commitment to exercising (Wilson et al., 2004). However, the majority of the research on sport commitment has examined youth athletes. The purpose of this study was to examine sport commitment among collegiate athletes. Based on Scanlan et al.'s (1993) Sport Commitment Model, the relationship among sport commitment, sport enjoyment, personal investments, social constraints, and involvement opportunities were obtained using a modified version of the Athletes' Opinion Survey. The notion of "have to" commitment and "want to" commitment was also examined in this sample by determining their relationship to factors presented in a modified version of the Exercise Commitment Scale (i.e., satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). Surveys were administered to 101 collegiate soccer players (59 men, 42 women). Results of correlations and stepwise regressions revealed that involvement opportunities was the strongest predictor for sport commitment, whereas satisfaction was the strongest predictor for "want to" sport commitment. Findings from this study suggest that factors associated with sport commitment among collegiate athletes are different than prior research with youth athletes. Future research should address these differences in sport commitment between youth and collegiate athletes.

AN EXAMINATION OF SPORT COMMITMENT IN
COLLEGIATE ATHLETES

by

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TABLE OF CONTENTS

CHAPTER	Page
I. INTRODUCTION.....	1
Purpose of the Study	3
Potential Implications	3
II. REVIEW OF THE LITERATURE.....	5
Motivation in Sport.....	5
Commitment	10
Sport Commitment.....	11
Sport Commitment Among Non-youth Athletes	20
Exercise Commitment.....	24
Summary	26
Purpose.....	27
III. METHODS	29
Research Design.....	29
Participants.....	29
Measures	30
Participant Demographics	30
The Athletes' Opinion Survey	30
Exercise Commitment Scale	33
Procedure	34
Data Analysis	35
Hypotheses	36
IV. RESULTS	38
Participant Demographics.....	38
Scale Reliability	39
Descriptive Statistics.....	40
Correlations.....	42
Commitment Scores.....	42
Correlations between Surveys.....	43
Individual Survey Correlations	45
Stepwise Regression	48

V. DISCUSSION	51
Correlations and Stepwise Regressions	54
Limitations	62
Sample.....	62
Measurement Issues	63
Internal Validity	67
External Validity	67
Other Limitations	68
Future Directions	68
Implications.....	70
Conclusions.....	71
REFERENCES	73
APPENDIX A. PARTICIPANTS' DEMOGRAPHICS	79
APPENDIX B. MODIFIED EXERCISE COMMITMENT SCALE.....	80
APPENDIX C. MODIFIED ATHLETES' OPINION SURVEY	82
APPENDIX D. SAMPLE CONTACT LETTER FOR COACHES.....	85
APPENDIX E. INFORMED CONSENT FORM.....	86
APPENDIX F. PEARSON CORRELATIONS FOR THE ATHLETES' OPINION SURVEY AND THE EXERCISE COMMITMENT SCALE.....	87

CHAPTER I

INTRODUCTION

Sport has become a widely accepted and celebrated part of the world today. Increased media attention and celebrity advertisement have put sport at the forefront of society, resulting in an increase in sport participation, especially among youth (Lines, 2007). Extensive research has examined sport motivation and determinants of sport participation among youth athletes (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993). Scanlan et al. (1993a) defined sport commitment as the “desire and resolve to continue sport participation.” There are several factors that lead to an athlete’s initial participation in sport, as well as his or her ongoing commitment to that sport.

The Sport Commitment Model, developed by Scanlan and her colleagues (1993a, 1993b), suggests that enjoyment, personal investments, involvement opportunities, attractive alternatives, social constraints, and social support all influence an athlete’s level of sport participation and commitment. Among those factors, enjoyment has been the strongest predictor of sport commitment among youth athletes (Scanlan et al., 1993a, 1993b).

The Sport Commitment Model was initially validated with youth athletes (Scanlan et al., 1993a, 1993b; Carpenter, Scanlan, Simons, & Lobel, 1993), but little research has been done to examine sport commitment among college-aged and older

athletes. Scanlan, Russell, Beals, and Scanlan (2003) looked at sport commitment in elite-level rugby players in New Zealand and found that sport enjoyment and involvement opportunities were the strongest predictors of sport commitment for their sample. Wilson, Rodgers, Carpenter, Hall, Hardy, and Fraser (2004) examined exercise commitment in college-aged adults using a commitment scale they based on the Sport Commitment Model. Their study found two types of commitment: “want to” and “have to” commitment. “Want to” commitment refers to a person’s feelings of voluntary actions towards participation. “Have to” commitment refers to feelings of obligation towards exercise participation. Both the “want to” and “have to” dimensions of exercise commitment were predicted by satisfaction and personal investments.

Scanlan et al. (2003) and Wilson et al. (2004) represent the limited amount of studies that have examined commitment in populations older than youth athletes. With this limitation in mind, an examination of factors that lead to decreased or increased participation among these athletes is needed to advance the current research. College-aged athletes and older adults might not participate in sport for the same reasons as youth athletes, which would influence their commitment to participation in sport. With a growing number of alternatives to sport and pressures within collegiate sports, many college-aged athletes do not remain active in their sports throughout their full collegiate career (Kennedy & Dimick, 1987). Moreover, not all athletes continue their sport participation after college, either at the professional or recreational level (Kennedy & Dimick, 1987; Baillie & Danish, 1992). Even within collegiate athletics, there are certain experiences that are not available to the youth athlete (i.e.: playing for a university, a

scholarship, or the chance to play professionally after college). Thus, research into sport commitment among collegiate athletes is needed to start to understand sport commitment as the athlete begins the transition from youth to adult.

Purpose of the Study

The purpose of this study is to examine sport commitment among collegiate athletes. Specifically, the relationship among sport commitment, sport enjoyment, personal investments, social constraints, and involvement opportunities as the motivational factors proposed in the Sport Commitment Model will be analyzed across a sample of collegiate soccer players. The notion of “have to” commitment and “want to” commitment will also be examined in this sample by determining their relationship to the factors presented in a modified version of the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). Furthermore, it will be interesting to see if collegiate athletes participate in sport for similar reasons as youth athletes have reported in the past. Due to the different experiences an athlete gets from participating in collegiate athletics, it is hypothesized that personal investments will be the strongest predictor of sport commitment in collegiate athletes. It is also hypothesized that satisfaction and personal investments would be the top predictors of “want to” commitment in this collegiate sample.

Potential Implications

Examining sport commitment in collegiate athletes is an important issue for sport psychology because it can begin to shed light on potential motivational differences in

sport participation between youth and collegiate athletes. Extensive research has examined sport commitment in youth athletes; however, few studies have looked at sport commitment in adult athletes. Further knowledge about the potential differences in predictors of sport commitment across age could be beneficial to both coaches and parents by identifying strategies they could use to help keep athletes participating in sport as they get older. Maintaining sport commitment across the lifespan of the athlete could be an important part of keeping athletes involved in sports activities as they get older.

CHAPTER II
REVIEW OF THE LITERATURE

Motivation in Sport

While there are numerous factors that influence the motivation of youth athletes to stay committed to sport, several key factors have been identified as the strongest reasons of participation. Weiss and Williams (2004) noted that research has shown that these reasons tend to fall into one of three categories: physical competence/adequacy, social acceptance and approval, and enjoyment. They suggest that sustaining youth's participation is due to factors such as playing to develop and improve skills, playing to make and be with friends, and playing simply to have fun. Four theories have emerged that explain these motives behind participation in sport: Atkinson's (1964) motivational personality theory, Harter's (1978) Competence Motivation Theory, Eccles et al.'s (1983) expectancy-value model, and Nicholls' (1989) achievement goal theory.

Extending the work of Murray (1938) on achievement motivation as a personality dimension, Atkinson (1964) categorized two types of people based on motivation; those who are motivated to approach success, and those who are motivated to avoid failure. Individuals who are motivated to approach success take pride in their accomplishments, while those who are motivated to avoid failure experience shame when they fail. A person who has a high motivation to approach success and a low motivation to avoid failure takes on challenges without becoming overwhelmed about the possibility of

failing. This athlete could potentially have a greater level of commitment. Thus, this theory might demonstrate the impact an athlete's motivation has on his or her level of commitment.

Another theory that has emerged regarding motivation to participate in sport is Harter's (1978) Competence Motivation Theory. Harter suggests that children begin to make judgments about their own perceived competence at early ages. Between the ages of 4 and 7, children are able to distinguish between changes in cognitive and physical competence, social acceptance, and behavioral conduct. Once children reach middle childhood (8-12 years old) they can discern between scholastic and athletic competence, social acceptance, physical appearance, and behavioral conduct (Harter, 1978; 1982). These five areas form the basis of children's overall self-worth.

Harter later expanded her ideas in 1987, developing the mediational model of global self-worth. In this model, a child's perceived competence, along with social support from parents, teachers, and friends, affect his or her global self-worth. The child's view of self-worth then influences such things as positive and negative affect and motivation to participate sport (Harter, 1987). For example, if a child is accepted by his peers, then he or she will have a greater sense of self-worth and will, in turn, be motivated to engage in more sport activities with these peers. This motivation to participate in sport could have an impact on the athlete's commitment to that sport.

Another early theory that explains behaviors of youth is Eccles et al.'s (1983) expectancy-value model. In this model, a child's achievement behaviors are the result of expectations of success and subjective task value (Eccles, Adler, Futterman, Goff,

Kaczala, Meece, & Midgley, 1983; Fredricks & Eccles, 2004). An expectation of success is the belief in how well one will do in an activity. Eccles et al. (1983) found that youth do not differentiate between expectations of success and self-perceived ability. Thus, if a child expects to do well and does not succeed, he attributes this failure to not being able to complete the task. An athlete who attributes most of his or her failures in this manner might not have a high level of commitment to sport. Subjective task value is the importance of the task and how it fulfills a person's goals. This is the value the child associates with the task. It is essentially why the person wants to do the behavior. Again, the subjective task value an athlete associates with his or her sport could influence the commitment to that sport.

Similar to Eccles et al.'s expectancy-value model is Nicholls' (1989) achievement goal theory. Nicholls elaborated on Atkinson's earlier ideas to suggest that people are either motivated to succeed or motivated to avoid failure. Along with this he said that people are either task-involved or ego-involved. Task-involved individuals perform behaviors in order to master those behaviors, while ego-involved individuals are driven to outperform others (Nicholls, 1989). This could also play a role in determining sport commitment. An athlete who is task-involved might be committed to his or her sport because of the desire to master certain behaviors in the sport. An ego-involved athlete might also be committed to his or her sport, but as long as he or she is winning, or outperforming others. An ego-involved athlete might be less committed to sport if he or she is not consistently outperforming other athletes.

Similar to Nicholls' (1989) achievement goal theory is the notion of motivational

orientation. This concept describes that people may be oriented to achieve in two different ways. Some people may be task-oriented, which means they are motivated to learn and master tasks. On the other hand, others are ego-oriented, which means they strive to perform better than someone else (Nicholls, 1989; Duda, 1992). People who are task-oriented could potentially be more motivated to achieve the behavior than those who are ego-oriented. This would be because they are working towards mastery of that behavior and they are not focused on others' performance of that behavior. On the other hand, those who are ego-oriented might be more motivated than those who are task-oriented to perform when they see themselves outperforming another competitor. Thus, viewing winning and defeating others is important for success for ego-oriented individuals. Just like ego-involvement, this motivational orientation that is based on success could also determine an athlete's commitment to sport. An athlete who wins more might be more committed than an athlete who loses.

Competitive and individualistic reward structures are also related to goal involvement. A situation that prompts people to compare their performance to others, such as placing in the top three finishers of a race, offers a competitive reward. An individualistic reward structure can be seen in a situation that is for personal improvement and learning through task orientation (Nicholls, 1989; Ames, 1984). An example of this would be a basketball player practicing free throws to improve his or her shot.

In addition to a person's motivational orientation, reinforcements are also a key part of one's motivation. A reinforcement is anything that would increase the likelihood

of the resulting behavior (Williams & Gill, 2000). An increase in the likelihood of a behavior could potentially increase an athlete's motivation towards sport and participation. A person may experience positive or negative reinforcement as well as punishment to affect a certain behavior. A positive reinforcement would be presenting the athlete with something positive, such as an award or praise, to reinforce the behavior. A negative reinforcement would be removing something negative from the athlete to increase the strength of a certain behavior. An example of this would be if a coach stopped mentioning an athlete's mistakes when he or she performed better (Williams & Gill, 2000). Punishments can also be used to affect the strength of behaviors. To decrease a particular behavior, someone would have a negative punishment, such as losing their starting spot on the team. To decrease the strength of a certain behavior, an athlete could be given a positive punishment, such as being taken out of the game for making an error. After receiving a particular reinforcement or punishment, the athlete will either be more or less inclined to perform those particular behaviors in the future. Thus, positive and negative reinforcements and punishments serve to increase or decrease a person's behavior. This notion of reinforcements helps to explain athletes' motivation to participate in sport.

The motivational factors described by Atkinson (1964), Harter (1978), Eccles' et al. (1983), and Nicholls (1989), each play an important part in continued participation in sport. As mentioned above, by influencing an athlete's motivation to participate in sport, these concepts could also potentially help in determining an athlete's commitment to sport.

Commitment

Commitment is a term that is used to describe people's inclinations towards certain behaviors. Becker (1966) believed that commitment is comprised of a consistent line of activity or a consistent behavior that persists over a period of time. Previous literature on commitment focused on adults' commitment to work or close relationships (Rusbult, 1980a, 1980b, 1983; Rusbult & Farrell, 1983). Research in these areas found that rewards and costs have equal influences on people's willingness to stay in or leave a job or a social relationship. Thibaut and Kelley (1959) introduced the Social Exchange Theory which states that relationships that provide more rewards than costs will be more satisfying and will last longer than relationships that have more costs than rewards. Rewards could be things such as love and companionship, whereas costs might include conflicts and sacrifices made for the relationship. In addition to these factors, Kelley and Thibaut (1978) added the "comparison level" as a predictor of commitment in relationships. This comparison level is the expected outcomes in a relationship. Someone with a high comparison level would expect to have a relationship with more rewards. A person with a low comparison level on the other hand, would not expect to have a rewarding relationship.

