The effects of motivational climate and coaching behaviors on sport commitment in recreational youth sports

Michael Felak
Clemson University, mfelak@clemson.edu

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THE EFFECTS OF MOTIVATIONAL CLIMATE AND COACHING BEHAVIORS ON SPORT COMMITMENT IN RECREATIONAL YOUTH SPORTS

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Parks, Recreation, and Tourism Management

by
Michael Thomas Felak
August 2011

Accepted by:
Dr. Robert Barcelona, Committee Chair
Dr. Denise Anderson
Dr. Dorothy Schmalz
ABSTRACT

Youth sports are a means for children to develop physically, mentally, and socially. Recent studies show that 75% of children drop out of sports by age 13. One of the main reasons that children discontinue sport participation is pressure from parents and coaches. Researchers have shown that certain coach-created motivational climates lead to youth outcomes such as initiative and identity reflection. This study measured perceived motivational climate, basic psychological needs satisfaction, perceived competence, self-esteem, and how those constructs impact sport commitment. Two hundred and twenty children (ages 8-12) playing youth sports in a southeastern recreation department were surveyed at practices and games. Results indicate four findings: 1) perceptions of autonomy-supportive coaching behaviors predict mastery climate; 2) perceptions of mastery climates predict psychological need satisfaction; 3) basic psychological need satisfaction predicts competence and self-esteem; 4) basic psychological need satisfaction and self-esteem predict sport commitment. Results from this study support the literature of motivational climate and sport commitment.
DEDICATION

This work is dedicated to my parents, John and Mary, and to my sisters and brother, Michelle, Andrew, and Nicole. Thank you for all of your love and support throughout this process. It would not have been possible without you.
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CHAPTER I

INTRODUCTION

Recreational youth sports have been a popular extracurricular activity for children for many years. Youth sports facilitate exercise, sport education, and having fun with friends. The positive physical, mental, and social outcomes that are experienced through youth sport participation can be very important to the overall development of youth. However, certain environments surrounding youth sports can create negative outcomes for children and can impede positive development (Stuart, 2003; Sagar & Lavallee, 2010). Participating in youth sports alone does not guarantee positive outcomes. The atmospheres and relationships that occur in these settings have an impact on the effects of youth sport participation (Larson, Hansen, & Moneta, 2006). According to a recent report on youth sports in the United States, the main reason that children (38% of girls and 39% of boys) stopped playing sports was that they were not having fun (Sabo & Veliz, 2008). If children are engaged in atmospheres that encourage positive development, children may be motivated to participate in the sport well beyond the current season.

Environments created around an activity, such as youth sports, can contribute or detract from the motivation of participants. The environments created by leaders of these activities through leadership and participant support techniques are called motivational climates. Motivational climates have been shown to have significant effects on participants’ experiences in a variety of settings (Ames & Archer, 1988; Smith, Cumming, & Smoll, 2008). These climates are created by leaders in the environment
(coaches, parents, teachers, etc.). There are two main types of these climates: mastery-oriented climates and ego-initiating climates (Ames & Archer, 1988). These are also referred to as task- and performance-climates, respectively.

The mastery-oriented motivational climate has characteristics that focus on promoting skill development and teamwork. Mastery climates have been shown to have positive effects on youth by promoting intrinsic motivation, focusing on having fun, and skill improvement (Treasure & Roberts, 2001). The ego-initiating climate has characteristics that focus on improving ability to be better than another participant, on-field performance, and having leaders in the environment pay more attention to the best players. These climates tend to emphasize intense, highly competitive practices and games with much of the team’s focus on winning the game. Cumming et al. stated that “Winning should be viewed as a consequence of the athlete’s physical and psychological development and not the primary focus of athletic involvement” (p. 323, 2007). Youth sport programs that adopt the philosophy of winning stated above might be able to retain more children in their sports, while educating participants on values in sports.

When a child is in the right environment, it can yield positive physical, psychological, and social outcomes. Although organized sports are not meant for every child, the opportunity for every child to experience these outcomes through sports should be available. Because of the potential positive outcomes that sport can produce, recreation providers should strive to keep children committed to playing sports in some capacity. Sport commitment is the extent a person wishes to continue participating in his or her sport (Scanlan et al., 1993). There are five components to determining levels of
sport commitment: (1) sport enjoyment, (2) personal investments, (3) social constraints, (4) involvement opportunities, and (5) involvement alternatives. These components are influenced by many factors in the sport environment including coaches, parents, teammates, referees, and other spectators.

The literature suggests that the environment that the leadership (coaches, parents, etc.) provides will influence sport commitment. Providing environments in sport that contribute positively to the sport commitment components through motivational climates and autonomy-supportive coaching behaviors will create opportunities for positive youth development through continued sport involvement.

Rationale

As suggested by the literature, youth sports can be an instrumental component of positive youth development. For example, voluntary, structured activities such as sports can provide the best environments for the development of initiative. Coatsworth and Conroy (2009) conducted a study that examined the role of autonomy-supportive coaching behaviors on youth self-perceptions and youth outcomes (initiative and identity). Perceived coaching climates determine basic psychological need satisfaction. These needs – autonomy, competence, and relatedness – are the components of self-determination. Through the satisfaction of these three needs, an individual will have a higher commitment level to his or her sport because of enhanced self-determination (Coatsworth and Conroy, 2009). Zahariadas et al. (2006) report that sport commitment is a function of motivation. The relationship between commitment and a lack of motivation should be examined further because it may lead to children withdrawing from their sport.
Fulfilling basic psychological needs leads to intrinsic motivation, which then leads to potential sport commitment. Motivational climates are the key to providing the best opportunities to foster basic psychological need satisfaction.

By using the study by Coatsworth and Conroy (2009), a new conceptual model (Figure 1) was created to visualize the model of this study. Perceived coach behaviors along with actual coach behaviors contribute to the motivational climate of a team. The motivational climate, whether it is mastery or ego, has significant effects on enjoyment and satisfaction in the sport (Baker, Yardley, & Côté, 2003). A child who enjoys his or her sport is more likely to remain committed to playing the sport, according to the Sport Commitment Model (Scanlan et al, 1993). The literature suggests that motivational climates may lead to sport commitment through intermediate factors such as basic need satisfaction, perceived competence, and self-esteem. The model for this study is presented in Figure 1.

![Figure 1: Conceptual Framework (adapted from Coatsworth & Conroy, 2009)]
Purpose

The purpose of this study was to determine if motivational climates, autonomy-supportive coaching behaviors, basic need satisfaction, perceived competence, and self-esteem had an effect on sport commitment in recreational youth sports. This research aimed to contribute to the youth sport literature and potentially provide more evidence to improve current youth sport programming standards and practices. This study examined potential relationships among motivational climate, autonomy-supportive coaching behaviors, basic need satisfaction, perceived competence, self-esteem, and sport commitment. Previous studies that show dropout rates and related effects should motivate researchers and practitioners to examine why children are dropping out and what can be done to maintain an active interest in youth sports as well as overall general health and fitness. The scope of this study includes children on team sports in recreational leagues from the ages of 8 to 12. This study does not include individual sports, competitive leagues, or children below the age of 8 or above the age of 12 in the study population. Individual sports were not included because they provide different dynamics such as promoting teamwork or building relationships with teammates. Competitive leagues are beyond the scope of this study because of the emphasis on mastery climates and the lack of emphasis on winning and being better than teammates. The age group was determined based on the age groups that were measured by the scales that are used in the study.
Research Questions and Hypotheses

The aim of this study is to answer the following research questions:

Research Question 1: Is a child’s sport commitment level predicted by age, gender, practice frequency, or depth of involvement?

H1a: Older children will be more committed to their sport than younger children.
H1b: Males will be more committed to sport than females.
H1c: Children who practice more often will be more committed than children who practice less.
H1d: Children who have higher depth of involvement will be more committed to their sport than children who have lower depth of development.

Research Question 2: Are mastery-oriented climates more conducive to children intending to play next year than ego-initiating climates?

H2: Children that participate in mastery-oriented motivational climates will be more likely to continue playing his or her sport than those in ego-initiating climates.

Research Question 3: Do autonomy-supportive coaching behaviors positively impact a child’s level of sport commitment?

H3: Children who perceive autonomy-supportive coaching behaviors will have higher sport commitment than those who do not.

Research Question 4: Does the fulfillment of basic psychological needs have a positive effect on a child’s sport commitment?

H4: Fulfillment of children’s basic psychological needs will positively affect sport commitment.
Definition of Terms

Mastery-oriented climate – Environments that allow the individual to improve current individual skills, the amount of effort put forth toward an activity, and a cooperative learning environment (Ames & Archer, 1988).

Ego-initiating climate – Environments that encourage the individual to outperform others, and focus on the individuals who succeed at the highest level (Dweck, 1986).

Sport commitment – “a psychological state representing the desire or resolve to continue sport participation” (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993, p. 6).

Autonomy-supportive coaching behaviors – Strategies and methods used by coaches that improve one’s level of autonomy.

Sport – physical activity engaged in for pleasure.

Basic psychological needs – Human needs of autonomy, competence, and relatedness that are satisfied through stimuli.

Positive development – physical, mental, and social development.
CHAPTER II
REVIEW OF LITERATURE

Millions of children participate in youth sports every year. Youth sports facilitate exercise, education about a sport or activity, and having fun with friends. The positive physical, mental, and social outcomes that are experienced through youth sport participation can be very important to the development of youth, even outside of the sport context. However, certain atmospheres can create negative outcomes for children and can impede positive development (Stuart, 2003; Sagar & Lavallee, 2010). According to a recent report on youth sports in the United States, the main reason that children (38% of girls and 39% of boys) stopped playing sports was that they were not having fun (Sabo & Veliz, 2008). If children are engaged in atmospheres that encourage positive development, children may be motivated to participate in the sport well beyond the current season.

The National Research Council and Institute of Medicine classifies youth development into four main categories: physical, intellectual, physiological/emotional, and social (NRCIM, 2002). Within each of these categories, there are several characteristics that foster youth development. The NRCIM created a list of these characteristics which are (1) physical and psychological safety, (2) appropriate structure, (3) supportive relationships, (4) opportunities to belong, (5) positive social norms, (6) support for efficacy and mattering, (7) opportunities for skill building, and (8) integration of family, school, and community efforts.
These assets are the areas of emphasis that youth programs should focus on to create an atmosphere of positive youth development. Youth who have more of these assets show three general characteristics: (1) youth are less likely to be involved with high-risk behaviors, (2) youth are more likely to be successful in multiple areas of their life such as school, volunteering, leadership, and general optimism, and (3) youth can show resilience in difficult situations (Fraser-Thomas, Côté, & Deakin, 2005).

Youth sport programs are not without flaws, however. Much research shows negative outcomes resulting from youth sport participation such as eating disorders (Reel & Gill, 1996), low self-esteem (Wankel & Kreisel, 1985), sport-related injuries (Steiner, McQuivery, Pavelski, & Kraemer, 2000), pressure to perform (Wankel & Mummy, 1990), and acts of violence and aggression (Colburn, 1986). Program design and mission are significant contributing factors related to negative youth sport experiences. Orlick (1973, 1974) found that 50% of surveyed participants aged 7-19 who were previously involved in youth sport programs reported that the programs were focused solely on winning, were too serious, and were not enjoyable. The study also found that elementary school participants from that sample dropped out of sports because they were not playing enough or did not find themselves successful.

