

THE PARENT-INITIATED TASK MOTIVATIONAL CLIMATE AND FACTORS
INFLUENCING EIGHTH GRADE BOYS' INTENTION
TO CONTINUE SPORTS

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The motivational climate, as defined by parents' behaviors, and athletes' goal orientations are essential in understanding children's experiences with sport. The purpose of this study was to examine the perceived motivational climate created by parents, and its relationship to psychological outcomes experienced by adolescent male athletes in youth sports. In particular, the parent created task climate was examined through its influence on goal orientation and subsequently to psychological outcomes experienced in sport, specifically, sport competence, self-esteem, enjoyment, and intention to continue participating in sport. Participants were 405 8th grade male athletes (mean age = 13.5); (Sample A: $n = 205$; Sample B: $n = 200$). As expected, the task-oriented parent initiated motivational climate was associated with the boys' mastery goal orientation. Participants with higher mastery goal orientation had greater sport competence, self-esteem, and more enjoyment in sport. Intention to continue playing sport was predicted primarily by their level of enjoyment, and secondarily by their increased feelings of self-esteem.

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TABLE OF CONTENTS

	Page
Chapters	
1. INTRODUCTION	1
Motivational Climate and Parent Influence	
Goal Orientation and Psychological Outcomes	
Purpose	
2. METHOD	10
Participants	
Instruments	
Procedure	
Design and Analysis	
3. RESULTS	21
Preliminary Analyses	
Measurement Model – Sample A	
Structural Model – Sample A	
Measurement Model – Sample B	
Structural Model – Sample B	
Indirect Effects of Samples A & B	
4. DISCUSSION	26
Implications for Counseling and Consulting	
Limitations and Directions for Future Research	
Conclusions	
Appendices	
A. SUPPLEMENTAL FIGURES AND TABLES	39
B. INITIAL LITERATURE REVIEW	47
REFERENCES	65

LIST OF TABLES

A.1.	Correlation matrix of measured variables in Sample A (n = 205) and Sample B (n = 200)	42
A.2.	Descriptive statistics for measured variables, Sample A; N = 205 and (Sample B; N = 200)	43
A.3.	Standardized parameter estimates for the measurement model.....	44
A.4.	Model fit and comparison (Sample A = 205; Sample B = 200)	45
A.5.	Summary of tips to enhance children's sport experiences for parents.....	46

LIST OF FIGURES

A.1. Diagram of the final measurement model for all factors for Sample A and Sample B	40
A.2. Diagram of structural model (with alternative pathway) with standardized parameter estimates and R^2 values for Sample A and Sample B. Sample B values are provided in parentheses. * $p < .05$	41

CHAPTER 1

INTRODUCTION

Children participate in sports for a variety of reasons, such as having fun, developing meaningful relationships, increasing physical competence, and being part of a group (Fraser-Thomas & Côté, 2009; Fraser-Thomas, Côté, Deakin, 2008; Strong, 1992). Of these, having fun may be the most important reason children stay involved. When there is a lack of fun, and an increased amount of pressure to excel, children often lose interest and drop out of sport entirely or pursue other activities they consider more enjoyable (Butcher, Lindner, & Johns, 2002; Fox, Goudas, Biddle, Duda, & Armstrong, 1994; Fraser-Thomas et al., 2008). Thus, to minimize or prevent this occurrence (and keep children involved in sport so they can reap the long-term physical and psychological benefits that can accrue), it is important to understand how social agents in the sport environment, such as parents, coaches, and teammates, influence children's enjoyment in sport and their desire to participate.

These social agents' beliefs, values, attitudes, behaviors, and messages create the motivational climate that influences the thoughts and behaviors children adopt concerning achievement. Although coaches and peers can play a significant role in children's sport experiences, parents' influences may be primary because of their early involvement in their children's lives, both in and out of the sport context. Thus, extending the work of Force (2009), who studied only middle school girls, this study examined the relationship of the perceived motivational climate created by parents to adolescent male athletes' goal orientation, and the psychological outcomes -- self-esteem, sport competence, enjoyment in sport, and the intention to continue in sport -- that are expected to follow.

Motivational Climate and Parent Influence

The motivational climate refers to perceptions of situational cues and expectations that encourage the development of particular achievement goal orientations, and induces a certain goal involvement state (Ames, 1992). Children's perceptions of achievement related environments, or the motivational climate, have been conceptualized along two dimensions: mastery/task-oriented climate (i.e., encourages effort, task mastery, and cooperation) and performance/ego-oriented climate (i.e., encourages normative comparisons, intra-team competition) (Roberts, Treasure, & Conroy, 2007).

In sports, the motivational climate is defined through the messages and behaviors of key social agents, specifically parents, coaches, and teammates. When children begin their sport experience, how their parents view the importance of enjoyment and learning of new skills can influence children's perceptions about what they can accomplish and on what they should focus (White, 1996, 1998). Nicholls (1984, 1989) argued that an important aspect to optimizing motivation was helping individuals define success based on effort, which is consistent with a mastery orientation. He suggested that if significant others, such as parents, could create a task-involving environment, then positive experiences and feelings of success could be fostered in children.

In sport settings, parent behaviors can be perceived as supportive or pressured. Supportive activities include encouraging sport participation, emphasizing learning and fun, or driving kids to practices and games (Keegan, Harwood, Spray, & Lavalley, 2010). Children can feel pressure, though, when parents set expectations that children believe are unrealistic or criticize them when they do not perform up to expectations. Over time, the messages that parents communicate concerning effort, perseverance, and winning influence how children understand,

perceive, and react to achievement-related contexts, such as practices and competitions (Horn & Horn, 2007; Ommundsen & Valgum, 1991; Reinboth & Duda, 2004; Roberts et al., 2007; White, 1998; White, Kavussanu, & Guest, 1998).

Research supports that parents have a significant impact on children through the positive and negative behaviors and feedback they provide, which influences how children approach and experience the sport environment (Anderson, Funk, Elliott, & Smith, 2003; Darling & Steinberg, 1993; Horn & Horn, 2007; Spera, 2005, 2006; Ullrich-French & Smith, 2006, 2009; White, 1996, 1998; White et al., 1998). In particular, parenting messages and behaviors contribute to the motivational climate and may influence children's achievement related behaviors in performance contexts (Darling & Steinberg, 1993). For example, White (1996) conducted a study with female volleyball players ranging in age from 14 to 17 years to explore the relationship between goal orientation and the role of parental influence on perceptions of the motivational climate. She found that when parents created a climate that emphasized success without exerting effort, a performance-oriented climate was perceived. When parents stressed a climate that focused on learning and enjoyment, a mastery orientation was experienced. White (1996) suggested that athletes' perceptions of what their parents consider to be important in sport participation were related to the athletes' dispositional goal orientation. Thus, parents who are supportive and help children find opportunities for participation foster a task-oriented motivational climate that can bring about positive outcomes. Similarly, Keegan et al. (2009, 2010), who conducted semi-structured interviews and focus groups with male and female athletes aged 7-18 years, found that when parents were supportive and offered positive feedback, the children said they were more motivated and enjoyed participating in their sports.

Thus, supportive parent behaviors, such as encouraging and monitoring participation, are indicative of a task-oriented motivational climate and appear most important in producing a mastery goal orientation and positive psychological outcomes, such as increased sport competence, enjoyment, self-esteem, and intrinsic motivation. Although the motivational climate may be related to these outcomes, theory suggests that the effects of the motivational climate may be mediated through goal orientation. Children participate in sports primarily because it is fun, however, their experiences are shaped by their perception of the motivational climate and the goal orientations they adopt. When there is a lack of enjoyment, children are more likely to discontinue their participation (Butcher et al., 2002; Fox et al., 1994). More research is needed to better understand exactly what parents do in the sport context that maximizes their children's enjoyment and continued participation in sports.

Goal Orientation and Psychological Outcomes

Achievement goal theory has helped explain the development of children's motivation and other psychological outcomes in youth sport. Previous researchers (Ames, 1992; Dweck, 1986; Nicholls, 1984, 1989) have proposed a conceptual framework for achievement goal theory in the areas of academics and sports. Achievement goal theory (Nicholls, 1984) is based on the premise that each individual is goal directed, and that individuals adopt different achievement goals based on how they interpret competence (Duda & Hall, 2001). Nicholls (1989) emphasized that goal orientation is formed through socialization experiences in childhood, that is, the motivational climates they experience.

In achievement contexts, individuals are thought to be motivated along one and/or two dimensions, referred to as goal orientations. The two opposing types of achievement goal orientations are mastery and performance (Nicholls, 1984). Mastery-oriented individuals are

mainly interested in learning new skills and improving competence, whereas individuals who adopt a performance-orientation are mainly focused on proving ability and avoiding failure. Mastery-oriented individuals determine their level of competence based on self-referenced standards, and perceive success when a level of mastery is achieved. Comparatively, individuals who adopt a performance-orientation use social comparison to determine their level of competence, and perceive success when performance exceeds that of others (Nicholls, 1984; Treasure & Roberts, 1998). Although it is often found that individuals develop either a high mastery-orientation or a high performance-orientation, it is also possible to be high in both goal orientations simultaneously. Thus, an individual can have a high mastery-orientation while also having a high performance-orientation, however, adaptive outcomes (e.g., increased effort, task persistence, etc.) are most frequently linked with a mastery goal orientation while a performance orientation is either unrelated or negatively related to these outcomes (Roberts et al., 2007; Stuntz & Weiss, 2009).

Research has demonstrated that a mastery goal orientation is associated with positive outcomes, such as increased enjoyment, self-esteem, sport competence, and confidence level (Boyd & Callaghan, 1994; Fox et al., 1994; Kavussanu, 2007; Kavussanu & Harnisch, 2000; Malete, 2006; McCarthy, Jones, & Clark-Carter, 2008; Roberts et al., 2007; Treasure & Roberts, 1998). Individuals with a mastery orientation also are more likely to be intrinsically motivated and persist when faced with obstacles (Treasure & Roberts, 1998). Thus, a mastery orientation is associated with adaptive achievement behaviors, such as adopting positive attitudes, seeking challenges, and putting forth effort. In contrast, individuals with a performance orientation have been found to be more extrinsically motivated and avoidant of any situation in which success does not seem likely (Dweck, 1986; Reinboth & Duda, 2004).

Of the many variables investigated in previous goal orientation research, some have been found to be related to children's desire to participate in sport and intention to continue with sport. For example, researchers have suggested that enjoyment and fun are primary reasons children play sports (Fraser-Thomas et al., 2008; Strong, 1992). Based on this finding, it is important to understand how goal orientation may influence children's enjoyment in sport, as well as how it may influence other key factors related to children's desire to play sports, such as self-esteem and sport competence. Considering the different outcomes associated with goal orientations, it would be useful to understand how the environment, or motivational climate, effects the adoption of goal orientations, which in turn, influences children's achievement behaviors and the outcomes associated with these behaviors.

Purpose

For the current study, three outcomes – self-esteem, sport competence, and enjoyment – were selected and used to examine how perceptions of the motivational climate created by parents and male adolescent athletes' goal orientations may be related to intent to continue sport participation. These outcomes were chosen for three specific reasons. First, previous research has demonstrated strong relationships between children's perception of a task-oriented motivational climate and mastery goal orientation to self-esteem, sport competence, and enjoyment in sport (Boyce et al., 2009; Boyd & Callaghan, 1994; Fox et al., 1994; Horn, Duda, & Miller, 1993; Kavussanu & Harnisch, 2000; Kavussanu & Roberts, 1996; Malette, 2006; Ntoumanis & Biddle, 1999; Ommundsen & Valgum, 1991; Petherick & Weigand, 2002; Reinboth & Duda, 2004; Treasure & Roberts, 1998, 2001; Van-Yperen & Duda, 1999; White & Zellner, 1996). In particular, research has shown that a mastery goal orientation is related to

increased levels of effort, enjoyment, satisfaction, interest, and participation in sport (Boyd & Callaghan, 1994; Fox et al., 1994; Malete, 2006; Treasure & Roberts, 1998).

Second, these three outcomes have been related to children's participation in sport, which is a critical area of research due to the need to promote and nurture life-long involvement in sport and physical activity. Research has demonstrated that children are more likely to continue with their sport when they experience enjoyment and feel competent within their sport related experiences (Butcher et al., 2002; Fox et al., 1994; Gould, 1987; McCarthy et al., 2008; Malete, 2006; Treasure & Roberts, 1998; Ullrich-French & Smith, 2009). For example, Butcher et al. (2002) found that elementary and middle school aged girls were more likely to stay in their sport when they were having fun as opposed to when they expressed not enjoying the experience. With regard to self-esteem, researchers have reported consistently positive relationships with sport participation (Bowker, 2006; Bowker, Gadbois, & Cornock, 2003; Gould, 1987; Slutzky & Simpkins, 2009), though the direction of the relationship tends to be from sport participation to self-esteem. Although self-esteem plays an important role in children's overall psychological development (Slutzky & Simpkins, 2009), research has not yet determined the extent to which it also might serve as an antecedent to continuing to participate in sport.