Rusbult's (1980b) work simply extended Thibaut and Kelley's (1959) social exchange theory and developed the Investment Model. This model predicts the degree of commitment and satisfaction in romantic relationships, friendships, and businesses (Rusbult, 1980b, 1983; Rusbult & Farrell, 1983). Similar to Social Exchange Theory, in

the Investment Model relationship satisfaction depends on rewards, costs, and the person's comparison level, while commitment in a relationship depends on satisfaction, alternatives, and investments in that relationship. A person's desire to remain in or leave a relationship is based on their level of commitment (Rusbult, 1980b).

Following this research on commitment, Johnson's (1982) work presented the concept of two different types of commitment: "want to" and "have to" commitment. "Want to" commitment is personal commitment and is defined as "a sense of determination to continue in the face of adversity or temptation to deviate, a determination which results from strong personal attachment to the line of action" (Johnson, 1982, p. 52). "Have to" commitment is structural commitment and Johnson (1982) defined it as "events or conditions which constrain the individual to continue a line of action once it has been initiated, regardless of personal commitment to it" (p. 53).

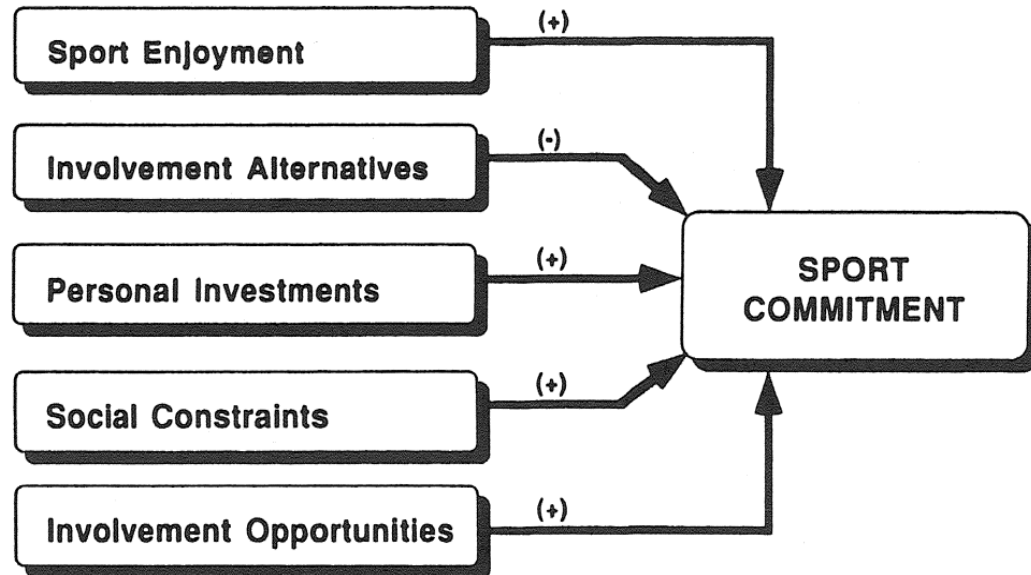
Sport Commitment

With no studies conducted outside of these previous contexts, the Sport Commitment Model was developed to begin to examine commitment in the sport domain with both youth and adult athletes. In 1993, Scanlan and her colleagues presented a model that demonstrates athletes' levels of commitment to their sport (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). This model was developed in an attempt to gain a better understanding of athletes' motivation for sport participation.

In this model, Scanlan et al. (1993a, 1993b) define sport commitment as a "psychological construct representing the desire and resolve to continue sport participation." The model suggests that enjoyment, personal investments, involvement

opportunities, attractive alternatives, and social constraints all influence an athlete's level of participation and sport commitment (See Figure 1).

Figure 1 – Sport Commitment Model, Scanlan et al. (1993)



Sport enjoyment is the amount of pleasure and fun an athlete feels when participating in sports. Scanlan et al. (1993a) defined personal investments as the time, energy, and effort that an athlete puts into participating in their sport. Involvement opportunities are experiences or benefits that one can only get by continuing to participate in his or her sport. Examples of these are awards, the feeling of being a part of a team, and achieving goals related to the sport. Attractive alternatives are any other activities that might be appealing to an athlete that would essentially “compete” with the sport for the person’s time and attention (Weiss & Weiss, 2005), such as participating in another sport or spending time with friends instead of playing the sport. Weiss and Weiss (2005) also defined social constraints as feelings of obligation to significant others (i.e. parents,

coaches, teammates, etc) to continue playing the sport. Social constraints are forces that are telling the athlete to keep participating in sport, such as athletes feeling that they owe it to their parents or teammates to stay involved in their sport so they continue to participate. A similar construct to this is social support, which may be any support from significant others that has a positive effect on sport commitment.

Scanlan later identified family members as the main contributors to social support for youth athletes since they are highly involved in the child's athletic experience as such things as coaches, chauffeurs, spectators, and financiers (Scanlan, 1996). Because parents are so involved with their child's sports participation, they provide a means of feedback to the child on how he or she is doing. Thus, this support from parents can influence a child's enjoyment of sports, which plays an important role in their commitment (Brustad, 1996).

Research has shown that sport enjoyment is the strongest predictor of commitment to sport, with those athletes who have higher enjoyment also having a higher level of commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). In their series of studies, Scanlan and colleagues tested their Sport Commitment Model on a vast range of youth sports. Their samples included 140 competitive swimmers (N=77) and recreational badminton players (N=63), 178 little league baseball (N=83) and softball (N=95) players, and 1342 competitive male football players (N=553), high school soccer players (N=616, 322 male, 294 female), and female volleyball players (N=173). In separate studies, they gave youth athletes the Athletes' Opinion Survey, which they created as a means to assess sport commitment and its predictors. In addition to sport

enjoyment emerging as the strongest predictor of sport commitment, their findings also suggest that personal investments, involvement opportunities, and social constraints are positively related to sport commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Weiss & Weiss, 2005). They also found that attractive alternatives are negatively related to sport commitment, with sport commitment being lower for those athletes who reported a greater number of alternatives to sport.

Carpenter and Scanlan (1998) tested the Sport Commitment Model to determine whether changes over time in the determinants of sport commitment would still predict sport commitment. They conducted a longitudinal study of high school soccer players (N=103) over a 5-7 week period. They found that players who had a decrease in sport enjoyment and involvement opportunities also reported a decrease in sport commitment. Their results also showed that players whose involvement opportunities increased also reported an increase in sport commitment.

In another longitudinal study, Carpenter and Coleman (1998) tested the Sport Commitment Model on elite youth cricket players in (N=78). With Scanlan's (1996) and Brustad's (1996) work in mind, they added social support as a new construct of the model. They found that sport commitment was significantly predicted by sport enjoyment, recognition opportunities, social opportunities, and social support. Increases in each of these factors led to increases in sport commitment, while decreases in these factors led to decreases in sport commitment (Carpenter & Coleman, 1998). Their findings are similar to those of Scanlan et al. (1993a, 1993b) and Carpenter et al. (1993) and suggest that the Sport Commitment Model is applicable to non-American and elite

youth athletes.

Within youth sport, commitment has been further examined to reveal different types of commitment. Schmidt and Stein (1991) reviewed Rusbult's (1980, 1983) work on commitment to jobs and social relationships and predicted that athletes will either have attraction-based commitment or entrapment-based commitment to their sport. Athletes who have attraction-based commitment will have higher levels of enjoyment, personal investments, and benefits (involvement opportunities) from participating in sport than athletes who do not have attraction-based commitment. They will also report lower levels of costs and attractive alternatives (Schmidt & Stein, 1991). In contrast, entrapment-based athletes are committed to their sport for less favorable reasons. These athletes will report less enjoyment and benefits and higher costs from participating than athletes who are not entrapment-based. Entrapment-based athletes, however, do have high levels of personal investment and low levels of attractive alternatives. Although athletes who have entrapment-based commitment have more negative experiences than attraction-based athletes from participating, they will remain committed because of the amount of time and energy they have already put into participating, and because they do not view other activities as more appealing than their sport (Schmidt & Stein, 1991). It is important to note that these descriptions were simply predictions from Schmidt & Stein (1991) and that not every athlete would fall into one of these two categories (attraction- or entrapment-based commitment). Research has shown that athletes may also be low-committed (Schmidt & Stein, 1991; Raedeke, 1997). This emergence of different types of commitment demonstrates a need to further examine sport commitment in athletes

outside of youth sport. Other types of sport commitment may surface in college-level athletes.

Raedeke (1997) examined burnout and commitment in 236 swimmers aged 13-18 years old. The swimmers completed surveys that were derived from several burnout questionnaires in addition to Scanlan et al.'s (1993a, 1993b) Athletes' Opinion Survey to assess sport commitment. Raedeke found that the swimmers were either attracted to their sport, entrapped in their sport, or low committed to their sport. These athletes who had low commitment also reported low enjoyment, benefits, and personal investments with their sport, as well as high costs and more attractive alternatives than other athletes. Thus, Raedeke (1997) supported Schmidt and Stein's (1991) prediction that an athlete who is low-committed generally has a greater chance of dropping out of his or her sport because of lack of commitment due to low enjoyment and greater attractive alternatives.

In two related studies, Weiss and Weiss (2003, 2005) examined 124 competitive female gymnasts aged 10-18 years old. The gymnasts were surveyed using a similar survey used by Raedeke (1997) to assess sport commitment. The survey was modified to be gymnastics-specific and also included Pelletier et al.'s (1995) Sport Motivation Scale to assess intrinsic motivation, extrinsic motivation, and amotivation. Their survey also included questions about gymnastics training behaviors that were developed specifically for the sample in their study.

In their initial study, Weiss and Weiss (2003) found that there were three types of commitment profiles that were emerging for the gymnasts. The first two types of commitment, attraction- and entrapment-based, were expected. Those gymnasts who

were attracted-committed viewed other activities as unattractive and had great amounts of personal investments in their sport. They also experienced high positive regard from parents and coaches with little or no pressure to continue to participate. Those gymnasts who were entrapped were similar to those entrapped athletes in Schmidt and Stein's (1991) model; however, these entrapped gymnasts reported high levels of attractive alternatives. High attractive alternatives with entrapped commitment has also been seen in swimmers, although the swimmers also reported less personal investment as well (Raedeke, 1997). Weiss and Weiss (2003) also found a third level of commitment that they termed "vulnerable gymnasts." These athletes had high personal investment in their sport, but had moderate levels of enjoyment, benefits, costs, and attractive alternatives. These athletes are believed to be in a constant struggle with participation (Weiss & Weiss, 2003). By experiencing both the positive and negative aspects of participation in their sport, these vulnerable gymnasts have the potential to become either attractive- or entrapped-committed (Weiss & Weiss, 2005). This idea of a "vulnerable" athlete further explains the need to examine sport commitment in other populations beyond youth athletes. If an athlete's commitment has the potential to change, then why not examine it longitudinally?

Weiss and Weiss (2005) conducted a follow-up study one year later to see if the commitment levels and commitment types of the gymnasts changed. They used the same measures as their 2003 study and were able to obtain 63 of the gymnasts from the original study to participate in the follow-up. They also mentioned that with the help of coaches, they were able to obtain current participation data for 117 of the 124 original gymnasts

(Weiss & Weiss, 2005). From the results of their studies, Weiss and Weiss (2003, 2005) found that gymnasts' commitment type was related to their participation behavior one year later. This commitment type was reliably associated with social support from parent and coaches and social constraints from parents and teammates (Weiss & Weiss, 2005). They also found that vulnerable and entrapped commitment profiles were more susceptible to change in commitment type over time than was attracted commitment, and attracted gymnasts reported higher levels of sport commitment than entrapped and vulnerable gymnasts. While this was a longitudinal study, more research should be done to examine sport commitment and its potential changes as the athlete ages.

In addition to different types of commitment, recent research has also examined the relationship between sport commitment and motivational climate (Miller, Roberts, & Ommundsen, 2004). An athlete's motivational climate is related to Nicholls' (1989) achievement goal theory and his concept of task- and ego-involved individuals. An athlete's motivational climate is largely determined by his or her sport setting, coach, and teammates which influence his or her goals and rewards. A mastery-based climate is representative of effort-based goals and individual rewards (Williams & Gill, 2000). An athlete in a mastery climate would be rewarded for effort, learning, and improvement of skills. In contrast, performance-based climates are rooted in social comparison and athletes are rewarded for superior performance against other competitors. These rewards could lead to a stronger commitment to sport. Thus, just as task- and ego-involvement have the potential to affect commitment, motivational climates could also influence an athlete's sport commitment.

Miller et al. (2004) looked at the relationship between these climates and sport commitment. Miller et al. (2004) examined 714 boys and girls between the ages of 12-14 who were participating in the Norway Cup International Football Competition. Athletes were given a Norwegian version of the Perceived Motivational Climate in Sport Questionnaire (PMCSQ) as well as an abbreviated Norwegian version of the Multidimensional Sportspersonship Orientation Scale (MSOS). Participants completed the surveys in a classroom setting after completing at least two football games during the tournament. Although Miller et al. (2004) did not use Scanlan et al.'s (1993a) Athletes' Opinion Survey in their study, sport commitment was examined through a subscale in the MSOS. They found that athletes who perform in mastery climates have higher levels of commitment than those in performance climates. They also found that when football coaches emphasize mastery climates, their athletes have higher levels of enjoyment and sportsmanship than those athletes whose coaches do not stress mastery climates. This was believed to be due, in part, to the fact that coaches are perceived as authority figures and thus have more influence with what they say than do teammates or friends. For example, coaches who equated success to working hard, teamwork, cooperation, and skill mastery were more likely to produce athletes who perceive a mastery motivational climate than coaches who do not make this connection. Those coaches who stress winning and outperforming opponents as important criteria for success are more likely to coach athletes that identify a performance motivational climate than coaches who did not focus on winning (Miller et al., 2004). These findings could suggest that the support athlete's receive from coaches impacts their commitment to not only playing for that

coach but to participation in their sport.

