“My heroes are and were my parents. I can’t see having anyone else as my heroes.” – Michael Jordan

“Better a diamond with a flaw than a pebble without.” – Confucius, Analects

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Perfectionism and Parenting Styles in Male Youth Soccer

by

Klaudia Sapieja

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Examining Committee

Dr. John G. H. Dunn, Faculty of Physical Education & Recreation

Dr. Nicholas L. Holt, Faculty of Physical Education & Recreation

Dr. Joyce Magill-Evans, Department of Occupational Therapy

Abstract

This study examined the relationship between perfectionism and parenting styles among 194 male youth soccer players (*M* age = 13.64 years). Participants completed the Sport Multidimensional Perfectionism Scale-2 (Sport-MPS-2: Gotwals & Dunn, 2009) and the Parenting Style Inventory-2 (PSI-2: Darling & Toyokawa, 1997). Factor analyses conducted on PSI-2 data resulted in a single factor that represented positive aspects of parenting and was labeled "child-centered parenting" (cf. Maccoby & Martin, 1983). Correlational results revealed significant and theoretically meaningful relationships between various perfectionism dimensions and child-centered parenting. Cluster analyses supported the existence of three groups of perfectionists: adaptive-, maladaptive-, and non-perfectionists. Significant between-cluster differences on perceptions of child-centered parenting were obtained (*p*s < .001), with maladaptive perfectionists perceiving their parents as being less child-centered than both adaptive- and non-perfectionists. Results are discussed surrounding the potential impact that parenting styles may have on the development of perfectionism in youth athletes.

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Chapter 1

Introduction

There is growing interest among researchers about the influence of parents in youth sport settings because parents are believed to play a critical role in youth athletes' sporting development and experience (Horn & Horn, 2007). Children place significant value on their parents' evaluations surrounding performance, therefore, the expectations and feedback children receive from their parents surrounding performance endeavors in sport are of utmost importance to youth athletes (Anshel & Eom, 2002; Fredricks & Eccles, 2004; Horn & Horn). Unfortunately, given the high value that society frequently places on sporting success—even at very young ages (see Krane, Greenleaf, & Snow, 1997; Hall, 2006)—youth athletes frequently perceive pressure from significant others (e.g., parents and coaches) to excel or achieve "perfect" performance in sport (Gould, Jackson, & Finch, 1993; Gould, Udry, Tuffey, & Loehr, 1996). This quest for perfection (whether self-driven or externally driven) in achievement domains like sport is at the heart of the personality trait known as perfectionism. The overall focus of this thesis is to determine if there are any links between athletes' perfectionist orientations in youth sport and the interactions that these athletes have with their parents during adolescence.

Although there is no agreed upon definition of perfectionism (Flett & Hewitt, 2002), the construct is commonly viewed as an achievement motivation disposition that reflects an individual's tendency to set and pursue extremely high standards for personal performance (Hamachek, 1978). Currently there is a debate

in the field as to whether perfectionism can be both a healthy (or adaptive) and unhealthy (or maladaptive) achievement motivation construct. Some theorists argue that perfectionism has predominantly destructive consequences for individuals in sport settings (e.g., Flett & Hewitt, 2005; Hall, 2006) whereas others argue that perfectionism can have facilitative consequences in sport (e.g., Dunn, Causgrove Dunn, & Syrotuik, 2002; Stoeber & Otto, 2006; Stoeber, Uphill, & Hotham, 2009). Given the influence of perfectionism on a wide range of cognitive, affective, and behavioral outcomes in the sporting domain (Hall), it is important to examine potential factors that may be linked to the development of perfectionist orientations among athletes.

Many early views of perfectionism portray the construct as a self-defeating personality trait. Burns (1980) described perfectionists as people who possess standards so high that they are beyond reach or reason, and as a result these individuals constantly strive but never achieve (in their eyes). Pacht (1984) argued that even if perfectionists do meet their high expectations, they then believe that they have only done what was expected of them (or that the standard was too low in the first place) and do not experience any sense of joy or satisfaction from their achievement. Within this destructive view of perfectionism, perfectionists are believed to have a very fragile self-image because their self-worth is based upon successful achievement (Burns; Missildine, 1963) and upon the praise, feedback, and approval of others (Flett, Hewitt, Oliver, & Macdonald, 2002). Failure to achieve these high performance standards results in low self-worth for the perfectionist and a belief that he/she is a failure as a

person. In other words, the perfectionists' self-worth is entirely contingent upon the flawless accomplishment of high standards and the positive feedback of others surrounding these accomplishments. The self-worth of these perfectionists is so easily threatened by failure (i.e., displays of imperfection) that they desperately try to limit mistakes and hide their weaknesses from public scrutiny (Burns). These unhealthy perfectionists constantly criticize their efforts—i.e., nothing is ever good enough (Hamachek, 1978)—and "experience intense feelings of guilt, shame, failure, and worthlessness" (Burns, p. 1012). Perfectionists who exhibit and experience these tendencies often experience a host of psychological problems such as mood disorders, low self-esteem, depression, and performance anxiety (Burns; Pacht).

While early perfectionism theorists viewed perfectionism as a primarily debilitative personality trait (e.g., Burns, 1980; Missildine, 1963; Pacht, 1984), Hamachek (1978) was one of the first theorists to formally discuss positive aspects of perfectionism when he distinguished between "normal" and "neurotic" perfectionism. He described normal perfectionists (i.e., healthy/adaptive perfectionists) as those individuals who are driven by a need to succeed and who derive a sense of pleasure from their efforts even if their goal of "perfection" is not achieved. In other words, healthy perfectionists strive for perfect performance and the achievement of high standards, but they view mistakes as an inevitable part of the performance process. Neurotic perfectionists (i.e., unhealthy/maladaptive perfectionists), on the other hand, are driven by a need to

avoid failure, allow little or no freedom to make mistakes, and feel emptiness and dissatisfaction regardless of how well they perform.

Although the desire to flawlessly achieve high performance standards is at the core of perfectionism (Gilman & Ashby, 2006), theorists have conceptualized perfectionism as a multidimensional construct (e.g., Flett & Hewitt, 2002; Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991). As such, contemporary perfectionism theorists propose that perfectionism consists of both *intra*personal dimensions (i.e., personal standards set by the self) and *inter*personal dimensions (i.e., personal standards set by others: Blatt, 1995; Hewitt & Flett, 2002). The two most commonly used measures that assess perfectionism as a multidimensional construct are the *Frost-Multidimensional Perfectionism Scale* (Frost-MPS: Frost et al., 1990) and the *Hewitt-Multidimensional Perfectionism Scale* (Hewitt-MPS: Hewitt & Flett, 1991). Both instruments measure intrapersonal and interpersonal dimensions of the construct (see Enns & Cox, 2002). The Frost-MPS contains six subscales labeled *Personal Standards* (PS), *Concern Over Mistakes* (COM), *Parental Expectations* (PE), *Parental Criticism* (PC), *Doubts About Actions* (DAA), and *Organization* (O); the Hewitt-MPS contains three subscales labeled *Self-Oriented Perfectionism* (SOP), *Socially Prescribed Perfectionism* (SPP), and *Other-Oriented Perfectionism* (OOP).