Third, despite the extensive literature that has explored the motivational climate and goal orientation, there has been a lack of research that has investigated the interplay of motivational climate, goal orientation, and specific psychological and behavioral outcomes. One study that did was conducted by Cury, Biddle, Famose, and Goudas (1996) who examined the motivational climate perceived by adolescent girls and their motivation in a physical education class. Their findings demonstrated that a mastery goal orientation mediated the relationship between a perceived task oriented motivational climate and increased intrinsic motivation. Consequently,

more research directly examining the influences of the perceived motivational climate (as created by parents) on children's goal orientation and the subsequent relationship of goal orientation on a variety of psychosocial outcomes is needed to determine if the effects of the motivational climate are direct, or indirect suggested by theory (Cury et al., 1996; Nicholls, 1984, 1989).

Thus, in the current study, the relationship of the perceived task motivational climate as created by parents to boys' mastery goal orientation, and the subsequent associations of goal orientation with self-esteem, sport competence, enjoyment in sport, and ultimately, intention to continue playing were examined. Because these variables have not been examined together in previous research, it was appropriate to conduct a cross-sectional study at this time. The measure of intention was used for its fit with the cross-sectional design of the current study, and behavioral intent has been supported as a strong predictor of behavior (Ajzen & Driver, 1992). For example, Hagger, Chatzisarantis, Biddle, and Orbell (2001) found a significant relationship between children's intention and actual sport participation ($\beta = .59$) in their longitudinal study with 12 to 14 year old boys and girls. Finally, I chose to study only male adolescent athletes' experiences in the current study because Force (2009) had examined these relationships in a similarly aged sample of female athletes, and she had suggested that additional research was needed to elucidate the pathways that would be supported for boys. Specifically, I hypothesized that (a) the Parent-Initiated Task Climate would be positively related to the boys' Mastery Goal Orientation, (b) Mastery Goal Orientation would be related positively to Sport Competence, Self-Esteem, and Enjoyment, and (c) Sport Competence, Self-Esteem, and Enjoyment would be positively related to Intention to Continue in sport. Additionally, I proposed an alternate pathway between Sport Competence and Self-Esteem that would be tested as well. Previous research has indicated that self-esteem is related to an individual's perceived competence

(Ebbeck & Weiss, 1998). When athletes perceive themselves as having increased sport abilities and competence, they are likely to experience a greater sense of self-esteem.

CHAPTER 2

METHOD¹

Participants

Sample A – Initial data set. Participants were 205 eighth grade boys drawn from six different middle schools located within the same suburban school district in the southwestern United States. They were drawn from their athletic period, which is a physical education class taken by boys who are participating in one or more of the schools' sports programs. Their mean age was 13.8 years ($SD = 0.55$); 27.8% ($n = 57$) were 13 years old, 64.9% ($n = 133$) were 14, 6.3% ($n = 13$) were 15; and .01% ($n = 2$) did not report their age. Participants identified themselves as A ($n = 90$, 46.6%), B ($n = 93$; 48.2%), C ($n = 10$; 5.2%) students, and .05% ($n = 12$) did not report their average grades. The race/ethnicity of the sample was: 54.1% Caucasian/White ($n = 111$), 11.2% African-American/Black ($n = 23$), 23.9% Hispanic/Latino ($n = 49$), 2.0% Asian-American/Pacific Islander ($n = 4$), and 8.8% other/biracial/multiracial ($n = 18$).

Concerning the sports in which the boys participated (they could list more than one), football was the most popular (61.5%; $n = 126$), followed by track (41.0%, $n = 84$), and basketball (36.1%, $n = 74$). They also indicated which of these sports they considered their “main sport” (i.e., the sport that they perceived to be most important to them): 40.5% ($n = 83$) reported football, 14.6% ($n = 30$) basketball, 11.2% ($n = 23$) track, 11.2% ($n = 23$) soccer, 10.7% ($n = 22$) baseball, 3.4% ($n = 7$) golf, 0.5% ($n = 1$) hockey, and 1.0% ($n = 2$) swimming; 6.8% ($n = 14$) indicated that their main sport was “other.” Not including the “other” category, 95.3% of the boys played “team” sports, such as soccer, football, baseball, and basketball. The mean

¹ This study was performed in collaboration with a research team that included Dustin Johnson and Matthew Atkins. Large sections of this chapter were co-authored by the team.

number of sports played per participant was 2.12, with 63% ($n = 130$) playing two or more sports. The remaining 36% ($n = 75$) played only one sport. In rating their ability in their main sport relative to their peers, 14 participants (6.8%) said they were less skilled than most, 69 (33.7%) reported being average, and the remaining 122 (59.5%) said they were more skilled than most.

Sixty-one (29.7%) indicated that they were presently playing their main sport, whereas 130 (63.4%) indicated being in the offseason training for their main sport; 14 (6.8%) did not respond. In terms of their playing status on their main sport team, 66.8% ($n = 137$) said that they were starters or played regularly in competition, whereas 33.2% ($n = 68$) reported being a substitute. Regarding the competitive level of their main sport, 22.9% ($n = 47$) said they played in a select league, 60.0% ($n = 123$) in a school league, and 12.2% ($n = 25$) in a recreational league; .04% ($n = 10$) did not report their competitive level. Regarding winning, 46.8% ($n = 96$) of the boys stated that they won more than they lost when playing their main sport, as opposed to 29.3% ($n = 60$) who reported losing more than winning; 23.9% ($n = 49$) reported winning as much as losing. In rating their intent to drop out of their main sport in the next three years (from 1- *not at all*, to 7- *absolutely*), the boys indicated that they intended to keep playing ($M = 2.16$; $SD = 1.57$). In rating their determination to continue in their main sport (1- *not at all*, to 7- *absolutely*), the boys reported a high level of intent to continue ($M = 5.79$; $SD = 1.63$).

Sample B - Confirmatory data set. Participants were 200 eighth grade boys; 90% ($n = 181$) were drawn from four of the middle schools in the same school district as Sample A (during the subsequent year so no participants in Sample A could have been included in Sample B), and 10% ($n = 19$)² were from a middle school in Colorado. As was the case with Sample A, they

² The small sample from Colorado was included to ensure an adequate number of participants were available to statistically test the proposed models.

were solicited from their athletic period. Their mean age was 13.4 years ($SD = 0.52$); 0.5% ($n = 1$) was 12 years old, 59.5% ($n = 119$) were 13, 38% ($n = 76$) were 14, 1% ($n = 2$) were 15, and .01% ($n = 2$) did not report their age. Participants identified themselves as A ($n = 98$, 49.0%), B ($n = 85$; 42.5%), and C ($n = 9$; 4.5%) students; .04% ($n = 8$) did not report their average grades. The race/ethnicity of the sample was: 55.5% Caucasian/White ($n = 111$), 16.0% African-American/Black ($n = 32$), 22.5% Hispanic/Latino ($n = 45$), 4.5% Asian-American/Pacific Islander ($n = 9$), and 1.5% other/biracial/multiracial ($n = 3$).

Concerning the sports in which the boys participated (they could list more than one), football again was the most popular (64.5%; $n = 129$), followed by basketball (55.5%, $n = 111$), and track (40.5%, $n = 81$). For their main sport (i.e., the sport that they perceived to be most important to them), 41.5% ($n = 83$) played football, 23% ($n = 46$) basketball, 13% ($n = 26$) baseball, 7.5% ($n = 15$) soccer, 4% ($n = 8$) track, 2.0% ($n = 4$) golf, 1.5% ($n = 3$) lacrosse, 1% ($n = 2$) tennis, 0.5% ($n = 1$) hockey, 0.5% ($n = 1$) dance, and 0.5% ($n = 1$) swimming; 5.0% ($n = 10$) indicated that their main sport was “other.” Not including the “other” category, 95.5% of the boys played “team” sports, such as soccer, football, baseball, lacrosse, and basketball. The mean number of sports played per participant was 2.57, with 74% ($n = 147$) playing two or more sports. The remaining 26% ($n = 53$) played only one sport. In rating their ability in their main sport relative to their peers, 8 participants (4.0%) said they were less skilled than most, 63 (31.5%) reported being average, and the remaining 129 (64.4%) said they were more skilled than most.

Fifty-eight (29%) indicated that they were presently playing their main sport, whereas 123 (61.5%) indicated being in offseason training for their main sport; 19 (9.5%) did not respond. In terms of their playing status on their main sport team, 63.1% ($n = 125$) said that they

were starters or played regularly in competition, whereas 26.9% ($n = 75$) reported being a substitute. Regarding the competitive level of their main sport, 27.5% ($n = 55$) said they played in a select league, 55% ($n = 110$) in a school league, 10.5% ($n = 21$) in a recreational league, and 7% ($n = 14$) did not report their competitive level. Regarding winning, 50.8% ($n = 100$) of the boys stated that they won more than they lost when playing their main sport, as opposed to 31.5% ($n = 62$) who reported losing more than winning; 18.7% ($n = 38$) reported winning as much as losing. In rating their intent to drop out of their main sport in the next three years (from 1-*not at all*, to 7-*absolutely*), the boys indicated that they intended to keep playing ($M = 1.93$; $SD = 1.40$). In rating their determination to continue in their main sport (1-*not at all*, to 7-*absolutely*), the boys reported a strong intent to continue ($M = 5.74$; $SD = 1.80$).

Instruments

Demographics. A demographic questionnaire was developed for the participants to report personal demographics which included; age, racial/ethnic status, sports in which they participate (including identification of “main” sport), status on teams, average grades earned in school, ability level in main sport, playing status (e.g., starter, substitute), level of main sport (e.g., select league, school league, recreation league), and success of team (e.g., won more games than lost, lost more games than won, equal amount of game won and lost). They were asked to reference their answers regarding their “main sport,” which was defined as “the sport that is important to you in some way.”

Parent-Initiated task climate. The 9-item Learning and Enjoyment subscale from the 18-item Parental Initiated Motivational Climate Questionnaire (PIMCQ-2; White & Duda, 1993) assesses participants’ perceptions of the motivational climate created by their parents. The Learning and Enjoyment subscale consists of nine items that specifically measure participants’

perceptions of parents emphasizing mastering basic skills, putting forth effort, and having fun. The stem for each item is “In my main sport, I believe that my main caregiver...” and participants rate each item on a 5-point Likert scale ranging from 1, *strongly disagree*, to 5, *strongly agree*. Total score is the mean; higher scores indicate greater perceptions of a learning and enjoyment climate. White (1996) reported a Cronbach’s alpha of .89 in a sample of adolescent female volleyball players. Through principal components factor analysis, the factor structure of the measure was established (White, Duda, & Hart, 1992). In the current study, the Learning and Enjoyment subscale was parceled to create two measures that represent the Parent-Initiated Task Climate construct. The Cronbach’s alphas for the two parcels in the current study were .81 and .78 (Sample A) and .88 and .79 (Sample B).

Goal orientation. The 13-item Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989,1993) measures goal orientation along two dimensions: task (7 items, focus on developing competence, along with personal improvement related to skill mastery, and a self-referenced set of standards) and ego (6 items; focus on winning and social comparison). Participants respond to each item on a 5-point Likert scale ranging from 1, *strongly disagree*, to 5, *strongly agree*. Total score for each dimension is the mean; higher scores indicate greater perceptions of a that goal orientation. Because the purpose of the study was to examine the relationship of a mastery-oriented climate to a task goal orientation, only the task subscale was used. Using a sample of male and female adolescents, Duda (1993) reported Cronbach’s alphas of .82. Cronbach’s alpha for the current study ranged from .89 to .90 across the two samples. Duda (1993) also reported the three-week test-retest reliability to be .68 for the task subscale. Using structural equation modeling (SEM)-based cross-validation procedures, Li, Harmer, Duncan, Duncan, Acock, and Yamamoto (1998) examined the construct validity of the TEOSQ.

They found that task orientation was found to be a valid predictor of intrinsic motivation in sport, which is consistent with achievement motivation theory. Specifically, individuals who had a high task orientation also had high intrinsic motivation.

The 12-item Achievement Goal Scale for Youth Sports (Cumming, Smith, Smoll, Standage, & Grossbard, 2008) assesses goal orientation along two dimensions: mastery (6 items; personal improvement and being the “best” one can be) and performance (6 items; results focused and being better than others). Participants respond to each item on a 5-point Likert scale ranging from 1, *not at all true*, to 5, *very true*. Total score of each dimension is the mean; higher scores indicate greater perceptions of that goal orientation. Because the focus of this study was on task goal orientation, only the mastery subscale was used. Cumming et al. reported a Cronbach’s alpha of .78 in a sample of male and female basketball players and swimmers aged nine to fourteen years. Cronbach’s alpha for the current study ranged from .85 to .88 across the two samples. Through exploratory and confirmatory factor analyses, Cumming et al. validated the factor structure of the measure and found significant positive correlations with task goal orientation (POSQ; Roberts, Treasure, & Balague, 1998) and mastery motivational climate (Motivational Climate Scale for Youth Sports; MCSYS; Smith, Cumming, & Smoll, 2008).

Sport competence. The 6-item Sports Competence subscale from the Physical Self-Description Questionnaire (PSDQ; Marsh, Richards, Johnson, Roche, & Tremayne, 1994) measures self-perceived ability in sport. For each item, participants respond using a 6-point scale ranging from 1, *false* to 6, *true*. Total score is the mean; higher scores indicate higher perceived levels of competence. Internal consistency reliabilities have ranged from .94 to .95 in four separate trials across a sample of boys and girls aged 12 to 15 years old (Marsh, 1996). This measure was parceled into two sets of three items each: Cronbach’s alpha ranged from .78 to .83

(Sample A) and .79 to .92 (Sample B). Confirmatory factor analysis supported the Sports Competence scale as a unique measure within the PSDQ. Convergent and discriminant validity were supported by the significant correlations with similar scales from the Physical Self-Perception Profile (PSPP; Fox, 1990) and the Physical Self-Concept Scale (Marsh et al., 1994; Marsh, 1996; Marsh, Hey, Roche, & Perry, 1997).