Another study that supports the sport commitment model is Weiss and Smith's (2002) study of youth tennis players. They examined friendship quality and motivation variables in 191 tennis players (77 female, 114 male) ranging in age from 10-18 years. The participants completed the Sport Friendship Quality Scale (SFQS) as well as a Self-Perception Profile adapted from Harter (1985, 1988). Sport commitment and enjoyment was also surveyed using questions derived from Scanlan et al.'s (1993a, 1993b) Athletes' Opinion Survey. Weiss and Smith (2002) found that higher levels of enjoyment predicted greater commitment. Youth tennis players who had better relationships and friendships with their teammates had more enjoyable experiences and greater benefits or involvement opportunities from playing and thus felt more committed to their sport than those tennis players who did not have good relationships with their teammates. Weiss and Smith related their findings to Harter's 1987 global self-worth model. Harter noted that support from one's peers influences a child's sense of self-worth. Thus, those players who had greater support from their teammates were more likely to be motivated to continue participating in tennis.

Sport Commitment Among Non-youth Athletes

Scanlan et al.'s sport commitment model was designed to reflect commitment levels of all athletes. However, development and validation of the model has primarily been done with youth athlete samples. Extensive research has continued to be done with youth athletes, yet little research has been done to examine sport commitment beyond youth sports. Only two studies have explored this model with adult populations

(Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2002; Scanlan, Russell, Beals, & Scanlan, 2003).

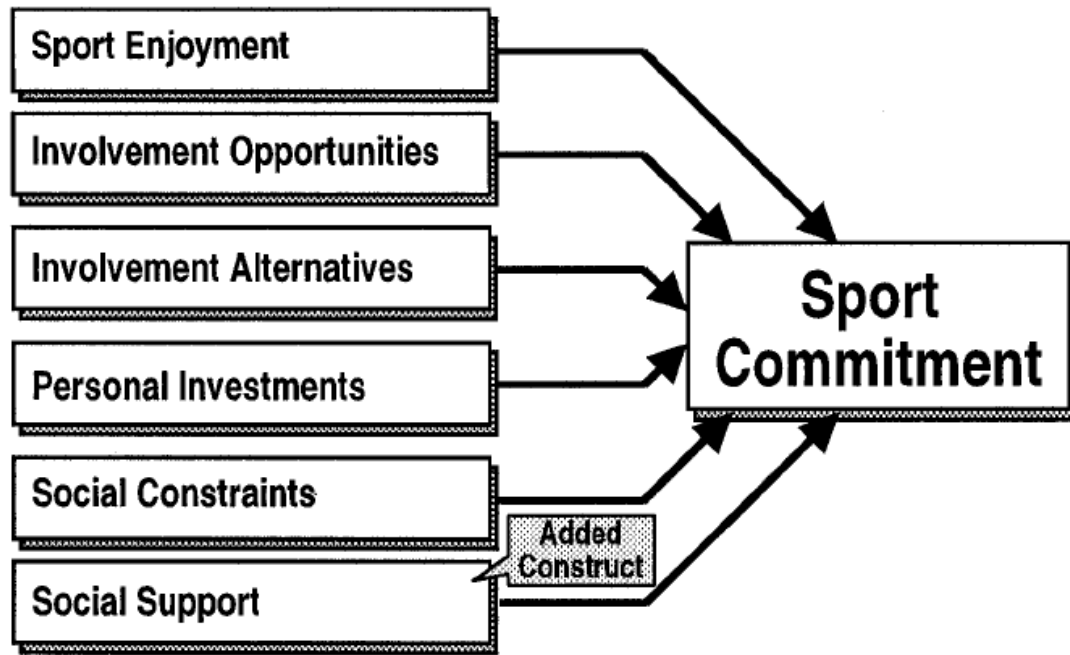
Alexandris et al. (2002) examined the validity of Scanlan et al.'s (1993a, 1993b) Sport Commitment Model on exercise commitment at private health clubs in Greece. The participants in the study were members of the health club and were mostly female (68%) with an average age of 33.6 years. They specifically examined four areas as predictors of sport commitment: enjoyment, personal investments, social constraints, and involvement opportunities. They assessed these areas by modifying Scanlan and colleague's (1993a, 1993b) Athletes' Opinion Survey to fit an exercise setting by replacing the words or phrases regarding a specific sport with the words "health club." For example, where Scanlan et al. (1993) asked "How dedicated are you to playing in (sport)?" Alexandris et al. (2002) asked "How dedicated are you to being a member of the health club?" The participants completed the surveys at a health bar within the health club prior to their workout.

Alexandris et al. (2002) found that all four of the factors they looked at successfully predicted exercise commitment in their study, and that involvement opportunities was the strongest predictor of commitment. This finding differed from past research with youth sport participants which suggests that enjoyment is the strongest predictor. However, it was not surprising because participation motives for exercise may be different than those for sport. For example, those people who believe that if they stop exercising they will lose the physiological and sociological benefits of exercise are more likely to remain committed to exercising (Alexandris et al., 2002). Thus, it remains

unclear as to whether their findings were related to age (i.e., youth vs. adult) or merely a reflection of different contexts (i.e., sport vs. exercise). According to Carpenter et al. (1993), one can assess commitment to a particular program, a particular sport, or to sport in general, thus, Alexandris et al. (2002) did find comparable results to sport commitment if both exercise and sport are viewed as specific programs. When viewed as a program and following Carpenter et al.'s (1993) logic, enjoyment, personal investments, social constraints, and involvement opportunities were all found to positively predict sport commitment, as was the case in Scanlan et al. (1993a, 1993b). This study provided initial support for the sport commitment model among adults in Greece (Alexandris et al., 2002).

To further examine sport commitment, Scanlan, Russell, Wilson, and Scanlan (2003) developed the Scanlan Collaborative Interview Method (SCIM) as an additional tool for examining sport commitment. The SCIM is an interview method of determining sport commitment in which the athlete works with the interviewer to determine his or her sources of commitment and whether these sources strengthen or lessen his or her commitment to sport. After developing the SCIM, Scanlan, Russell, Beals, and Scanlan (2003) surveyed 15 amateur elite-level rugby players in New Zealand regarding their commitment to elite level sport to test and validate the SCIM. In addition to the SCIM, Scanlan et al. (2003) added social support to the sport commitment model as a new construct that potentially affects sport commitment (See Figure 2).

Figure 2 – Sport Commitment Model with added construct, Scanlan et al. (2003)



The inclusion of this sixth construct was based on previous research showing its potential influence on commitment (Carpenter et al., 1993). Thus, the aim of their study was to assess how well this new version of the sport commitment model generalizes across cultures to elite athletes.

The results of Scanlan et al.'s (2003) study show that sport enjoyment and involvement opportunities were the two strongest predictors of sport commitment for their sample. Involvement opportunities has now been a strong predictor of sport commitment in both studies done with adults [Alexandris et al., (2002); Scanlan et al., (2003)]. Sport enjoyment also continues to emerge as the strongest predictor of sport commitment. This data not only supports the previous research done with youth athletes (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993), but extends the sport commitment

model to show its applicability to other cultures and populations. In establishing the external validity of the sport commitment model, this study provides a good basis for future research using the Sport Commitment Model with adults.

Exercise Commitment

While sport commitment research outside of youth samples has been somewhat limited, research on exercise commitment has examined participants across different age groups. The first research on commitment to exercise was done by Carmack and Martens (1979). Their study examined the relationship between running commitment and different factors including average length of runs, frequency of runs, perceived discomfort felt when missing a run, and perceived addiction to running among 250 male and 65 female runners between the ages of 13 and 60 ($M = 28.8$) with varying levels of ability and experience. To measure running commitment, they developed the Commitment to Running Scale (Carmack & Martens, 1979). This scale assessed differences in motives for starting to run, as well as continuing to run, in both high and low committed runners. Their results showed that high committed and low committed runners differed significantly on length of runs, discomfort experience when a run is missed, and perceived addiction to running.

Carmack and Martens' (1979) initial research was later extended and broadened by Corbin, Nielson, Borsdorf, and Laurie (1987). Corbin et al. (1987) analyzed commitment more broadly by looking at general commitment to physical activity as opposed to a specific type of activity such as running. Four hundred fifty college students in physical education classes (238 males, 212 females) participated in this study.

To assess commitment in their research, they created the Commitment to Physical Activity Scale, which was largely based off of Carmack and Martens' (1979) Commitment to Running Scale. Their study found that more frequent exercise was reported more by people with higher levels of commitment than those with lower levels of commitment.

While these previous studies attempted to determine levels of commitment to exercise, it was not until Wilson et al. (2004) that exercise commitment was really analyzed and broken down in detail. The surveys used by Carmack and Martens (1979) and Corbin et al. (1987) to analyze exercise commitment did not accurately represent commitment as defined by Becker (1966). The Commitment to Running Scale and the Commitment to Physical Activity Scale included items such as "I do not enjoy running," and "Physical activity is pleasant." Use of these questions in the surveys would not lead to an idea of commitment according to Becker (1966) where it demonstrates a consistent activity or behavior that persists over time. Rather than follow suit with these previous researchers, Wilson et al. (2004) took a new route towards examining commitment in exercise. Their views stemmed from Johnson's (1982) notions of two types of commitment: having to (obligatory actions) and wanting to (voluntary actions). To examine this multidimensional aspect of commitment, Wilson et al. (2004) looked to see whether the determinants of sport commitment in Scanlan et al.'s (1993) Sport Commitment Model could predict exercise commitment. The Exercise Commitment Scale was created using the factors of satisfaction, social constraints, involvement alternatives, personal investments, involvement opportunities, and social support as the

determinants of exercise commitment on both the “want to” and “have to” dimensions. Wilson et al. (2004) gave the Exercise Commitment Scale along with the Godin Leisure Time Exercise Questionnaire to university students and staff enrolled in group-based exercise classes (N=428) and found that satisfaction and personal investment were the strongest predictors of exercise commitment. It was also found that investment alternatives and social constraints were only predictive of “have to” (obligatory) commitment. These results suggest that like enjoyment in sport commitment, satisfaction appears to be a strong predictor of exercise commitment. The fact that investment alternatives and social constraints were only predictive of “have to” commitment is not surprising considering that these are the factors that would force an athlete to participate or make him or her feel obligated to participate. For example, an athlete with low investment alternatives and high social constraints, will not have many choices other than to participate in sport, thus, his or her commitment would probably be one of obligation rather than one of a voluntary desire. Overall, the analysis of exercise commitment in this multidimensional method is an important issue to consider when examining sport commitment.

Summary

Previous studies of sport commitment have examined youth athletes from the ages of 10 to 18 years old. The next step in understanding sport commitment would be athletes to examine sport commitment among collegiate level athletes 18 years and older. Weiss and Weiss (2003, 2005) showed that athletes have the potential to change in their commitment type over time. Sport commitment should therefore be analyzed beyond

athletes younger than 18 years old to see if this change occurs. Compared to youth sport, there are a growing number of alternatives to collegiate sport, such as concentrating on a major for a future job. Moreover, there are additional pressures within collegiate sports, such as heavier workouts and more frequent practice schedules than the athlete is used to in previous years or levels of competition. As a result, many college-aged athletes do not remain active in their sports for their full collegiate career (Kennedy & Dimick, 1987). In addition, few collegiate athletes continue beyond college to participate at the professional level of their sport (Baillie & Danish, 1992). Collegiate athletes may also participate in their sports for different reasons than youth athletes (i.e. playing for scholarship money, playing with the hopes of becoming a professional athlete in their sport). Although the specific reasons behind any different patterns of commitment between college and youth sport are beyond the scope of this study, these contextual differences further support the need for research with this age group.

Purpose

The purpose of this study is to examine specific factors that may influence sport commitment among collegiate athletes. Specifically, the relationship among sport commitment, sport enjoyment, personal investments, social constraints, and involvement opportunities as the motivational factors proposed in the Sport Commitment Model will be analyzed across a sample of collegiate soccer players. The notion of “have to” commitment and “want to” commitment will also be examined in this sample by determining their relationship to the factors presented in the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social

support, and involvement opportunities). Furthermore, collegiate athletes' motives for participating in sport will be compared to those reported by youth athletes in prior literature. The study will also provide initial validity for the Sport Commitment Model with collegiate athletes, as no prior research has examined this model in that population.

CHAPTER III

METHODS

Research Design

This research implemented a descriptive correlational study with a sample of collegiate soccer players. All participants completed Scanlan et al.'s (1993a, 1993b) Athletes' Opinion Survey to measure the components of the Sport Commitment Model (sport enjoyment, personal investments, involvement opportunities, attractive alternatives, social constraints, and social support). They also completed the Exercise Commitment Scale (Wilson et al., 2004) to measure the "want to" and "have to" dimensions of commitment and its components (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities).

Participants

Participants included 101 male ($n = 59$) and female ($n = 42$) collegiate student-athletes, all of whom were soccer players. Attempts were made to obtain equal representation across genders. Participants were between the ages of 18 and 25 ($M = 19.79$, $SD = 1.49$) and came from southeastern United States universities and competed across NCAA levels (i.e. Division I or III). Participants came from five institutions: three NCAA Division I schools ($n = 63$) and two NCAA Division III schools ($n = 38$). The majority of the participants (84.2%) were white or Caucasian (not of Hispanic origin) (n

= 85), and ethnic minorities included: Black or African American (not of Hispanic origin) ($n = 8$), Hispanic or Latino ($n = 6$), and Mixed or Multi-racial ($n = 2$). Sixty one percent of the participants reported having an athletic scholarship ($n = 62$), while the number of years of experience playing their sport ranged from 1 year to 20 years ($M = 13.68$, $SD = 3.5$). Most of the participants (45.5%) were starters on their team ($n = 46$), while others reported playing statuses of occasional starter/regular sub ($n = 32$), nonstarter/reserve player ($n = 15$), or practice player ($n = 6$).