The research above shows that coaches and adults have impacts on children participating in sports. The types of behaviors that are used by adult leaders in sport determine the influences on children. The next section will outline the role of autonomy-supportive coaching behaviors and how they can help to create an environment that is beneficial to children playing youth sports.
Perceived Coaching Climates

Autonomy-Supportive Behaviors

Leaders in any environment influence the group that they lead. Leadership style can have different effects on individuals and that style can impact the way an individual develops. They can also lead people to achieve certain goals or maintain standards, such as test scores, good grades, or a winning season.

Autonomy is defined as an individual’s efforts to determine their own behavior (Deci & Ryan, 1991). Strategies and methods that improve one’s level of autonomy are referred to as autonomy-supportive coaching behaviors. Self-Determination theory suggests that an individual in an autonomy-supportive environment will encourage self-determined motivation, well-being, and healthy development through the satisfaction of the three basic human needs of autonomy, competence, and relatedness (Ryan & Deci, 2000). Studies have examined autonomy-supportive behaviors in the classroom as well as sports. Vallerand et al. (1997) found that students who were taught by autonomy-supportive teachers were more likely to stay in school than students who were taught by teachers who used a controlling atmosphere.

Diverse leadership strategies can lead to different results in a variety of settings. The methods of autonomy-supportive behaviors are utilized successfully in classrooms and other extracurricular activities. Froiland (2010) conducted a 7-week quasi-experimental study that surveyed 15 parents of elementary school students in the fourth and fifth grades. He found that parents who used autonomy-supportive styles of communication in schoolwork observed their children showed higher autonomy levels
and became more intrinsically motivated to learn. The study also suggests that the children’s self-efficacy levels may have indirectly affected intrinsic motivation through the autonomy supportive actions of the parents according to social cognitive theory (Bandura, 2001).

Another study assessed how perceived autonomy support from coaches and parents affected the motivation of 33 young female gymnasts (Gagne, Ryan, & Bargmann, 2003). The study showed that if gymnasts perceived more parents’ and coaches’ autonomy-supportive behaviors, the athletes had more autonomous motivation. Athletes also reported increases in personal well-being from before practice to after practice based on need satisfaction during practice. The study stresses the importance of support from coaches and parents to satisfy basic needs to increase in the athlete’s well-being.

Coatsworth and Conroy (2009) highlighted the effects of autonomy-supportive coaching behaviors, need satisfaction, and self-perceptions on youth outcomes such as initiative and identity in youth swimmers. They analyzed how youth perceived differing coaching behaviors by evaluating coaching actions and motivational climates. The model proposed in this study shows that coaching behaviors influence a number of other factors in a child’s experience in his or her respective sport.

The coach-athlete relationship can influence the athlete’s motivation both positively and negatively. Mageau and Vallerand (2003) explored seven practices that exhibit autonomy-supportive coaching behaviors: a) allow freedom within rules and limits; b) explain why these rules and limits are put into place; c) ask about participants’
thoughts and feelings; d) facilitate opportunities for self-growth and showing initiative; e) giving competence feedback without controlling behaviors; f) avoid controlling behaviors such as extrinsic reward, harsh criticism, and open control; g) and prevent ego-initiating behaviors in athletes. Coaches using these behaviors can create a sense of autonomy for children while playing their sport.

This research shows that the sports themselves do not determine the participants’ experiences, but that they are influenced by how the sport environments were perceived by the participants. These environments are referred to as motivational climates, and they can be the determining factor behind the quality of a youth sport experience.

*Motivational Climate*

Motivation is what drives individuals to participate or engage in any activity. Being motivated for everything that we encounter in life is unexpected and almost impossible. There are certain situations that may require something to trigger a sense of motivation in a person. This catalyst may be a person, place, thing, or a method of teaching. The multiple elements that interact together form a motivational climate. A motivational climate can be defined as the environment created by significant adults that influence the student’s goal orientation (Ames, 1992).

Motivational climate can have positive or negative impacts on individuals. Individuals can react differently to the same motivational climate, whether it is a mastery-oriented climate or an ego-initiating climate. Environments that allow the individual to improve current individual skills, the amount of effort put forth toward an activity, and a cooperative learning environment are mastery-oriented climates (Ames & Archer, 1988).
Environments that allow the individual to focus on the learning process and the effort required to develop skills in an activity are also mastery climates (Dweck, 1986). Environments that encourage the individual to boosting his or her ability to outperform others and focus more on the individuals who succeed at the highest level are referred to as ego-initiating climates (Dweck, 1986). Attitudes towards the coaches can be negatively impacted by ego climates and cause participants to not enjoy their sport experience (Cumming, Smoll, Smith, & Grossbard, 2007).

Motivational climate in a physical education setting has also been shown to contribute to students’ desire to participate in physical education classes. Treasure and Roberts (2001) examined the relationship between students' perceptions of the motivational climate and why the students believed they were successful. The study analyzed the responses of 96 students (50 male, 46 female; Age: $M = 12.08; SD = 0.72$) and the results showed that when students perceive a mastery climate, they become more motivated and experience positive outcomes when compared to ego climates. The study also showed that students who strive for positive comparison to their peers from their teachers are likely to be extrinsically motivated to please the teacher. Environments that encourage this sort of behavior can lead to a sense of failure in the participants.

Similarities between motivational climates in physical education classes and academic classes have been extended to the youth sport context. Coatsworth and Conroy (2007) highlight the effects that coaching climate has on youth developmental outcomes. The study surveyed 165 youth participating aged 7-18 years ($M = 11.2, SD = 2.2$) in a 6-week summer swim league, measuring pre- and post-season perceived coaching
behaviors, autonomy supportive coaching behaviors, and psychological need satisfaction (Coatsworth & Conroy, 2007). According to the results of the study, participants were able to discern between different coaching strategies. The results also showed that autonomy supportive coaching behaviors led to psychological need satisfaction. Psychological need satisfaction then predicted the athletes’ self-perceptions and those predicted youth development outcomes such as children initiating goal-setting and reflecting on one’s identity. This study shows that autonomy-supportive coaching methods can lead to intrinsic motivation. If motivational climate can lead to positive youth development outcomes, then those outcomes may be able to enhance levels of commitment to playing one’s sport.

**Youth Self-Perceptions**

**Self-Determination**

*Basic Psychological Needs*

Self-determination theory describes a person’s willingness to participate in an activity. There are three basic psychological needs that must be met to become self-determined: autonomy, competence, and relatedness (Ryan & Deci, 2000). Autonomy is defined as person’s effort to determine his or her own behavior (Ryan & Deci, 1991). An autonomous individual feels as if he or she controls the situation in which he or she is involved. Also, the individual has the freedom to choose to participate in an activity, rather than participating in an activity in which they do not wish to participate (Deci, 1975). Competence is defined as the level of understanding an individual has about an activity. Individuals who perceive high levels of competence in an activity have been
found to have prolonged involvement in that activity, specifically sport participation (Klint & Weiss, 1987). Relatedness is described as the effort that one puts forth to be accepted by his or her peers, as well to develop an attachment to his or her peers within a social structure. Individuals develop bonds with others that they see often and tend to hold onto those bonds, even if it means there will be a struggle to do so (Baumeister & Leary, 1995). According to Ryan and Deci (2000), all three of these psychological needs are important for increased motivation.

The three basic psychological needs described above may be categorized as internal or external. Internally motivating factors include enjoyment, novelty to the participant, and betterment of oneself. External factors such as public recognition, keeping one’s job, or winning a championship trophy can also motivate an individual in a different way. Regardless of the source of motivation, one can usually point to at least one motivating factor that causes one to act. These sources—internal and external—have been labeled by Ryan & Deci (2000) as intrinsic and extrinsic motivation. Intrinsic motivation is defined as the “inherent tendency to seek out novelty and challenges, to extend and exercise one's capacities, to explore, and to learn” (Ryan & Deci, 2000, p. 70). Extrinsic motivation is the incentive one has to do something to receive some sort of tangible outcome (Ryan & Deci, 2000). Vallerand and Losier (1999) described three types of intrinsic motivation: to know, to accomplish, and to experience stimulation. The intrinsic motivation to know is to learn or discover something new. In the sport context, this could refer to learning a new strategy or tactic to use during play. The intrinsic motivation to accomplish is to enjoy developing new abilities or improving ones that one
already has. The intrinsic motivation to experience stimulation results from participating in an activity. Becoming intrinsically motivated can help to spur individuals to continue participation and seek out new challenges (Vallerand & Losier, 1999).

*Competence Motivation*

One of the areas that contribute to intrinsic motivation is competence motivation. Competence motivation describes the way that people are motivated to achieve in a wide range of activities because of the positive affect one receives from succeeding (Harter, 1981). Similarly, when children learn a new skill or succeed in any aspect of an activity, they get a great sense of enjoyment out of that moment and wish to return to that moment repeatedly. Klint and Weiss (1987) tested Harter’s theory of competence motivation and found that children who valued skill development showed high levels of perceived physical competence while the opposite was true for those who did not value skill development. Children with high levels of social competence were motivated to be a part of the sport because of the team affiliation that it provided. This helps to uncover reasons as to why children are involved with sports. As Larson and Harter show, developing intrinsic motivation within youth for any activity is important for positive development, and the idea that youth sport can be one of those contexts is also supported by Weiss (2008).

Another study determined that perceived competence shared relationships with motivational climates and goal orientation in sports. Bortolli, Bertollo, and Robazza (2011) highlighted the relationships among perceived competence, goal orientation, and perceived motivational climate. The results of their study found that mastery climates
helped participants to communicate with other task-oriented participants who had high levels of perceived competence. Mastery climates also led to pleasant psychobiosocial states, which can lead to more enjoyment in their sport.

*Cognitive Evaluation Theory*

A sub-theory of self-determination is cognitive evaluation theory (CET). CET helps to identify factors that explain different levels of intrinsic motivation (Deci & Ryan, 1985). The theory centers on the psychological needs of competence and autonomy. CET claims that actions that help an individual gain competence in an activity increases overall intrinsic motivation in that activity. Competence alone does not guarantee feelings of intrinsic motivation; however, it must be supported by a sense of autonomy to be able to increase levels of intrinsic motivation (Fisher, 1978; Ryan, 1982). Therefore, children who know how to perform a certain skill well will not be intrinsically motivated unless they believe that they can do the skill on their own. Feelings of competence and autonomy stem from the individual’s learning environment. Thus, the facilitator of that environment must be adequately equipped to provide such an atmosphere, particularly in the youth sport context.

*Self-Determination in Youth Sports*

Youth sports can potentially facilitate the psychological needs for children and therefore produce positive effects on the physical, mental, and social development of youth (Nichols, Pettee, & Ainsworth, 2007; Ryan & Deci, 2000). The number of children participating in high school athletics is growing and has been for the last nineteen years (National Federation of State High School Associations, 2008). This signifies the
importance of developmental programs for youth to participate from a young age to provide an optimal learning experience (Theokas, 2009).