Self-esteem. The eight-item Global Esteem subscale from the Physical Self-Description Questionnaire (PSDQ; Marsh et al., 1994) assesses overall positive feelings about oneself and perceptions of self-worth. For each item, participants respond using a 6-point scale that ranges from 1, *false* to 6, *true*. Total score is the mean; higher scores indicate higher self-esteem. Internal consistency reliabilities have ranged from .91 to .94 in four separate trials across a sample of boys and girls aged 12 to 15 years old (Marsh, 1996). Because there was a clear pattern in responses that indicated the participants did not differentiate between the reverse-scored items (i.e., negatively-valenced items) and regularly-scored items (i.e., positively-valenced items), only the three single positively-valenced items were used. Each one was used as a single indicator of self-esteem, thus no internal consistency could be calculated. Confirmatory Factor Analysis supported the Esteem scale as a unique measure within the PSDQ. Convergent and discriminant validity were supported by the significant correlations with similar measures from the Physical Self-Perception Profile (PSPP; Fox, 1990) and the Physical Self-Concept Scale (Marsh, 1996; Marsh et al., 1994; Marsh et al., 1997).

Sport enjoyment. The 4-item Enjoyment subscale from the Sport Commitment Model (SCM; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993) assesses positive responses (i.e., enjoyment, happiness, fun, and liking sport) to the sport experience. Participants rate each item on a 5-point Likert scale, ranging from 1, *not at all/none*, to 5, *very much*. Each item served as

an independent indicator of enjoyment in sport, and thus each item was its own total score. Scanlan et al. (1993) reported a Cronbach's alpha of .90 in a sample of male and female athletes ranging from ages 9 to 19. Factor analysis confirmed the enjoyment factor as independent within the Sport Commitment Model. Discriminant validity was also supported by the clear distinction between factors similar to sport commitment that are measured by the SCM. Specifically, involvement opportunities correlated with sport commitment ($r = .66$), and enjoyment correlated with sport commitment ($r = .69$), suggesting that while these factors were correlated, they were unique measures within the SCM that "measured their corresponding constructs as intended," (Scanlan, p. 29, 1993).

Intention to continue sport participation. Two questions, based on Ajzen and Driver's (1992) application of the theory of planned behavior to leisure choice, were used (Le Bars, Gernigon, & Ninot, 2009): (1) "Is it likely that you will drop out of your most successful sport in the next three years?" and (2) "Are you determined to continue your most successful sport at a high level?" Participants rate each item on a 7-point Likert scale, ranging from 1, *not at all*, to 7, *absolutely*. Consistent with Le Bars et al. the two intention items were utilized as single item indicators.

Procedure

Following approval from the University of North Texas Institutional Review Board for Human Subjects, schools in the Dallas/Ft. Worth (D/FW) metropolitan area and the Grand Junction, Colorado municipality were contacted to obtain permission to have eighth grade boys who were playing sports participate. Permission was received from one school district in the D/FW area (Samples A and B) and one in CO (for Sample B only). Prior to completing the questionnaires, and after their parents provided consent, participants provided assent.

Completion of the questionnaire took approximately 30 minutes. The demographic form was completed first followed by the PIMCQ-2, TEOSQ, AGSYS, PSDQ, and SCM; the measures were counter-balanced to control for ordering effects. As compensation, participants were entered into a raffle for two \$25 cash prizes at each school, which was held immediately following the completion of questionnaires at each school.

Design and Analysis

Initially, data from both samples were screened for missing values. Using the Missing Values Analysis (MVA) module via SPSS (PASW 19), it was determined that data were missing completely at random (MCAR). In Sample A, 0.6% of all the possible data were missing; in Sample B, it was 0.45%. Expectation maximization (EM), a maximum likelihood estimation method that is part of the SPSS MVA, was utilized to replace missing data. EM imputation utilizes observed data to estimate parameters and missing scores (Schlomer, Bauman, & Card, 2010).

Because of the overall length of the questionnaire, the age and attention span of the participants, and the need to have at least two measured variables per latent construct, I made the strategic choice to include only one measured variable for each of several constructs and then parcel each variable into two separate indicators. Although not optimal, parceling allows researchers to include multiple indicators of a construct when limited measures of a construct exist (Weston & Gore, 2006). The “item-to-construct balance” parceling technique (Little, Cunningham, Shahar, & Widaman, 2002), in which researchers parcel items based on distributing equal values of factor loadings was used to “split” each measure into two sets of items. The PIMCQ-2 Learning and Enjoyment and PSDQ Sports Competence subscales were parceled in

this way. The same configuration of items that represented each parcel was used in both Samples A and B.

Next, total scores for each measure (and parcel) were obtained and then means, standard deviations, as well as measures of the distributional properties (i.e., skewness, kurtosis), were computed. Total scores from the TEOSQ, PSDQ, SCM, and the two intention questions were negatively skewed and kurtotic within both data sets. These measures were transformed using square root and logarithmic procedures (Tabachnick & Fidell, 2007); however, the transformed scores still were skewed and kurtotic and thus the decision was made to use the nontransformed values and rely on the robust fit statistics from EQS. Following this decision, correlations and internal consistency reliabilities among all the total scores were calculated.

The proposed model (and the alternate pathway) was tested via structural equation modeling (SEM), which is a multivariate statistical method of relating the observed measures to their proposed theoretical constructs in a theoretically derived model (Bentler, 1980). The adequacy of the representations is measured by the degree of fit of the proposed model to the sample data. Maximum likelihood (ML) estimation was used, which assumes multivariate normality (Weston & Gore, 2006). However, ML is also robust to moderate violations of the normality assumption and can be used if the data is moderately non-normal (Anderson & Gerbing, 1984), as was the case in the current study. The recommended best practices to determine model fit include incremental (comparison of the model to a null model that specifies no relationships among variables), absolute (how well the model fits the data), and predictive fit indices (Weston & Gore, 2006; Worthington & Whittaker, 2006). Weston and Gore (2006) and Worthington and Whittaker (2006) explained that these three types of indices achieve the major objective in data evaluation: to determine whether the associations among measured and latent

variables in the researcher's predicted model are adequately consistent with the observed associations in the data. The specific absolute fit indices that were used were the robust Satorra-Bentler chi-square (χ^2) goodness of fit (the robust statistic was used to account for non-normality in the data), the standardized root mean square residual (SRMR), and the root mean-square error of approximation with 90% confidence interval (RMSEA). The incremental fit indices used included the comparative fit index (CFI) and the nonnormed fit index (NNFI). Akaike's information criterion (AIC; Martens, 2005) was the predictive fit index used.

The SEM was carried out over two steps. First, the measurement model was tested through confirmatory factor analysis (CFA) (See Figure A.1). Second, the proposed model was tested, with and without the alternate pathway (see Figure A.2). A chi-square test was used to evaluate the difference in degree of fit between the initial and alternative models. In all, 32 parameters were specified for estimation in the structural model, 31 for the structural model without the alternate pathway. The sample size exceeded the 5.1 ratio of parameters to participants (Martens & Haase, 2006).

CHAPTER 3

RESULTS

Table A.1 contains the correlations, for Samples A and B, among all the measured variables used in this study. Table A.2 contains the means, standard deviations, skewness, kurtosis, and internal consistency reliability (Cronbach's alpha) of measured variables.

Preliminary Analyses

Multivariate analysis of variance (MANOVAs) was used to determine if differences existed among the measured variables of each latent construct by sport level (i.e., recreational, middle school, or select). I ran separate MANOVAs, one for the set of measured variables associated with each latent variable. Within Sample A, there were no significant effects for Parent Climate, Wilks' lambda = .979, $F(4, 382) = 1.024$, $p = .395$, partial $\eta^2 = .011$, Goal Orientation, Wilks' lambda = .982, $F(4, 382) = .888$, $p = .471$, partial $\eta^2 = .009$, Self-Esteem, Wilks' lambda = .940, $F(6, 380) = 2.005$, $p = .064$, partial $\eta^2 = .031$, and Fun, Wilks' lambda = .933, $F(8, 378) = 1.677$, $p = .102$, partial $\eta^2 = .034$. There was, however, a significant effect for Sport Competence, Wilks' lambda = .901, $F(4, 382) = 5.1$, $p < .005$, partial $\eta^2 = .051$. For the first Sport Competence indicator, recreational ($M = 5.25$, $SD = .886$) and select ($M = 5.25$, $SD = .771$) level athletes had higher scores than those who played at the school level ($M = 4.73$, $SD = 1.09$), $F(2, 192) = 6.09$, $p < .005$, partial $\eta^2 = .060$. For the second Sport Competence indicator, similar results emerged. Recreational ($M = 5.32$, $SD = .65$) and select ($M = 4.99$, $SD = .86$) level athletes rated themselves higher than those who played at the school level ($M = 4.57$, $SD = 1.04$), $F(2, 192) = 8.1$, $p < .001$, partial $\eta^2 = .078$. A significant multivariate effect also emerged for Intent, Wilks' lambda = .870, $F(4, 382) = 6.86$, $p < .001$, partial $\eta^2 = .067$. With respect to their likelihood of *not* dropping out of their main sport over the next three years, select level ($M =$

6.62, $SD = .768$) athletes reported higher scores than those who played at either the recreational level ($M = 5.44$, $SD = .961$) or school level ($M = 5.46$, $SD = 1.71$), $F(2, 192) = 13.06$, $p < .001$, partial $\eta^2 = .120$. With respect to their determination to continue their main sport at a high level, select level ($M = 6.51$, $SD = 1.02$) athletes again rated themselves higher than those at the school level ($M = 5.44$, $SD = 1.71$), $F(2, 192) = 9.01$, $p < .001$, partial $\eta^2 = .086$. The recreational athletes did not differ significantly from either the select or school athletes.

Within Sample B there were no significant multivariate effects for Parent Climate, Wilks' lambda = .988, $F(4, 364) = .539$, $p = .707$ partial $\eta^2 = .006$, Goal Orientation, Wilks' lambda = .954, $F(4, 364) = 2.168$, $p = .074$, partial $\eta^2 = .023$, Intent, Wilks' lambda = .972, $F(4, 364) = 1.287$, $p = .274$, partial $\eta^2 = .014$, and Fun, Wilks' lambda = .972, $F(8, 360) = .635$, $p = .748$, partial $\eta^2 = .014$. There was, however, a significant effect for Sport Competence, Wilks' lambda = .929, $F(4, 364) = 3.42$, $p < .01$, partial $\eta^2 = .036$. For the first Sport Competence indicator, select level ($M = 5.51$, $SD = .886$) athletes reported higher levels than school level ($M = 4.73$, $SD = 1.09$), $F(2, 183) = 5.037$, $p < .01$, partial $\eta^2 = .052$; recreational athletes ($M = 4.94$, $SD = .86$) did not differ significantly from either group. For the second Sport Competence indicator select level athletes ($M = 5.32$, $SD = .884$) had higher scores than those who played at either the school ($M = 4.76$, $SD = 1.04$) or recreational levels ($M = 4.65$, $SD = .83$), $F(2, 183) = 7.007$, $p < .005$, partial $\eta^2 = .071$. A significant effect for self-esteem was also present, Wilks' lambda = .870, $F(6, 362) = 2.26$, $p < .05$, partial $\eta^2 = .036$. With respect to their belief that most things they do turn out well, select level ($M = 5.25$, $SD = .109$) athletes rated themselves higher than school level ($M = 4.64$, $SD = .135$), $F(2, 183) = 4.466$, $p < .05$, partial $\eta^2 = .047$. The recreational athletes did not differ significantly from the other two groups. With respect to their belief that they do most things well, select level ($M = 5.25$, $SD = .93$) athletes rated themselves higher than

those who played at either the school level ($M = 4.81$, $SD = 1.12$) or recreational level ($M = 4.52$, $SD = 1.36$), $F(2, 183) = 4.334$, $p < .05$, partial $\eta^2 = .045$. With respect to their belief that, overall, they have a lot to be proud of, no significant differences existed between the three groups, $F(2, 183) = 1.738$, $p = .18$, partial $\eta^2 = .019$.

Measurement Model – Sample A (Initial Data Set)

Confirmatory factor analysis was used to test the measurement model (Figure A.1). The parceled measures of the Learning and Enjoyment subscale from the Parental Initiated Motivational Climate Questionnaire (PIMCQ-2) loaded positively on the Parent-Initiated Task Climate construct. The Task Orientation scale from the Task and Ego Orientation in Sport Questionnaire (TEOSQ) and the Mastery Orientation scale from Achievement Goal Scale for Youth Sports (AGSYS) loaded positively on to the Mastery Goal Orientation construct.

Regarding the psychological outcomes, the two parcels from Sports Competence subscale from the Physical Self-Description Questionnaire (PSDQ) loaded positively on to the Sport Competence construct, the three single items from Global Esteem subscale of the PSDQ loaded positively on to the Self-Esteem factor, and the four items from the Enjoyment subscale of the SCM loaded positively on to the Enjoyment factor. The factors thus represented greater feelings of competence in sport, higher self-esteem, and more enjoyment from sport participation.