Participants were included if they were collegiate student-athletes and were active members on the team at the time of the survey. Participants were excluded if they did not meet the above inclusion criteria.

Measures

Participant Demographics

At the beginning of the questionnaire, selected descriptive information was collected for each athlete including age, gender, race/ethnicity, sport, year in school, number of years participating in their sport, scholarship status, injury status, and playing time (See Appendix A). Each of these categories was a self-reported measure for the athlete with the exception of playing time. The athlete was asked to choose between the following for playing time: regular starter, occasional starter/regular sub, nonstarter/reserve player, and practice player.

The Athletes' Opinion Survey

A modified version of Scanlan et al.'s (1993a, 1993b) Athletes' Opinion Survey (AOS) was given to each athlete to assess sport commitment. The AOS consists of sport

commitment and five motivational factors that affect it: sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities. For the current study, involvement alternatives was dropped from the survey due to measurement problems reported by Scanlan et al. (1993b) and Carpenter et al. (1993). Social constraints was also dropped from the survey because the items for this construct did not pertain to collegiate level athletes. For example, the item “I feel that I have to play my sport so that I can be with my friends” would be more relevant to a youth athlete than a collegiate athlete. As past research has shown, enjoyment is a key factor in youth’s participation in sport (Scanlan et al., 1993b; Carpenter et al., 1993). Playing sports with friends could contribute greatly to this enjoyment factor. The items “I feel I have to play my sport to please my mom/dad” also seemed to pertain more to youth athletes’ participation than to collegiate athletes’. In youth athletics parents often are involved in the participation process (paying for equipment, travel fees, transportation, etc.). Because of this, some youth might feel pressured to participate in their sport because of the contributions their parents are making. Collegiate athletes typically do not have their parents providing these same amenities, thus making these items not as relevant to the current sample.

With three subscales from the AOS remaining, the social support construct was added as a fourth subscale based on the findings of Scanlan et al. (2003). To assess this subscale, one item was included from Scanlan et al.’s (2003) study: “Do you feel encouragement and support from other people for playing your sport?” In Scanlan et al.’s (2003) study, an interview method was utilized to obtain further information about

athletes' responses to this question. Because there was no interview method in the present study, this item was modified by creating four additional questions (See Appendix C). The item was expanded to create more specific questions. The words "other people" were changed for each question to direct it to a specific source of social support. These sources were team mates, coach, family, and friends. One example is "Do you feel encouragement and support from your coach for playing your sport?"

Another modification was made regarding the fourth question assessing sport commitment ("What would you be willing to do to keep playing in your sport?"). For this question, the fifth response option was changed from "A lot of things" to "Anything it takes." This was done to avoid confusion between the fourth and fifth response options because "many things" and "a lot of things" sound very similar.

This modified survey presents between 3 and 5 questions for each construct (20 total questions) where the athlete must respond on a 5-point Likert type scale (See Appendix C). The original Athletes' Opinion Survey has been shown to be a valid and reliable measure for assessing sport commitment and these factors with youth athletes (Scanlan et al., 1993b; Carpenter et al., 1993; Raedeke, 1997; Weiss, Kimmel, & Smith, 2001; Weiss & Weiss, 2003). To demonstrate the internal consistency of the original items measuring each construct, Scanlan et al. (1993b) obtained Cronbach alphas for each construct. Favorable internal consistency was found in Scanlan et al. (1993b) for four of the constructs to be measured in the current study: sport commitment (.88), sport enjoyment (.90), personal investments (.77), and involvement opportunities (.83). For the present study, Cronbach alphas were as follows: Sport Commitment ($\alpha = .84$), Sport

Enjoyment ($\alpha = .95$), Personal Investments ($\alpha = .32$), Involvement Opportunities ($\alpha = .73$), and Social Support ($\alpha = .86$).

Exercise Commitment Scale

The participants also completed a modified version of Wilson et al.'s (2004) Exercise Commitment Scale to fit a sports sample. For each item, "exercising" was replaced with "playing my sport" (See Appendix B). This survey contains 34 total questions to assess the constructs of commitment (want to commitment, have to commitment, satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). There are between 3 and 6 items/questions for each construct. The survey is preceded with a stem that says "Please read the following questions/statements carefully and circle the response that best describes how you usually feel about your sport." The participants responded on a 10-point Likert type scale where 1 = "Not at all true for me" and 10 = "Completely true for me." The Exercise Commitment Scale has been shown to be a valid and reliable measure of assessing commitment (Wilson et al., 2004). Internal consistency reliability estimates (Cronbach's alpha) were obtained by Wilson et al. (2004) for seven of the constructs of the Exercise Commitment Scale: Want to commitment (.92), have to commitment (.73), satisfaction (.84), social constraints (.78), involvement alternatives (.85), personal investments (.94), and social support (.71). For the current study, Cronbach alphas were as follows: Want To Commitment ($\alpha = .96$), Have To Commitment ($\alpha = .76$), Satisfaction ($\alpha = .93$), Social Constraints ($\alpha = .81$), Involvement Alternatives ($\alpha = .93$), Personal Investments ($\alpha = .38$), Social Support ($\alpha = .86$), and Involvement Opportunities

($\alpha = .82$).

Procedure

After receiving IRB approval from the University of North Carolina at Greensboro, the researcher approached head coaches ($n = 14$) of both the men's and women's soccer teams of local colleges and universities to obtain the athletes. The rationale and purpose for the study was presented to each head coach in a contact letter and the coach then determined if his or her team was allowed to participate (See Appendix D). At that time, the participants were those athletes who volunteered to take part in the study. Fourteen head coaches were contacted from seven local colleges and universities to have their teams take part in the study. Of these 14 contacted, five coaches agreed to have their athletes participate in the study for a response rate of 35.7%. Of those 5 coaches, all of their athletes completed surveys fully for 100% participation and completion rates. Of the nine coaches whose teams did not participate, two coaches opted not to participate due to lack of time, while seven coaches did not respond.

Before completing the questionnaire, each athlete completed an informed consent form, explaining the rationale and purpose of the study and stating that they are free to withdraw from the study at any time (See Appendix E). The athletes were also all advised that their answers would be confidential and that they should respond as honestly and as accurately as possible.

The questionnaires were administered by the researcher to 102 participant athletes immediately prior to or after a practice session during the middle of the athlete's particular sport season (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Raedeke,

1997; Weiss & Weiss, 2003, 2005).

Data Analysis

Although not a primary aim of this study, a reliability analysis was performed to obtain Cronbach alphas to determine the reliability of the scales. Preliminary analyses were conducted using an independent t-test to determine if there were any gender differences in the constructs of the Athletes' Opinion Survey (sport commitment, sport enjoyment, personal investments, involvement opportunities, and social support) and the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). If gender differences were found, the relationships would be examined separately for males and females. If there were no gender differences, the sample would be collapsed across gender. Correlations were then performed for the sample across each of the five factors of the Athletes' Opinion Survey, all eight factors of the Exercise Commitment Scale, and across all thirteen factors from both surveys together. Finally, three stepwise regressions were performed with the subscales of both the Athletes' Opinion Survey and the Exercise Commitment Scale to determine which factor or combination of factors account for the greatest variance in the athletes' sport commitment. The first stepwise regression looked at the subscales of the Athletes' Opinion Survey as predictors of sport commitment. For the second stepwise regression, the subscales of the Exercise Commitment Scale were entered as predictors of "want to" commitment. The third stepwise regression entered the subscales of the Exercise Commitment Scale as predictors of "have to" commitment.

Hypotheses

The purpose of this study was to examine specific factors that may influence sport commitment among collegiate athletes. Specifically, the relationship among sport commitment, sport enjoyment, personal investments, social constraints, and involvement opportunities as the motivational factors proposed in the Sport Commitment Model will be analyzed across a sample of collegiate soccer players. The notion of “have to” commitment and “want to” commitment will also be examined in this sample by determining their relationship to the factors presented in the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities).

It was expected that the results of this study would be in line with previous research with youth sport participants with sport enjoyment as a strong predictor of sport commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Raedeke, 1997; Weiss & Weiss, 2003, 2005). However, it was hypothesized that the correlations and stepwise regression would show that involvement opportunities was also a strong predictor of sport commitment, if not the strongest (Scanlan et al., 2003).

Scanlan et al.’s (2003) study that shows sport enjoyment and involvement opportunities as the strongest predictors of sport commitment for elite amateur rugby players is the closest approximation for a collegiate sample. Thus, similar findings were expected with enjoyment and investment opportunities being the top predictors for sport commitment among collegiate athletes. It was also hypothesized that satisfaction and involvement opportunities would be the strongest predictors of want to commitment in

this sample. Although, previous research has shown that enjoyment and satisfaction are the top predictors of commitment, it was expected that enjoyment would not be as strong of a predictor as it has been in previous youth samples (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Raedeke, 1997; Weiss & Weiss, 2003, 2005, Wilson et al., 2004). It was also expected that, although enjoyment and involvement opportunities will have the strongest correlations with sport commitment, the correlation analysis would reveal that involvement opportunities are more strongly correlated to commitment than enjoyment.

CHAPTER IV

RESULTS

This chapter presents the results of the analysis of data on sport commitment of collegiate soccer players. The first section presents demographic information of the participants. Then, Cronbach alphas are presented to show the sub-scale reliabilities of the Athletes' Opinion Survey and the Exercise Commitment Scale. Independent t-tests were implemented to test for gender differences in the constructs of the Athletes' Opinion Survey (sport commitment, sport enjoyment, personal investments, involvement opportunities, and social support) and the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). With the collapsed sample, correlations were then performed across each of the five factors of the Athletes' Opinion Survey, all eight factors of the Exercise Commitment Scale, and across all thirteen factors from both surveys together. Finally, three stepwise regressions were performed with the Athletes' Opinion Survey and with the Exercise Commitment Scale to determine which factor or combination of factors account for the greatest variance in the athletes' sport commitment.

Participant Demographics

Of the 14 coaches contacted, 5 agreed to have their athletes participate in the study (35.7%). All of the athletes (100%) whose coaches agreed, completed the surveys and completed them accurately (there was no missing data on the measures). One

hundred two participants completed surveys. One participant was 17 years old and, although was a collegiate athlete, the data for this participant was not included in the results.

Participants included 101 male ($n = 59$) and female ($n = 42$) collegiate soccer players who were between the ages of 18 and 25 ($M = 19.79$, $SD = 1.49$). Participants came from five institutions: three NCAA Division I schools ($n = 63$) and two NCAA Division III schools ($n = 38$). The majority of the participants (84.2%) were white or Caucasian (not of Hispanic origin) ($n = 85$), and ethnic minorities included: Black or African American (not of Hispanic origin) ($n = 8$), Hispanic or Latino ($n = 6$), and Mixed or Multi-racial ($n = 2$). Over 61% of the participants reported having an athletic scholarship ($n = 62$), while the number of years of experience playing their sport ranged from 1 year to 20 years ($M = 13.68$, $SD = 3.5$). Most of the participants (45.5%) were starters on their team ($n = 46$), while others reported playing statuses of occasional starter/regular sub ($n = 32$), nonstarter/reserve player ($n = 15$), or practice player ($n = 6$).

Scale Reliability

Before analyses were conducted, each subscale of the Athletes' Opinion Survey and the Exercise Commitment Scale was assessed for reliability. Nunnally (1978) defines acceptable α levels as being $> .70$. Based on this criteria, all of the subscales of the Athletes' Opinion Survey demonstrated satisfactory levels of internal consistency with the exception of the Personal Investments subscale. The Cronbach alphas for these subscales are as follows: Sport Commitment ($\alpha = .84$), Sport Enjoyment ($\alpha = .95$), Personal Investments ($\alpha = .32$), Involvement Opportunities ($\alpha = .73$), and Social Support

($\alpha = .86$).

The subscales of the Exercise Commitment Scale also showed satisfactory levels of internal consistency, again with the exception of the Personal Investments subscale. The Cronbach alphas for these subscales are: Want To Commitment ($\alpha = .96$), Have To Commitment ($\alpha = .76$), Satisfaction ($\alpha = .93$), Social Constraints ($\alpha = .81$), Involvement Alternatives ($\alpha = .93$), Personal Investments ($\alpha = .38$), Social Support ($\alpha = .86$), and Involvement Opportunities ($\alpha = .82$).

The Personal Investments subscale for both the Athletes' Opinion Survey and the Exercise Commitment Scale included items regarding the amount of the athlete's personal money that had been invested during the current year (See Appendices B and C). When each of these items was removed, the reliability for the Personal Investments subscale improved to an acceptable level for each survey ($\alpha_{AOS} = .84$, $\alpha_{ECS} = .86$). Thus, the subsequent Personal Investments scores for each analysis were calculated without these items.

Descriptive Statistics

Table 1 shows the means and standard deviations for the athlete responses for each subscale of the Athletes' Opinion Survey and the Exercise Commitment Scale. Preliminary independent t-tests were implemented to examine differences between men and women on any of the Athletes' Opinion Survey subscales (i.e., sport commitment, sport enjoyment, personal investments, involvement opportunities, and social support) or the Exercise Commitment Scale subscales (i.e., satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement

opportunities) (See Table 1). However, after the Personal Investment construct of the Athletes' Opinion Survey was adjusted by dropping one item to increase scale reliability, gender differences were observed ($t = -2.414$ ($df = 99$), $p \leq .018$), with females reporting higher on personal investments ($M = 4.81$, $SD = 0.41$) than males ($M = 4.57$, $SD = 0.54$).