Quality of Experience

Quantity of participation does not outweigh quality of the experience. Simply playing sports as a child does not guarantee positive development, nor does it exclude negative development from occurring (Theokas, 2009). Another source of negative development comes from the “professionalizing” of youth sports that places a high value on winning and less value on skill or self-development (Gould & Carson, 2004). These extrinsically motivating factors may benefit some children initially, but can also severely hurt the confidence of other children on the same team (Theokas, 2009). Extrinsically motivating factors can stimulate motivation for a period of time. However, when an individual meets failure, motivating oneself to achieve becomes more difficult. While winning appears to draw too much attention in youth sport programs, the main goal should be to develop psychological, social, and physical skills in a positive learning environment, or provide intrinsically motivating opportunities. Furthermore, winning should be equated to physical and psychological development rather than the result on the scoreboard (Cumming, Smoll, Smith, & Grossbard, 2007). If sport can provide skill development that can be measured individually rather than external rewards that are measured on a much larger scale, participants will have many more opportunities to become self-determined to participate in that sport in the future.

The three basic psychological needs as described by Ryan and Deci are crucial to development of self-determination and intrinsic motivation. Research that complements
Ryan and Deci’s work on self-determination covers autonomy-supportive behaviors by leaders in school and sports. The importance of autonomy-supportive behaviors and the impact it has on participants’ motivation is described in the next section.

**Youth Outcomes**

*Sport Commitment*

Sport commitment is defined as “a psychological state representing the desire or resolve to continue sport participation” (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993, p. 6). There are five main factors that influence the level of sport commitment in an individual: sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities. Each of these constructs positively contributes to sport commitment, except the involvement alternatives construct which detracts from the overall level of sport commitment.

The Sport Commitment Model shows the five contributing factors influencing sport commitment. The Sport Commitment Model theorizes that the variables mentioned above will be able to predict an individual’s psychological commitment to sport (Scanlan, et al., 1993).

Sport enjoyment is defined as a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking and fun (Scanlan et al., 1993). If a person has the ability to choose to participate in a sport, that person is highly unlikely to remain committed to a sport if they do not enjoy it. Enjoyment of the sport in the youth sport context can simply mean having fun and wanting to play the sport.
Involvement alternatives are defined as the attractiveness of the most preferred alternative(s) to continued participation in the current endeavor (Scanlan et al., 1993). People who are involved in one or more sports may have other activities that they wish to participate as well. This variable detracts from the specific level of sport commitment for the noted sport, but may increase a secondary sport or activity’s commitment. In the youth sport context, alternatives for children may include playing a different sport, going to a friend’s house after school to play unstructured sports, or being involved in other extracurricular activities. Involvement alternatives are not negative by nature, but in the context of sport commitment, they would send an individual in a different direction than the sport in question.

Personal investments are defined as personal resources that are put into the activity which cannot be recovered if participation is discontinued (Scanlan et al., 1993). Things such as time, money, and emotion may be invested into an activity and will be unrecoverable if the individual chooses to stop participation. This variable creates a resistance to become uncommitted because of what will be lost outside of the sport itself. Younger children will still feel this resistance, but will most likely be related to social relationships with their peers. Factors such as time and money may not be as big of a factor as it would be for an adult who has invested measureable amounts of time and money into an activity.

Social constraints are defined as social expectations or norms that create feelings of obligation to remain in the activity (Scanlan et al., 1993). Experiencing peer pressure to participate in an activity happens at all age levels. For children, their parents may want
them to play a sport that they played themselves when they were young and see the child grow up in a similar fashion. If children feel pressure from this, a social constraint would be placed on them and increase their sport commitment, even though the constraint has a negative connotation.

Involvement opportunities are defined as other chances to benefit that are seen only through continued involvement (Scanlan et al., 1993). For example, if players continue to remain on the team, they will get to participate in an important trip at the end of the season to a regional tournament. Social values such as friendships may be lost if involvement is discontinued. Belonging to a group or class can be very important to a child because of the secondary benefits that come along with it.

Together, these five constructs are all factors in determining the level of sport commitment that someone has (Scanlan et al., 1993). The Sport Commitment Model also addresses three important factors in relation to the individual. Sport commitment centers around (1) psychological attachment to an activity, (2) cognitive and affective factors, and (3) the ability to distinguish between psychological states of participants who have equal levels of commitment (Scanlan & Simons, 1992).

Sport commitment has been found to be supported by self-determination in a study of 343 youth ($M = 13.5$ years, $SD = 1.1$) from multiple sports (Zahariadas, Tsorbatzoudis, & Alexandris, 2006). The study found that sport commitment was a result of motivation and that the relationship between commitment and a lack of motivation should be analyzed because it may lead to children withdrawing from their sport.
Other studies have also highlighted sport commitment’s relationship with motivation, showing that individuals have higher sport commitment levels with enhanced self-determination (Pelletier, Fortier, Vallerand, Tuson, Briere, & Blais, 1995; Fortier & Grenier, 1999).

Sport commitment has been shown by the aforementioned research to be correlated with an individual’s self-determination and the motivational climate in which an individual participates. Research has shown that motivation has a large impact on continued participation. The goal of youth sport, as pointed out by the literature, should be to foster sport commitment through development in a mastery-oriented motivational climate. One method of providing mastery climates is through autonomy-supportive coaching behaviors.

**Conclusions**

Past studies that support the proposed research have been highlighted above. The study conducted by Coatsworth and Conroy (2009) and the proposed conceptual model of this study show that connections may exist among perceived coaching behaviors, youth self-perceptions, and sport commitment in youth sports. The purpose of this study is to determine if sport commitment can be logically inserted into the model created by Coatsworth and Conroy (2009) under youth outcomes. If children are found to be more committed to sport because of perceived coaching behaviors and their self-perceptions, then recreation providers create programs that foster positive development and retain children that participate in sports.
CHAPTER III

METHODOLOGY

Site and Participants

This study was conducted at a municipal recreation department in a southeastern city in the United States. The department coordinates a number of youth sports for children in the area. The department offers activities year-round including football, cheerleading, soccer, basketball and volleyball for children ages 5 to 18. The playing spaces for these activities are centrally located around the city’s main facility. The facility and surrounding areas include four basketball/volleyball gymnasiums, five soccer fields, and one football stadium. These fields are used for all of the youth sport programs. The coaches for the youth sport programs are volunteers.

The youth sport programs in this department are approximately eight weeks long. The program begins with a player evaluation two weeks prior to the first practice by coaches and staff. Teams are then selected to distribute skill evenly and to promote fairness within the sport. Practice begins after teams are selected for a six-week season.

The participants in this study were drawn from recreational youth sport leagues that were coordinated by the department. The department was contacted in August 2010 to discuss the possibility of conducting the study. The study was described to the Director of Parks and Recreation for the city. The director was interested in having the study conducted in the department’s programs for the potential benefits that the study could produce. The staff at the recreation department contacted the coaches of youth sport
teams and asked for their cooperation and participation in the study. The researcher administered the survey at the team’s practices and games.

The study population consisted of children involved in the following programs: soccer, football (full contact), volleyball, cheerleading, and basketball. Potential participants in this study ranged from 8 to 12 years of age and included males and females. The soccer and basketball programs had male and female participants (no mixed gender leagues). Football had only male participants; cheerleading and volleyball had only female participants.

**Data Collection**

The data were collected in two phases. The first phase occurred in October 2010 and the second occurred in February 2011. The first phase included fall sports such as football, cheerleading, soccer, and volleyball; the second phase included only basketball. Coaches were contacted to set up times and locations to collect data. Some coaches required the survey to take place during practice time while other coaches suggested game days because more of the team members would show up on game day rather than practice day. Instructions were provided on-site and participants were informed that they could ask questions to clarify any questions that they had. The surveys were administered and collected near the end of the season, so that the participants could develop a good understanding of the climate that their coach had created during the season. A passive consent procedure was used according to IRB guidelines. Results were kept anonymous with no personal identifiable data. Participants were told that they could opt out of the survey at any time.
Instrumentation

Demographic data were collected without any identifiable questions so that the survey answers could not be tied back to a specific participant. The participants were asked their age, sport, and gender. The participants were then asked how many years they had played their sport, how often they practiced their sport outside of practices/games coordinated by their coach (ranging from ‘Not at all’ to ‘Very Often’), and what avenues they utilized to participate further in their sport (school team, just for fun, camps, other seasonal leagues, etc.). One question was also used to determine future intent: “Do you plan to play your sport next year?” with a 5 point scale ranging from ‘Definitely Not’ to ‘Definitely’.

The participants’ perceived motivational climate was assessed by the Motivational Climate Scale in Youth Sports (MCSYS; Smith, Cumming, & Smoll, 2008). The MCSYS is a 12-item questionnaire consisting of six questions addressing mastery-oriented climates and six questions addressing ego-initiating climates. Each item is rated on a 7-point Likert scale ranging from 1 (Not at all True) to 7 (Very True). The MCSYS has demonstrated acceptable reliability in previous studies, reporting Cronbach’s alpha was equal to 0.72 for both MCSYS subscales (Smith, Cumming, & Smoll, 2008). Smith et al. found that mastery climate scores were predicted by both achievement goal theory and self-determination theory, and were measured by the MCSYS. The resulting scores were positively related to intrinsic motivation scores and negatively related to scores suggesting a lack of motivation.
The Autonomy-Supportive Coaching Questionnaire (ASCQ) assesses behaviors that coaches use to support athlete’s autonomy (Conroy & Coatsworth, 2007). The ASCQ is a 9-item questionnaire consisting of questions split into two autonomy support categories: ‘interest in athletes’ input’ and ‘praise for autonomous behavior’. Each item is rated on a 7-point Likert scale ranging from 1 (Not at all true) to 7 (Very true). The ASCQ has demonstrated acceptable reliability in a recent study with Cronbach’s alpha equal to .86 (interest in athlete’s input) and .70 (praising autonomous behavior) (Almagro, Saenz-Lopez, & Moreno, 2010).

Psychological needs for self-determination have three main categories: autonomy, relatedness, and competence (Ryan & Deci, 2000). The Basic Need Satisfaction in Relationships Scale (BNSRS; La Guardia, Ryan, Couchman, & Deci, 2000) was used to measure how psychological needs were being met by their relationships with their coaches in the areas of autonomy, competence, and relatedness. The scale measures how autonomy was assessed by determining the level of perceived control that the child had during the season (e.g., “When I am with my coach, I feel free to be who I am” or “When I am with my coach, I feel controlled and pressured to be certain ways”). The participant’s perceived competence level was determined by questions that ask the participant about how they felt about his or her skill level (e.g., “When I am with my coach, I feel like a competent person” or “When I am with my coach, I do not feel very capable”). Relatedness was measured by determining the perceived social connections of the participant with their coach (e.g., “When I am with my coach, I feel loved and cared about”). An 8-item scale was used to assess how the differing needs were being met by
the child’s relationship with their coach. The BNSRS has demonstrated acceptable reliability with parents and friends (Cronbach’s alpha = .92 and .90, respectively; LaGuardia et al., 2000). Each item is rated on a 7-point Likert scale ranging from 1 (Not at all true) to 7 (Very true).