The final construct, Intention to Continue Sport, was represented by the two single-item questions; both items loaded positively as expected, and the factor represented the athletes' intentions to continue playing their main sport. All latent factors were allowed to correlate and all factor correlations were significant ($p < .01$), ranging from .34 to .83. See Table A.3 for the standardized factor loadings and standard errors of each measured variable associated with its

latent factor. Overall, the fit of the final measurement model for the initial data set was good (see Table A.4).

Structural Model – Sample A (Initial Data Set)

The overall fit of the structural model without the alternative pathway was good, though the fit of the model with the alternate pathway was better, $\Delta\chi^2 = 22.59$, $df = 1$, $p < .001$, and $\Delta AIC = 20.58$ (see Table A.4 for specific fit information on each model). Thus, the model with the alternate pathway is described.

Within the structural model with the alternate pathway (see Figure A.2), Mastery Goal Orientation was associated with the direct effects of the Parent-Initiated Task Climate (standardized parameter estimate, $\beta = .64$), which accounted for 41% of its variance. Sport Competence was associated with higher levels of Mastery Goal Orientation ($\beta = .62$), which accounted for 39% of the variance in Sport Competence. Self-Esteem was based on the direct effects of Mastery Goal Orientation ($\beta = .26$) and Sport Competence ($\beta = .68$); these variables accounted for 75% of the variance in Self-Esteem. Enjoyment was based on the direct effect of Mastery Goal Orientation ($\beta = .48$), which accounted for 23% of the variance in Enjoyment. Only Enjoyment was significantly related to Intention ($\beta = .49$), which accounted for 41% of the Intention variance (See Figure A.2).

Measurement Model – Sample B (Confirmatory Data Set)

The final measurement model from Sample A was tested in Sample B. All latent factors were allowed to correlate, ranging from .27 to .79 ($p < .01$). See Table A.3 for the standardized factor loadings and standard errors of each measured variable associated with its latent factor. Overall, the fit of the final measurement model for the initial data set was good (see Table A.4).

Structural Model – Sample B³ (Confirmatory Data Set)

Parent-Initiated Task Climate ($\beta = .65$) was related directly to Mastery Goal Orientation and accounted for 42% of its variance. Sport Competence was based on the direct effect of Mastery Goal Orientation ($\beta = .59$), which accounted for 35% of the variance in Sport Competence. Self-Esteem was based on the direct effects of Mastery Goal Orientation ($\beta = .26$) and Sport Competence ($\beta = .63$); these variables accounted for 66% of the variance in Self-Esteem. Enjoyment was based on the direct effect of Mastery Goal Orientation ($\beta = .65$), which accounted for 42% of the variance in Enjoyment. Intention was based on the direct effects of Enjoyment ($\beta = .39$) and Self-Esteem ($\beta = .42$); these variables accounted for 44% of the Intention variance (See Figure A.2).

Indirect Effects – Samples A and B

Across the two samples, similar indirect effects emerged within the model. Parent-Initiated Task Climate was related indirectly to Sport Competence (Sample A - $\beta = .40$, 95% CI = .28 to .52; Sample B - $\beta = .38$, 90% CI = .26 to .50), Self-Esteem (Sample A - $\beta = .44$, 90% CI = .32 to .57; Sample B - $\beta = .41$, 90% CI = .28 to .54), Enjoyment (Sample A - $\beta = .31$, 90% CI = .23 to .39; Sample B - $\beta = .42$, 90% CI = .33 to .50), and Intention to Continue (Sample A - $\beta = .28$, 90% CI = .15 to .41; Sample B - $\beta = .33$, 90% CI = .21 to .46). Mastery Goal Orientation's indirect effects extended to Self-Esteem (Sample A - $\beta = .42$, 90% CI = .15 to .69; Sample B - $\beta = .38$, 90% CI = .07 to .70) and to Intention to Continue (Sample A - $\beta = .43$, 90% CI = .07 to .79; Sample B - $\beta = .50$, 90% CI = .09 to .91). In Sample B, Sport Competence was related indirectly to Intention ($\beta = .27$, 90% CI = .05 to .49).

³ To ensure the inclusion of the small number of participants from another state did not affect the fit of the model, it was run with and without the participants from CO. Fit indices, with and without the 19 boys from CO, were nearly identical and all R^2 values did not differ significantly. All pathways that were significant in the model with the CO students remained so even without them. Thus, we included the 19 boys in the final sample and present the results of the model testing with all 200 participants.

CHAPTER 4

DISCUSSION

The purpose of this investigation was to examine the relationship of the perceived task-involving motivational climate created by parents to adolescent male athletes' mastery goal orientation, psychological outcomes (i.e., sport competence, self-esteem, and enjoyment), and ultimately, their intention to continue playing their main sport. To test these relationships, a structural model was hypothesized and examined across two independent samples; the model with the alternative pathway from Sport Competence to Self-Esteem revealed a good fit with the data in both samples.

The Parent-Initiated Task Climate was related positively to the boys' Mastery Goal Orientation. That is, when parents were perceived as being consistently supportive and emphasizing effort, learning, and fun, the athletes reported focusing on learning and putting forth their best effort. This finding is consistent with past research that (a) has shown parenting support and positive feedback to contribute to the development of a task oriented motivational climate that emphasizes effort, cooperation, and learning (Horn & Horn, 2007; Roberts et al., 2007; White, 1996; White et al., 1998), and (b) has found a task oriented climate to be closely related to the presence of a mastery goal orientation (Kavussanu & Roberts, 1996; Ntoumanis & Biddle, 1999; Petherick & Weigand, 2002; Reinboth & Duda, 2004). Parents are significant figures who contribute to the sport environment through the behaviors they engage in and the feedback they provide to their children. These behaviors and messages influence children and teach them about achievement related situations and how to approach sports. When parents are encouraging and supportive and promote effort, learning, and cooperation, children are more likely to develop a mastery goal orientation (White, 1996).

A Mastery Goal Orientation was related to higher levels of Sport Competence, Self-Esteem, and Enjoyment, which was expected based on goal orientation theory (Nicholls, 1984, 1989), and consistent with past research (Boyd & Callaghan, 1994; Cury, Da Fonseca, Rufo, & Sarrazin, 2002; Duda & Nicholls, 1992; Fox et al., 1994; Horn et al., 1993; Kavussanu & Harnisch, 2000; Maleté, 2006; McCarthy, 2008; Treasure & Roberts, 1998, 2001; Van-Yperen & Duda, 1999). For example, in a sample of male and female youth athletes (mean age = 11.2 yrs.), Fox et al. (1994) found that a mastery goal orientation was related to increased enjoyment and participation in sport activities, whereas other studies have shown that a mastery goal orientation is associated with increased sport competence and self-esteem in boys and girls ranging from 8 to 16 years old (Kavussanu, 2007; Kavussanu & Harnisch, 2000; McCarthy, 2008).

When children engage in sports from a mastery orientated perspective (e.g., focus on learning, having fun), they are likely to have rewarding sport experiences that contribute to higher levels of self-esteem and confidence, a stronger belief in themselves as competent performers, and more fun and enjoyment. It makes sense that a mastery goal orientation is associated with these positive outcomes because this approach emphasizes learning, effort, and fun, and success is attributed to internal factors (i.e., effort) that are under the child's control. Given that the Task-Climate had significant indirect effects on these outcomes through the boys' goal orientation, a mastery orientation can be viewed as the mechanism through which the perceived motivational climate influences sport competence, self-esteem, and enjoyment in sport.

Sport Competence also was related significantly and positively to Self-Esteem, which is consistent with theoretical models (Harter, 1982; 1983) and empirical findings (Ebbick & Weiss,

1998) that have shown a more global sense of self-worth or self-esteem to be determined by more specific competencies, such as children's ability in sport. This idea suggests that being good in certain competency areas, such as athletics or academics, may lead to positive general feelings of self. Previous research has indicated that children, particularly boys, are more likely to persist in sports when they have high perceptions of their ability and sport competence (Reinboth & Duda, 2004), and that boys tend to place a higher value on ability and doing well in sports than girls do (Eccles & Harold, 1991; Eccles, Wigfield, Harold, & Blumenfeld, 1993; Fredricks & Eccles, 2002). The tendency for boys to value sport competence more than girls may develop through the messages they receive from the social environment (Bowker et al., 2003; Hellstedt, 1990; Horn & Horn, 2007; Kanters, Bocarro, & Casper, 2008, Ullrich-French & Smith, 2009), and historically, more boys, than girls, have participated in sports, suggesting it is viewed by parents in particular and society in general as a masculine activity (Horn & Horn, 2007). Thus, as boys enter middle school and sports become increasingly competitive and involved, they may receive direct or subtle messages that emphasize being independent, tough, competitive, and strong, and that encourage them to become more involved in the sport activities in which they excel. For example, boys may receive messages from social agents, such as their parents, that being involved in sports is expected of them because through it they can express their masculinity and begin to define themselves as a man (Fredricks & Eccles, 2004). Consequently, boys who evaluate themselves as being skilled in their sport are likely to experience a greater sense of accomplishment and competence, which may, in turn, lead to favorable self-evaluation and ultimately increased self-esteem.

The relationship between Self-Esteem and Intention to Continue in sport was expected because self-esteem plays such an important role in children's general psychological

development and has been linked to various positive outcomes, such as happiness, persistence, and confidence (Baumeister, Campbell, Krueger, & Vohs, 2003). In this study, though, the relationship between Self-Esteem and Intention was variable, being significant in only one of the samples. To understand this inconsistent relationship, it is helpful to first consider that although self-esteem plays an important role in children's overall psychological development (Slutzky & Simpkins, 2009), research has not clearly determined the extent to which it also might serve as an antecedent to continuing to participate in sport. In fact, researchers have more often found a consistent and positive relationship between sport participation and self-esteem (Bowker, 2006; Bowker et al., 2003; Gould, 1987; Slutzky & Simpkins, 2009; Taylor & Turek, 2010), than the reverse. That is, participation in sport has been found to lead to higher self-esteem as well as increased levels of perceived competence. Thus, it may be that self-esteem primarily is a consequence, but not an independent antecedent of, sport participation or intention to participate.

Second, previous research has frequently investigated only individual psychological outcomes in youth sport, whereas the current study examined multiple outcomes (e.g., enjoyment, self-esteem, sport competence). So, it may be more accurate to say that although self-esteem and intention are related (i.e., the bivariate correlations amongst the measured variables representing these constructs were significant, but small), when considered in the structural model with the other two constructs (i.e., Enjoyment, Sport Competence) its importance in predicting the outcome, Intention, is diminished. More research is needed to determine the extent to which self-esteem predicts, or results from, participation in sport, and how important it is in understanding children's continuation in sport when measured simultaneously with other variables. Once such relationships are better established, longitudinal research could address the directionality of the relationships.

Sport Competence was not directly related to the boys' Intention to Continue participating in their main sport. There were, however, significant (though small) bivariate correlations amongst the measured variables representing these constructs, which is consistent with research that has shown boys are more likely to continue participating if they believe they are good at their sport (Butcher et al., 2002; Fox et al., 1994; Gould, 1987; Ullrich-French & Smith, 2009). Like Self-Esteem, the direct effects associated with Sport Competence are diminished when considered simultaneously with Fun/Enjoyment. Thus, future research may continue to examine sport competence, but understand that its effects may vary depending on what other variables are being used as predictors and what is the outcome. It may be that sport competence is a more important predictor of actual participation (rather than intention), which could be examined using longitudinal methodologies.

Although Sport Competence was not directly related to Intention, there was an indirect relationship in one sample through its effects on Self-Esteem, and there was a positive and direct relationship between Sport Competence and Self-Esteem in both samples. These relationships support the idea that the stronger boys' beliefs are about their abilities, the better they feel about themselves in general; but it's their overall esteem that increases their intent to continue playing their sport, at least at this age. Previous research has demonstrated that higher perceived competence is associated with greater self-esteem (Ebbeck & Weiss, 1998), and when boys feel competent in their sport abilities they are more likely to feel better about themselves and want to continue their sport participation. This finding is important because it highlights how these variables (e.g., sport competence and self-esteem) interact together and relate to boys' intention to continue sport participation

As hypothesized, Enjoyment was related to the boys' Intention to Continue participating in their main sport. Boys who reported having fun in their main sport said that they were likely to continue playing that sport at a high level, which is consistent with research that has shown enjoyment to be the primary predictor of children's sport participation (Force, 2009; Fox et al., 1994; Gould, 1987; Malete, 2006; McCarthy et al., 2008). For example, in a sample of male and female athletes between the ages of 13 and 18 years, Malete (2006) concluded that mastery goal orientation was related to increased enjoyment, and increased enjoyment led to greater participation in sport activities. As would be expected, children want to pursue activities that they consider fun and enjoyable and would drop out from those that are not. Thus, when sport environments are positive and supportive and promote learning new skills, making friends, and putting forth effort, children will have more fun and will want to stay involved. Of the three psychological outcomes examined in this model (e.g., Sport Competence, Self-Esteem, and Enjoyment), Enjoyment accounted for the most variance in the boys' intention to continue in their main sport, suggesting it's strong association with sport involvement for male athletes of this age.