Table 1: Descriptive Statistics: Subscale Responses and Independent t -test for Gender Differences

Item	Mean	SD	Mean (SD)		$t(df)$	$P \leq$
			Male	Female		
AOS Sport Commitment	4.37	.68	4.39 (0.72)	4.33 (0.64)	.407 (99)	.685
AOS Sport Enjoyment	4.28	.83	4.26 (0.86)	4.32 (0.79)	-.338 (99)	.736
AOS Personal Investments	4.08	.54	4.14 (0.60)	4.01 (0.43)	1.193 (99)	.236
AOS Personal Investments (Adjusted)	4.67	.50	4.57 (0.54)	4.81 (0.41)	-2.414 (99)	.018
AOS Involve. Opportunities	4.27	.69	4.19 (0.74)	4.39 (0.60)	-1.486 (99)	.140
AOS Social Support	4.37	.67	4.29 (0.72)	4.51 (0.56)	-1.733 (99)	.086
ECS Want To Commitment	8.89	1.62	8.92 (1.60)	8.86 (1.67)	.185 (99)	.853
ECS Have To Commitment	6.74	2.37	6.72 (2.52)	6.78 (2.17)	-.123 (99)	.902
ECS Satisfaction	8.69	1.57	8.77 (1.48)	8.57 (1.69)	.624 (99)	.534
ECS Social Constraints	5.20	2.47	5.05 (2.40)	5.40 (2.58)	-.692 (99)	.491
ECS Involve. Alternatives	3.76	2.42	3.76 (2.43)	3.75 (2.44)	.029 (99)	.977
ECS Personal Investments	8.75	1.04	8.75 (1.14)	8.74 (0.88)	.008 (99)	.994
ECS Personal Investments (Adjusted)	9.46	.90	9.32 (1.07)	9.65 (0.55)	-1.833 (99)	.070

ECS Social Support	9.38	1.02	9.33 (1.03)	9.46 (1.00)	-.642 (99)	.522
ECS Involve. Opportunities	8.98	1.10	9.04 (1.03)	8.89 (1.20)	.676 (99)	.501

Although a gender difference was observed for the adjusted personal investments subscale of the Athletes' Opinion Survey, the difference was not significant at $p < .01$ and thus was not very meaningful. Given the number of t-tests that were conducted on the data, some gender differences were expected. Because only one gender difference was observed and because it was not significant at $p < .01$, the sample was collapsed across gender.

Correlations

With the collapsed sample, correlations were performed across each of the five subscales of the Athletes' Opinion Survey, eight factors of the Exercise Commitment Scale (six subscales and two dimensions of commitment), and between all thirteen factors from both surveys together.

Commitment Scores

As seen in Table 2, comparisons were made between sport commitment on the Athletes' Opinion Survey and the two dimensions of commitment on the Exercise Commitment Scale. The strongest relationship between the two surveys was between Sport Commitment on the Athletes' Opinion Survey and Want To Commitment on the Exercise Commitment Scale ($r = .802$). Want To Commitment was also positively correlated with all four of the subscales of the Athletes' Opinion Survey. Given these significant positive relationships and the strong correlation between Want To

Commitment and Sport Commitment, it can be assumed that these two commitment factors may be similar.

Table 2 also shows that the Have To dimension of commitment in the Exercise Commitment Scale is not significantly related to either the Sport Commitment factor of the Athletes' Opinion Survey or the Want To dimension of commitment in the Exercise Commitment Scale. There are also no significant relationships between Have To Commitment and any of the subscales of the Athletes' Opinion Survey, which further demonstrates that this dimension of commitment is not related to Sport Commitment or Want To Commitment.

Table 2: Comparison of Correlations for Commitment Factors

	AOS Sport Commitment	ECS Want To Commitment	ECS Have To Comittment
AOS Sport Commitment	1	.802**	.062
ECS Want To Commitment	.802**	1	.184
ECS Have To Commitment	.062	.184	1

** Correlation is significant at the 0.01 level (2-tailed)

Correlations between Surveys

As seen in Appendix F, correlations were performed across all subscales for both surveys. Significant positive correlations (r 's between .217 and .802) were found between four subscales of the Exercise Commitment Scale (Want To Commitment, Satisfaction, Social Support, and Involvement Opportunities) and all five factors of the

Athletes' Opinion Survey (Sport Commitment, Sport Enjoyment, Personal Investments, Involvement Opportunities, and Social Support). Thus, higher ratings of want to commitment, satisfaction, social support, and involvement opportunities on the Exercise Commitment Scale were significantly related to higher ratings of all factors on the Athletes' Opinion Survey. The strongest positive correlation between the two surveys was between the Want To Commitment subscale of the Exercise Commitment Scale and the Sport Commitment factor of the Athletes' Opinion Survey ($r = .802$).

Significant negative correlations were found between Social Constraints on the Exercise Commitment Scale and Sport Commitment, Sport Enjoyment, and Involvement Opportunities of the Athletes' Opinion Survey (r 's = $-.382$, $-.388$, $-.271$, respectively). Higher ratings of social constraints on the Exercise Commitment Scale were significantly associated with lower ratings of sport commitment, sport enjoyment, and involvement opportunities on the Athletes' Opinion Survey. Significant negative correlations (r 's between $-.578$ and $-.321$) were also found between Involvement Alternatives of the Exercise Commitment Scale and four factors of the Athletes' Opinion Survey (Sport Commitment, Sport Enjoyment, Involvement Opportunities, and Social Support). Higher ratings of involvement alternatives on the Exercise Commitment Scale were significantly related to lower ratings of sport commitment ($r = -.578$), sport enjoyment ($r = -.396$), involvement opportunities ($r = -.376$), and social support ($r = -.321$) on the Athletes' Opinion Survey. The strongest negative correlation between the two surveys was between the Involvement Alternatives subscale of the Exercise Commitment Scale and the Sport Commitment factor of the Athletes' Opinion Survey ($r = -.578$).

Individual Survey Correlations

Pearson correlation coefficients for the Athletes’ Opinion Survey and the Exercise Commitment Scale are provided in Tables 3 and 4. As seen in Table 3, significant positive relationships were found between Sport Commitment and all of the other four factors of the Athletes’ Opinion Survey (*r*’s ranged between .338 and .620). In fact, each of the subscales showed significant positive relationships with all other subscales. Thus, higher ratings of sport commitment, sport enjoyment, the adjusted personal investments scale, involvement opportunities, and/or social support were significantly related to higher ratings of all of the factors. The strongest relationships were between Involvement Opportunities and Social Support (*r* = .696) and between Sport Commitment and Involvement Opportunities (*r* = .620).

Table 3: Pearson Correlations for the Athletes’ Opinion Survey

	Sport Commitment	Sport Enjoyment	Personal Investments (Adjusted)	Involvement Opportunities	Social Support
Sport Commitment	1	.446**	.359**	.620**	.574**
Sport Enjoyment	--	1	.217*	.503**	.524**
Pers. Invest. (Adjusted)	--	--	1	.472**	.458**
Involvement Opportunities	--	--	--	1	.696**
Social Support	--	--	--	--	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Table 4 shows the Pearson correlations for the Exercise Commitment Scale.

Significant positive correlations were found between Want To Commitment and

Satisfaction, Social Support, Involvement Opportunities, and the adjusted Personal Investments subscale (r 's ranging between .234 and .741). Thus, higher ratings of “want to” commitment were significantly related to higher ratings of satisfaction, social support, involvement opportunities, and personal investments. Have To Commitment had a significant positive correlation with Social Constraints and Social Support, with higher ratings of “have to” commitment being significantly related to higher ratings of social constraints and social support. The strongest significant positive correlations were between Satisfaction and Involvement Opportunities ($r = .765$) and between Satisfaction and Want To Commitment ($r = .741$).

Table 4: Pearson Correlations for the Exercise Commitment Scale

	Want To Commitment	Have To Commitment	Satisfaction	Social Constraints	Involvement Alternatives	Personal Investments (Adjusted)	Social Support	Involvement Opportunities
Want To Commitment	1	.184	.741**	-.312**	-.426**	.234*	.464**	.657**
Have To Commitment	--	1	.124	.433**	.114	.047	.208*	.065
Satisfaction	--	--	1	-.416**	-.550**	.293**	.334**	.765**
Social Constraints	--	--	--	1	.493**	-.029	-.039	-.369**
Involvement Alternatives	--	--	--	--	1	-.134	-.120	-.516**
Pers. Invest. (Adjusted)	--	--	--	--	--	1	.570**	.233*
Social Support	--	--	--	--	--	--	1	.332**
Involvement Opportunities	--	--	--	--	--	--	--	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Want To Commitment, Satisfaction, and Involvement Opportunities all had significant negative relationships with Social Constraints and Involvement Alternatives. Thus, lower ratings of “want to” commitment, satisfaction, and involvement opportunities were significantly correlated with higher ratings of social constraints and involvement alternatives. The strongest significant negative correlation was between Satisfaction and Involvement Alternatives ($r = -.550$).

Stepwise Regression

Three stepwise regressions were used to examine which factor or combination of factors from the Athletes’ Opinion Survey and the Exercise Commitment Scale accounted for the greatest variance in athletes’ sport commitment. First, the subscales of the Athletes’ Opinion Survey (sport enjoyment, personal investments, involvement opportunities, and social support) were entered as predictors of sport commitment for the first stepwise regression. Table 5 shows the predictive weight and coefficients for each of the significant factors of the Athletes’ Opinion Survey. For the Athletes’ Opinion Survey, involvement opportunities accounted for 38.8% of the total variance in sport commitment. By adding the social support factor, the total variance accounted for increased to 42.5%.

Table 5: Model Summary and Coefficients: Stepwise Regression for Sport Commitment in AOS

Step	Variables Entered	R	R ²	R ² Change	F Change	β	<i>t-value</i>
1	AOS Involv. Opportunities	.623	.388	.388	62.21**	.623	7.89**
2	AOS Social Support	.652	.425	.036	6.15*	.267	2.48*

** p < .01

* p < .05

Then, a second stepwise regression was performed with the subscales of the Exercise Commitment Scale. Satisfaction, social constraints, investment alternatives, personal investments, social support, and involvement opportunities were entered as predictors of “want to” commitment. Table 6 shows the predictive weight and coefficients for each significant factor of the Exercise Commitment Scale. For the Exercise Commitment Scale, satisfaction accounted for 54.9% of the total variance in “want to” commitment. Again, when the social support factor is added the total variance accounted for in “want to” commitment increased to 60.1%.

Table 6: Model Summary and Coefficients: Stepwise Regression for Want To Commitment in ECS

Step	Variables Entered	R	R ²	R ² Change	F Change	β	<i>t-value</i>
1	ECS Satisfaction	.741	.549	.549	119.07**	.741	10.91**
2	ECS Social Support	.775	.601	.053	12.86**	.244	3.59**

** p < .01

Last, a third stepwise regression was performed with the subscales of the Exercise

Commitment Scale entered as predictors of “have to” commitment. Table 7 shows the predictive weight and coefficients for each of the significant factors of the Exercise Commitment Scale. Social constraints accounted for 18.7% of the total variance in “have to” commitment. The total variance accounted for increased to 29.9% when the satisfaction factor was added.

Table 7: Model Summary and Coefficients: Stepwise Regression for Have To Commitment in ECS

Step	Variables Entered	R	R ²	R ² Change	F Change	β	<i>t-value</i>
1	ECS Social Constraints	.433	.187	.187	22.57**	.433	4.75**
2	ECS Satisfaction	.547	.299	.112	15.45**	.367	3.93**

** $p < .01$

CHAPTER V

DISCUSSION

Research on sport commitment has indicated that enjoyment is often the greatest predictor of sport commitment among youth athletes (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). Other factors have also been shown to influence an athlete's level of sport commitment including personal investments, involvement opportunities, attractive alternatives, social constraints, and social support. Unfortunately, research on sport commitment outside of the youth population has been limited. Some research has been done on exercise commitment on populations other than youth. Wilson et al. (2004) examined exercise commitment in college-aged adults using a commitment scale they based off of Scanlan's (1993) Sport Commitment Model. Analyzing two types of commitment, "want to" and "have to" commitment, they found that exercise commitment was predicted by satisfaction and personal investments. Thus, with a limited amount of research specific to sport commitment in non-youth samples, this study aims to examine specific factors that may influence sport commitment among collegiate athletes.

Independent t-tests revealed that there were no gender differences in the constructs of the Athletes' Opinion Survey (sport commitment, sport enjoyment, personal investments, involvement opportunities, and social support) and the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities). This expected finding was

consistent with previous research that has shown no gender differences in both sport commitment and exercise commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Wilson et al., 2004). However, after the Personal Investment construct of the Athletes' Opinion Survey was adjusted to increase scale reliability, gender differences were observed with females reporting higher levels of personal investments than males (females: $M = 4.81$, $SD = 0.41$; males: $M = 4.57$, $SD = 0.54$). This potential difference in gender responses could be due to the low number of items remaining for this construct. After one item was removed, there were only two questions that assessed Personal Investments. Had there been a greater number of items for this variable, there might not have been any gender differences, especially since previous research has not observed any gender differences in any age group (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Scanlan et al., 2003, Wilson et al., 2004).

The descriptive statistics for the factors in this study were similar to those found in previous studies. In their initial tests of the Sport Commitment Model, Scanlan et al. (1993b) found mean responses for the sport commitment subscale ranging from 3.79 to 4.13. The current study showed slightly higher ratings of sport commitment ($M = 4.37$, $SD = .69$). In fact, all of the subscales of the Athletes' Opinion Survey showed mean responses of at least 4 for the current study (See Table 1). This differed from Scanlan et al.'s (1993b) tests of the survey where sport enjoyment was the only subscale to have an average response score of at least 4 (M 's ranging from 4.17 to 4.46). The mean response for sport enjoyment for the current study was also within this range ($M = 4.28$, $SD = .83$).