Perceived competence was assessed using three items used by Conroy, Coatsworth and Fifer (2005) that were adapted from previous studies (Fredricks & Eccles, 2002; Williams & Deci, 1996). Perceived competence is one component of the Youth Self-Perceptions construct created by Coatsworth and Conroy (2009). The first two items (e.g. “How good at your sport are you?” and “How good would you be at learning something new in your sport?”) were rated on a 7-point Likert scale ranging from 1 (Not at all good) to 7 (Very good). The third item (e.g. “How confident are you in your sport ability?”) was rated from 1 (Not at all confident) to 7 (Very confident). Reliability for this scale had Cronbach’s alphas ranging from .73 to .95 (Fredricks & Eccles, 2002).

The Sport Commitment Model Questionnaire examines why individuals continue to participate in sports (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993; Alexandris, Zahariadis, Tsortbatzoudis, & Grouios, 2002). Questions were divided into five categories: sport enjoyment, personal investments, and social constraints, involvement opportunities and sport commitment. Items that evaluated sport enjoyment focused on the fun or happiness level that a child has while participating in the sport (e.g., “Do you have fun playing your sport this season?”). Items that assess personal investments focus on time or money spent on the sport in which the child is participating.
(e.g., “How much of your own money have you spent this season for things like entrance fees or equipment?”). Items that assess involvement opportunities focus on the things that one gets to participate in because of involvement (e.g., “Would you miss playing your sport if you left the team?”). Items that assess social constraints are focused on the influence that peers or family members have on the child’s commitment level (e.g., “I feel I have to play my sport so that I can be with my friends” or “I feel I have to stay in the program so that people won’t think I am a quitter”). The SCM Questionnaire showed acceptable reliability: (sport commitment, Cronbach’s $\alpha = .89$; sport enjoyment, $\alpha = .95$; social constraints, $\alpha = .88$; and involvement opportunities, $\alpha = .80$. The Sport Commitment Model Questionnaire showed sufficient validity for use of youth sport participants. Scanlan et al. (1993) surveyed three samples of both boys and girls (ages 9-19) and multiple sports. The study demonstrated acceptable reliability in the final phase of the model.

The Washington Self-Description Questionnaire (Smoll, Smith, Barnett, & Everett, 1993) measures general self-esteem without focusing on sports, school, or any other area of the individual’s life. The adapted survey consists of 6 statements (e.g. “I feel sure of myself.” and “I like being the way I am.”) that are each rated on a 4-point Likert scale ranging from 1 (Not like you) to 4 (Very much like you). Self-esteem was measured in this study to further explain participant self-perceptions. A previous study has shown acceptable reliability with children ages 9-11 and 12-14; Cronbach’s alphas were .80 and .86, respectively (Smoll et al., 1993).
Data Analysis

The results of this study were analyzed using SPSS version 18.0.0. To answer research question 1, demographic variables such as age, gender, practice frequency and depth of involvement were analyzed using descriptive statistics. To answer research questions 2, 3, and 4, constructs was analyzed against each other using correlation analysis and multiple regression analysis.
CHAPTER IV

RESULTS

The purpose of this study was to determine relationships among motivational climate, autonomy-supportive behaviors, basic need satisfaction, perceived competence, self-esteem, and sport commitment in recreational youth sports. The following is a summary of the research questions, hypotheses, and the results of the statistical analyses for this study.

Description of Sample

The participants were children playing recreational sports in a program provided by a municipal recreation department in a southeastern city. The researcher approached 247 children to take the study, and 220 of them agreed to participate. This results in a response rate of 89.1%.

Age/Gender

The gender of the sample was split evenly (112 boys and 108 girls), with an average age of 10.03 (SD = 1.11). The range of ages of this sample was 8 years to 12 years. This sample participated in five different sports: football (n = 64), volleyball (n = 54), cheerleading (n = 27), soccer (n = 45), and basketball (n = 54). Of these five sports, both boys and girls participated in two sports (soccer and basketball); only boys participated in football; only girls participated in cheerleading and volleyball. Table I shows the categorization of participants based on sport and gender.
Older children (ages 10-12) reported higher mastery climate scores than younger children (ages 8-9). All children reported an average mastery score of 37.88 (adjusted from 7 point scale with a maximum score of 42 to 5 point scale with a maximum score of 30). Older children reported an average mastery score of 38.44 and younger children reported an average mastery score of 36.69. This supports what Smith et al. (2008) found that older children (ages 12-14) have higher mastery climate scores than younger children (ages 9-11).

Table I: Distribution of Participants by Sport and Gender

<table>
<thead>
<tr>
<th>Sport</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>25 (22.3 %)</td>
<td>19 (17.6 %)</td>
</tr>
<tr>
<td>Cheerleading</td>
<td>0 (0.00 %)</td>
<td>25 (23.1 %)</td>
</tr>
<tr>
<td>Football</td>
<td>63 (56.3 %)</td>
<td>0 (0.00 %)</td>
</tr>
<tr>
<td>Soccer</td>
<td>24 (21.4 %)</td>
<td>15 (13.9 %)</td>
</tr>
<tr>
<td>Volleyball</td>
<td>0 (0.00 %)</td>
<td>49 (45.4 %)</td>
</tr>
<tr>
<td>Total</td>
<td>112 (50.9 %)</td>
<td>108 (49.1 %)</td>
</tr>
</tbody>
</table>

The study sample was split into two age groups: 8 to 9 years of age (n = 79) and 10 to 12 years of age (n = 141). The age groups were created with two reasons in mind. The first reason was to group children together developmentally; the second reason was to make the ratio between the largest group and smallest group was lower than 4 to 1 to ensure statistical validity (Tabachnik & Fidell, 2001). The ratio for this study was 1.75 to
The complete listing of age group by sport is listed in Table II.

Table II: Distribution of Participants by Age and Sport

<table>
<thead>
<tr>
<th>Sport</th>
<th>8-9y</th>
<th>10-12y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>13 (16.5%)</td>
<td>31 (22.0%)</td>
</tr>
<tr>
<td>Cheerleading</td>
<td>11 (13.9%)</td>
<td>14 (9.9%)</td>
</tr>
<tr>
<td>Football</td>
<td>19 (24.1%)</td>
<td>44 (31.2%)</td>
</tr>
<tr>
<td>Soccer</td>
<td>25 (31.6%)</td>
<td>14 (9.9%)</td>
</tr>
<tr>
<td>Volleyball</td>
<td>11 (13.9%)</td>
<td>38 (27.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>79 (45.9%)</td>
<td>141 (64.1%)</td>
</tr>
</tbody>
</table>

Experience

Participants were asked how many years that they had been playing their sport ranging from 0 (first year) to 5 or more years. Participants reported moderate levels of experience among all sports ($M = 2.46, SD = 1.69$). Participants who played soccer had the most experience with 89.2% having 2 or more years of experience. Volleyball players reported the least experience with 95.9% having less than 3 years of experience. Overall, 71.8% of participants had at least 2 years of experience.

In this sample, boys were more experienced in their sport than girls. Nearly two-thirds of boys in this sample had been playing their sport for more than 3 years whereas only one-third of girls have been playing their sport for more than 3 years.
**Practice Frequency**

Participants were asked “How often do you practice your sport on your own, outside of your normal practices and games each week?” Possible answers ranged from 1 (Not at All) to 4 (Very Often). Participants showed moderate levels of outside practice ($M = 2.57$, $SD = 0.86$). Participants who played basketball practiced the most outside of regular practices and games ($M = 2.80$; $SD = 0.73$). Soccer participants reported the least amount of outside practice time ($M = 2.28$; $SD = 0.51$). See Table III for complete results. Differences between age groups or gender with respect to outside practice time were found to not be significant.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Sometimes</th>
<th>Pretty Often</th>
<th>Very Often</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>0.0%</td>
<td>38.6%</td>
<td>43.2%</td>
<td>18.2%</td>
<td>2.57</td>
<td>0.768</td>
</tr>
<tr>
<td>Cheerleading</td>
<td>4.0%</td>
<td>48.0%</td>
<td>36.0%</td>
<td>12.0%</td>
<td>2.56</td>
<td>1.139</td>
</tr>
<tr>
<td>Football</td>
<td>19.0%</td>
<td>23.8%</td>
<td>22.2%</td>
<td>34.9%</td>
<td>2.73</td>
<td>0.510</td>
</tr>
<tr>
<td>Soccer</td>
<td>0.0%</td>
<td>74.4%</td>
<td>23.1%</td>
<td>2.6%</td>
<td>2.28</td>
<td>0.734</td>
</tr>
<tr>
<td>Volleyball</td>
<td>6.1%</td>
<td>55.1%</td>
<td>30.6%</td>
<td>8.2%</td>
<td>2.41</td>
<td>0.734</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7.3%</td>
<td>45.5%</td>
<td>30.0%</td>
<td>17.3%</td>
<td>2.57</td>
<td>0.860</td>
</tr>
</tbody>
</table>

**Depth of Involvement**

Participants were asked “Besides playing your sport for your current team, do you play your sport in any of the following ways?” There were six possible answer choices: school team, just for fun or pick-up games, sport camps or clinics; fall sport leagues;
winter sport leagues; and other with a blank. Over two-thirds of the sample responded that they play their sport just for fun outside of their team’s regular activities. Nearly one-fifth of children participate in some type of sport camp or clinic; similarly, nearly one-fifth of children responded that they play in another type of fall sport league. Over two-fifths of participants reported that they had participated in one other method of playing their sport.

Fifteen children reported a different type of participation not listed on the survey. The most popular answer received was AAU (Amateur Athletic Union) basketball leagues. Only 3.2% of participants reported that they played for their school team. This is most likely due to the age group of the sample. Most sports in school systems in this region do not start until the sixth grade, or around the age of 12.

Table IV: Other Forms of Playing Sports

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just for fun (pickup games)</td>
<td>150</td>
<td>68.2 %</td>
</tr>
<tr>
<td>Seasonal Sport Leagues</td>
<td>62</td>
<td>28.2 %</td>
</tr>
<tr>
<td>Sport Camps or Clinics</td>
<td>43</td>
<td>19.5 %</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>3.2 %</td>
</tr>
<tr>
<td>School Team</td>
<td>7</td>
<td>3.2 %</td>
</tr>
</tbody>
</table>
Table V: Number of Ways Participants Play Their Sport

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just for fun or none</td>
<td>128</td>
<td>58.2%</td>
</tr>
<tr>
<td>Camps/Clinics, Seasonal sport leagues, school teams, other</td>
<td>92</td>
<td>41.8%</td>
</tr>
</tbody>
</table>

**Dependent Variables**

All dependent variables were compared between age groups and gender to determine if significant differences existed between groups. The research questions and results are listed below with a description of findings.

Research Question 1: Is a child’s sport commitment level predicted by age, gender, practice frequency, or depth of involvement?

Research Question 2: Are mastery-oriented climates more conducive to children intending to play next year than ego-initiating climates?