The personal standards (PS) subscale of the Frost-MPS and the self-oriented perfectionism (SOP) subscale of the Hewitt-MPS both measure the extent to which individuals set and evaluate high performance standards for

themselves (i.e., intrapersonal perfectionism). Strong positive correlations (*r*s ≥ .61) have been found between the PS subscale of the Frost-MPS and the SOP subscale of the Hewitt-MPS (Enns & Cox, 2002). The concern over mistakes (COM), parental expectations (PE), and parental criticism (PC) subscales of the Frost-MPS and the socially-prescribed perfectionism (SPP) subscale of the Hewitt-MPS all measure the extent to which individuals are concerned about evaluation and meeting the high expectations of others (i.e., interpersonal perfectionism: see Dunn, Causgrove Dunn, et al., 2006). Moderate to strong positive correlations (*r*s ≥ .47) are commonly found between the PE, PC, and COM subscales of the Frost-MPS and the SPP subscale of the Hewitt-MPS.

Both the Frost-MPS and the Hewitt-MPS conceptualize and measure perfectionism as a global personality trait. In other words, these commonly used measures do not provide respondents with any situational frame of reference (e.g., sport, work, school) when considering their responses. This may be a limitation because recent evidence has revealed that perfectionism may be best conceptualized and measured as a domain-specific construct rather than a global personality trait (see Dunn, Gotwals, & Causgrove Dunn, 2005; Mitchelson & Burns, 1998). For example, in a study consisting of 241 intercollegiate student-athletes, Dunn and colleagues (2005) reported that male and female athletes had significantly higher perfectionism levels in sport (across the three dimensions of the Hewitt-MPS) than in school or general life settings. Perfectionism levels are therefore believed to fluctuate as a function of the situational context within which perfectionism is considered (Stoeber & Stoeber, 2009). In an attempt to

capture the domain-specific nature of perfectionism in sport, Dunn and his colleagues developed the Sport Multidimensional Perfectionism Scale (Sport-MPS) to assess the intra- and inter-personal dimensions of perfectionism in sport (Dunn, Causgrove Dunn, et al., 2006).

The Sport-MPS was built upon the theoretical framework provided by the Frost-MPS (Frost et al., 1990) and contains four subscales labeled *Personal Standards*, *Concern Over Mistakes*, *Perceived Parental Pressure*, and *Perceived Coach Pressure*. More recently, Gotwals and Dunn (2009) modified the Sport-MPS by adding two new subscales (*Doubts About Actions* and *Organization*) to more closely reflect the subscales contained within the Frost-MPS. Dimensions that reflect intrapersonal aspects of perfectionism in sport are personal standards and organization, whereas dimensions that reflect interpersonal aspects of perfectionism in sport are concern over mistakes, perceived parental pressure, perceived coach pressure, and doubts about actions (Dunn, Causgrove Dunn, et al., 2006; Gotwals & Dunn).

The multidimensional conceptualization of perfectionism has been useful in shedding light on the healthy versus unhealthy nature of the construct. Frost and colleagues (1993) conducted one of the first studies to examine the distinction between healthy and unhealthy aspects of perfectionism when they compared the dimensions of the Frost-MPS with the Hewitt-MPS using a sample of 553 undergraduate students. An exploratory factor analysis of all the perfectionism subscales contained within the two instruments produced a two-factor solution. The first factor was labeled “maladaptive evaluation concerns” and consisted of

high loadings for the concern over mistakes, parental criticism, parental expectations, doubts about actions and socially prescribed perfectionism subscales. Dimensions within this factor were related to negative affect and have been frequently related to symptoms of psychopathology in other research (see Enns & Cox, 2002). The second factor obtained by Frost et al. (1993) was labeled "positive achievement strivings" and consisted of high loadings for the personal standards, organization, self-oriented perfectionism, and other oriented perfectionism subscales. Dimensions within this factor were related to positive affect and were considered "healthy" characteristics of perfectionism. Other researchers have also found two-factor solutions that support an adaptive versus maladaptive distinction among perfectionism dimensions (e.g., Bieling, Israeli, & Antony, 2004; Enns & Cox).

More recently, in a comprehensive review of the perfectionism literature, Stoeber and Otto (2006) examined 35 empirical studies of perfectionism to determine if the studies supported or refuted a distinction between healthy and unhealthy perfectionism. Stoeber and Otto described two main dimensions of perfectionism that emerged from their review: *perfectionistic strivings* (which consist of high personal standards and self-oriented perfectionism) and *perfectionistic concerns* (which consist of high concerns over mistakes, doubts about actions, and socially prescribed perfectionism). On the basis of their systematic review, Stoeber and Otto concluded that perfectionistic strivings are positive only if they are accompanied by low perfectionist concerns (i.e., concerns about mistakes and negative evaluations of others). This healthy perfectionist

orientation has been associated with many healthy/functional correlates including conscientiousness (Stumpf & Parker, 2000), positive affect (Bieling, Israeli, Smith, & Antony, 2003), heightened self-esteem (Rice & Dellwo, 2002), and social-emotional adjustment (Parker, 1997). In contrast, Stoeber and Otto argued that high perfectionist strivings become destructive or unhealthy when they are combined with high perfectionist concerns. Individuals exhibiting this pattern of unhealthy perfectionism have a tendency to experience shame, guilt, and embarrassment when achievement standards are not met (Tangney, 2002), ruminate about mistakes (Frost et al., 1997), develop low self-esteem (Rice & Dellwo, 2002), and have a heightened tendency to fear failure (Conroy, Kaye, & Fifer, 2007).

It is apparent from Stoeber and Otto's (2006) review that in order to distinguish between healthy and unhealthy perfectionism, researchers must consider patterns of scores across *all* perfectionism dimensions simultaneously. To this end, statistical techniques such as cluster analysis and canonical correlation analysis have proven useful when differentiating between adaptive and maladaptive forms of perfectionism (e.g., Kilbert, Rohling, & Saito, 2005; Parker, 1997; Rice & Ashby, 2007; Rice & Mirzadeh, 2000; Rice & Slaney, 2002; Rice, Bair, Castro, Cohen, & Hood, 2003). Parker was one of the first perfectionism researchers to utilize cluster analysis for the purpose of examining different types of perfectionism. A sample of 820 academically gifted sixth graders completed the Frost-MPS (Frost et al., 1990) along with the Adjective Check List (Gough & Heilbrun, 1983), the NEO-Five Factor Inventory (Costa & McCrae, 1992), the

Rosenberg Self-Esteem Scale (Rosenberg, 1965), and the Brief Symptom Inventory (Derogatis, 1993). Parker obtained three distinct perfectionism groups following a cluster analysis of the students' Frost-MPS scores. *Nonperfectionists* (32.8%) had low perfectionism scores across all Frost-MPS subscales, *healthy perfectionists* (41.7%) had high perfectionism scores on the personal standards and organization subscales but low scores on remaining subscales (i.e., COM, PE, PC, DAA), and *dysfunctional perfectionists* (25.5%) had high perfectionism scores across all Frost-MPS subscales. Follow-up comparisons between the clusters revealed that the healthy perfectionists were conscientious, achievement oriented, well adjusted and socially at ease, whereas the dysfunctional perfectionists were socially detached, defensive, anxious, moody, and overly competitive.