Although enjoyment was the most important factor related to the boys' reported intent to continue their sport participation, it may be that sport competence and self-esteem become more important as boys age and become more specialized in sport. Côté, Baker, and Abernethy's (2003) model of sport development suggest that children go through three stages that define their involvement and focus as they engage in sport activities: sampling (6-12 years old; high focus on deliberate play; enjoyment and fun are most important as children explore multiple sports and physical activities), specializing (13-15 years old; equal focus on deliberate play and deliberate practice), and investment (16+ years old; high level of deliberate practice with low level of focus

on deliberate play). In the current study, the boys, on average, participated in multiple sports (Sample A = 2.12; Sample B = 2.57), but were able to identify a single “best” sport in which they focused most of their time and attention. This finding suggests that they were most likely in the transition between the sampling and specializing stages of development. Given the age of the boys and the fact that they were in this stage of sport development (playing multiple sports), it is not surprising that fun would be such a strong predictor of intention.

However, as boys age and emphasize more deliberate practice, they enter the specialization and investment stages of sport development, and shift their focus from broad fun and play to a narrower, deliberate concentration on practicing specific sport skills within a single, main sport (Côté et al., 2003). During the early stage of sport development, parents and coaches contribute to children’s enjoyment in sports by being supportive and creating fun, motivating climates for sport participation. As adolescents age and concentrate more on ability and skills in their main sport, the role of parent support decreases in sport participation as coaches focus on specialized training and development (Fraser-Thomas et al., 2008). During this immersion in the specialization and investment stages, fun and enjoyment become less important in predicting sport participation, and sport competence primarily (and self-esteem secondarily) become more salient factors in adolescent’s intention to continue sport participation. Thus, when adolescents enter the specialization stage and experience an increase in their sense of ability and competency in their sport, they are likely to feel better about themselves, and these factors become more important reasons for their continued sport participation. Research with older adolescents, however, is needed to address these issues.

The model proposed in the current study was based on achievement motivation theory and research (e.g., Ames, 1992; Horn & Horn, 2007; Nicholls, 1984, 1989; White, 1996, 1998),

suggesting that a mastery goal orientation results from a parent-initiated task-oriented motivational climate and this goal perspective is related to several positive psychological outcomes. Indeed, a mastery goal orientation was present in boys who perceived their parents as having created an environment that was supportive and emphasized learning and enjoyment as part of sport participation. The boys' mastery goal orientation was associated with higher levels of perceived competence in their main sport, greater self-esteem, and more enjoyment in conjunction with playing their main sport (e.g., Cury et al., 2002; Fox et al., 1994; Kavussanu & Harnisch, 2000; Lemyre, Roberts, & Ommundsen, 2002; Maleté, 2006; McCarthy, 2008), which suggests that there are some psychological benefits for children who adopt this achievement motivational perspective with regards to sport situations (e.g., practices, competitions). The boys' intention to continue their participation in sport was predicted primarily by the amount of fun and enjoyment they reported having, and secondarily by feeling more positively about themselves and more competent in their sport. This model provides clarification on how parents and the motivational climate they create influence children and the outcomes they experience in sport.

Implications for Counseling and Consulting

The results of this study have implications for working with adolescent male athletes and their parents. First, the perceived task-oriented motivational climate created by parents, particularly through their supportive behaviors and emphasis on learning and fun, appears important in children's mastery goal orientation. Thus, sport consultants can encourage, and perhaps teach, parents how to be supportive of their children's sport activities and to emphasize effort and learning over winning. For example, an introduction to goal orientation and specific cognitive-behavioral skills for communicating with children, delivered either in a group or to

individuals, could help parents develop a better understanding of how their positive and supportive behaviors can influence the development of a mastery goal orientation. In workshops, parents could be taught how to communicate and behave in ways that maximize positive emotions and motivation in their children. Introducing skills such as positive self-talk and goal setting could help parents learn how to teach their children to develop mastery-oriented goals (e.g., effort, persistence) rather than performance oriented goals (e.g., results, social comparison) (McCarthy et al., 2008). Parents also can learn to define success in terms of personal improvement as opposed to outperforming others, and learn to focus on providing encouragement and rewards based on effort rather than outcome (Dweck, 2006). By changing their messages and behaviors, parents can create a growth-oriented environment in which their children can thrive, in sports, academics, and life.

Second, because enjoyment is the primary reason why children intend to continue to participate, sport consultants could work with parents, as well as coaches, to help foster fun when practicing and competing in sport. Parents and coaches could be reminded that, even amongst adolescents, having fun is important and to incorporate activities that make the environment more enjoyable. Parents can learn to take an active role in seeking appropriately challenging sport experiences that promote participation, fun, and excitement while offering opportunities for their children to learn new skills (McCarthy et al., 2008). In addition, educating parents on how to offer support to their children without excessive pressure on results and outcomes can help facilitate fun and enjoyment. See Table A.5 for a summary for parents. When sport environments are positive and promote learning new skills, making friends, and putting forth effort, children will have more fun and will be likely to want to stay involved (Force, 2009; Maleté, 2006; McCarthy et al., 2008).

Limitations and Directions for Future Research

There were several limitations in this study that deserve discussion. First, data were collected in a self-report format, which lends itself to mono-method reporting bias and the possibility that participants may have underreported or reported their perceptions inaccurately. To help minimize this problem, the boys completed questionnaires in small groups of their peers, separated from one another, and without their parents (or coaches) present. In addition, questionnaires were completed anonymously, which may have helped them feel more comfortable in accurately reporting their experiences. Additionally, I used only valid, reliable measures that have been part of past research with youth sport participants. Second, the parent-initiated motivational climate was examined through measures that asked participants to report on their perceptions and past experiences with their parents, as opposed to either parental reports of their behaviors or direct ratings from third-person observers who may have, for example, watched parents at the children's sport events and evaluated the parents' levels of support and pressure. This study focused on participants' perceptions because such ratings have been shown to be most related to children's actual goal orientations (Eccles & Harold, 1991; White et al., 1998). For example, Givvin (2001) compared adolescent swimmers' perceptions of parent and coach goal orientations with the parents' self-reported goal orientations and found that they were unrelated. Thus, despite this study's and past research's support of children's perceptions as the strongest predictors of outcomes and goal orientations, in future studies researchers may want to examine other perspectives, such as third party observers, to determine if other valid means of measuring parent involvement and goal orientation can be found.

Third, this study consisted only of academically successful boys who were primarily from average/above average social economic status (SES) families. Although this study helped

to clarify the relationships of the perceived motivational climate to goal orientation and some of the psychological factors boys experience in relation to sport, the generalizability of the results is limited. Thus, future research may want to investigate the relationships of the perceived motivational climate to goal orientation and psychological outcomes in sport with samples that include a variety of SES levels, specific racial/ethnic groups, or focus on both boys and girls. Fourth, some of the constructs were represented by parceled measures. Although it would be ideal to have multiple independent measures for each construct, the reality is that doing so would unnecessarily lengthen the questionnaire and present the issue of participant fatigue. Relying on parceled measures is a limitation of the study because parceling items from a single measure to create two measures may not provide the best representation of the construct. Thus, future research may want to examine the best way to measure and represent the constructs of interest to determine if there are better measures to represent the constructs, while also balancing the ideal of having multiple measured variables with the reality of surveying younger athletes (Weston & Gore, 2006).

Fifth, this study examined a limited number of psychological constructs for the practical reason of keeping the number of items down to a reasonable amount for youth participants to complete. Thus, comments cannot be made about the potential influence of a mastery goal orientation on other variables (e.g., intrinsic motivation) and whether those variables also might have contributed to the explanation on boys' intention to continue playing their main sport. Considering this limitation, future studies may want to examine other outcomes in relation to intention to participate (or actual participation) in sport. Last, intention to continue in sport was only measured by self-report. This was a cross-sectional study without a longitudinal component to it. Thus, the relationship between participants' intention to continue and their actual continued

sport participation cannot be determined. However, behavioral intent is typically a strong predictor of behavior (Ajzen & Driver, 1992) and has been used previously as a means of assessing continuation in sport (Le Bars, Gernigon, & Ninot, 2009). For example, Hagger et al. (2001) examined two groups of 12 to 14 year old boys and girls longitudinally and found a significant relationship between children's intention and actual sport participation ($\beta = .59$). It would be helpful for future research to extend the current study by following children and adolescents over time to determine which ones actually remained involved and which ones dropped out. Future research could examine sport participation using longitudinal data to determine if there are any changes in goal orientation and psychological outcomes as children go through middle school and enter high school, a time when many boys and girls discontinue participation in sports (Butcher et al., 2002; Gould, 1987). Longitudinal methodologies also could investigate changes in children's perceptions of the motivational climate and determine if messages from parents become less important over time and, perhaps, other social agents (e.g., coaches, teammates) become more influential.

Conclusions

The results of this study have provided information about the relationship of the perceived motivational climate created by parents (i.e., supportive behaviors that emphasize learning and enjoyment) to male adolescent athletes' mastery goal orientation and psychological outcomes experienced in sport. It was determined that the influence of a parent created task climate was strong, operating through mastery goal orientation to sport competence, self-esteem, and enjoyment. Although feeling positively about oneself was associated with intention to continue participating, how much fun the boys reported having was the strongest predictor of this outcome. This information can help researchers better understand how boys' goal orientations

may result from the motivational climate, as well as how their orientations are related to psychological outcomes experienced in sport and ultimately to intent to remain in sport. These findings delineate the type of, and manner in which, parental behaviors influence adolescent boys, which can lead to the development of parent training programs to create more positive and supportive experiences for children who participate in sport.

APPENDIX A
SUPPLEMENTAL FIGURES AND TABLES

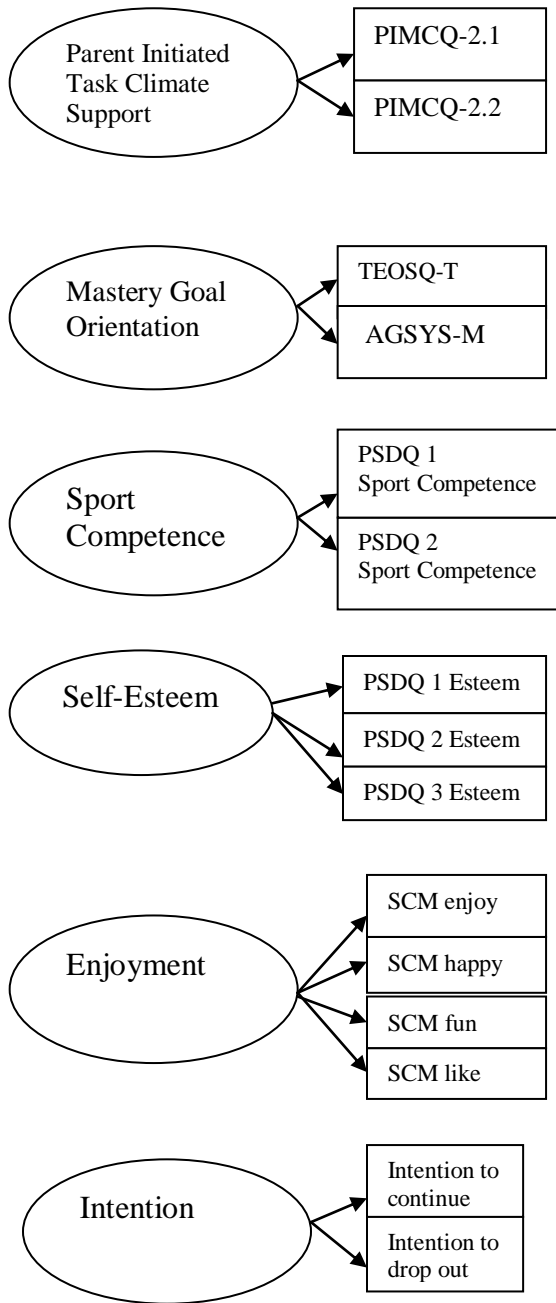


Figure A.1. Diagram of the final measurement model for all factors for Sample A and Sample B.