Research Question 3: Do autonomy-supportive coaching behaviors positively impact a child’s level of sport commitment?

Research Question 4: Does the fulfillment of basic psychological needs have a positive effect on a child’s sport commitment?

**Motivational Climate**

The results of the Motivational Climate Scale in Youth Sports were compared between age groups and gender. The scale measures children’s perceptions of mastery climates and ego climates. Environments that allow the individual to improve current individual skills, the amount of effort put forth toward an activity, and a cooperative
learning environment are mastery-oriented climates (Ames & Archer, 1988).

Environments that encourage the individual to boosting his or her ability to outperform others and focus more on the individuals who succeed at the highest level are referred to as ego-initiating climates (Dweck, 1986). Cronbach’s alpha was equal to 0.64, which lies in the range of acceptability. Significant differences were found between age groups in how the children perceived a mastery type climate. Older children perceived higher mastery climates (p < 0.05). There were no significant differences in perceived ego climate. Significant differences were found between boys and girls in mastery and ego climates. Boys reported higher ego climate scores and lower mastery climate scores than girls. However, although the differences were significant, males and females reported relatively high mastery climates and low ego climates. Exact values can be found in Table VI and Table VII.

Table VI: Perceived motivational climate differences between age groups

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Measure</th>
<th>8-9y</th>
<th>10-12y</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Mastery Climate</td>
<td>6.11</td>
<td>1.06</td>
<td>6.41</td>
<td>0.78</td>
<td>4.44</td>
</tr>
<tr>
<td>Ego Climate</td>
<td>1.80</td>
<td>1.02</td>
<td>1.77</td>
<td>1.04</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Table VII: Perceived motivational climate differences between genders

<table>
<thead>
<tr>
<th>Gender</th>
<th>Measure</th>
<th>Male</th>
<th>Female</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td>6.11</td>
<td>1.06</td>
<td>6.41</td>
<td>0.78</td>
<td>4.44</td>
</tr>
<tr>
<td>Ego</td>
<td>1.80</td>
<td>1.02</td>
<td>1.77</td>
<td>1.04</td>
<td>0.03</td>
</tr>
</tbody>
</table>
Autonomy Supportive Coaching Behaviors

The Autonomy-Supportive Coaching Questionnaire (ASCQ; Conroy & Coatsworth, 2007) was used to measure autonomy-supportive coaching behaviors in the sample. The questionnaire measures perceptions of coaching behaviors that support autonomy and not the child’s own autonomy. The questionnaire is split into two sections assessing different forms of autonomy support: “Sincere Interest in Athletes’ Input” and “Praising Autonomous Behavior”. The ASCQ demonstrated high reliability (Cronbach’s alpha = .87). No significant differences were found between age groups in autonomy support. Significant differences were found between genders in global autonomy support (p < 0.01), as well as athlete’s input (p < 0.01) and coach’s praise sections (p < 0.05). Girls showed higher levels of global autonomy support \( (M = 4.10; \ SD = 1.37) \) than boys \( (M = 3.39; \ SD = 1.47) \). Girls also reported that coaches had higher interest in their input \( (M = 3.69; \ SD = 1.55) \) than boys’ coaches \( (M = 2.86; \ SD = 1.61) \). Furthermore, girls reported more frequent praise from their coaches \( (M = 4.58; \ SD = 1.76) \) than boys \( (M = 4.06; \ SD = 1.74) \). Complete results can be found in Table IX and Table X.

Table VIII: Differences in the ASCQ between age groups

<table>
<thead>
<tr>
<th>Measure</th>
<th>8-9y M</th>
<th>8-9y SD</th>
<th>10-12y M</th>
<th>10-12y SD</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego Climate</td>
<td>2.18</td>
<td>1.26</td>
<td>1.44</td>
<td>0.60</td>
<td>29.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Mastery Climate</td>
<td>6.10</td>
<td>1.03</td>
<td>6.53</td>
<td>0.65</td>
<td>11.25</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Table IX: Differences in the ASCQ between genders

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Global Autonomy Support</td>
<td>3.39</td>
<td>1.47</td>
<td>4.10</td>
<td>1.37</td>
</tr>
<tr>
<td>Athlete’s Input</td>
<td>2.86</td>
<td>1.61</td>
<td>3.69</td>
<td>1.55</td>
</tr>
<tr>
<td>Coach’s Praise</td>
<td>4.06</td>
<td>1.74</td>
<td>4.58</td>
<td>1.76</td>
</tr>
</tbody>
</table>

Basic Need Satisfaction in Relationships

The Basic Need Satisfaction in Relationships Scale (BNSRS; La Guardia, Ryan, Couchman, & Deci, 2000) was a 9-item scale used to determine the strength or weakness of the child’s relationship with his or her coach. The BNSRS scale reported acceptable reliability (Cronbach’s alpha = 0.65). No significant differences were found in basic need satisfaction between age groups. Significant differences were reported between genders in basic need satisfaction (p < 0.001). Girls reported higher needs satisfaction from their relationship with their coach ($M = 5.59$; $SD = 1.21$) than boys ($M = 5.04$; $SD = 1.12$).

Perceived Competence

Perceived competence was measured by a three-item scale (Conroy, Coatsworth, & Fifer, 2005). The scale showed acceptable reliability (Cronbach’s alpha = 0.65). Older
children \((M = 6.07; \ SD = 0.91)\) reported higher levels of perceived competence than younger children \((M = 5.65; \ SD = 1.19)\), and these results were found to be significant \((F = 7.69; \ df = 1; \ p < 0.05)\). No significant differences were reported between genders in the area of perceived competence.

*Sport Commitment*

The Sport Commitment Model Questionnaire (Scanlan, et al., 1992) was divided into 5 smaller categories: sport commitment, social constraints, personal investments, involvement opportunities, and sport enjoyment. The 19-item questionnaire reported acceptable reliability \((\text{Cronbach’s alpha} = 0.76)\). Significant differences were found between age groups in the component sport commitment category \((F = 5.09, \ df = 1, \ p < 0.05)\). Older children reported higher component sport commitment \((M = 3.69; \ SD = 0.40)\) than younger children \((M = 3.54; \ SD = 0.52)\). Significant differences were found between gender in global sport commitment \((p < 0.01)\), social constraints \((p < 0.01)\), sport enjoyment \((p < 0.05)\), and component sport commitment \((p < 0.05)\). Girls reported that they were more committed to their sport \((M = 3.74; \ SD = 0.27)\) than boys \((M = 3.54; \ SD = 0.34)\). Full results can be found in Table XI and Table XII.

### Table X: Differences in sport commitment between age groups

<table>
<thead>
<tr>
<th>Age Group</th>
<th>8-9y</th>
<th>10-12y</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
<td><strong>M</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td>Global Sport Commitment</td>
<td>3.60</td>
<td>0.36</td>
<td>3.68</td>
<td>0.29</td>
</tr>
<tr>
<td>Sport Commitment</td>
<td>3.54</td>
<td>0.52</td>
<td>3.69</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>F</td>
<td>p-value</td>
</tr>
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<td>-----------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Social Constraints*</td>
<td>3.00</td>
<td>1.03</td>
<td>3.71</td>
<td>0.65</td>
</tr>
<tr>
<td>Global Sport Commitment</td>
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<td>0.34</td>
<td>3.74</td>
<td>0.27</td>
</tr>
<tr>
<td>Sport Enjoyment</td>
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<td>0.54</td>
<td>3.87</td>
<td>0.33</td>
</tr>
<tr>
<td>Sport Commitment</td>
<td>3.56</td>
<td>0.48</td>
<td>3.70</td>
<td>0.42</td>
</tr>
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<td>Involvement Opportunities</td>
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<td>0.68</td>
<td>3.65</td>
<td>0.55</td>
</tr>
<tr>
<td>Personal Investments</td>
<td>3.58</td>
<td>0.54</td>
<td>3.53</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Table XI: Differences in sport commitment between gender (* - reverse coded)

Future Intent

One question rated on a 5-point scale (5 – Definitely will play next year) was asked to determine if the child intended on playing his or her sport next year. Although older children reported that they were more likely to participate next year than younger children, differences between age groups were not found to be significant (p > .05). Differences between genders also were not found to be significant.
**Self-Esteem**

Self-esteem was measured using items from the Washington Self-Description Questionnaire (WSDQ; Smoll, Smith, Barnett, & Everett, 1993). The scale showed strong reliability (Cronbach’s alpha = 0.84). Using this scale, older children reported higher levels of self-esteem ($M = 3.68; SD = 0.47$) than younger children ($M = 3.50; SD = 0.60$), and these findings were significant ($F = 4.81; df = 1, p < 0.05$). There were no significant differences reported in self-esteem between genders.

![Conceptual Framework](image)

Figure 2: Conceptual Framework (adapted from Coatsworth & Conroy, 2009)

To test the conceptual framework in Figure 2, several correlation analyses were used to determine relationships between constructs. First, correlations were determined within the construct of perceived coaching behaviors. This included such components as motivational climates, autonomy-supportive coaching behaviors, and psychological need satisfaction. Perceptions of mastery climates were significantly correlated with perceptions of autonomy-supportive coaching behaviors ($r = .42, p < 0.01$) and basic psychological need satisfaction ($r = .37, p < 0.01$). Autonomy supportive coaching
behaviors were also significantly correlated with basic psychological need satisfaction ($r = .37, p < 0.01$).

Another correlation analysis was conducted to determine relationships within the construct of youth self-perceptions. This construct includes the components of perceived competence and self-esteem. Perceived competence was significantly correlated with self-esteem measures ($r = .55, p < 0.01$).

A path analysis was conducted to determine significant relationships between variables. This analysis used multiple regression analysis to determine significant predictors of variables. Autonomy-supportive coaching behaviors are split into two components: interest in athlete’s input and coach’s praise of autonomous behavior. Both input and praise are related to mastery climates ($r = .42, p < .0001$). The standardized regression coefficients for input and praise were $\beta = 0.23$ ($p < .01$) and $\beta = 0.27$ ($p < .001$). Motivational climate was then related to and predicted basic psychological need satisfaction ($r = .37, p < .0001$; $B = .37, p < .0001$). Psychological need satisfaction then showed a significant relationship with perceived competence ($r = .32, p < .0001$) and also predicted perceived competence ($\beta = .32, p < .0001$). Self-esteem showed significant relationships with both psychological need satisfaction and perceived competence ($r = .57, p < .0001$). Self-esteem was predicted by both psychological need satisfaction ($\beta = .26, p < .0001$) and perceived competence ($\beta = .44, p < .0001$). Sport commitment was found to have significant relationships with self-esteem and psychological need satisfaction ($r = .63, p < .0001$). There was not a significant relationship between
perceived competence and sport commitment. Sport commitment was predicted by self-esteem ($\beta = .35, p < .0001$) and psychological need satisfaction ($\beta = .40, p < .0001$).

The overall model is displayed in Figure 2 and the significant pathways are shown in Figure 3.

**Research Questions**

To answer the research questions proposed in this study, correlation analysis and multiple regression analysis were used to determine relationships between variables. Below, these analyses are separated by research question.