Research in the field of sport psychology has also provided evidence supporting the distinction between adaptive and maladaptive perfectionism by considering patterns or profiles of perfectionism scores across various perfectionism dimensions (e.g., Dunn et al., 2002; Dunn, Gotwals, Causgrove Dunn, & Syrotuik, 2006; Gotwals, Dunn, & Wayment, 2003; Gould, Dieffenbach, & Moffett, 2002; Hall, Kerr, & Matthews, 1998; Vallance, Dunn, & Causgrove Dunn, 2006). The results obtained in these studies have generally been consistent with Stoeber and Otto's (2006) findings in the general psychology literature whereby healthy perfectionism was exhibited among athletes who had high perfectionist strivings combined with low perfectionist concerns, whereas

unhealthy perfectionism was exhibited by athletes who had high perfectionist strivings combined with high perfectionist concerns.

Gould et al. (2002) found a profile of adaptive perfectionism among a sample of 10 U.S. Olympic gold medallists who had completed the Frost-MPS. On average, the Olympic champions had moderate to high personal standards and organization scores (i.e., high perfectionist strivings) combined with low concern over mistakes, parental expectations, parental criticism, and doubts about actions scores (i.e., low perfectionist concerns). In a study of high performance male teenage Canadian Football players (N = 174; M age = 18.24 years), Dunn et al. (2002) found a profile of adaptive perfectionism (as assessed by the Sport-MPS) that was reflected in high personal standards (i.e., high perfectionist strivings) coupled with low concern over mistakes, perceived parental pressure, and perceived coach pressure (i.e., low perfectionist concerns). In contrast, Dunn et al. also reported a profile of maladaptive perfectionism that was reflected in high personal standards (i.e., high perfectionist strivings) combined with high concern over mistakes, perceived parental pressure, and perceived coach pressure (i.e., high perfectionist concerns). These findings from the sport psychology literature are particularly noteworthy because Stoeber and Otto's (2006) review of perfectionism literature did not include any studies involving athletes.

Given the growing body of evidence that appears to support the distinction between healthy/adaptive and unhealthy/maladaptive perfectionism, inevitable questions arise about factors that may cause or contribute towards the development of each perfectionist orientation. A common environmental factor

that is believed to contribute toward the development of perfectionist tendencies is the type and quality of the interactions that perfectionists have with their parents during childhood and adolescence (Flett et al., 2002; Gilman & Ashby, 2006). The important role of parents in this regard seems to be supported by differences in adaptive and maladaptive perfectionists' self-reported perceptions of parental pressure. Specifically, research consistently indicates that adaptive perfectionists report relatively low perceptions of parental pressure whereas maladaptive perfectionists report much higher perceptions of parental pressure (e.g., Dunn et al., 2002; Parker, 1997; Rice & Mirzadeh, 2000). Indeed, in a large study involving multiple samples of university students (total N = 1,537), Rice and Ashby (2007) found that adaptive perfectionists had (a) significantly lower scores on the parental expectations and parental criticism subscales of the Frost-MPS than maladaptive perfectionists, and (b) lower scores on the socially prescribed perfectionism dimension of the Hewitt-MPS than maladaptive perfectionists. Rice and Ashby suggested that their findings support the view that an individual's interactions with his/her parents play a role in the development of perfectionism.

Perfectionism theorists have long proposed that interactions surrounding parental expectations and parental evaluations play a critical role in the development of perfectionist tendencies (see Burns, 1980; Hamachek, 1978; Missildine, 1963). These theorists speculated that children who experience performance-contingent parental approval become afraid of failure because they believe that this will preclude opportunities to receive positive feedback (or love)

from their parents. Missildine proposed that the unhealthy perfectionist's difficulty may "arise from an 'inner child of the past' who strives to gain parental acceptance—which was withheld in the past, because of ever present parental pressures to 'do better'" (p. 85, 1963). Missildine also argued that a child's most important source of acceptance is the parent; therefore, children may excessively strive for perfection believing that this will eventually gain them the parental acceptance and love that they so strongly desire (Missildine).

Hamachek (1978) warned that when parents provide approval based on performance outcome (as opposed to effort: see Ablard & Parker, 1997), "then it is not difficult to see why [the unhealthy perfectionist] may overvalue performance and undervalue the self. [The unhealthy perfectionist] learns that it is only through performance that he has a self." (p. 29). Theorists propose that individuals who are exposed to this type of parenting environment learn to equate self-worth with accomplishment and develop a dependence on others to validate their sense of self (Burns, 1980; Hutchinson & Yates, 2008; Kenney-Benson & Pomerantz, 2005; McArdle & Duda, 2008; Rice & Dellwo, 2002). Consequently, these individuals become highly "vulnerable to the criticism of others" (Blatt, p. 1005, 1995) and especially vulnerable to the criticism of their parents during childhood and adolescence (Flett et al., 2002).

Many of the maladaptive aspects of perfectionism (e.g., concern over mistakes, doubts about actions, socially prescribed perfectionism) are believed to stem from interactions with overly demanding parents who fail to provide unconditional love and who impose their own performance standards upon their

children (Enns & Cox, 2002). Sorotzkin (1998) argued that children of these parents "quickly learn that only by being perfect can they hope to escape the unbearable feeling of being a disappointment to their parents" (p. 89). Furthermore, even when children do reach their parents' expectations, parents may ignore these accomplishments simply because these accomplishments are *expected* (Rice & Mirzadeh, 2000). Given that unhealthy perfectionists place considerable value on their parents' expectations and evaluations, interactions with overly demanding parents are believed to be at the core and etiology of maladaptive perfectionism (Frost et al., 1990).

If unhealthy perfectionists are indeed driven by a powerful need to avoid failure to maintain a public image of perfection (Blatt, 1995), then the competitive sporting domain is likely to be threatening because mistakes and failures are almost always on public display (Gould et al., 1996). In addition, given that parents play a crucial role in the developmental and achievement experiences of young athletes (Fredricks & Eccles, 2004; Horn & Horn, 2007) and because athletes commonly perceive pressures from parents to achieve error-free performance in sport (e.g., Gould et al., 1993), it would seem prudent to examine the potential influence that parents have on the development of athletes' perfectionist orientations. Although studies have provided evidence supporting the distinction between adaptive and maladaptive perfectionism in sport (e.g., Dunn et al., 2002; Stoeber, Otto, Pescheck, Becker, & Stoll, 2007), no research in the sport psychology literature has examined factors that may be linked to the development of these contrasting perfectionist orientations among athletes. One

such factor worth examining may be the type of parenting style that the athlete is exposed to during adolescence.

Parenting styles are a characteristic of the parent that center on the overall climate or environment that parents create for their children across a wide range of situations (Darling & Steinberg, 1993). As such, parenting styles reflect a set of behaviors, attitudes, and expectations that are consistently exhibited by parents across many areas of their children's lives. To this end, parenting styles have been defined as "a constellation of attitudes toward the child that are communicated to the child [by the parent] and that, taken together, create an emotional climate in which the parent's behaviors are expressed" (Darling & Steinberg, p. 488). The behaviors that are expressed include goal-directed behaviors (e.g., parenting practices) as well as non goal-directed behaviors (e.g., tone of voice, body language) that communicate the parents' attitude toward the child.