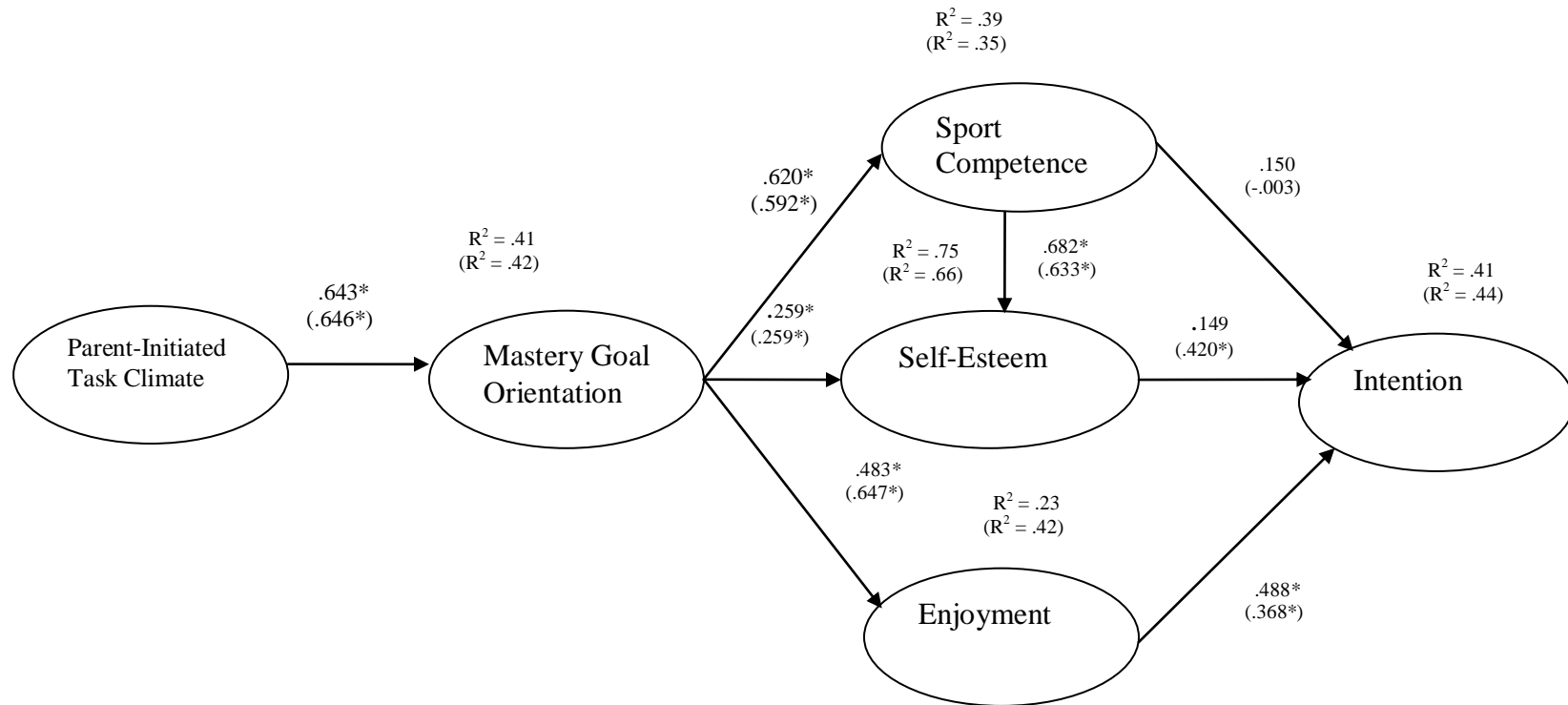


Figure A.2. Diagram of Structural Model (with alternative pathway) with standardized parameter estimates and R^2 values for Sample A and Sample B. Sample B values are provided in parentheses. * $p < .05$

Table A.1

Correlation Matrix of Measured Variables in Sample A (n = 205) and Sample B (n = 200)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. PIMCQ-2-1	1	.81**	.48**	.40**	.28**	.20**	.24**	.22**	.36**	.45**	.44**	.40**	.41**	.14**	.26**
2. PIMCQ-2-2	.81**	1	.44**	.45**	.30**	.23**	.25**	.31**	.35**	.38**	.34**	.33**	.34**	.14**	.19**
3. TEOSQ-T	.43**	.38**	1	.60**	.38**	.33**	.35**	.30**	.32**	.44**	.44**	.38**	.36**	.34**	.33**
4. AGSYS-M	.46**	.39**	.65**	1	.45**	.44**	.39**	.34**	.46**	.50**	.45**	.45**	.41**	.46**	.47**
5. PSDQ-SC 1	.40**	.37**	.35**	.37**	1	.85**	.63**	.60**	.52**	.46**	.49**	.43**	.48**	.32**	.43**
6. PSDQ-SC 2	.42**	.36**	.36**	.42**	.82**	1	.53**	.54**	.45**	.43**	.43**	.38**	.43**	.33**	.43**
7. PSDQ-GE 1	.25**	.28**	.25**	.21**	.58**	.59**	1	.62**	.48**	.28**	.31**	.29**	.24**	.30**	.32**
8. PSDQ-GE 2	.34**	.29**	.37**	.27**	.48**	.41**	.39**	1	.62**	.23**	.26**	.22**	.22**	.30**	.31**
9. PSDQ-GE 3	.37**	.36**	.37**	.30**	.51**	.39**	.34**	.54**	1	.37**	.39**	.41**	.36**	.36**	.39**
10. SCM-E	.33**	.29**	.28**	.28**	.48**	.43**	.27**	.32**	.42**	1	.90**	.89**	.81**	.43**	.47**
11. SCM-H	.28**	.27**	.30**	.28**	.43**	.39**	.26**	.30**	.38**	.88**	1	.88**	.91**	.40**	.40**
12. SCM-F	.28**	.26**	.27**	.29**	.46**	.40**	.26**	.30**	.39**	.92**	.87**	1	.88**	.41**	.39**
13. SCM-L	.29**	.28**	.29**	.26**	.47**	.42**	.25**	.30**	.38**	.83**	.91**	.80**	1	.35**	.35**
14. INT-C	.31**	.30**	.25*	.31**	.42**	.33**	.20**	.29**	.35**	.47**	.45**	.41**	.47**	1	.60**
15. INT-D	.22**	.20**	.17**	.26**	.36**	.35**	.24**	.25**	.22**	.45**	.46**	.47**	.46**	.65**	1

Note. Sample A correlations are shown below the diagonal and Sample B above the diagonal. PIMCQ-2-1= Parent Initiated Motivational Climate Questionnaire-2-Task-Involving Climate 1; PIMCQ-2-2 = Parent Initiated Motivational Climate Questionnaire-2 - Task-Involving Climate 2; TEOSQ-T = Task and Ego Orientation in Sport Questionnaire –Task Orientation; AGSYS-M = Achievement Goal Scale for Youth Sports – Mastery Orientation; PSDQ-SC-1= Physical Self-Description Questionnaire–Sport Competence.1; PSDQ-SC-2= Physical Self-Description Questionnaire–Sport Competence.2; PSDQ-GE= Physical Self-Description Questionnaire–Global Esteem; SCM-E= Sport Commitment Model – Enjoy; SCM-H= Sport Commitment Model – Happy; SCM-F= Sport Commitment Model – Fun; SCM-L= Sport Commitment Model – Like; INT-C= Intention to Continue – Continue Sport; INT-D= Intention to Continue – Drop Out of Sport

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

Table A.2

Descriptive Statistics for Measured Variables, Sample A; N = 205 and (Sample B; N = 200)

Variable	No. Items	<i>M</i>	<i>SD</i>	Skewness	Kurtosis	Internal Consistency
1. PIMCQ-2-1	5	4.25 (4.45)	0.69 (0.70)	-0.97 (-1.53)	1.17 (1.89)	.81 (.88)
2. PIMCQ-2-2	4	4.16 (4.40)	0.72 (0.65)	-0.94 (-1.24)	1.30 (1.29)	.78 (.79)
3. TEOSQ-T	7	4.32 (4.40)	0.67 (0.62)	-1.03 (-0.98)	0.77 (0.66)	.90 (.89)
4. AGSYS-M	6	4.49 (4.62)	0.62 (0.53)	-1.39 (-1.57)	1.49 (2.17)	.88 (.85)
5. PSDQ-SC 1	3	4.92 (5.11)	1.03 (1.04)	-0.76 (-1.12)	-0.02 (0.29)	.83 (.92)
6. PSDQ-SC 2	3	4.75 (4.86)	1.00 (1.04)	-0.68 (-1.01)	0.13 (0.67)	.78 (.79)
7. PSDQ-GE 1	1	4.81 (4.81)	1.26 (1.25)	-0.98 (-1.00)	0.42 (0.55)	* (*)
8. PSDQ-GE 2	1	4.73 (4.88)	1.28 (1.13)	-1.00 (-0.92)	0.69 (0.64)	* (*)
9. PSDQ-GE 3	1	5.10 (5.15)	1.22 (1.20)	-1.61 (-1.46)	2.41 (1.66)	* (*)
10. SCM-E	1	4.64 (4.72)	0.77 (0.67)	-2.38 (-2.77)	5.42 (8.39)	* (*)
11. SCM-H	1	4.62 (4.69)	0.77 (0.75)	-2.09 (2.99)	4.79 (9.79)	* (*)
12. SCM-F	1	4.63 (4.73)	0.76 (0.68)	-2.17 (-3.12)	4.03 (10.93)	* (*)
13. SCM-L	1	4.70 (4.73)	0.70 (0.72)	-2.43 (-3.12)	5.17 (10.28)	* (*)
14. INT-C	1	5.79 (5.74)	1.63 (1.80)	-1.34 (-1.22)	0.98 (0.25)	* (*)
15. INT-D	1	5.84 (6.07)	1.57 (1.40)	-1.20 (-1.55)	0.55 (1.92)	* (*)

Note. Sample B values noted parenthetically. PIMCQ-2 = Parent Initiated Motivational Climate Questionnaire-2-Task-Involving Climate (perception of parents/main caregiver as fostering task-oriented climate with focus on learning and enjoyment: scores range from 1[low perceived task-climate] to 5[high perceived task climate]); TEOSQ-T = Task and Ego Orientation in Sport Questionnaire –Task Orientation (developing competence, along with personal improvement related to skill mastery, and a self-referenced set of standards: scores range from 1[low task orientation] to 5[high task orientation]); AGSYS-M = Achievement Goal Scale for Youth Sports –Mastery Orientation (personal improvement related to skill mastery): scores range from 1[low mastery orientation] to 5[high mastery orientation]); PSDQ-SC= Physical Self-Description Questionnaire – Sport Competence (perceived ability in sport: scores range from 1[low perceived ability] to 6[high perceived ability]); PSDQ-GE= Physical Self-Description Questionnaire – Global Esteem (overall positive feelings about oneself and perceptions of self-worth: scores range from 1[low positive feelings] to 6[high positive feelings]); SCM-E= Sport Commitment Model – Enjoy (enjoying playing best sport: scores range from 1[low enjoyment] to 5[high enjoyment]); SCM-H= Sport Commitment Model – Happy (level of happiness playing best sport: scores range from 1[low happiness] to 5[high happiness]); SCM-F= Sport Commitment Model – Fun (amount of fun experienced playing best sport: scores range from 1[low levels of fun] to 5[high high levels of fun]); SCM-L= Sport Commitment Model – Like (degree to which respondent likes playing best sport: scores range from 1[low degree of liking] to 6[high degree of liking]); INT-C= Intention to Continue – Continue Sport (intention to continue sport at high level: scores range from 1[low intention] to 7[high intention]); INT-D= Intention to Continue – Drop out (intention to drop out of sport in three years: scores range from 1[low intention] to 7[high intention]).

*Because represented by a single item, these variables cannot have an internal consistency value.

Table A.3
Standardized Parameter Estimates for the Measurement Model

Latent Variables	Observed Variables	Factor Loadings: Sample A	Standard Error: Sample A	Factor Loadings: Sample B	Standard Error: Sample B
Parent-Initiated Task Climate	PIMCQ-2-1	.938	.040	.923	.039
	PIMCQ-2-2	.869	.043	.885	.037
Mastery Goal Orientation	TEOSQ-T	.787	.047	.725	.042
	AGSYS-M	.821	.043	.825	.035
Sport Competence	PSDQ-SC 1	.952	.057	.943	.057
	PSDQ-SC 2	.861	.059	.897	.058
Self-Esteem	PSDQ-GE 1	.631	.088	.759	.080
	PSDQ-GE 2	.653	.088	.810	.071
	PSDQ-GE 3	.674	.084	.712	.079
Enjoyment	SCM-E	.943	.040	.927	.036
	SCM-H	.951	.040	.964	.039
	SCM-F	.929	.040	.933	.037
	SCM-L	.909	.038	.926	.039
Intention	INT-C	.770	.108	.770	.098
	INT-D	.841	.112	.776	.126

Note. PIMCQ-2 = Parent Initiated Motivational Climate Questionnaire-2-Task-Involving Climate; TEOSQ-T = Task and Ego Orientation in Sport Questionnaire –Task Orientation; PSDQ-SC= Physical Self-Description Questionnaire – Sport Competence; PSDQ-GE= Physical Self-Description Questionnaire – Global Esteem; SCM-E= Sport Commitment Model – Enjoy; SCM-H= Sport Commitment Model – Happy; SCM-F= Sport Commitment Model – Fun; SCM-L= Sport Commitment Model – Like; INT-C= Intention to Continue – Continue Sport; INT-D= Intention to Continue – Drop Out of Sport

Table A.4
Model Fit and Comparison (Sample A = 205; Sample B = 200)

Model	<i>df</i>	χ^2	NNFI	CFI	AIC	SRMR	RMSEA (90% CI)
<i>Sample A</i>							
Measurement Model	98	165.19	.929	.949	-30.81	.037	.058 (.042 - .073)
Structural Model W/Out Alternate Path	85	177.19	.936	.949	7.18	.059	.073(.058 - .088)
Structural Model W/Alternate Path	84	154.60	.946	.958	-13.40	.080	.064 (.048 - .080)
<i>Sample B</i>							
Measurement Model	99	193.91	.905	.932	-4.09	.063	.069 (.055 - .084)
Structural Model W/Alternate Path	83	139.15	.935	.949	-26.85	.059	.058 (.041- .075)

Note. *Df* = Degrees of Freedom; χ^2 = chi square (significant values suggest that the model does not fit the data); NNFI = Non-Normed Fit Index (> .95 indicates good fit); CFI = Comparative Fit Index (> .90 indicates good fit); AIC = Akaike Information Criterion (lower values indicate good fit); SRMR = Standardized Root Mean Squared Residual (< .08 indicates good fit); RMSEA = Root Mean Square Error of Approximation (<.06 indicates good fit); 90% CI = 90% Confidence Interval.