Research Question 1: Is a child’s sport commitment level predicted by age, gender, practice frequency, or depth of involvement?
H1a: Older children will be more committed to their sport.

H1b: Males will be more committed to sport than females.

H1c: Children who practice more often will be more committed than children who don’t.

H1d: Children who are more involved will be more committed to their sport.

To understand how the demographic variables (age, gender, practice frequency, or depth of involvement) affected sport commitment, a series of multiple regression analyses were used. In the first multiple regression analysis, the demographic variables were used as predictor variables for sport commitment. Of these variables, gender was found to be the most significant predictor of high sport commitment ($\beta = 0.307$, df = 1, $p < 0.001$), while girls showed higher sport commitment than boys. The children’s practice frequency was also a significant predictor of sport commitment ($\beta = 0.158$, df = 1, $p < 0.05$), showing that children who practice more often have higher sport commitment. Age groups or depth of involvement did not significantly predict sport commitment in this sample.

The analysis used here supports hypothesis 1c. However, the analysis did reject hypotheses 1a, 1b, and 1d.

Research Question 2: Are mastery-oriented climates more conducive to children intending to play next year than ego-initiating climates?

H2: Children that participate in mastery-oriented motivational climates will be more likely to continue playing his or her sport than those in ego-initiating climates.
To understand how motivational climates impact a child’s future intent to play his or her sport, correlation and multiple regression analyses were used. Correlation analysis showed that motivational climate (mastery or ego) was not significantly correlated to a child’s future intent to play his or her sport next year. Multiple regression analysis further showed that a child’s future intent to play was not affected by a mastery or ego climate.

Curiously, correlation analysis revealed a relationship between mastery climates and sport commitment as well as another relationship between sport commitment and future intent to participate. The analysis determined that there was a significant relationship between mastery climates and sport commitment ($r = .310$, $p < 0.01$). There was also a significant relationship between sport commitment and future intent ($r = .300$, $p < 0.01$).

Mastery-oriented climates do not significantly predict a child’s future intent to play. Therefore, the hypothesis for the second research question is rejected. However, significant relationships were found between mastery climates and sport commitment.

Research Question 3: Do autonomy-supportive coaching behaviors positively impact a child’s level of sport commitment?

H3: Children who perceive autonomy-supportive coaching behaviors will have higher sport commitment than those who do not.
To determine the relationship between autonomy-supportive coaching behaviors and sport commitment, correlation and multiple regression analysis were used. Autonomy-supportive coaching behaviors were not significantly correlated with global sport commitment levels. However, autonomy-supportive coaching behaviors were significantly correlated to the following components of sport commitment: component sport commitment ($r = 0.29$, $p < 0.01$), sport enjoyment ($r = 0.22$, $p < 0.01$), personal investments ($r = 0.22$, $p < 0.01$), and involvement opportunities ($r = 0.22$, $p < 0.01$). Further analysis showed that autonomy-supportive coaching behaviors were significantly correlated with psychological need satisfaction ($r = .400$, $p < 0.001$). Also, autonomy-supportive behaviors that were focused on praising athletes was a significant predictor of psychological need satisfaction ($\beta = 0.359$, $p < 0.001$).

According to the analysis of data for the third research question, the hypothesis that autonomy-supportive coaching behaviors have significant impact on sport commitment is rejected.

Research Question 4: Does the fulfillment of basic psychological needs have a positive effect on a child’s sport commitment?

$H4$: Fulfillment of children’s basic psychological needs will positively affect sport commitment.

Fulfillment of psychological needs was found to be significantly correlated with levels of sport commitment ($r = .547$, $p < 0.001$). The most significant predictor of
fulfilled psychological needs were component sport commitment ($\beta = .253$, df = 1, $p < 0.01$) and social constraints ($\beta = .351$, df = 1, $p < 0.001$).

When psychological needs were divided into the three basic psychological needs of autonomy, competence, and relatedness, each of the needs significantly predicted sport commitment. The three components had a strong correlation with sport commitment ($r = .55$, $p < .001$). Fulfilling the need of competence was the most significant predictor of sport commitment ($\beta = .301$, df = 1, $p < 0.001$). The need of autonomy was also a significant predictor of sport commitment ($\beta = .200$, df = 1, $p < 0.05$) as well as relatedness ($\beta = .194$, df = 1, $p < 0.05$).

According to the analysis of the data for the fourth research question, the data supports the hypothesis that fulfillment of children’s basic psychological needs will positively affect their sport commitment.

**Summary**

The results of this study showed that significant differences existed between older children and younger children in the following areas: perceived mastery climates, perceived competence, sport commitment, self-esteem, and effort. The results also showed that girls reported significantly higher scores in the following constructs than boys: mastery climates, global autonomy support, interest in athlete’s input, coach’s praise, basic need satisfaction, sport commitment, sport enjoyment, social constraints, and component sport commitment. Boys reported significantly higher scores than girls only in the ego climate responses. Findings did not support the claim that a significant relationship existed between mastery climates and children’s future intent to play their
sport. However, significant relationships were discovered between mastery climates/sport commitment and sport commitment/future intent to play. Findings also did not support the claims concerning the relationship between autonomy-supportive coaching behaviors and sport commitment. However, further analysis showed relationships between autonomy-supportive coaching behaviors and certain components of sport commitment. Finally, the fulfillment of basic psychological needs demonstrates a significant relationship with a child’s sport commitment.

Although significant differences exist between age groups and genders in multiple variables, the differences are in fact small. Male and female participants reported relatively high mastery and low ego climate scores. Older children and younger children reported similar scores for mastery and ego climates. The scores for both gender and age groups were high in perceived autonomy-supportive coaching behaviors, basic psychological need satisfaction, sport commitment, and self-esteem. Path analyses showed relationships that satisfied the conceptual model presented earlier in this research. Significant predictors can be found in Figure 3.
CHAPTER V
DISCUSSION

The purpose of this study was to determine the relationships between motivational climate and sport commitment among children aged 8-12 playing recreational youth sports. Other constructs were found to have existing relationships with motivational climate and sport commitment as noted by the literature and were also included in this study. Those constructs were autonomy-supportive coaching behaviors, basic need satisfaction in the child’s relationship with the coach, perceived competence, and self-esteem. The study examined the relationship of these different constructs and whether the presence of one construct is related to the presence of another.

The following measures were used in this study: The Motivational Climate Scale in Youth Sports (Smith et al., 2008); Autonomy-Supportive Coaching Questionnaire (Conroy & Coatsworth, 2007); Basic Need Satisfaction in Relationships Scale (La Guardia et al., 2000); Perceived Competence Scale (Conroy et al., 2005); Sport Commitment Model (Scanlan et al., 1993); and the Washington Self-Description Questionnaire (Smoll et al., 1993). The research questions are as follows: (1) Is a child’s sport commitment level predicted by age, gender, practice frequency, or depth of involvement? (2) Are mastery-oriented climates more conducive to children intending to play next year than ego-initiating climates?
(3) Do autonomy-supportive coaching behaviors positively impact a child’s level of sport commitment? (4) Does the fulfillment of basic psychological needs have a positive effect on a child’s sport commitment?

The conceptual framework (pictured above) shows the relationships between the constructs that were measured in this study. This model was based on the conceptual framework used by Coatsworth and Conroy (2009). The youth outcome of sport commitment was added to the model to examine if perceived coaching climates and youth perceptions had an effect on sport commitment as well as the outcomes listed in Coatsworth and Conroy (2009).

Coatsworth and Conroy’s study (2009) analyzed autonomy-supportive coaching strategies and how they influenced youth outcomes. In the ASCQ, the scale was split into two categories of questions: praising autonomous behavior and the coach’s sincere interest in athlete’s input. Both of the categories predicted mastery climates, showing that coaches who use these strategies can create mastery climates by allowing their teams to...
feel that their input matters and praising them for the behavior that they exhibit during practices and games.

Coatsworth and Conroy (2009) reported that praising autonomous behavior predicted basic psychological need satisfaction in youth. The results of this study align with those findings. Praising autonomous behavior was also a significant predictor of basic need satisfaction in relationships with the coach. These findings aligned with the results of this study. Basic need satisfaction in the relationship with the coach was predicted by autonomy-supportive coaching behaviors. Feelings of autonomy, competence, and relatedness were realized by the coach’s ability to provide autonomy support during practices and games.

Motivational climate scores were significantly correlated with basic need satisfaction and also with the three individual needs: autonomy, competence, and relatedness. Mastery climates were positively correlated with basic need satisfaction; ego climates were negatively correlated with basic need satisfaction. This shows that mastery climates are more suitable for recreational youth sport leagues that fulfill these basic psychological needs. The results also show that ego climates are less suitable for need satisfaction and can lower children’s self-determination in their sport. Motivational climates are also significantly correlated with autonomy-supportive coaching behaviors. Children who perceived mastery climates were more likely to perceive high autonomy-supportive coaching behaviors than children who perceived ego climates. Autonomy-supportive coaching behaviors were also significantly correlated with basic need satisfaction.
satisfaction. This provides more evidence that the combination of mastery climates and autonomy-supportive coaching behaviors lead to basic psychological need satisfaction.

Perceived competence in this study was highly correlated with mastery climates, autonomy-supportive coaching behaviors, and basic psychological need satisfaction. Children who are exposed to these types of perceived coaching climates may be more confident in their sport-specific abilities. Results showed that self-esteem was found to be significantly correlated with perceived competence. This indicates that children who are confident in their ability will report higher self-esteem than those who are not confident in their ability. Therefore, motivational climates that build children’s confidence levels by praising behaviors and using techniques to improve and develop skills can lead to higher perceived competence and higher self-esteem.

In this study, self-esteem was found to predict sport commitment, yet perceived competence was not a significant predictor of sport commitment. One theory is that children want to be more than good at something. Feeling competent in an activity alone does not necessarily build commitment. Rather, it is the reciprocal relationship between competence and self-esteem that may build commitment to an activity.

The results of this study showed that girls reported higher mastery climate scores than boys, and also had lower ego climate scores than boys. This aligns with previous studies (e.g. Smith et al., 2008). This could be attributed to the idea that boys exhibit more competitive behavior in sport than girls (placing interests in winning, comparisons with peers, and success), whereas young girls may focus on other aspects of the sport experience (e.g. having fun, developing relationships with peers, focus on skill
improvement). Girls in this study also perceived higher autonomy-supportive coaching behaviors than boys. This may have been attributed to the fact that coaches treated girls differently than boys, although inferences on coaches’ actual behavior (as opposed to children’s perceptions of their behavior) are speculative. Interestingly, this study also found that girls reported higher sport commitment levels than boys. In fact, girls reported higher mastery climates, lower ego climates, and higher psychological need satisfaction, as well as higher sport commitment scores when compared to boys who participated in the study.

It should be noted that the findings on sport commitment with respect to gender in this study differ from what has been found in previous studies. Research shows that social acceptance from friends and peers may have an effect on female sport participation (Daniels & Leaper, 2006). Girls who participated in this study reported significantly higher sport commitment levels than boys in the following areas: overall sport commitment, sport enjoyment, social constraints, and sport commitment. While this does not align with previous findings, it provides an interesting area for future study, particularly with respect to the methods used by coaches in the participating recreation department.