In Darling and Steinberg's (1993) contextual model of parenting, parenting styles differ from parenting practices in that they consist of parent-child interactions across a wide range of situations, whereas parenting practices are, by definition, situationally specific. Parenting practices are defined as specific goal-directed behaviors that parents use to socialize the child in a particular setting (e.g., toward achievement in school). Parenting styles, on the other hand, consist of behaviors and interactions between the parent and child across a host of settings that influence the emotional climate in which children are raised. Parenting practices are believed to have a direct impact on child outcomes in specific settings, whereas parenting styles are believed to indirectly influence

child outcomes by moderating the effectiveness of parental practices and altering the child's openness to parental influence.

Parenting styles are characterized by variations in different parenting dimensions (Baumrind, 1971, 1991a, 1991b). Although scholars from different disciplines use different terminology and operational definitions, there has been substantial similarity in the underlying parental dimensions proposed by researchers (Darling & Steinberg, 1993). The two fundamental components of parenting styles that are cited in the literature relate to the *supportive* nature of parenting (e.g., warmth, acceptance, nurturance, affection) and the *controlling* nature of parenting (e.g., discipline, restriction, regulation: see Amato, 1990; Baumrind; Grolnick, 2003; Locke & Prinz, 2002; Maccoby & Martin, 1983; Rothrauff, Cooney, & Shin An, 2009). Variations in the configuration of these parenting dimensions have been used to create different parenting typologies.

Diana Baumrind created the most well-known and influential model of parenting in the extant literature in which her long-term goal was to identify familial antecedents of competence in children (1966, 1971, 1989, 1991a, 1991b, 1996). Baumrind created typologies by observing parent-child interactions in which parental dimensions were aggregated to create different parenting styles. However, she eventually reduced her parenting typologies into two main dimensions that reflected the degree to which parents were both *demanding of* and *responsive to* their children (1991b). According to Baumrind (1971, 1989, 1991b), *demandingness* describes the extent to which parents demonstrate firm control, impose discipline, set maturity demands, provide supervision, engage in direct

confrontation, and establish performance/behavioral expectations for their children. *Responsiveness* reflects the extent to which parents are warm, supportive, sensitive, interested, non-coercive, and attuned to their child's needs. This latter dimension also reflects the extent to which parents intentionally foster their child's individuality, provide unconditional acceptance, encourage their child to express his/her point of view, and are willing to give the child a degree of choice/control in the decision making processes surrounding behavioral expectations and standards.

The degree to which a parent exhibits each of these two dimensions creates four primary parenting styles that are labeled *authoritative*, *authoritarian*, *indulgent* and *neglectful* (see Baumrind, 1971, 1989, 1991a, 1991b; Maccoby & Martin, 1983; Steinberg, 2001). Authoritative parents are both demanding and responsive; they engage in open communication, set high expectations, and establish clear standards while respecting their child's need for autonomy and independence. As such, authoritative parents attempt to create a reciprocal context in which they can exert influence while taking their child's needs and feelings into account (Maccoby, 1992; Maccoby & Martin). Taking a child's needs and feelings into account has been referred to as "child-centered" parenting (Maccoby & Martin) and is analgaous to Baumrind's (1989) responsiveness dimension. In contrast, authoritarian parents are demanding but not responsive. In other words, authoritarian parents attempt to shape, control, and evaluate their children in accordance with high standards that are set exclusively by the parent. Authoritarian parents discourage open communication with their child (i.e.,

expect orders to be obeyed without the need for explanation: Darling, Cumsille, Caldwell, & Dowdy, 2006), restrict their child's autonomy and independent expression, and employ high levels of psychological control (e.g., guilt) to manipulate the child's behavior (Barber, 1996). Authoritarian parents create an environment in which parental demands, needs, and expectations drive parent-child interactions (Maccoby & Martin). This type of parenting reflects a lack of responsiveness, and is also referred to as "parent-centered" parenting (Maccoby & Martin). Indulgent parents are responsive but not demanding; they respond to their child's needs but avoid confrontation and typically let the child determine his/her own behavioral standards. Finally, neglectful parents are neither demanding nor responsive; they lack control, are unsupportive, and are generally uninvolved in their children's lives.

The majority of research in achievement domains has tended to focus on authoritative and authoritarian parenting styles (Steinberg et al., 1992) because parents exhibiting these styles are high in demandingness and more likely (than indulgent and neglectful parents) to set achievement standards and regulate their child's performance outcomes. Overall, it has been suggested that high parental demandingness combined with high responsiveness (i.e., authoritative parenting) have positive effects for children in achievement-related contexts (Lamborn, Mounts, Steinberg, & Dornbusch, 1991). Research typically shows that a combination of parental control and support fosters children's emotional, psychological, and behavioral well-being (Baumrind, 1991a; Maccoby & Martin, 1983; Rothrauff et al., 2009; Steinberg, 2001).

Steinberg (2001) proposed that in addition to warmth and firmness (analagous to Baumrind's [1991b] responsiveness and demandingness dimensions), a dimension labeled *psychological autonomy-granting* parenting should also be considered when assessing parenting styles and their influence on adolescent adjustment. Thus, Steinberg and his colleagues (e.g., Gray & Steinberg, 1999; Steinberg, 2001; Steinberg, Elmen, & Mounts, 1989; Steinberg et al., 1992) expanded on Baumrind's conceptualization of parenting styles by considering three core dimensions of parenting: acceptance-involvement, strictness-supervision, and psychological autonomy-granting. *Acceptance-involvement* is comparable to Baumrind's responsiveness dimension and refers to the extent to which an individual perceives his or her parents as loving, responsive, and involved. *Strictness-supervision* is comparable to Baumrind's demandingness dimension and refers to the extent to which an individual perceives that parents monitor and set limits on his/her behaviors. The *psychological autonomy-granting* dimension refers to the extent to which the individual perceives that parents employ non-coercive democratic discipline, and encourage the individual to express individuality.

Parents who engage in autonomy-granting parenting encourage their child's individuality and emotional autonomy by reducing psychological control (Gray & Steinberg, 1999). Such parents encourage and permit their children (especially during adolescence) to develop their own opinions and beliefs, encourage the development of their independence, and tend to refrain from the use of psychologically controlling techniques such as guilt induction and love-

withdrawal (Barber, 2002; Gray & Steinberg, 1999; Morris et al., 2002; Silk, Morris, Kanaya, & Steinberg, 2003; Soenens, Vansteenkiste, & Sierens, 2009). Autonomy-granting behaviors are consistent with parents who engage in child-centered parenting, and who tend to be receptive and focused on their child's needs (i.e., need for autonomy: Coplan, Hastings, Lagace-Seguin, & Moulton, 2002; Rothrauff et al., 2009). In terms of Baumrind's (1971, 1991a, 1991b) parenting typologies, authoritative parents tend to be demanding, responsive, and autonomy-granting, whereas authoritarian parents tend to be demanding, unresponsive, and psychologically controlling (i.e., low in autonomy-granting parenting: Barber & Harmon, 2002; Baumrind, 1989; Baumrind, 1991a; Gray & Steinberg; Silk et al., 2003).