Table A.5

Summary of Tips to Enhance Children's Sport Experiences for Parents

1. Be supportive your children and emphasize effort and learning over winning
 2. Offer positive comments and rewards (e.g., “good job,” “it looks like you were working hard out there,” etc.) when your children put forth effort and appear to be internally motivated in their sport
 3. Help your children set goals related to learning and effort, and help them realize that being persistent is necessary to learn and be successful.
 4. Define success in sports in terms of personal improvement as opposed to outperforming others
 5. Focus more on recognizing the effort your child puts forth rather than wining or results
 6. Make sports fun by engaging a variety activities that help develop sport related skills and fitness
 7. Take an active role in your children's sports by organizing social events, car pooling, helping with uniforms, or providing snacks and drinks
-

APPENDIX B
INITIAL LITERATURE REVIEW

Children participate in sports for a variety of reasons, such as having fun, developing meaningful relationships, increasing physical competence, and being part of a group (Fraser-Thomas & Côté, 2009; Fraser-Thomas, Côté, Deakin, 2008; Strong, 1992). Of these, having fun may be the most important reason children stay involved. When there is a lack of fun, and an increased amount of pressure to excel, children often lose interest and drop out of sport entirely or pursue other activities they consider more enjoyable (Butcher, Lindner, & Johns, 2002; Fox, Goudas, Biddle, Duda, & Armstrong, 1994; Fraser-Thomas et al., 2008). Thus, to minimize or prevent this occurrence (and keep children involved in sport so they can reap the long-term physical and psychological benefits that can accrue), it is important to understand how social agents in the sport environment, such as parents, coaches, and teammates, influence children's enjoyment in sport and their desire to participate.

These social agents' beliefs, values, attitudes, behaviors, and messages create the motivational climate that influences the thoughts and behaviors children adopt concerning achievement. Although coaches and peers can play a significant role in children's sport experiences, parents' influences may be primary because of their early involvement in their children's lives, both in and out of the sport context. Thus, extending the work of Force (2009), who studied only middle school girls, this study examined the relationship of the perceived motivational climate created by parents to adolescent male athletes' goal orientation, and the psychological outcomes -- self-esteem, sport competence, enjoyment in sport, and the intention to continue in sport -- that are expected to follow.

Goal Orientation and Psychological Outcomes

Achievement goal theory has helped explain motivation and various outcomes in youth sport. Previous researchers (Ames, 1992; Dweck, 1986; Nicholls, 1984, 1989) have proposed a

conceptual framework for achievement goal theory in the areas of academics and sports.

Achievement goal theory (Nicholls, 1984) is based on the premise that each individual is goal directed, and that individuals adopt different achievement goals based on how they interpret competence (Duda & Hall, 2001). Nicholls (1989) emphasizes that goal orientation is formed through socialization experiences in childhood.

In achievement contexts, individuals are thought to be motivated along one and/or two dimensions, referred to as goal orientations. The two opposing types of achievement goal orientations are mastery and performance (Nicholls, 1984). Mastery or task-oriented individuals are mainly interested in learning new skills, and improving competence, whereas individuals who adopt a performance or ego-orientation are mainly focused on proving ability and avoiding failure. Mastery-oriented individuals determine their level of competence based on self-referenced standards, and perceive success when a level of mastery is achieved. Comparatively, individuals who adopt a performance-orientation use social comparison to determine their level of competence, and perceive success when performance exceeds that of others (Nicholls, 1984; Treasure & Roberts, 1998). Although it is often found that individuals develop either a high mastery-orientation or a high performance-orientation, it is also possible to be high in both achievement goal orientations simultaneously. Thus, an individual can have a high mastery-orientation while also having a high performance-orientation.

Goal orientation has a significant role in children's motivation and overall sport experiences. Specifically, achievement goal theory has been utilized to explain the approaches children take in achievement related contexts (Ames, 1984, 1992; Ames & Archer, 1987; Nicholls, 1984, 1989, 1992). The type of goal orientation that children adopt has been related to many outcomes. For example, a mastery goal orientation is associated with increased enjoyment

experienced in sport, psychological well-being, confidence level, and motivation (Boyd & Callaghan, 1994; Collins & Barber, 2005; Kavussanu & Roberts, 1996). Individuals with a mastery orientation are more likely to be intrinsically motivated, seek challenges, and persist when faced with obstacles. Thus, the mastery orientation is associated with adaptive achievement behaviors such as, adopting positive attitudes, seeking challenges, putting forth effort, and applying self-regulation techniques (Treasure & Roberts, 1998). In contrast, individuals with a performance orientation have been found to be more extrinsically motivated, avoid challenges, and avoid any situation in which success does not seem likely (Dweck, 1986). In the development of his theory of motivation, Nicholls (1984, 1989) argued that an important aspect to optimizing motivation was helping individuals define success based on effort, which refers to developing a mastery achievement orientation.

The direct influence of goal orientation on children in sport has been explored in previous research, and results have shown that a mastery goal orientation has been associated with positive outcomes in sport, such as increased effort, intrinsic motivation, and enjoyment (Treasure & Roberts, 1998). Of the many variables investigated in previous goal orientation research, an important outcome is children's desire to participate in sport and intention to continue with sport. For example, it has been suggested that enjoyment and fun are primary reasons children play sports (Fraser-Thomas et al., 2008; Strong, 1992). Based on this, it is important to understand how goal orientation may influence children's enjoyment in sport, as well as how it may influence other key psychological factors related to children's desire to play sports, such as self-esteem, sport competence, and intention to continue in sport.

Van-Yperen and Duda (1999) designed a longitudinal study with a sample of elite male Dutch soccer players to explore how goal orientations may be related to beliefs about the causes

of success. Findings of their study were consistent with previous research and there was a positive association found between mastery orientation and beliefs that effort, team play, and parental support contribute to achievement in soccer. These athletes believed that their success was due to support from significant others and to the amount of effort they put forth. There also was a positive association found between performance orientation and the belief that ability or natural talent was what led to success. Thus, those athletes with an ego orientation believed that ability, not effort, was what allowed them to be successful. When perceived ability is low, athletes with an ego orientation will be less likely to put forth effort than an athlete with a mastery orientation.

Boyd and Callaghan (1994) investigated goals, enjoyment, and intrinsic motivation in 10-12 year old male athletes and concluded that a mastery orientation was related to increased enjoyment, satisfaction, and interest. Comparatively, a performance orientation was not related to any of these positive outcomes, which suggests that positive outcomes associated with an ego orientation occur only when there is a successful performance. In a study that investigated the relationship of goal orientation to perceived competence, enjoyment, and participation in sport activities, in a sample of youth athletes, Fox et al. (1994) concluded that a mastery orientation was related to increased enjoyment and participation in sport activities. White and Zellner's (1996) study provided further support for findings in previous research on achievement goal orientation. They sampled a group of high school and college athletes on various recreational sport teams and found that a performance orientation paired with high levels of cognitive anxiety manifested itself as worry. The athletes with a higher performance orientation were found to have more disruption in concentration related to performance. Considering the different outcomes associated with the mastery and performance goal orientations, it is important to

understand how the environment, or motivational climate, effects the adoption of these goal orientations, which in turn, influences children's achievement behaviors and the outcomes associated with these behaviors.

Motivational Climate

The motivational climate refers to perceptions of situational cues and expectations that encourage the development of particular achievement goal orientations, and at any time, induces a certain goal involvement state (Ames, 1992). The structure of the environment to which children are exposed can influence the likelihood that achievement behaviors, thoughts, and feelings associated with a certain achievement goal are adopted (Roberts, Treasure, & Conroy, 2007). Children's perceptions of achievement related environments, or the motivational climate, have been conceptualized along two dimensions, mastery/task and performance/ego (Roberts et al., 2007). The task-involving dimension, which corresponds to the mastery goal orientation, is perceived when the environment is supportive of effort, cooperation, and learning. The ego-involving dimension, which corresponds to the performance goal orientation, is perceived when the environment promotes the use of normative comparisons, intra-team competition, and the use of disciplinary actions by authority figures to address mistakes made by participants (Roberts et al., 2007).

In academic and sport situations, children's motivational climates are strongly influenced by the significant figures in their surroundings, namely, parents, coaches, and teammates. When children begin their sport experience, parents are typically the initial figures with a significantly influential role. Perceptions of parent behavior influences children's goal orientation, affect, and sense of competency (Brustad, Babkes, & Smith, 2001). As children develop and become more involved in activities outside the home, they also are influenced by other figures, such as coaches

and teammates. Significant figures in children's sport environment communicate through their involvement with the children what is most important in relation to achievement and performance. For example, supportive parents encourage their children's participation in sport without putting pressure on them. They may attend practices and competitions, while communicating the value of putting forth effort and persisting in the face of obstacles. As a result children begin to take on the goals and behaviors consistent with those of the significant figures in their lives. The experiences children have in sport with these influential figures have an impact on the extent to which they understand, perceive, and react to achievement-related contexts, such as practices and competition (Roberts et al., 2007).

Research has demonstrated that children's perceptions of the motivational climate affect a variety of different outcomes in sport (Eccles & Harold, 1991; Ntoumanis & Biddle, 1999; Parish & Treasure, 2003; Roberts et al., 2007). For the purposes of this study, sport competence, self-esteem, enjoyment, and intention to continue are the specific outcomes that have been selected for further exploration. In regards to outcomes experienced in sports, Parish and Treasure (2003) suggested that positive outcomes are optimized through the facilitation of a task-involving motivational climate. In their study of adolescent female physical education students, they found that when students perceived the climate to be task-involving, they had more intrinsic motivation, whereas, when a performance-oriented climate was perceived, students were more extrinsically motivated. Similarly, in a study with soccer players between the ages of 12 and 16, Ommundsen and Valgum (1991) reported that parents' (and coaches') positive emotional involvement predicted increased enjoyment for their child.

Boyce, Gano-Overway, and Campbell (2009) investigated the perceptions of the motivational climate created on a middle school athletic team, and how it influenced middle

school student athletes' goal orientations, practice strategies, and perceived competence. Their findings indicated that perceived sport competence was predicted by perceptions of a task-involving motivational climate.

In a meta-analysis of the impact of different motivational climates in sport and physical education on cognitive and affective responses, Ntoumanis and Biddle (1999) concluded that the creation of a task-oriented motivational climate is most likely to facilitate positive outcomes, such as self-esteem, sportspersonship, persistence, task perseverance, and adaptive achievement strategies, and reduce negative responses, such as overtraining and self-handicapping. Their findings provided additional support for the position that the perception of a task-involving motivational climate, as opposed to an ego-involving climate, is associated with more positive outcomes.

Reinboth and Duda (2004) examined the relationship of the perceived motivational climate created by their team and coach and adolescent's perceptions of sport ability to psychological and physical well-being in a sample of adolescent male soccer and cricket players. The adolescents' perceptions of a task-oriented motivational climate were positive predictors of global self-esteem, which is consistent with previous research (Nicholls, 1989). Reinboth and Duda (2004) also reported that contingent self-worth was predicted positively by the perception of a performance-oriented motivational climate. That is, athletes' perceptions of an ego-oriented motivational climate are related to basing their self-worth on their success in sports. Such athletes have a level of self-esteem that fluctuates over time as the unpredictable nature of sports makes it difficult to be continuously successful.

In a later study, Treasure and Roberts (2001) explored how beliefs about success, preference for challenging tasks, and satisfaction in physical education were related to

perceptions of the motivational climate initiated by the team and coach. In their sample of male and female sixth and seventh grade children, they found that perceptions of a task climate were associated with more adaptive motivational and affective patterns. Children in the study believed that motivation and effort led to success and satisfaction when they perceived a task climate, whereas children who perceived an ego climate believed deception led to success. They also found that the perception of an ego climate was related negatively to children's preference for tasks that were more challenging. These findings are consistent with Nicholls' (1989) assertion that beliefs about the causes of success reflect what an individual perceives to be important in a given situation.

In a study that examined the influence of coach and parent initiated motivational climates on athletes' goal orientations, Waldron and Krane (2005) sampled 62 female softball players from seven junior varsity high school teams. They found that when athletes perceived themselves as having a task goal orientation and a mastery-oriented parent and coach initiated motivational climate at the beginning of the season, they reported a task goal orientation during the latter part of the season. Additionally, the only predictor of an ego goal orientation in the latter part of the season was the athletes' ego goal orientation at the beginning of the season, which suggests that perceptions of an ego motivational climate do not necessarily affect athletes' who already have a task goal orientation. These findings indicate the need for further examination of the influence that significant others have on the achievement motivation of youth sport participants.

The perceived motivational climate is associated with the outcomes children experience in sport, as well as to the goal orientation adopted by children (Duda & Horn, 1993; Kavussanu & Roberts, 1996; Maleté, 2006; Ntoumanis & Biddle, 1999; Ommundsen & Valgum, 1991; Parish & Treasure, 2003; Petherick & Weigand, 2002; Reinboth & Duda, 2004, 2006; Roberts et

al., 2007; Smith, Fry, Ethington, & Li, 2005; Treasure & Roberts, 1998, 2001; Vazou, Ntoumanis, & Duda, 2006; Waldron & Krane, 2005). For example, Duda and Horn (1993) found that youth athletes who indicated having a high task goal orientation frequently believed that their parents held the same goal orientation. Petherick and Weigand (2002) found that athletes' perceived task oriented motivational climate was positively and significantly related to intrinsic motivation, as well as to task-oriented behaviors such as working hard and taking on challenging tasks. The positive relationship between athletes' perceptions of a task oriented motivational climate and positive outcomes provides evidence for the benefits associated with encouraging parents, peers, and coaches to adopt mastery/task oriented behaviors that contribute to the environment.