This study also found that children who are in mastery climates are significantly more likely to have higher levels of sport commitment. Those who find more enjoyment in their sport are more likely to perceive a mastery climate; and those who experience more social constraints are more likely to perceive an ego climate. When analyzing the relationship between motivational climates and sport commitment, the most significant
predictor for mastery climates was the sport enjoyment component of the sport commitment scale. Children who had fun and liked the activity perceived higher mastery climates than those who did not enjoy the activity. The most significant predictor of an ego climate was the social constraints component of sport commitment. Children who felt that they were forced to play because of their parents or coach perceived more of an ego climate. Children also could have experienced these social constraints due to their teammates and friends.

Over the entire sample, mastery climates were found to be positively correlated with psychological need satisfaction. These findings align with Coatsworth and Conroy (2007) in that coaches who provide mastery climates to their teams are indicative of psychological need satisfaction. Basic psychological need satisfaction can lead to sport commitment by enhancing intrinsic motivation in youth sport participants. The study also showed that ego climates were negatively correlated with basic psychological need satisfaction. This confirms that ego climates are less likely to be associated with basic psychological need satisfaction than mastery climates.

Sport commitment and basic need satisfaction were found to be highly correlated. This aligns with Ryan and Deci’s findings (2000) and Larson’s discussion (2000) on self-determination and intrinsic motivation. Basic need satisfaction leads to intrinsic motivation. This motivation gives children internal motivation to continue to participate in their sport and remain committed in the future. It may be that as basic psychological needs are fulfilled through autonomy-supported coaching behaviors and mastery motivational climates, intrinsic motivation is enhanced. This link between intrinsic
motivation and increased levels of sport commitment is interesting, and worthy of further exploration.

Finally, results of this study show that committed children intend to participate in their sport again next year. These findings indicate that if programs can raise sport commitment levels in children by providing encouraging motivational climates, intentions to continue in their sport the following year may be strengthened.

Conclusions

The results of this study showed that motivational climates do not have a direct effect on future intent to participate in a sport. However, motivational climate’s impact on sport commitment is noteworthy. Furthermore, a child’s sport commitment level is related to the child’s future intent to play. The strong correlation between motivational climate, sport commitment, and future intent to participate suggests that the way coaches conduct practices and coach in games significantly impacts a child’s desire to continue participating in sport.

According to the results and analysis of this study, basic need satisfaction represented the highest correlation with sport commitment and proved to be the strongest predictor of high sport commitment levels in this sample. This aligns with the results of previous studies (Zahariadis et al. 2006; Pelletier et al., 1995; Fortier & Grenier, 1999). Meeting the basic psychological needs of autonomy, competence, and relatedness in youth sports is important to raising sport commitment levels in youth. Basic need satisfaction was also highly correlated with autonomy-supportive coaching behaviors. By
praising athletes and allowing them to have input in their sport experience, youth sport coaches can fulfill psychological needs and build sport commitment.

The results found in this study provide support to the current literature and also show new connections between different constructs in youth sports. The research shows that autonomy supportive coaching behaviors can lead to sport commitment through a number of processes. According to Sabo and Veliz (2008), close to 40% of children are dropping out of sports because it is not any fun. The purpose of recreational youth sports should be to provide fun to children. Collectively, many youth sport organizations have focused more on winning and competing at a high level, rather than developing skills and promoting teamwork. It is possible that some coaches have not grasped the importance of recreational youth sports. This is likely happening because the departments that they are involved with do not provide adequate training and materials for them to improve coaching techniques.

If autonomy-supportive coaching behaviors are the key for enhancing children’s experiences and getting them to continue participation, it should be one of the main focuses for coaches in youth sports. The two categories of these behaviors show that coaches must be interested in what the players have to hear, and let the players know when they are succeeding or making mistakes. These interactions have tremendous effects on youth, while they create positive or negative environments that can turn players off to an activity. One way a coaching staff can show sincere interest in their team’s input is providing ways for the children to determine what they will do at practice. Once initial skills and proper technique are taught, coaches can have the children determine how a
normal practice functions. Another way to include the children in their own decision-making processes is to have free practice time, where they can work on whatever they would like to with their teammates. The coach should be present to provide guidance and encouragement for positive behaviors, while constructively critiquing and instructing the children on how to improve upon their negative behaviors.

Mastery climates contribute to satisfying a child’s basic psychological needs. Children participate in a large number of activities in their lives. Playing sports is a common activity that many children do so they can be with friends, have fun, please their parents, and do something that they enjoy. This study shows that providing these sport environments for children can lead to increased autonomy, competence, and relatedness, which leads to increased self-determination and intrinsic motivation.

Recreation providers must ask what the goals of youth sports are and what they should be. Most programs advocate positive experiences for all participants, however, it is known that not all children are having those experiences. By using some of the techniques outlined in this study, recreation departments can improve programs to incorporate more autonomy-supportive coaching behaviors and mastery-oriented motivational climates.

Implications

This study has shown practical implications that recreation providers can use in their programs. First, relationships exist between autonomy-supportive coaching behaviors and mastery climates. Programs that utilize autonomy-supportive coaching behaviors will be able to develop mastery climates for the teams in youth sports.
Secondly, mastery climates were shown to lead to basic need satisfaction, which leads to higher self-determination. Mastery climates are not only beneficial for some young athletes because the climates help to reinforce teamwork and skill development, but the climates also encourage self-determination and intrinsic motivation for the children. Thirdly, basic need satisfaction leads to sport commitment. Children who are having their needs met by their coach are remaining committed to their sport. Recreation departments should encourage coaches to foster basic need satisfaction through the use of autonomy-supportive coaching behaviors and mastery climates.

The results show that sport enjoyment is the key to raising sport commitment levels in children. Recreational sport programs should focus on having fun to retain and increase future participation. Children are less likely to continue to participate if the programs are not fun, therefore, recreation departments should cater to that need. The coaches should develop an atmosphere that is enjoyable for children of all skill levels through the use of autonomy-supportive coaching behaviors.

Coaches who are able to keep goals in perspective during their involvement with youth sports will be able to set winning games aside as a secondary goal for the players. However, the scoreboard is always there, passing judgment on the players of the game. Some youth sport programs have adopted new techniques for sports that do not keep score. They also instruct referees and coaches on how to provide constructive feedback to players if they make a mistake. Coaches should not assume that a player knows why he or she was called for a foul, violation, or called out during a game. These teachable moments should not be overlooked as they are great opportunities for player development.
and maturation of coach-player relationships. As shown in the results, satisfying basic needs through the relationship with the coaches have significant effects on a player’s self-esteem and perceived competence. Experiences in sport can carry over into other areas of life as well. Individuals will inevitably experience setbacks and failures on their youth sport teams. How these situations are handled is extremely important because of the way children perceive the feedback from coaches, parents, and peers.

Youth sport leagues can also use substitution rules, ensuring that each child gets to play a certain amount of time in each game. This rule is in effect for three quarters, leaving the fourth quarter’s substitution decisions up to the coach. With this rule, coaches normally will play the best players most of the fourth quarter. What does that do to the players that do not play? Surely they will wonder why they do not play late in the game and their perceived competence will surely be affected by the coach’s decisions. This is an opportunity for coaches to give confidence to their teams. Rules shouldn’t have to be in place to tell coaches how to effectively manage their games. However, since most coaches are volunteers, rules must be made to ensure equal playing time. Training courses should be taught to all coaches to show the long-lasting benefits of using autonomy-supportive methods in their interactions with the players.

The relationships above show that autonomy-supportive coaching behaviors can lead to sport commitment through mastery climates and basic need satisfaction. While the recreation department used in this study succeeds in this area, other recreation departments who see participation drop can use autonomy-supportive coaching strategies to realign goals for youth sport programs. This model can be the basis for new
programming and coaching strategies in many recreational youth sport programs. The training procedures listed above by Mageau and Vallerand (2003) are a great starting point for any department looking to incorporate autonomy-supportive coaching behaviors into their youth sports programs.

**Limitations and Directions for Future Research**

All participants in the sample were members of the same leagues that are coordinated by the target recreation department. This could lead to a homogeneous sample that reports similar data because of the standards set forth by the department. All of the children in the sample played team sports. Future studies can examine the differences between team and individual sports to determine differences in motivational climates and sport commitment.

This study focused on recreational sport leagues only. Examining competitive leagues and assessing motivational climates in those organizations may lead to more insight as to what keeps them committed to the sport. There are many differences between competitive leagues and recreational leagues such as practice time, cost, and depth of involvement. Specialization also occurs when children are involved in competitive leagues, which can lead to burnout, low intrinsic motivation, and low sport commitment.

This study was based on Coatsworth and Conroy’s work (2009) on autonomy-supportive coaching behaviors and youth outcomes. The model that they used to examine those relationships was modified to include motivational climate and sport commitment as an outcome of participation in youth sports. Larger samples could be used to provide
more generalizable findings. Individual sports such as swimming, gymnastics, golf, or tennis could be examined to provide another variable for analysis. Inclusion of competitive leagues, such as club or travel teams, could be addressed to compare motivational climates and sport commitment.

Surveying the children more than once over an extended period of time would be beneficial in determining if they actually followed through on their intent to participate in sport again next season. Conducting a longitudinal study with the same children would see how they develop over time in differing circumstances. If the child drops out of the sport, responses may be able to give reasons why he or she decided to leave the sport. This study was strictly quantitative. A qualitative study, in conjunction with a longitudinal study, could provide insight into more specific coaching behaviors, social constraints, or other factors that steer a child towards or away from a sport. The qualitative study could include questions that aim at determining what causes children to participate. (i.e. “What does your coach do that makes you want to be there?” or “Is there anything that happens at practice that makes you not want to be there anymore?”)

Uncovering what children are thinking about their recreational sport experience and how their coaches interact with them in this sport could lead to new research avenues for youth sports.

The results found in this region may not be indicative of other programs. Including different programs from different parts of the state or country will enable more generalizability and provide more evidence for the implications listed above.
Since girls in this study reported higher sport commitment levels than boys, further research may be done at this recreation department to determine why this is true. Since other studies have shown that boys are more likely to be committed to their sport, the recreation department may have a program in place that focuses on girls and retaining them in their programs.
APPENDICES
Appendix A

Parent Consent

Parental Permission Form for Participation of a Child in a Research Study
Clemson University

Examining Commitment Level and Participation in Youth Sports

Description of the research and your child’s participation

Your child has been invited to participate in a research study conducted by Mr. Michael Felak, a graduate student at Clemson University, under the direction of his advisor, Dr. Bob Barcelona. The purpose of this research is to understand your son/daughter’s interest and commitment level in youth sports, and to examine the affect that youth sport coaches have on youth sport athletes over the course of a sport season. Approximately 200 participants will take part in this study.

Your child’s participation will involve completing a short survey at the end of the soccer season. The surveys will take a total of 15 minutes.

Risks and discomforts

There are no known risks associated with this research.