There is growing interest in the parenting literature on the psychological-autonomy-granting and psychological-control dimensions of parenting (e.g., Barber, 2002; Gray & Steinberg; Steinberg, 2001; Silk et al., 2003; Soenens et al., 2009). Although the psychological-autonomy-granting and psychological-control dimensions are considered distinct parenting constructs (see Silk et al., 2003), a defining characteristic of psychological control is that it intrudes on youth's psychological autonomy (Barber, 1996; 2002). Psychological control is "a rather insidious type of control that potentially inhibits or intrudes upon psychological development through manipulation and exploitation of the parent-child bond (e.g., love-withdrawal and guilt induction), negative, affect-laden expressions and criticisms (e.g., disappointment and shame), and excessive personal control (e.g., possessiveness, protectiveness)" (Barber, 1996, p. 3297). Parents high in

psychological control tend to be more adult-centered in their parenting approach as they tend to ignore the needs, interests, and perspectives of their children and focus primarily upon coercing their children to comply with parental expectations (Barber, 1996, 2002; Baumrind, 1989; Soenens et al., 2009). Research typically shows that psychologically controlling parenting is associated with a variety of maladaptive outcomes among youth including depression, low self-worth, low self-reliance, and poor academic achievement (Barber & Harmon, 2002).

Baumrind (1989) argued that the responsiveness dimension of parenting includes *non-coerciveness*—a parenting characteristic that is inversely related to psychological control. In other words, responsive and child-centered parents refrain from using psychologically controlling techniques in day-to-day interactions with their children (Baumrind; Maccoby & Martin, 1983). Baumrind cautioned against coercive or power-oriented parenting techniques (e.g., threats and promises) that restrict the child's development and threaten the parent-child relationship. Instead, Baumrind promoted parenting styles that support the child's autonomy and expression of independence and individuality (similar to psychological-autonomy-granting parenting). Therefore, Baumrind's work on parenting typologies consistently refers to authoritative parents as high in autonomy-granting and low in psychological control, and authoritarian parents as low in autonomy-granting and high in psychological control (1971, 1989, 1991a, 199b, 1996).

A recent trend in the parenting literature has been the movement towards disaggregating parenting typologies to better understand the unique effects of

their separate dimensions (Silk et al., 2003; Soenens et al., 2009). For example, Steinberg and colleagues (1989) argued that it is important to ask whether certain aspects of authoritativeness are more predictive of children's competence than others. In one study, Gray and Steinberg (1999) examined the independent contributions of authoritative parenting (i.e., acceptance-involvement, strictness supervision, and psychological autonomy-granting) to adolescent adjustment (i.e., behavior problems, psychosocial development, internal distress, and academic competence) in a large sample of 8,700 adolescents. Correlational and regression analyses revealed that behavior problems such as school deviance and drug and alcohol use were most strongly associated with parental behavioral control, while psychosocial development (e.g., work orientation and self-reliance) and internal distress (e.g., somatic and psychological symptoms) were most strongly associated with parental autonomy-granting and acceptance-involvement.

Gray and Steinberg (1999) suggested that each parenting dimension uniquely predicts or influences various psychosocial and behavioral outcomes among youth. For example, a high degree of parental control may help adolescents develop a strong sense of self-control and discipline; parental involvement may foster a global feeling of personal well being; and autonomy-granting appears to promote feelings of self-competence and self-confidence. Gray and Steinberg argued that autonomy-granting makes a unique contribution to the healthy emotional development of adolescents in that adolescents who feel autonomous tend to have heightened self-esteem, a sense of control over life, and possess the desire and faith to achieve. In contrast, psychologically controlling

family environments can distort and harm adolescents' self-image because the individual is not given the opportunity to express his/her autonomy (Barber, 1996; 2002; Soenens et al., 2009). In other words, parents who support their adolescents' individuality appear to decrease the likelihood of their children developing a variety of internalizing problems. Overall, research suggests that the parental-autonomy-granting dimension of parenting is related to positive outcomes during adolescence (e.g., self-esteem, self-worth, ego development); psychological control is related to internalizing problems among adolescents (e.g., depression, low self-esteem); and behavioral control acts as a deterrent to externalizing problems and fosters responsibility and self-control among adolescents (e.g., Barber, 1996; Barber, Olsen, & Shagle, 1994; Baumrind; 1971, 1991b; Gray & Steinberg; Rothrauff et al.; Silk et al., 2003; Steinberg et al., 1992).

Although separate parenting dimensions have different influences upon various psychosocial factors in youth (i.e., dimensional approach), Baumrind's (1966, 1971, 1989) research was based on the premise that no single parenting dimension taken out of context (parenting climate) can create specific outcomes in youth (i.e., typological approach: Steinberg & Silk, 2002). According to Baumrind, all dimensions of parenting are interconnected. It is commonly believed that no single characteristic of a parent's behavior exists entirely independent of other qualities (see Gray & Steinberg, 1999). As a result, most socialization research has examined the impact of overall parenting styles on developmental outcomes in youth (as opposed to specific parental practices).

Research has consistently shown that adolescents raised in authoritative homes have higher perceived competence and fare better than those raised in other types of households on nearly every indicator of psychological health that has been studied (Steinberg, 2001). For example, research shows that children raised by authoritative parents (in contrast to those raised by other parenting styles) are more optimistic (Baumrind, 1991b), engage in more positive achievement striving behaviors (Maccoby & Martin, 1983), are more successful in school (Paulson, 1994; Steinberg et al., 1989; Steinberg et al., 1992), have higher levels of self-confidence (Baumrind; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994), score higher on measures of self-reliance and self-esteem (Baumrind; Maccoby & Martin; Milevsky, Schlechter, Netter, & Keehn, 2007), report higher levels of life-satisfaction (Milevsky et al., 2007; Suldo & Huebner, 2004), report lower levels of depression and anxiety (Maccoby & Martin; Milevsky et al., 2007; Rothrauff et al., 2009), and are generally better functioning individuals (e.g., Dornbusch et al., 1987; Gray & Steinberg, 1999; Maccoby & Martin; Spera, 2005; Rothrauff et al.; Steinberg et al., 1992; Steinberg et al., 1994; Steinberg, 2001). In contrast, research indicates that adolescents raised by authoritarian parents tend to report poor self-conceptions (Baumrind; Lamborn et al., 1991), low confidence levels (Baumrind; Lamborn et al.; Steinberg et al., 1994), low levels of self-esteem (Milevsky et al., 2007), high levels of depression (Milevsky et al., 2007; Rothrauff et al.; Simons & Conger, 2007), high concerns about adult disapproval (Baumrind, 1971), and commonly experience high levels of internalized distress (Baumrind; Gray & Steinberg;

Lamborn et al., 1991; Rothrauff et al.; Steinberg et al., 1994). It is clear that individuals who are raised in *child-centered* as opposed to *parent-centered* environments are at a distinct psychosocial advantage from a developmental perspective.

Various researchers have considered reasons as to why authoritative parenting is most beneficial for positive psychosocial development in youth (e.g., Darling et al., 2006; Darling & Steinberg, 1993; Maccoby, 1992; Steinberg, 2001; Steinberg & Silk, 2002). Steinberg reasoned that the nurturance and parental involvement provided by authoritative parents (i.e., child-centered) makes the adolescent more receptive to parental influence. As such, adolescents become more open to their parents' goals and values and are more likely to share their own goals and values with their parents (Darling & Steinberg; Maccoby & Martin, 1983), thereby creating a climate of open-communication between parent and child. Steinberg also posited that authoritative parents provide an appropriate balance between structure and autonomy which fosters the development of important self-regulatory skills in adolescents. Theorists also believe that authoritative parents engage in verbal give-and-take (i.e., open-communication) with their children in which decisions, rules, and expectations are explained rather than imposed. Adolescents are therefore inducted into a reciprocal parent-child relationship in which adolescents develop an awareness of their parents' principles while being encouraged to express their own points of view (Baumrind, 1971; Darling et al., 2006; Maccoby & Martin).