In summary, to optimize the positive outcomes experienced in sports, it is important to understand the environment, or motivational climate, that influences the type of goal orientation children adopt. Children's motivational climates are strongly influenced by the significant figures in their surroundings. Parents, coaches, and peers are the primary significant others that youth athletes interact with during, and outside, their sport experiences. It is through these interactions that children learn how to approach performance related situations and determine standards for success and failure. Because parents are assumed to play an active role in children's sport experiences, it is important to investigate children's perceptions of the motivational climate and how it is related to children's goal orientation and outcomes experienced in sport.

The previous section has reviewed research which has demonstrated the association between children's perceptions of the motivational climate, the goal orientation they adopt, and outcomes experienced in sports (Duda & Horn, 1993; Eccles & Harold, 1991; Kavussanu &

Roberts, 1996; Malete, 2006; Ntoumanis & Biddle, 1999; Ommundsen & Valgum, 1991; Parish & Treasure, 2003; Petherick & Weigand, 2002; Reinboth & Duda, 2004, 2006; Roberts et al., 2007; Smith et al., 2005, Treasure & Roberts, 1998, 2001; Vazou et al., 2006; Waldron & Krane, 2005). Specifically, perceptions of a task-involving motivational climate have been found to be related to a mastery-oriented goal orientation (Petherick & Weigand, 2002; White, 1996, 1998), and positive outcomes, such as increased sport competence (Boyce et al., 2009), increased self-esteem (Reinboth & Duda, 2004), increased enjoyment (Ommundsen & Valgum, 1991), as well as, sportpersonship, persistence, task perseverance, and adaptive achievement strategies (Ntoumanis & Biddle, 1999). The positive outcomes that research has associated with athletes' perceptions of a task-oriented motivational climate provide evidence that it would be beneficial for parents and other significant figures to learn how to adopt task oriented behaviors that contribute to the environment.

Parenting Environment

To understand the impact parents have on youth athletes, it is necessary to first understand the aspects of parenting and the environment created by parents that influences child development. White (1996, 1998) supported the idea that children's perceptions about what they can accomplish are influenced by how their parents view the importance of enjoyment and learning of new skills. Nicholls (1984, 1989) suggested that if significant others, such as parents, could emphasize a task-involved environment, then positive experiences and feelings of success could be fostered in children (Smith et al., 2005).

In sport settings, parental involvement can be perceived as supportive or pressured. Supportive activities include encouraging participation in sport, driving kids to practices and games, or taking an active participation role, such as coaching, in the sport. Children can feel

pressure, though, when parents set expectations for performance that children believe are unrealistic or criticize them when they do not perform up to expectations. Over time, the messages that parents communicate concerning effort, perseverance, and winning influence how children understand, perceive, and react to achievement-related contexts, such as practices and competitions (Roberts et al., 2007). Research on parent involvement in children's activities suggests that high levels of pressure are positively related to negative responses in children (McElroy, 1982; Ogilvie, 1979; Scanlan & Passer, 1979; Smith, 1986; Stein, Raedeke, & Glenn, 1999). For example, Hellstedt (1990) examined the relationship between athletes' perceptions and pressure from parents in a sample of 13-year-old alpine skiers. There was a relationship between low levels of parental pressure and positive affective response (e.g., enjoyment in sport; desire to participate), and between high levels of parental pressure and negative affective response (e.g., parent-child conflict; withdrawal from sport). Comparatively, increased support and encouragement from parents has been shown to be positively related to children's participation in sports, as well as to overall enjoyment of their sport activities (Anderson, Funk, Elliott, & Smith, 2003).

Overall, behaviors and communications from parents contribute to the environment in which children develop. Research has indicated that parents are essential contributors to motivational patterns in children (Brustad & Partridge, 2002). Children's goal orientation is one of the significant areas that has been found to be related to parenting. Gonzalez, Doan Holbein, and Quilter (2002) investigated the relationship between perceived parenting styles and high school student's goal orientations. They found that a task orientation was related positively and significantly to perceptions of authoritative parenting (high responsiveness and high demandingness), and that an ego orientation was related positively and significantly to

perceptions of authoritarian parenting (low responsiveness and high demandingness). These findings support the notion that the environment created by parents impacts children's achievement motivation. Thus, perceived parenting styles contribute to the perceived motivational climate, and authoritative parents engage in behaviors that foster a task-oriented motivational climate.

Although there is a lack of research directly examining the relationship between specific constructs of parenting and goal orientation, there has been some research on the motivational climate created by parents and how it is related to children's goal orientation in sport (Collins & Barber, 2005; Waldron & Krane, 2005; White, 1996, 1998). For example, White (1996) conducted a study with female volleyball players ranging in age from 14 to 17 to explore the relationship between goal orientation and the role of parental influence on perceptions of the motivational climate. She found that when parents created a climate that emphasized success without exerting effort, a performance oriented climate was perceived. When parents stressed a climate that focused on learning and enjoyment, a mastery orientation was experienced. White suggested that athletes' perceptions of what their parents consider to be important in sport participation were related to the athletes' dispositional goal orientation.

In a later study, the effect of goal orientations on adolescents' perceptions of the parent-initiated motivational climate and competitive trait anxiety was examined (White, 1998). White (1998) sampled adolescent male and female athletes, and found that athletes who had a high task - low ego goal orientation perceived their parents as facilitating a learning and mastery motivational climate. The group of athletes found to have a high ego - low task goal orientation thought that their parents valued a performance climate where success was emphasized with low effort. Additionally, the high ego - low task goal orientation athletes had the highest levels of

competitive trait anxiety, and perceived their fathers as causing them to experience higher levels of worry about making mistakes.

Collins and Barber (2005) investigated the relationship between athletes' perceptions of their parents' beliefs and their parents' expectations about performance in a sample of elite high school field hockey players. They found that athletes showed more confidence when they perceived their parents to have high expectations. Additionally, athletes exhibited high levels of confidence and cognitive anxiety when they believed their parents emphasized the importance of success. The examination of the relationship between goal orientations and competitive anxiety revealed that task involvement was related positively to confidence and ego involvement was related positively to cognitive anxiety.

The previous section reviewed the parenting environment and the link between perceptions of the parent-initiated motivational climate and children's goal orientations and psychological outcomes experienced in sport. Perceptions of a task-oriented motivational climate have been associated with many adaptive outcomes (Boyce et al., 2009; Kavussanu & Roberts, 1996; Ntoumanis & Biddle, 1999; Ommundsen and Valgum, 1991; Parish & Treasure, 2003; Reinboth & Duda, 2004, 2006; Roberts et al., 2007; Treasure & Roberts, 1998, 2001; Waldron & Krane, 2005; White, 1996, 1998), such as increased enjoyment, increased self-esteem, and intrinsic motivation, making it important to understand the parental beliefs, characteristics and behaviors that contribute to the creation of these ideal environments and children's perceptions of them. Previous youth sport research has explored the parent-child relationship and has supported the idea that parents contribute to children's development of achievement goal orientations and perceptions of the motivational climate (Anderson, Funk, Elliott, & Smith, 2003; Horn & Horn, 2007; Nicholls, 1989; Ullrich-French & Smith, 2006;

Waldron & Krane, 2005; White, 1996, 1998). Parents influence the motivational climate through the environment they create for their children, which includes feedback they provide as well as their use of rewards and punishment (Waldron & Krane, 2005).

Considering the significance of goal orientations on children's sport experience, it is important to comprehend the antecedents of goal orientation. Overall, research supports that parents have a significant impact on children and influence how they approach and experience the sport environment (Anderson et al., 2003; Darling & Steinberg, 1993; Flett, Sawatzky, & Hewitt, 1995; Horn & Horn, 2007; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Nicholls, 1989; Spera, 2005, 2006; Ullrich-French & Smith, 2006; White, 1996, 1998). In particular, parenting messages and behaviors define the motivational climate and influence children's achievement related behaviors in performance contexts (Darling & Steinberg, 1993). Durkin (1995) suggested that parents who are both highly demanding and responsive, that is, have a more authoritative parenting style (Baumrind, 1971), would provide sufficient support and warmth, explanation of actions, and bidirectional communication to foster the independence, confidence, and skill development required for children to be successful in school and sport. Overall, parents who are supportive and help children find opportunities for participation foster a task-oriented motivational climate that can bring about positive outcomes. For example, Keegan, Harwood, Spray, and Lavalley (2009) conducted semi-structured interviews with male and female sport participants aged 7-11 years and found that when parents were supportive and offered positive feedback, the children said they were more motivated and enjoyed participating in their sports. Thus, supportive parent behaviors, such as encouraging and monitoring participation, driving children to practices and games, and taking an active participation role themselves (e.g., coaching), are indicative of a task-oriented motivational climate and appear

most important in producing positive psychological outcomes. Children participate in sports primarily because it's fun, however, their experiences are influenced by their perception of the motivational climate. When there is a lack of enjoyment, children are more likely to discontinue their participation (Fox et al., 1994).

Purpose

For the current study, three outcomes – self-esteem, sport competence, and enjoyment – were selected and used to examine how perceptions of the motivational climate created by parents and male adolescent athletes' goal orientations may be related to intent to continue sport participation. These outcomes were chosen for three specific reasons. First, previous research has demonstrated strong relationships between children's perception of a task-oriented motivational climate and mastery goal orientation to self-esteem, sport competence, and enjoyment in sport (Boyce et al., 2009; Boyd & Callaghan, 1994; Fox et al., 1994; Horn, Duda, & Miller, 1993; Kavussanu & Harnisch, 2000; Kavussanu & Roberts, 1996; Malete, 2006; Ntoumanis & Biddle, 1999; Ommundsen & Valgum, 1991; Petherick & Weigand, 2002; Reinboth & Duda, 2004; Treasure & Roberts, 1998, 2001; Van-Yperen & Duda, 1999; White & Zellner, 1996). In particular, research has shown that a mastery goal orientation is related to increased levels of effort, enjoyment, satisfaction, interest, and participation in sport (Boyd & Callaghan, 1994; Fox et al., 1994; Malete, 2006; Treasure & Roberts, 1998).

Second, these three outcomes have been related to children's participation in sport, which is a critical area of research due to the need to promote and nurture life-long involvement in sport and physical activity. Research has demonstrated that children are more likely to continue with their sport when they experience enjoyment and feel competent within their sport related experiences (Butcher et al., 2002; Fox et al., 1994; Gould, 1987; McCarthy et al., 2008; Malete,

2006; Treasure & Roberts, 1998; Ullrich-French & Smith, 2009). For example, Butcher et al. (2002) found that elementary and middle school aged girls were more likely to stay in their sport when they were having fun as opposed to when they expressed not enjoying the experience. With regard to self-esteem, researchers have reported consistently positive relationships with sport participation (Bowker, 2006; Bowker, Gadbois, & Cornock, 2003; Gould, 1987; Slutzky & Simpkins, 2009), though the direction of the relationship tends to be from sport participation to self-esteem. Although self-esteem plays an important role in children's overall psychological development (Slutzky & Simpkins, 2009), research has not yet determined the extent to which it also might serve as an antecedent to continuing to participate in sport.

Third, despite the extensive literature that has explored the motivational climate and goal orientation, there has been a lack of research that has investigated the interplay of motivational climate, goal orientation, and specific psychological and behavioral outcomes. One study that did was conducted by Cury, Biddle, Famose, and Goudas (1996) who examined the motivational climate perceived by adolescent girls and their motivation in a physical education class. Their findings demonstrated that a mastery goal orientation mediated the relationship between a perceived task oriented motivational climate and increased intrinsic motivation. Consequently, more research directly examining the influences of the perceived motivational climate (as created by parents) on children's goal orientation and the subsequent relationship of goal orientation on a variety of psychosocial outcomes is needed to determine if the effects of the motivational climate are direct, or indirect suggested by theory (Cury et al., 1996; Nicholls, 1984, 1989).

Thus, in the current study, the relationship of the perceived task motivational climate as created by parents to boys' mastery goal orientation, and the subsequent associations of goal orientation with self-esteem, sport competence, enjoyment in sport, and ultimately, intention to

continue playing were examined. Because these variables have not been examined together in previous research, it was appropriate to conduct a cross-sectional study at this time. The measure of intention was used for its fit with the cross-sectional design of the current study, and behavioral intent has been supported as a strong predictor of behavior (Ajzen & Driver, 1992). For example, Hagger, Chatzisarantis, Biddle, and Orbell (2001) found a significant relationship between children's intention and actual sport participation ($\beta = .59$) in their longitudinal study with 12 to 14 year old boys and girls. Finally, I chose to study only male adolescent athletes' experiences in the current study because Force (2009) had examined these relationships in a similarly aged sample of female athletes, and she had suggested that additional research was needed to elucidate the pathways that would be supported for boys. Specifically, I hypothesized that (a) the Parent-Initiated Task Climate would be positively related to the boys' Mastery Goal Orientation, (b) Mastery Goal Orientation would be related positively to Sport Competence, Self-Esteem, and Enjoyment, and (c) Sport Competence, Self-Esteem, and Enjoyment would be positively related to Intention to Continue in sport. Additionally, I proposed an alternate pathway between Sport Competence and Self-Esteem that would be tested as well. Previous research has indicated that self-esteem is related to an individual's perceived competence (Ebbeck & Weiss, 1998). When athletes perceive themselves as having increased sport abilities and competence, they are likely to experience a greater sense of self-esteem.

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