Potential benefits

The benefits from this research include improving youth sport programs for boys and girls, including finding ways to increase sport commitment level and intrinsic motivation. This research may also help us to understand how to better create sport programs for boys and girls that foster positive youth development experiences.

Protection of confidentiality

All results from the surveys will be anonymous and no names will be disclosed. In fact, it will be impossible to identify any individual based on their responses to the questionnaire. As such, your child’s identity will not be revealed in any oral or written reports generated based on this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from your child. If this happens, the information would only be used to determine if we
conducted this study properly and adequately protected your child’s rights as a participant.

**Voluntary participation**

Participation in this research study is voluntary. You may refuse to allow your child to participate or withdraw your child from the study at any time. Your child will not be penalized in any way should you decide not to allow your child to participate or withdraw your child from this study. A copy of the survey instrument will be provided to you via e-mail and will also be available at the North Augusta Parks and Recreation office to aid in your decision-making. A representative from Clemson University will be handing out surveys following practice and/or before games during the week of xxxxxxxxxxx. If you do not wish to allow your child to participate in the study, you are free to pick your child up early from practice on those days.

**Contact information**

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Robert Barcelona at Clemson University at 864.656.1891. If you have any questions or concerns about your child’s rights as a research participant, please contact the Clemson University Institutional Review Board at 864.656.6460.

You may keep a copy of this parental information form for your records.
Appendix B

Student Assent

STUDENT ASSENT TO PARTICIPATE IN A RESEARCH STUDY

Examining Commitment Level and Participation in Youth Sports

You are being invited to participate in a research study. Below you will find answers to some of the questions that you may have.

**What is it for?**
- To study motivation and participation among youth sport athletes.

**Why me?**
- You are being selected because you play sports at a recreation department and will be an important participant in this study.

**What Will I Have to Do?**
- You will complete a short survey at the beginning and end of your soccer season. Each separate survey will take approximately 15 minutes of your time.

**Did My Parents Say It Was Okay?**
- Your parents have agreed to let you participate in the study.

**Who Will Be Helped By This Research?**
- Taking this survey will help your recreation department and coaches understand what’s important to you in sports
- Understanding this will help these adults help make your playing experience better for you

**What If I Want to Stop? Will I Get In Trouble?**
- Taking the survey or not is your choice – it’s completely voluntary
- Don’t worry – if you choose not to take the survey it won’t affect your chance to play soccer

By completing this survey, I am saying that I have read this form and have asked any questions that I may have. All of my questions have been answered so that I understand what I am being asked to do. By taking the survey, I am saying that I am willing and would like to participate in this study. I also have received a copy of this form to keep.
Appendix C

Parent Letter

Sport Commitment Survey

Parents/Coaches:

My name is Michael Felak and I am a Master’s student at Clemson University studying Parks, Recreation, and Tourism Management with a focus in youth sports and youth development. I am conducting research to explore the effects of the type of climate that a coach creates and the relationship that the climate has with the child’s desire to continue playing his or her sport. If your child is willing to participate, the Sport Commitment Survey can be filled out in approximately 15 minutes. I will be available to assist in any questions that your child has. I am also available to any questions that you may have as well.

This survey is completely voluntary for your child. My goal for this research is to determine if the type of climate that is created at practices by coaches/leaders affects sport commitment through the measures outlined in this survey. Your child’s participation is valued because it will provide insightful information to help provide your child with the best recreational experience that can be provided by the recreation department.

Any comments or feedback are welcome.

Thank you for your participation,

Michael Felak  
Graduate Student  
Department of Parks, Recreation, and Tourism Management  
Clemson University
Appendix D

IRB Approval

September 14, 2009

Dr. Robert J. Barcelona
Department of HEHD
414 Edwards Hall
Clemson University
Clemson, SC 29634

SUBJECT: Human Subjects Protocol # IRB2009-208, entitled “Examining Commitment
Level and Participation in Youth Sports”

Dear Dr. Barcelona:

The Institutional Review Board (IRB) of Clemson University reviewed the above-mentioned
study using Expedited review procedures and has recommended approval. Approval for this
study has been granted as of September 7, 2009. Please find enclosed with this letter your
original, stamped consent document[s] to be used with this protocol.

Your approval period is September 7, 2009 to September 6, 2010. Your continuing review is
scheduled for August 2010. Please refer to the IRB number and title in communication regarding
this study. Attached are handouts regarding the Principal and Co-Investigators’ responsibilities in
the conduct of human research. The Co-Investigator responsibilities handout should be
distributed to all members of the research team. The Principal Investigator is also responsible for
maintaining all signed consent forms (if applicable) for at least three (3) years after completion
of the study.

No change in this approved research protocol can be initiated without the IRB’s approval. This
includes any proposed revisions or amendments to the protocol or consent form. Any
unanticipated problems involving risk to subjects, any complications, and/or any adverse events
must be reported to the Office of Research Compliance immediately. Please contact the office if
your study has terminated or been completed before the identified review date.

The Clemson University IRB is committed to facilitating ethical research and protecting the
rights of human subjects. Please contact the Office of Research Compliance at 656-6460 if you
have any questions.

Sincerely,

Laura A. Moll, M.A., CIP
IRB Administrator

Enclosures
Appendix E

Survey

SPORT COMMITMENT SURVEY

For each of the items below, choose the best response by checking the box or circling the best answer.

1. How old are you? ____________

2. Are you a (circle): Boy Girl

3. How many years have you played <SPORT>?  
   - 0 (this is my first year)  
   - 1 year  
   - 2 years  
   - 3 years  
   - 4 years  
   - 5 or more years

4. How often do you practice <SPORT> on your own, outside of your normal practices and games each week?  
   - Not at all  
   - Sometimes  
   - Pretty Often  
   - Very Often

5. Besides playing <SPORT> for your current team, do you play <SPORT> in any of the following ways? Check ALL answers that are true for you.  
   - School team  
   - Just for fun (pick-up games)  
   - <SPORT> camps or clinics  
   - Fall <SPORT> leagues  
   - Winter <SPORT> leagues  
   - Other (please specify): ________________________________

For each of the items below, circle the answer that is most true about your coach.

<table>
<thead>
<tr>
<th></th>
<th>Not at all True</th>
<th>Somewhat True</th>
<th>Very True</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. The coach made players feel good when they improved a skill.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. The coach encouraged us to learn</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
new skills.

<table>
<thead>
<tr>
<th>8. The coach told players to help each other get better.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. The coach told us that trying our best was the most important thing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>10. Coach said that teammates should help each other improve their skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>11. The coach said that all of us were important to the team’s success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>12. Winning games was the most important thing for the coach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>13. The coach spent less time with the players who were not as good.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>14. The coach told us which players on the team were best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>15. The coach paid most attention to the best players.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>16. Players were taken out of games if they made a mistake.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>17. Coach told us to try to be better than our teammates.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

For each of the questions below, circle the answer that is most true about your coach/es.

<table>
<thead>
<tr>
<th></th>
<th>Not at all True</th>
<th>Somewhat True</th>
<th>Very True</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. My coaches offer me choices about what we do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. My coaches ask for the team’s opinion about what we should do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. My coaches ask for my opinion about what I want to do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. My coaches listen to what the team thinks we should do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. My coaches listen to what I think I should do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. My coaches praise me for the things that I choose to do in practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
24. My coaches praise me for the decisions I make in practice. | 1 | 2 | 3 | 4 | 5 | 6 | 7
25. My coaches praise me for my attitude during practice. | 1 | 2 | 3 | 4 | 5 | 6 | 7
26. My coaches praise me for my effort during practice. | 1 | 2 | 3 | 4 | 5 | 6 | 7

When you are with your coach, how true are the following statements? Circle the best answer.

<table>
<thead>
<tr>
<th>When I am with my coach:</th>
<th>Not at all</th>
<th>Somewhat True</th>
<th>Very True</th>
</tr>
</thead>
<tbody>
<tr>
<td>27. I feel free to be who I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. I feel like a competent person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. I feel loved and cared about.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. I often feel inadequate or incompetent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31. I have a say in what happens, and I can say what I think.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32. I often feel a lot of distance in our relationship.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. I feel very capable and effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. I feel controlled and pressured to be certain ways.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

For each of the items below, circle the answer that is most true for you.

<table>
<thead>
<tr>
<th>Not at all Good</th>
<th>Somewhat Good</th>
<th>Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>35. How good at &lt;SPORT&gt; are you?</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>36. How good would you be at learning something new in &lt;SPORT&gt;?</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

For the question below, circle the answer that is most true for you.

<table>
<thead>
<tr>
<th>Not at all Confident</th>
<th>Somewhat Confident</th>
<th>Very Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. How confident are you in your &lt;SPORT&gt; ability?</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

For each of the items below, circle the answer that is most true for you.
<table>
<thead>
<tr>
<th>Question</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>38. How proud are you to tell other people you play &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
<tr>
<td>39. Do you want to keep playing &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
<tr>
<td>40. How dedicated are you to playing &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
<tr>
<td>41. How hard would it be for you to quit &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
<tr>
<td>42. How determined are you to keep playing &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
<tr>
<td>43. Do you enjoy playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>44. Are you happy playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>45. Do you have fun playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>46. Do you like playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>47. How much of your time have you put into playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>48. How much effort have you put into playing &lt;SPORT&gt; this season?</td>
<td>1</td>
</tr>
<tr>
<td>49. I feel I have to play &lt;SPORT&gt; so that I can be with my friends.</td>
<td>1</td>
</tr>
<tr>
<td>50. I feel I have to play &lt;SPORT&gt; to please my mom.</td>
<td>1</td>
</tr>
<tr>
<td>51. I feel I have to play &lt;SPORT&gt; to please my dad.</td>
<td>1</td>
</tr>
<tr>
<td>52. I feel I have to stay in this program so that people will not think I</td>
<td>1</td>
</tr>
<tr>
<td>53. Would you miss playing &lt;SPORT&gt; if you left the team?</td>
<td>1</td>
</tr>
<tr>
<td>54. Would you miss your head coach if you left your team?</td>
<td>1</td>
</tr>
<tr>
<td>55. Would you miss the good times you had playing &lt;SPORT&gt; if you left the</td>
<td>1</td>
</tr>
<tr>
<td>56. Would you miss your friends on the team if you left the team?</td>
<td>1</td>
</tr>
<tr>
<td>57. How proud are you to tell other people you play &lt;SPORT&gt;?</td>
<td>1</td>
</tr>
</tbody>
</table>

58. Do you plan to play <SPORT> again next year?
   - Definitely
   - Most Likely
   - Maybe
   - Not Likely
   - Definitely Not
Below are some sentences that describe certain feelings that people have. Read each sentence carefully and think about yourself. Circle the number that best describes you.

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Not Like you</th>
<th>A Little Like You</th>
<th>Pretty Much Like You</th>
<th>Very Much Like You</th>
</tr>
</thead>
<tbody>
<tr>
<td>59. I feel sure of myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>60. I feel proud of myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>61. I like being the way I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>62. I feel like I am going to be a success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>63. I feel that I am as good as anyone else.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>64. I think pretty highly of myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thank you for participating in this survey!
REFERENCES