So how might parenting styles influence the development of perfectionist tendencies in youth? Kawamura, Frost, and Harmatz (2002) speculated that children who are exposed to authoritarian parenting may internalize their parents' criticism and eventually develop their own tendencies to engage in harsh self-criticism (i.e., a central feature of unhealthy/maladaptive perfectionism). In addition, perfectionism theorists have argued that maladaptive perfectionist tendencies are developed when children are (a) exposed to environments in which parental acceptance is contingent upon perfect performance (e.g., Burns, 1980; Hamachek, 1978) and (b) given little choice in the performance standards they are expected to achieve (Hutchinson & Yates, 2008). It seems reasonable to speculate that this loss of autonomy in the standard-setting process may stem from exposure to an authoritarian style of parenting in which parents de-value their children's right to make decisions and exert high amounts of pressure on their children to act or perform according to a certain set of parentally-driven standards (Silk et al., 2003). Furthermore, parents who are more parent-centered in their approach tend to focus more on their child's achievements than the child's emotional needs (Maccoby & Martin, 1983; Sorotzkin, 1998). Sorotzkin argued that this type of parenting could lead children to focus on their performance at the expense of their feelings (a major feature of unhealthy/maladaptive perfectionism). Clearly there is a need to examine the links between perfectionist orientations and exposure to parenting styles among children and youth.

Only a small number of studies in the extant literature have examined the link between perfectionism and parenting styles. Rice et al. (1996) examined the

relationship between perfectionist tendencies and perceptions of parenting behaviors among 568 male and female undergraduate students. Rice et al. found that maladaptive/unhealthy perfectionists reported greater expectations, more criticism, and less encouragement (i.e., authoritarian parenting characteristics) from their parents than adaptive/healthy perfectionists. Unfortunately these researchers only used the concern over mistakes subscale of the Frost-MPS to distinguish between unhealthy and healthy perfectionism, thereby diminishing the generalizability and theoretical applicability of their findings.

Flett, Hewitt, and Singer (1995) reported significant positive correlations between socially prescribed perfectionism (i.e., the individual perceives others as setting unrealistically high expectations and standards for performance) and both maternal authoritarianism (r = .34) and paternal authoritarianism (r = .26) among a sample of male undergraduate students. Flett et al. also found significant positive correlations between self-oriented perfectionism and both maternal authoritativeness (r = .42) and paternal authoritativeness (r = .26) among the female participants in their sample. Using a qualitative approach, Speirs Neumeister (2004) interviewed 12 first-year male and female undergraduate honors students and examined patterns of perfectionist orientations among the students and the parenting styles that they had been exposed to during childhood. The interviews revealed that students who were exposed to authoritarian parenting tended to report perceptions of stringent parental expectations, conditional self-worth that was tied to achievement, and a fear of disappointing others: these factors were believed to influence the development of socially-prescribed

perfectionism within the sample. In contrast, students who were exposed to authoritative/supportive parenting tended to report greater levels of self-oriented perfectionism. Finally, Kawamura et al. (2002) examined the relationship between perfectionism and parenting styles among a sample of 337 university students and found that harsh and authoritarian parenting styles were related to maladaptive components of perfectionism (high concerns over mistakes and doubts about actions).

Taken together, results of the few studies that have examined links between perfectionist orientations and parenting styles seem to indicate that exposure to authoritarian parenting is linked to maladaptive perfectionist tendencies (i.e., heightened concern over mistakes, doubts about actions, and socially prescribed perfectionism), whereas exposure to authoritative parenting is weakly associated with the setting of high personal standards. In other words, individuals who feel like their achievements are never quite good enough (for their parents) and who feel pressure to live up to their parents' high standards (i.e., maladaptive perfectionists) seem more likely to have been exposed to an authoritarian parenting style during childhood and adolescence in which parents attempted to exert maximal control over their children's behaviors (Baumrind, 1971; Gilman & Ashby, 2006). In contrast, individuals who exhibit a strong desire to achieve and who are not overly disappointed with failure or the threat of living up to others' expectations (i.e., adaptive perfectionists) seem more likely to have been exposed to an authoritative parenting style during childhood and

adolescence in which parents set high expectations while making their children feel accepted regardless of achievement outcomes.

Although the aforementioned studies shed important light on the possible links between perfectionism and parenting styles, a number of important limitations are inherent within these studies that hinder the generalizability of the findings. First, all of the aforementioned studies were conducted with undergraduate students who provided information about their parents based on retrospective parenting style measures or interviews. Retrospective reports are susceptible to sources of bias (see Halverson, 1988) and do not necessarily reflect accurately the individual's perceptions of parenting styles during childhood and adolescence. Second, none of the aforementioned studies distinguished parenting styles based on various dimensions of parenting (i.e., demandingness, responsiveness, and autonomy-granting). This is a noteworthy distinction because "various combinations of those [parenting] variables should contribute to some subtle yet potentially important differences among perfectionists" (Flett & Hewitt, p. 99, 2002). Third, and most importantly, none of these studies adopted domain-specific views of perfectionism during the measurement process, and none of these studies were conducted with samples of athletes.

Parents are considered to play the most important role in their child's sporting experiences during childhood and early adolescence (Côté, 1999; Horn & Horn, 2007). Researchers who have examined parental influence in youth sport have found that perceived parental pressure and high parental expectations have been associated with negative outcomes among youth athletes such as burnout

(Gould et al., 1996), low levels of sport enjoyment (Brustad, 1988), and pre-competitive state anxiety (Scanlan & Lewthwaite, 1984). However, parents can positively influence favorable outcomes for their children in sports as well (Fredricks & Eccles, 2004). For example, perceived parental support, encouragement, and positive responses to a child's performance have been associated with positive outcomes among youth athletes such as high levels of perceived competence and intrinsic motivation (Babkes & Weiss, 1999), and high levels of sport enjoyment (Leff & Hoyle, 1995). Perceived parental support can also buffer negative feelings associated with performance failure in sport (VanYperen, 1995). Although parental influence has been examined in youth sport, the influence of parenting styles on athletes per se has not received much research attention. To this end, Horn and Horn (2007) proposed that "future researchers in the sport and exercise psychology field may want to include more global parenting style measures in their research to examine parental influences in the sport setting" (p. 701).

In one of the few studies to examine parenting styles in youth sport, Holt, Tamminen, Black, Mandigo, and Fox (2009) recently conducted interviews in which parents' (N = 56) parenting styles and practices with respect to their adolescent daughters' (N = 34) sport participation were examined. Autonomy supportive parents (similar to authoritative parents) were highly involved in their children's sport, provided appropriate structure, and seemed to place minimal pressure on their children. Controlling parents (similar to authoritarian parents) were also highly involved in their children's sport, however they were not

sensitive to their children's mood, engaged in closed-communication, and their involvement undermined their children's autonomy. In another study, the relationship between parenting styles and players' satisfaction, achievement strategies, and norm breaking behaviors among 1018 youth male Finnish ice hockey players was examined (Juntumaa, Keskivaara, & Punamäki, 2005). Findings revealed that players from authoritative families showed high levels of mastery-oriented behavior and expressed high satisfaction for playing hockey. In contrast, players from authoritarian families expressed acceptance to norm breaking behavior in hockey. These findings suggest that parenting styles pervade into dimensions and behaviors that directly relate to adolescents' involvement in competitive sport settings.