The mean responses for the two dimensions of commitment of the Exercise

Commitment Scale were also representative of previous literature. Wilson et al. (2004) found a mean response of 8.45 ($SD = 1.73$) for “want to” commitment and a mean response of 6.70 ($SD = 2.08$) for “have to” commitment. The current sample showed similar responses for “want to” ($M = 8.89$, $SD = 1.62$) and “have to” ($M = 6.74$, $SD = 2.37$) commitment. Similar responses were also found for some of the other factors of the Exercise Commitment Scale, but not for them all. The mean response for the social constraints factor was much higher in the current sample ($M = 5.20$, $SD = 2.47$) than it was in Wilson et al.’s (2004) study ($M = 2.43$, $SD = 1.78$). At first glance this was an interesting finding because it suggests that there are slightly more social constraints pulling at the collegiate athlete to keep them playing their sport. However, when considering that the sample and aim of Wilson et al.’s (2004) study was college students participating in exercise, this difference is not all that surprising. Participation in collegiate athletics would much likely produce greater social constraints than participation in voluntary exercise. The collegiate athlete potentially has other forces that could potentially be pulling them to compete (i.e. scholarship, opportunity to continue their athletic career, etc).

The personal investments and social support factors were also reported higher in the current study than in previous research. Wilson et al. (2004) showed mean responses of 7.52 ($SD = 2.19$) and 7.89 ($SD = 1.75$) for personal investments and social support, respectively. For collegiate athletes, the adjusted personal investments factor had an average response of 9.46 ($SD = .90$) while the social support factor had a mean response of 9.38 ($SD = 1.02$). One reason for this increase in average response scores for personal

investments could be due to greater level of competition at the collegiate level. To participate at the collegiate level, athletes have to work much harder and likely devote more effort and energy to their sport than they did when they were in their youth. The social support scores could have also been higher due to a greater amount of support from family and friends for playing at this level.

Correlations and Stepwise Regressions

The purpose of this study was to examine specific factors that may influence sport commitment among collegiate athletes. Specifically, the relationship among sport commitment, sport enjoyment, personal investments, social constraints, and involvement opportunities as the motivational factors proposed in the Sport Commitment Model will be analyzed across a sample of collegiate soccer players. The notion of “have to” commitment and “want to” commitment will also be examined in this sample by determining their relationship to the factors presented in the Exercise Commitment Scale (satisfaction, social constraints, involvement alternatives, personal investments, social support, and involvement opportunities).

It was hypothesized that the correlations and stepwise regression would show that enjoyment and involvement opportunities would be the top predictors of sport commitment among collegiate athletes, with involvement opportunities being a strong predictor of sport commitment, if not the strongest. It was also hypothesized that satisfaction and involvement opportunities would be the strongest predictors of want to commitment in this sample.

Significant positive relationships were found between Sport Commitment and all

four factors, meaning that higher ratings in the four factors were significantly related to higher ratings of sport commitment (See Table 1). This is consistent with previous research using the Athletes' Opinion Survey (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). However, there were also some differences in the current sample from prior literature. Scanlan and colleagues (1993) found that sport enjoyment was the strongest predictor of sport commitment when they used the Athletes' Opinion Survey on youth athletes. The current study showed that, although there was a significant positive correlation between sport enjoyment and sport commitment, it was not the strongest relationship. In fact, it was the third strongest correlation behind involvement opportunities and social support (See Table 2). The strongest correlation with sport commitment for this sample of collegiate soccer players was actually involvement opportunities ($r = .620$). As seen in Table 5, involvement opportunities also accounted for 38.8% of the total variance in sport commitment for the Athletes' Opinion Survey. When social support was added, the total variance accounted for significantly increased to 42.5%. This finding differs from previous research on commitment. Scanlan and colleagues (1993a) found that sport enjoyment and personal investments accounted for 58% of the variance in sport commitment. They also found that involvement opportunities contributed no significant unique variance to the prediction of sport commitment. The difference in the current findings could be due to the different experiences of collegiate athletics and youth athletics. Involvement opportunities accounted for the greatest variance in sport commitment in the collegiate sample, while it did not account for a significant amount in previous studies. This shows that the benefits

athletes experience from participating in sport at the collegiate level has a great impact on their level of commitment to their sport. This is an important step in understanding sport commitment at different levels of competition. Obviously, the involvement opportunities in youth sports are not as important to sport commitment as they are at the collegiate level. There is something in the experiences of the collegiate athlete that is not present in youth sports that is influencing their level of commitment. As mentioned earlier, these involvement opportunities could be things such as athletic scholarships and the opportunity to continue to play their sport professionally after participation at the collegiate level. These findings supported the hypothesis that involvement opportunities would be more strongly correlated to sport commitment than sport enjoyment and that it would be the strongest predictor of sport commitment. This finding was expected because Scanlan et al. (2003) found involvement opportunities to be a top predictor of sport commitment in elite amateur rugby players. These rugby players are the closest approximation to a collegiate sample in previous literature.

These current findings are not surprising considering the sample used. There are certain things athletes get from participating in collegiate athletics that they would not have if they did not play. While there are forms of these involvement opportunities in youth athletes, they do not impact the athlete's sport commitment as much as they do at the collegiate level. This was believed to be due to the fact that participation in varsity collegiate athletics is not available for every person at the Division I level. Those athletes who do make the collegiate teams likely participate in their sport with the incentives of athletic scholarships and the potential to pursue a career in their sport (Kennedy &

Dimick, 1987; Baillie & Danish, 1992). Youth athletes are most likely not thinking of these benefits when they participate in sport. For example, a collegiate athlete might receive an athletic scholarship for playing his or her sport. This could be a valuable benefit to playing at the collegiate level, especially if paying for college tuition is a difficult task for the athlete's family. This incentive is not available to most youth athletes. Without these extra benefits from playing their sport, it is easy to see why sport enjoyment becomes the strongest predictor of sport commitment in youth athletes.

One finding that was not expected was that social support was more strongly correlated to sport commitment than sport enjoyment was. Social support was actually the second strongest relationship of sport commitment ($r = .574$) in the current study. This correlation differed from the relationships found by Scanlan et al. (1993a) where sport enjoyment yielded the strongest correlation with sport commitment ($r = .71$) and personal investments had the second strongest correlation ($r = .53$). It was expected that there would be a positive relationship between these two, because previous research has shown this result (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993); it was just not expected to be this strong. This was also surprising given that the means for sport enjoyment for the current study were similar to those reported by Scanlan et al. (1993b). However, one reason for the stronger relationship between social support and sport commitment could be due to the higher ratings of social support in the current collegiate sample (See Table 1). Another reason for social support having a stronger relationship than sport enjoyment could be that collegiate athletes receive a greater amount of support from families and friends due to the level of their sport. Because sport enjoyment is the

strongest predictor of sport commitment in youth athletes, perhaps most families and friends show support for their athletes just because it is something they enjoy doing. Since some athletes participate in collegiate athletics because they aspire to reach the next level in their sport, the support from family and friends could be stronger because of the amount of time and effort that the athlete has put into his or her sport leading up to their participation at this level of competition. Social support could also have a stronger relationship for this sample because of a greater ability of collegiate athletes to understand and rely upon social support. While youth athletes might understand and report that their parents and families support them playing sports, they might not fully be able to rely on this social support for motivation or continued participation in sport.

Although sport enjoyment did not emerge as having the strongest relationship to sport commitment in the current study, the mean responses for sport enjoyment were still similar to those reported in previous studies (Scanlan et al., 1993b). It is not that sport enjoyment was any lower in this collegiate sample, its relationship to sport commitment was just possibly overshadowed by the increased relationships between sport commitment and involvement opportunities and social support.

As seen in Table 2, significant positive correlations were found between Want To Commitment and Satisfaction, Social Support, and Involvement Opportunities on the Exercise Commitment Scale. Satisfaction had the strongest correlation with “want to” commitment ($r = .741$). This finding is in line with previous research using the Exercise Commitment Scale (Wilson et al., 2004). Involvement opportunities were found to have the second strongest relationship with “want to” commitment ($r = .657$). Thus, the

hypothesis that satisfaction and involvement opportunities would be the most strongly correlated with “want to” commitment was supported. This finding was expected because of the dimensions of commitment presented in the Exercise Commitment Scale. If an athlete wants to participate in his or her sport then he or she would have a high level of enjoyment or satisfaction within that sport, thus yielding a very strong relationship between the two. The strong relationship between involvement opportunities and “want to” commitment is believed to be due to the same reasons listed above. The benefits collegiate athletes receive from participating in their sport (competition at the collegiate level, scholarship, etc) should have an impact on their desire to want to continue participating in their sport.

Table 2 also shows that significant negative relationships were found between Want To Commitment and Social Constraints and Involvement Alternatives. Thus, lower ratings of social constraints and involvement alternatives were significantly correlated with higher ratings of “want to” commitment. This is in line with previous research on commitment. An athlete could potentially be more likely to participate in his or her sport if there are low levels of social constraints and alternatives to participation in the sport.

The “have to” dimension of commitment on the Exercise Commitment Scale had a significant positive correlation with social constraints, with higher ratings of “have to” commitment being significantly related to higher ratings of social constraints ($r = .433$). Social constraints also accounted for 18.7% of the total variance in “have to” commitment, and together with satisfaction accounted for 29.9% of the total variance. These findings are consistent with previous research (Wilson et al., 2004) and were an

expected outcome. A large number of social constraints and forces keeping one in a sport could potentially lead an athlete towards feelings of “having to” participate in his or her sport because of these pressures as opposed to “wanting to.”

Table 6 shows that for the Exercise Commitment Scale, satisfaction accounted for 54.9% of the total variance in “want to” commitment. By adding the social support factor to “want to” commitment, the overall variance that was accounted for increased to 60.1%. This finding suggests that satisfaction/enjoyment still plays an important role in commitment at the collegiate level. It is interesting however, that sport satisfaction accounted for the greatest amount of variance in the Exercise Commitment Scale, while sport enjoyment did not account for the most significant variance in the Athletes’ Opinion Survey, even though it was still strongly positively correlated. Involvement opportunities also did not account for any significant variance in the Exercise Commitment Scale, while it did in the Athletes’ Opinion Survey. With the similarities in correlations between satisfaction/enjoyment and commitment in the two surveys, it was assumed that the stepwise regression would yield similar results again for each survey, with satisfaction and enjoyment accounting for the greatest variance for commitment. However, as the results of the first stepwise regression showed, enjoyment did not emerge as one of the top two factors accounting for the variance in sport commitment. Satisfaction, on the other hand, did account for the most variance in “want to” commitment. The differences between the variances accounted for in these two surveys may indicate that both surveys need to be examined closely and perhaps modified to address sport commitment and its factors at different levels of competition. The two

surveys had very similar factors assessing commitment, yet they did not yield similar results. Satisfaction was a top predictor and accounted for the most variance in “want to” commitment in the Exercise Commitment Scale. However, enjoyment did not account for the most variance in sport commitment and was the third strongest correlation with sport commitment in the Athletes’ Opinion Survey. The similarities between “want to” commitment and sport commitment may indicate that they are essentially measuring the same commitment construct, yet the differences between satisfaction and enjoyment show that they are being assessed differently. Future research needs to examine the validity of these measures of enjoyment and satisfaction.

The strongest positive correlation between the two surveys was between the Want To Commitment subscale of the Exercise Commitment Scale and the Sport Commitment factor of the Athletes’ Opinion Survey ($r = .802$) suggesting that they are virtually the same construct. This is interesting considering the fact that satisfaction was a top predictor of Want To Commitment, but sport enjoyment was not a the top predictor of Sport Commitment in the Athletes’ Opinion Survey. As mentioned earlier, this could have been due to a difference in the way the surveys measured satisfaction and enjoyment. These findings illustrate the importance of the dimensions of commitment in sport. There was no significant correlation between Have To Commitment and Sport Commitment in the Athletes’ Opinion Survey ($r = .062$) or Want To Commitment in the Exercise Commitment Scale ($r = .184$) suggesting that it is different from these two commitment constructs. There was also no significant correlation between Satisfaction ($r = .124$) or Sport Enjoyment (Athletes’ Opinion Survey) ($r = .112$) and Have To

Commitment. This helps show the importance of enjoyment/satisfaction as a continued influence on sport commitment even at the collegiate level. If an athlete does not enjoy participating in his or her sport then he or she will likely not remain committed to that sport. The more an athlete wants or desires to commit to his or her sport, the greater his or her sport commitment will likely be.

This finding is also interesting because of the lack of a relationship between Have To Commitment and Sport Commitment in the Athletes' Opinion Survey. This could be due to an athlete's feelings of being "stuck" in participating in a sport. By feeling obligated to participate in their sport their ratings of actual sport commitment could be mixed. While the athlete might show up to games and practices, the effort given at these events might be minimal, thus leading to lower ratings of commitment to his or her sport. This further shows the importance of satisfaction/enjoyment to participation in sport, as well as the difference between the "want to" and "have to" dimensions of commitment.

Limitations

Although the results of this study have important implications regarding the determinants of sport commitment in collegiate athletes, the study did have several limitations.

Sample

One limitation with the sample used in this study was the low response rate of coaches. Only 35.7% of the coaches contacted agreed to have their athletes participate in the study. Half of the coaches that were contacted did not respond, while two said they would not participate due to a lack of time. This low response rate could potentially have

an effect on the results. A higher response rate from coaches could have yielded different results. Had there been a greater number of participants from Division III universities the results could have potentially been different, especially regarding the “want to” and “have to” commitment dimensions. This could also have changed if there were a greater number of Division I athletes. Similarly, this low response rate of coaches led to a small sample size. A larger sample size could also have had an impact on the results.

The fact that this sample contained both Division I and Division III athletes is also a limitation. The differences between varsity athletics at these universities could be a reason for any differences in responses between the two types of athletes. The results could be more applicable had the sample been either all Division I or all Division III athletes. This would have removed Division level as a confounding variable for the results.

Another potential limitation with the current sample was that all of the athletes came from universities in North Carolina. This state is not necessarily representative of the entire United States, much less the rest of the collegiate population. The results could potentially be different than if the athletes came from universities in other states. Also, the athletes in this study were of different races. While not an aim of this study, differences in race could possibly have an impact on the way athletes responded to the items in the surveys. These differences might yield differences in sport commitment.