Given that parenting styles are believed to influence adolescent's experiences across a variety of achievement settings (Darling & Steinberg, 1993), the **purpose** of this study was to determine whether different parenting styles (i.e., authoritarian and authoritative) were differentially related to youth athletes' perfectionist orientations in sport (i.e., adaptive versus maladaptive perfectionist orientations). It was **hypothesized** that authoritarian parenting would be positively correlated with maladaptive perfectionist tendencies among youth-sport participants. This hypothesis was based upon the premise that authoritarian parents impose high standards upon their children (i.e., highly demanding), tend to respond to poor performance with criticism and lack of warmth (i.e., are unresponsive), and attempt to control their children by pressuring them to behave and perform according to parental expectations (i.e., low autonomy-granting). As

such, athletes who are exposed to authoritarian parenting are likely to experience high levels of perceived parental pressure, fear criticism, and view the performance standards set by parents as being unfair or unwarranted; all of these characteristics are inherent within unhealthy/maladaptive perfectionism (Hamachek, 1978).

In contrast, it was hypothesized that authoritative parenting would be positively correlated with adaptive perfectionist tendencies among youth-sport participants because authoritative parents hold high parental expectations (i.e., highly demanding), are warm and accepting of the child regardless of the child's performance (i.e., are responsive), and exert low levels of pressure by providing the child with decision-making opportunities (i.e., high autonomy-granting). As such, athletes who are exposed to authoritative parenting are expected to perceive low levels of parental pressure, experience unconditional parental acceptance and support, take pride in their efforts, and experience relatively low levels of fear about the interpersonal consequences of failure; all of these characteristics resemble aspects of healthy/adaptive perfectionism (Hamachek). These hypotheses were also based on the premise that similarly high parental expectations are likely to be perceived differently by children raised in supportive versus controlling environments (Darling & Steinberg, 1993; Steinberg, 2001). Children whose parents set high standards in a supportive emotional climate are more likely to accept these standards than children whose parents communicate the same set of high standards in a harsh, critical, and controlling manner.

The current study was conducted with male youth/adolescent athletes—

where adolescence is defined as the second decade of an individual's life (Lerner, Brown, & Kier, 2005). Although the study was conducted with adolescent athletes, the relationship between these individuals and their parents throughout the thesis will be referred to as the parent-child relationship. Male youth athletes were chosen because parents of male athletes tend to (a) believe that their sons have higher sport competence than their daughters, (b) provide more encouragement for their sons' sport participation than their daughters, and (c) value sport more for their sons than for their daughters (see Horn & Horn, 2007). Consequently, it was felt that the possible links between perfectionism and parenting styles that were under investigation in this study would be stronger (or more easily identified) among a sample of male (as opposed to female) athletes.

Chapter 2

Method

Participants

Participants were 194 male youth soccer players (from 18 teams) who competed in the under-12 to under-16 age groups at the highest levels of competitive age-group soccer available in a western Canadian city. Players ranged in age from 10.42 to 16.25 years (*M* age = 13.64 years; *SD* = 1.51) and had an average of 2.75 years of playing experience with their respective teams (*SD* = 1.59). The sample was comprised of 35 forwards, 68 midfielders, 74 defenders, and 15 goalkeepers (two participants did not report their playing position). The majority of participants (*N* = 142) identified themselves as Caucasian (73.2%), with 15 participants identifying as Asian (7.7%), 11 as Hispanic-Latino (5.7%), 10 as Other (5.2%), 9 as Middle-Eastern (4.6%), 3 as Black (1.5%), and 3 as First-Nations (1.5%). One participant did not report his ethnic background.

Instruments

Participants completed four self-report questionnaires: (1) a demographic questionnaire, (2) the Parenting Style Inventory-2 (one for Mother and one for Father: Darling & Toyokawa, 1997), and (3) the Sport-Multidimensional Perfectionism Scale-2 (Sport-MPS-2: Gotwals & Dunn, 2009).

Demographic questionnaire. The demographic questionnaire (see Appendix A) asked players to provide information about their age, involvement in soccer (e.g., current team, regular playing position, and playing time on current team) and ethnic background.

Parenting Style Inventory-2 (PSI-2). The Parenting Style Inventory-2 (Darling & Toyokawa, 1997) is a modified version of the original PSI developed by Steinberg et al. (1992) and measures the perceptions that children and youth have about their parents' parenting styles. The instrument contains three 5-item subscales that are intended to measure *emotional responsiveness* (e.g., "My mother/father spends time just talking to me."), *demandingness* (e.g., "My mother/father points out ways I could do better."), and *psychological autonomy-granting* parenting (e.g., "My mother/father believes I have a right to my own point of view."). Respondents rate the extent to which they agree with each of the items using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*) for both their mothers and fathers (see Appendix B and C). Six items require reverse scoring prior to the computation of composite subscale scores, with higher composite scores reflecting stronger agreement towards each dimension of parenting.

The PSI-2 is used to identify participants' general experiences with their mother and/or father because parenting styles reflect the overall climate in which parent-child interactions occur (Darling & Steinberg, 1993). Consequently, the following instructions are given to respondents prior to completing the PSI-2: "The purpose of this questionnaire is to identify your *general* experiences with your mother/father. Please indicate the extent to which you *agree or disagree* with the following statements." These instructions are given to ensure that participants report on their parents' general parenting style rather than on situationally-specific experiences with their parents. Respondents were also

instructed to rate the parenting styles of their mothers and fathers separately because current research suggests that there is a need to disaggregate parenting styles (e.g., Holt et al., 2009; Simons & Conger, 2007) rather than averaging scores for both parents which has been a common approach used by researchers (see Steinberg et al., 1989).

In a study involving 318 sixth, seventh, and eighth graders, Darling and Toyokawa (1997) reported acceptable levels of internal consistency across all three subscales (αs ranged from .72 to .75) of the PSI-2. However, it appears that the instrument has not undergone extensive psychometric testing since it was developed, therefore, the instrument must be viewed in its infancy with respect to its psychometric characteristics.

Sport Multidimensional Perfectionism Scale-2 (Sport-MPS-2). The Sport-MPS-2 (Gotwals & Dunn, 2009) is a 42-item domain-specific measure of perfectionism in sport with a Grade 7.6 reading level (see Appendix D). It is an updated version of the original Sport Multidimensional Perfectionism Scale (Sport-MPS) that was developed by Dunn and his colleagues (see Dunn, Causgrove Dunn, et al., 2006; Dunn et al., 2002). The Sport-MPS-2 measures six dimensions of perfectionism in sport: *Personal Standards* (PS: 7 items, e.g., "I have extremely high goals for myself in my sport."), *Concern Over Mistakes* (COM: 8 items, e.g., "If I play well but only make one obvious mistake in the entire game, I still feel disappointed with my performance."), *Perceived Parental Pressure* (PPP: 9 items, e.g., "In competition, I never feel like I can quite meet my parents' expectations."), *Perceived Coach Pressure* (PCP: 6 items, e.g., "Only

outstanding performance in competition is good enough for my coach."), *Doubts About Actions* (DAA: 6 items, e.g., "I usually feel uncertain as to whether or not my training effectively prepares me for competition.") and *Organization* (ORG: 6 items, e.g., "I have and follow a pre-competitive routine."). The Sport-MPS-2 instructs respondents that the purpose of the instrument is to measure how players "view certain aspects of their competitive experiences in sport." Respondents rate the extent to which they agree with each of the items using a 5-point scale (1 = *strongly disagree*; 5 = *strongly agree*). Scores on items are summed and averaged for each subscale, with higher composite subscale scores reflecting higher levels of perfectionism on each dimension.