Measurement Issues

Several potential measurement issues could have influenced the results of this study. First, the Athletes’ Opinion Survey developed by Scanlan and colleagues (1993)

was not developed specifically for the collegiate athlete. The survey was designed for the general athlete, without regards to age and has most often been used with youth athletes. The personal investments factor was problematic in this study. Most of the questions regarding this predictor were not applicable to the collegiate athlete, particularly one on an athletic scholarship. Second, because the Exercise Commitment Scale was initially developed for examining exercise participation, it was modified for use in this study. Although the modifications were simply replacing “exercising” with “playing my sport,” this survey might not have been as accurate at measuring commitment to sport as it is in measuring commitment to exercise. However, both the Athletes’ Opinion Survey and the Exercise Commitment Scale did yield high subscale reliabilities with the exception of personal investments. As mentioned earlier, it may be that the personal investment subscales were composed of questions that did not pertain to collegiate athletes (i.e. spending their own money for sport; see Appendices B & C).

Scale reliability assessments indicated that all of the subscales of the Athletes’ Opinion Survey and of the Exercise Commitment Scale demonstrated satisfactory levels of internal consistency with the exception of the Personal Investments subscale for each measure. Previous research has found all of the subscales of both surveys to be reliable with the respective samples of their studies (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Wilson et al., 2004). The low Cronbach alphas for the Personal Investments subscales ($\alpha_{AOS} = .32$, $\alpha_{ECS} = .38$) could be due to the following question and statement: “How much of your own money have you put into playing your sport this year for things like entrance fees or equipment?” and “I have invested a lot of my own money

into playing my sport.” All of the participants were collegiate athletes, many of whom were on scholarship ($n = 62$). These athletes more than likely do not spend a lot of their own personal money to play their sport. Most collegiate varsity athletes are not required to pay things such as entrance fees for their games or tournaments since the schools cover these costs if there are any. Those athletes who are not on an athletic scholarship probably do not pay for their tuition out of their own pocket; it is assumed to be done by their parents. Even if the student-athlete does pay for his or her own tuition, he or she might view this payment as being related to academics and not for athletics. Since any tournament or traveling expenses are usually covered by the universities, it is reasonable to assume that these athletes would not feel as though they have invested a lot of their personal money into their sport during the current year. The low Cronbach alphas could also be due to the differences between NCAA Division I and Division III schools. Division III schools do not offer athletic scholarships, so Division III athletes might feel as though they spend more of their own personal money than Division I athletes.

The other questions and statements for the Personal Investment subscale for both surveys all focus on other less tangible concepts of investment including time, effort, and energy. According to previous literature, personal investments is a strong predictor of both sport commitment in youth athletes and exercise commitment in adults, with higher levels of personal investments relating to higher levels of sport or exercise commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993; Wilson et al., 2004). Assuming the athletes in this study reported higher ratings of personal investments in time, effort, and energy along with lower levels of personal investment of money, it is understandable why

there was low internal consistency for the personal investment subscales for both the Athletes' Opinion Survey and the Exercise Commitment Scale.

An additional limitation could be that the Social Constraints subscale of the original Athletes' Opinion Survey was dropped and not included in the current study. As mentioned earlier, this subscale was dropped because the items measuring this subscale were not as relevant to collegiate athletes as they are to youth athletes. Although these items might not have pertained to collegiate athletes, this subscale could have been included to see if it actually has relevance in a collegiate sample.

Another limitation could have been the manner that the questions were asked in the surveys. Although there was space at the end for participants to write any additional comments regarding their commitment and participation in sport, the rest of the questions were forced responses in the form of Likert-type scales. Responses in this manner might not fully get at the true feelings of commitment of the athlete. Future research might use a mixed methods design to ask more open ended questions to attempt to get better and more meaningful responses. For example, the questions could ask things such as: What is different about playing now than when you were younger? Do you play for different reasons now? It might be just coming out and asking to get truthful answers instead of trying to get at it through forced response questions. New questions could even be tied into the current items such as asking if the athletes would continue playing their sport if they did not have an athletic scholarship.

There could also be other factors that influence sport commitment or "want to"/"have to" commitment that aren't included in the surveys. A collegiate athlete with

an athletic scholarship could have high ratings of either “have to” or “want to” commitment because of the scholarship. The athlete could have the feelings that they “have to” participate in their sport because they have been given this scholarship. On the other hand, they could also have feelings that they “want to” participate because they have been given an athletic scholarship and this opportunity. The athletic scholarship has the potential to affect both the “want to” and “have to” dimensions of commitment. It is possible that there is some other dimension of an athlete’s participation or commitment that has not yet been examined. As mentioned above, a change in the question or response types could help arrive at these potential new factors.

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. It can only be said that the significant relationships between the predictors and commitment were simply that: relationships. It is from past research with these predictors that the conclusions and implications are drawn from the current findings.

External Validity

While this study did produce new findings about sport commitment in the collegiate population, similar results might not be obtained outside of this sample. All of the participants in this study were collegiate soccer players. The correlations and regression equation might yield different results if tested on samples of collegiate athletes in other sports. As the results of this study differed from those done in the past with youth samples, an examination outside of the collegiate population (i.e. professional

athletes, older adults, etc.) will likely produce different results as well.

Other Limitations

Another possible limitation of the study was that the findings may be the result of successful or unsuccessful seasons. How the athletes and their respective teams are performing during the season could directly impact their responses on the questionnaires. For example, an athlete might report fewer feelings of enjoyment if his or her team is having a losing or unsuccessful season.

Future Directions

The next step for this research is to continue the analysis of sport commitment in the collegiate population. This study is only one of a few that have looked at sport commitment outside of the youth population. The psychometric properties, as well as the mixed correlations between the two surveys, suggest further validation of these surveys is needed for use with this population. Both surveys may be adjusted to be a better fit with a collegiate sample. Future research should examine further the development and validation of commitment measures (Athletes' Opinion Survey, Exercise Commitment Scale, or a new one) to assess sport commitment for use with the collegiate level. A new measure should incorporate subscales measuring components that are specific to collegiate athletics, such as scholarships, team travel, and role within the team. One specific question could ask whether or not the athlete would continue to play his or her sport if they didn't have an athletic scholarship. It should also attempt to eliminate any measurement items that are not relevant to the collegiate athlete (i.e. spending of personal money for costs of competition).

Another possible route future research could go would be to assess sport commitment by asking open ended questions rather than forced response questions. Some specific questions that could be addressed are: “What’s different about playing now and when you were younger?” and “Do you play for different reasons?” Perhaps an interview method is an important step, like the Scanlan Collaborative Interview Method (SCIM) used by Scanlan et al. (2003) in their study of elite rugby players. Asking about sport commitment through face to face contact might be a key to getting more details on understanding the factors affecting an athlete’s commitment. A multi-method approach that combined this interview method with the traditional surveys might yield new results. A new survey that incorporated any or all of these ideas would allow researchers to get a more detailed look at the predictive factors of sport commitment at the collegiate level.

An additional way that future research could examine sport commitment at the collegiate level would be to do a direct comparison between those athletes who have an athletic scholarship and those who do not. The athletic scholarship could be a huge incentive for many of the athletes and without this added bonus their level of commitment could change. The alternative could be true as well. The level of commitment of an athlete who does not have an athletic scholarship might change if this athlete is presented with the offer for a scholarship. A comparison could also be made between Division I and Division III athletes to see if they exhibit any differences in sport commitment. It would also be interesting to see the changes in sport commitment for high school athletes who are seniors and have been offered an athletic scholarship to a college or university, or to compare these seniors with those who have not been offered

an athletic scholarship. Comparisons could also be made with those who expect to continue to play their sport in college, regardless of scholarship offers.

Future research could also implement new research designs. Longitudinal studies could be conducted to examine sport commitment over time with a given sample. For example, the study could start with a sample of high school freshmen and continue with them through their senior year. This could also be done with collegiate athletes. Another method would be to conduct a cross-sectional study examining samples of different age groups. It would be interesting to see any potential differences in sport commitment between collegiate athletes and youth athletes. A cross-sectional study could also examine sport commitment in both youth and adult athletes, or collegiate versus adult athletes.

Implications

In this study, involvement opportunities and satisfaction emerged as strong predictors of collegiate student-athletes' sport commitment. These findings should help to expand the current research on sport commitment. While numerous studies have been done concerning sport commitment in youth athletes, these results suggest important differences and a further need for research in sport commitment outside of the youth population. One major difference was the emergence of involvement opportunities as a stronger predictor than sport enjoyment. Carpenter and Scanlan (1998) demonstrated that the determinants of sport commitment can change over time. This knowledge of potential change, coupled with the findings of the current study help show that there could potentially be different factors that lead to an athlete's level of commitment as he

or she gets older and changes competition levels. As mentioned earlier, the experiences and involvement opportunities in collegiate athletics could have an impact on continued participation at the collegiate level, and even after the athletes' collegiate careers are over. Those athletes who do not participate at the collegiate level might not continue to participate in sports after high school. Identifying what these involvement opportunities are could be an important step for keeping athletes participating in sport. If these experiences can be identified, then coaches and parents could potentially have new ways to motivate their athletes to keep them active in sports even if they are not playing for a college or university. Since sport enjoyment has been identified as a key factor affecting sport commitment in youth athletes, many coaches incorporate enjoyment into their practices to help keep their athletes participating in the sport. This same concept could be incorporated with older athletes. If involvement opportunities are playing an important role in continued participation at the collegiate level, college coaches could find ways to use these experiences to help motivate their athletes and keep their commitment levels high. This idea could be used by coaches for athletes of any age. If future research shows certain factors influencing sport commitment for a particular age group, then coaches could attempt to incorporate these factors into their coaching techniques to improve sport commitment.

Conclusions

Research on sport commitment with youth athletes has suggested that sport enjoyment is the strongest predictor of sport commitment (Scanlan et al., 1993a, 1993b; Carpenter et al., 1993). Literature also indicates that two dimensions of commitment

emerge when examining commitment to exercise: “want to” commitment and “have to” commitment (Wilson et al., 2004). The previous research on commitment has largely only explored these relationships in youth populations and in the exercise realm. Carpenter and Scanlan (1998) did demonstrate that there are changes in the determinants of sport commitment over time. This finding indicates that there is reason to analyze sport commitment in athletes of all ages. Thus, the purpose of the current study was to examine sport commitment in collegiate athletes to see if different determinants of sport commitment emerge as the strongest predictors when compared to past literature on youth samples.

This research found that for collegiate soccer players, higher levels of involvement opportunities was the strongest predictor of sport commitment. Moreover, satisfaction emerged as the strongest predictor of “want to” commitment, with involvement opportunities being the second strongest predictor. These findings generally suggest that the opportunities and benefits collegiate athletes experience by playing their sport has an important impact on their level of commitment to their sport. They also suggest that different predictors of sport commitment could emerge depending on the age and competition level of the athlete.

REFERENCES

- Alexandris, K., Zahariadis, P., Tsorbatzoudis, C., & Grouios, G. (2002). Testing the sport commitment model in the context of exercise and fitness participation. *Journal of Sport Behavior, 25*, 217-230.
- Ames, C. (1984). Conceptions of motivation within competitive and noncompetitive goal structures. In R. Schwarzer (Ed.), *Self-related cognitions in anxiety and motivation* (pp.205-241). Hillsdale, NJ: Erlbaum.
- Atkinson, J. W. (1964). *An introduction to motivation*. Princeton, NJ: Van Nostrand.
- Baillie, P.H.F & Danish, S. J. (1992). Understanding the career transition of athletes. *The Sport Psychologist, 6*, 77-98.
- Becker, H. S. (1966). Notes on the concept of commitment. *American Journal of Sociology, 66*, 32-40.
- Brustad, R. J. (1996). Parental and peer influences on children's psychological development through sport. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth sport: A biopsychosocial perspective*. Dubuque, IA: Brown & Benchmark.
- Carmack, M. & Martens, R. (1979). Measuring commitment to running: A survey of runners' attitudes and mental states. *Journal of Sport Psychology, 1*, 25-42.
- Carpenter, P.J., & Coleman, R. (1998). A longitudinal study of elite youth cricketers' commitment. *International Journal of Sport Psychology, 29*, 195-210.
- Carpenter, P.J., & Scanlan, T.K. (1998). Changes over time in the determinants of sport commitment. *Pediatric Exercise Science, 10*, 356-365.

- Carpenter, P. J., Scanlan, T. K., Simons, J. P., & Lobel, M. (1993). A test of the Sport Commitment Model using structural equation modeling. *Journal of Sport & Exercise Psychology*, 15, 119-133.
- Corbin, C.B., Nielson, A.B., Borsdorf, L.L., & Laurie, D.R. (1987). Commitment to physical activity. *International Journal of Sport Psychology*, 18, 215-222.
- Duda, J.L. (1992). Motivation in sport settings: A goal perspective approach. In G.C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 57-91). Champaign, IL: Human Kinetics.
- Eccles, J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motives*. San Francisco: W. H. Freeman.
- Fredricks, J. A. & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M. R. Weiss (Ed.) *Developmental Sport and Exercise Psychology: A Lifespan Perspective*. Morgantown, WV: Fitness Information Technology, Inc.
- Harter, S. (1978). Effectance motivation reconsidered: Toward a developmental model. *Human Development*, 21, 34-64.
- Harter, S. (1982). The Perceived Competence Scale for Children. *Child Development*, 53, 87-97.
- Harter, S. (1987). The determinants and mediational role of global self worth in children. In N. Eisenberg (Ed.), *Contemporary topics in developmental psychology*. New York: John Wiley & Sons.
- Johnson, M.P. (1982). Social and cognitive features of the dissolution of commitment to

- relationships. In S. Duck (Ed.) *Personal relationships 4: Dissolving personal relationships*. London: Academic Press, 51-73.
- Kelley, H.H., & Thibaut, J.E. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.
- Kennedy, S. R. & Dimick, K. M. (1987). Career maturity and professional sports expectations of college football and basketball players. *Journal of College Student Personnel*, 28, 293-297.
- Lines, G. (2007). The impact of media sport events on the active participation of young people and some implications for PE pedagogy. *Sport, Education & Society*, 12, 349-366.
- Miller, B.W., Roberts, G.C., & Ommundsen, Y. (2004). Effect of motivational climate on sportpersonship among competitive youth male and female football players. *Scandinavian Journal of Medicine & Science in Sports*, 14, 193.
- Murray, H.A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Nicholls, J.G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Raedeke, T.D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport and Exercise Psychology*, 19, 396-417.
- Rusbult, C.E. (1980). Satisfaction and commitment in friendships. *Representative Research in Social Psychology*, 11, 96-105.
- Rusbult, C.E. (1980). Commitment and satisfaction in romantic associations: A test of

- the investment model. *Journal of Experimental Social Psychology*, 16, 172-186.
- Rusbult, C.E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements, *Journal of Personality and Social Psychology*, 45, 101-117.
- Rusbult, C.E. & Farrell, D. (1983). A longitudinal test of the investment model: The impact on job satisfaction, job commitment, and turnover of variations in rewards, costs, alternatives, and investments. *Journal of Applied Psychology*, 68, 429-438.
- Scanlan, T.K. (1996). Social evaluation and the competition process: A developmental perspective. In F.L. Smoll & R.E. Smith (Eds.), *Children and youth sport: A biopsychosocial perspective*. Dubuque, IA: Brown & Benchmark.
- Scanlan, T.K., Carpenter, P.J., Schmidt, G.W., Simons, J.P., & Keeler, B. (1993). An introduction to the Sport Commitment Model. *Journal of Sport & Exercise Psychology*, 15, 1-15.
- Scanlan, T.K., Russell, D.G., Beals, K.P., & Scanlan, L.A. (2003). Project on elite athlete commitment (PEAK): II. A direct test and expansion of the sport commitment model with elite amateur sportsmen. *Journal of Sport and Exercise Psychology*, 25, 377-401.
- Scanlan, T.K., Russell, D.G., Wilson, N.C., & Scanlan, L.A. (2003). Project on Elite Athlete Commitment (PEAK): I. Introduction and methodology. *Journal of Sport & Exercise Psychology*, 25, 360-376.
- Scanlan, T.K., Simons, J.P., Carpenter, P.J., Schmidt, G.W., & Keeler, B. (1993). The Sport Commitment Model: Measurement development for the youth-sport

- domain. *Journal of Sport & Exercise Psychology*, 15, 16-38.
- Schmidt, G.W., & Stein, G.L. (1991). Sport commitment: A model integrating enjoyment, dropout, and burnout. *Journal of Sport & Exercise Psychology*, 8, 254-265.
- Thibaut, J.W., & Kelley, H.H. (1959). *The social psychology of groups*. New York: Wiley.
- Weiss, M.R., Kimmel, L.A., & Smith, A.L. (2001). Determinants of sport commitment among junior tennis players: Enjoyment as a mediating variable. *Pediatric Exercise Science*, 13, 131-144.
- Weiss, M. & Smith, A. (2002). Friendship quality in youth sport: Relationship to age, gender, and motivation variables. *Journal of Sport and Exercise Psychology*, 24, 4.
- Weiss, W. M. & Weiss, M. R. (2003). Attraction- and entrapment-based commitment among competitive female gymnasts. *Journal of Sport & Exercise Psychology*, 25, 229-247
- Weiss, W. M. & Weiss, M. R. (2005). A longitudinal analysis of commitment among competitive female gymnasts. *Psychology of Sport and Exercise*, 7, 309-323.
- Weiss, M. R. & Williams, L. (2004). The why of youth sport involvement: A developmental perspective on motivational processes. In M. R. Weiss (Ed.) *Developmental Sport and Exercise Psychology: A Lifespan Perspective*. Morgantown, WV: Fitness Information Technology, Inc.
- Wilson, P.M., Rodgers, W.M., Carpenter, P.J., Hall, C., Hardy, J., & Fraser, S.N. (2004).

The relationship between commitment and exercise behavior. *Psychology of Sport and Exercise*, 5, 405-421.

Williams, L. & Gill, D. L. (2000). Motivational orientations: Achievement and competitiveness. In D. L. Gill (Ed.) *Psychological Dynamics of Sport and Exercise*. Champaign, IL: Human Kinetics.

Appendix A: Participants' Demographics

Demographics:

Age: _____ Gender (circle): Male Female

Year in School (circle): Freshman Sophomore Junior Senior 5th year

Race/Ethnicity (circle):

Native American or Alaskan Native Hispanic or Latino

Asian Native Hawaiian or Other Pacific Islander

Black or African American White or Caucasian
(not of Hispanic origin) (not of Hispanic origin)

Other _____

Sport: _____

How long have you participated in your sport: _____

Do you have an athletic scholarship?	YES	NO
Do you currently have participation restrictions due to an injury or other health conditions?	YES	NO

Playing Status (choose one):

- a) Starter
- b) Occasional starter/regular sub/play in most games
- c) Nonstarter/reserve player/play rarely
- d) Practice player/do not play at all

Appendix B: Modified Exercise Commitment Scale

Commitment Scale

Please read the following questions/statements carefully and circle the response that best describes how you usually feel about your sport. Please answer each question openly and honestly. Please choose only one response for each question/statement.

1 = Not at all true for me 10 = Completely true for me

- | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|
| 1. I am determined to keep playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2. I am dedicated to keep playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3. I am committed to keep playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 4. I am willing to do almost anything to keep playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5. I want to keep playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 6. It would be hard for me to quit playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 7. I feel obligated to continue playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 8. I feel it is necessary for me to continue playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 9. I feel playing my sport is a duty | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 10. All things considered, playing my sport is very satisfying | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11. Because I play my sport, I feel satisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 12. I find playing my sport to be very rewarding | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 13. People will think I am a quitter if I stop playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 14. I feel pressure from other people to play my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 15. I have to keep playing my sport to please others | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 16. People will be disappointed with me if I quit playing my sport | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 17. Compared to playing my sport, there are other things I could do which would be more fun. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18. Compared to playing my sport, there are other things I could do which would be more enjoyable. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 19. Compared to playing my sport, there are other things I could do which would be more worthwhile. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

- 1 = Not at all true for me 10 = Completely true for me**
20. I would be happier doing something else instead of playing my sport. 1 2 3 4 5 6 7 8 9 10
21. I would like to do something else instead of playing my sport. 1 2 3 4 5 6 7 8 9 10
22. I have invested a lot of effort into playing my sport. 1 2 3 4 5 6 7 8 9 10
23. I have invested a lot of energy into playing my sport. 1 2 3 4 5 6 7 8 9 10
24. I have invested a lot of time into playing my sport. 1 2 3 4 5 6 7 8 9 10
25. I have invested a lot of my own money into playing my sport. 1 2 3 4 5 6 7 8 9 10
26. People important to me support me playing my sport. 1 2 3 4 5 6 7 8 9 10
27. People important to me think it is okay to play my sport. 1 2 3 4 5 6 7 8 9 10
28. People important to me encourage me to play my sport. 1 2 3 4 5 6 7 8 9 10
29. Playing my sport gives me the opportunity to do something exciting. 1 2 3 4 5 6 7 8 9 10
30. Playing my sport gives me the opportunity to relieve any stress I am feeling. 1 2 3 4 5 6 7 8 9 10
31. Playing my sport gives me the opportunity to have a good time. 1 2 3 4 5 6 7 8 9 10
32. Playing my sport gives me the opportunity to be with my friends. 1 2 3 4 5 6 7 8 9 10
33. Playing my sport gives me the opportunity to improve my health and fitness. 1 2 3 4 5 6 7 8 9 10
34. Playing my sport gives me the opportunity to improve my physical skills. 1 2 3 4 5 6 7 8 9 10

Appendix C: Modified Athletes' Opinion Survey

Sport Commitment

1. How dedicated are you to playing in (sport)?

Not at all dedicated	A little dedicated	Sort of dedicated	Dedicated	Very dedicated
1	2	3	4	5

2. How hard would it be for you to quit (sport)?

Not at all hard	A little hard	Sort of hard	Hard	Very Hard
1	2	3	4	5

3. How determined are you to keep playing in (sport)?

Not at all determined	A little determined	Sort of determined	Determined	Very determined
1	2	3	4	5

4. What would you be willing to do to keep playing in (sport)?

Nothing at all	A few things	Some things	Many things	Anything it takes
1	2	3	4	5

Sport Enjoyment

1. Do you *enjoy* playing in (sport) this year?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

2. Are you *happy* playing in (sport) this year?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

3. Do you have *fun* playing in (sport) this year?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

4. Do you *like* playing in (sport) this year?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

Personal Investments

1. How much of your *time* have you put into playing in (sport) this year?

None	A little	Some	Pretty much	Very much
1	2	3	4	5

2. How much *effort* have you put into playing in (sport) this year?

None	A little	Some	Pretty much	Very much
1	2	3	4	5

3. How much of *your own money* have you put into playing in (sport) this year for things like entrance fees or equipment?

None	A little	Some	Pretty much	Very much
1	2	3	4	5

Involvement Opportunities

1. Would you miss being a (sport) player if you left the program?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

2. Would you miss your head coach if you left (sport)?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

3. Would you miss the good times you have had playing in this (sport) this season if you left the program?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

4. Would you miss your friends in (sport) if you left the program?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

Social Support

1. Do you feel encouragement and support from other people for playing your sport?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

2. Do you feel encouragement and support from your team mates for playing your sport?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

3. Do you feel encouragement and support from your coach for playing your sport?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

4. Do you feel encouragement and support from your family for playing your sport?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

5. Do you feel encouragement and support from your friends for playing your sport?

Not at all	A little	Sort of	Pretty much	Very much
1	2	3	4	5

Comments/Additional Info

Please include any comments or additional information related to your participation in and commitment to your sport.

Appendix D: Sample Contact Letter for 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 examining sport commitment of collegiate student-athletes. Research on sport commitment has largely been done at the youth level, with no studies examining sport commitment specifically on the collegiate level. The purpose of this study is to look at sport commitment in collegiate student-athletes to see what factors are influencing their continued participation in their sport. By enhancing our understanding of the factors that affect sport commitment at the collegiate level, we may be able to shed some light on the driving force behind participation in collegiate athletics, and whether there is a possibility for future research to address new ways to keep collegiate athletes motivated to participate in their sport.

I am writing to request the participation of the 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 15-20 minutes to complete. Following the completion of my study, I will provide you with a written summary of the findings upon request.

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 cooperation,

Jordan P. Boyst
ESS M.S. Candidate
Specializing in Sport and Exercise Psychology
The University of North Carolina at Greensboro
jpboyst@uncg.edu

Appendix E: Informed Consent Form

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

Project Title: An Examination of Sport Commitment in Collegiate Athletes

Project Director: Jordan P. Boyst, Renee Newcomer Appaneal

Participant's Name: _____

DESCRIPTION AND EXPLANATION OF PURPOSE AND PROCEDURES:

The purpose of this research is to learn more about a college student athlete's commitment to his or her sport. Information collected will identify factors that may affect sport commitment for the collegiate student-athlete. If you agree to participate in this study you will complete a questionnaire regarding your current participation level, feelings towards participation, and playing experience in your sport. Completion of the questionnaire will take approximately 15-20 minutes.

POTENTIAL RISKS AND DISCOMFORTS:

There are no potential risks or discomforts associated with this study.

POTENTIAL BENEFITS:

Collegiate athletic programs will benefit from information about collegiate student-athletes' sport commitment as well as the factors that affect sport commitment.

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 Jordan Boyst by calling (336) 408-3195 or by Renee Newcomer Appaneal at (336) 256-0280. 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 Jordan Boyst.

Participant's Signature*

Date

Appendix F: Pearson Correlations for the Athletes' Opinion Survey and the Exercise Commitment Scale

	ECS Want To Com.	ECS Have To Com.	ECS Satisf.	ECS Social Const.	ECS Inv. Altern.	ECS Pers. Invest. (Adjust)	ECS Soc. Supp.	ECS Inv. Opp.	AOS Sport Comm.	AOS Sport Enjoy.	AOS Pers. Invest. (Adjust)	AOS Inv. Opp.	AOS Soc. Supp.
ECS Want To Comm.	1	.184	.741**	-.312**	-.426**	.234*	.464**	.657**	.802**	.487**	.406**	.576**	.629**
ECS Have To Comm.	--	1	.124	.433**	.114	.047	.208*	.065	.062	.112	.136	.100	.185
ECS Satisf.	--	--	1	-.416**	-.550**	.293**	.334**	.765**	.683**	.465**	.246*	.467**	.490**
ECS Soc. Const.	--	--	--	1	.493**	-.029	-.039	-.369**	-.382**	-.388**	-.021	-.271**	-.185
ECS Inv. Altern.	--	--	--	--	1	-.134	-.120	-.516**	-.578**	-.396**	-.063	-.376**	-.321**
ECS Per. Inv.(Adj)	--	--	--	--	--	1	.570**	.233*	.191	.015	.378**	.199*	.195
ECS Soc. Support	--	--	--	--	--	--	1	.332**	.410**	.246*	.325**	.346**	.455**
ECS Inv. Opp.	--	--	--	--	--	--	--	1	.595**	.561**	.227*	.546**	.499**
AOS Sp. Comm.	--	--	--	--	--	--	--	--	1	.446**	.359**	.620**	.574**
AOS Sp. Enjoy.	--	--	--	--	--	--	--	--	--	1	.217*	.503**	.524**
AOS Per. Inv.(Adj)	--	--	--	--	--	--	--	--	--	--	1	.472**	.458**
AOS Inv. Opp.	--	--	--	--	--	--	--	--	--	--	--	1	.696**
AOS Soc. Support	--	--	--	--	--	--	--	--	--	--	--	--	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)