The PS, COM, PPP, and PCP subscales of the Sport-MPS-2 have been previously used with adolescent athletes (as young as 10 years old) from the sports of figure skating and ice hockey (see Dunn et al., 2006). However, to date the DAA and ORG subscales have not been used with this age group. Studies by Dunn and his colleagues (Dunn, Causgrove Dunn, et al., 2006; Dunn et al., 2002) have found acceptable levels of internal consistency (Cronbach's alpha $\geq .70$) for the four original Sport-MPS subscales (PS, COM, PPP, PCP). More recently, Gotwals and Dunn (2009) reported adequate levels of internal consistency for the new DAA and ORG subscales (alphas $\geq .75$) with a sample of intercollegiate varsity athletes from a variety of team sports ($n = 251$). Acceptable internal/structural validity characteristics were also reported by Gotwals and Dunn using both multidimensional scaling and factor analytic techniques.

Dunn, Causgrove Dunn, et al. (2006) provided convergent-related validity

evidence for the four original Sport-MPS subscales. The authors demonstrated that each subscale had theoretically meaningful relationships with Hewitt-MPS subscales (Hewitt & Flett, 1991) among samples of male Canadian football players (n = 138) and female figure skaters (n = 121). Specifically, the personal standards subscale of the Sport-MPS was positively correlated with the self-oriented perfectionism subscale of the Hewitt-MPS for both the football players (r = .70) and figure skaters (r = .66). The concern over mistakes subscale of the Sport-MPS was positively correlated with the socially prescribed perfectionism subscale of the Hewitt-MPS (r = .62 for football players and .70 for the figure skaters). In addition, the perceived parental pressure (r = .42 for football and .62 for figure skaters) and perceived coach pressure (r = .53 and .60 respectively) subscales were also correlated with the socially prescribed perfectionism subscale of the Hewitt-MPS. The direction and strength of these correlations are in accordance with theory. Overall, results of previous studies indicate that the subscales of the Sport-MPS-2 have acceptable psychometric properties.[1]

Procedures

Permission to conduct the study was granted by the researcher's institutional Human Research Ethics Board and by the director of the city's Youth

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[1] Given that the Sport-MPS-2 has a Grade 7.6 reading level, patterns of missing data for Sport-MPS-2 responses in the current sample were examined to ensure that there were no systematic problems with the responses of the younger athletes. Data screening revealed that only 62 (of a possible 8148) Sport-MPS-2 data points were missing (0.76%). No systematic missing-data problems were found with the younger athletes. Specifically, of the 31 athletes who provided missing data, nine were below age 12 years, whereas twenty-two were aged 12 years or older. Thus, it does not appear that the reading level of the Sport-MPS-2 caused systematic problems (in terms of missing data) for the younger athletes in the sample.

Soccer Association. Coaches were contacted by electronic mail and/or telephone to explain the purpose of the study and to seek their permission to obtain participation from the athletes on their respective teams. Upon receiving the coaches' permission, the researcher scheduled a meeting with each team to describe the study to athletes and/or parents and hand out parental consent forms and letters describing the general intent of the study. Once parental consent forms had been returned to the coaches, the researcher scheduled data collection at times and places most convenient for the teams. The questionnaires were completed in a single session at various training facilities on non-game days either before or after training.

Prior to testing, athletes were reminded both verbally and in writing that participation in the study was voluntary and that they were free to withdraw without consequence at any time. Coaches and parents were required to leave the room at the time of testing. The presentation order of the PSI-2-Mother and PSI-2-Father was counterbalanced to minimize potential order effects. All athletes completed the demographic questionnaire first and the Sport-MPS-2 last. The PSI-2 was presented before the Sport-MPS-2 so that athletes could respond about their parents' parenting style in more general terms prior to completing a sport-specific questionnaire (i.e., the Sport-MPS-2). The entire testing protocol took approximately 25 minutes to complete.

Chapter 3

Results

Preliminary Psychometric Analyses

Internal consistency values were calculated for the three PSI-2 subscales of the mother and father data sets, and the six subscales of the Sport-MPS-2. Although internal consistency values for all six Sport-MPS-2 subscales were acceptable (all αs $\geq$ .76: see Table 1), alpha values for the autonomy-granting and demandingness subscales for both the mother data (α = .64 and .58 respectively) and father data (α = .54 and .48 respectively) were below .70, which is generally viewed by researchers as the minimum level of acceptable internal consistency. It was therefore deemed necessary to examine the factor structure of the mother and father PSI-2 inventories to determine the latent structure of the two versions of the instrument in the context of the study. To this end, the data from the mother-PSI-2 and father-PSI-2 were independently subjected to a series of exploratory factor analyses. The subject-to-variable ratios (12.93:1) easily exceeded the minimum subject-to-variable ratio (5:1) that is recommended by psychometricians for the purpose of conducting exploratory factor analysis (see Gorsuch, 1983).

An iterative approach was used to examine the factorial composition and factor structure of the two PSI-2 data sets. A series of principal axes factor analyses were conducted on each data set, and a combination of Cattell's (1978) scree test criteria and Lautenschlager's (1989) parallel analysis were used to select the number of factors (see Fabrigar, Wegener, MacCallum, & Strahan, 1999). After determining the number of factors, the extracted factor matrix was

Table 1

Mean Item Subscale Scores, Standard Deviations, Skewness, Kurtosis, and Internal Consistencies (α) for all Measures

Subscale label	*M*	*SD*	*Skewness*	*Kurtosis*	α
Sport-MPS-2 [a]					
Personal standards	3.74	0.67	-0.06	-0.47	.76
Concern over mistakes	2.87	0.87	0.08	-0.41	.85
Perceived parental pressure	2.70	0.67	0.21	0.29	.78
Perceived coach pressure	3.23	0.76	0.28	0.11	.77
Doubts about actions	2.58	0.75	0.26	-0.46	.76
Organization	3.46	0.83	-0.13	-0.72	.85
PSI-2 [b]					
Mother	5.36	0.98	-1.20	2.31	.80
Father	5.40	0.90	-0.74	0.12	.77

[a] Items measured on a 5-point scale.

[b] Revised 9-item version of the PSI-2. Items measured on a 7-point scale.

then rotated using both orthogonal (Varimax) and oblique (Direct Oblimin) procedures. With both the mother and father data sets, clean and interpretable factor solutions were unobtainable when all 15 items were included in the data

sets. In particular, the items that most consistently failed to load together on an interpretable factor were designed to measure "demandingness" (see Appendix E and F). Furthermore, examinations of internal consistency coefficients for all possible combinations of 5-, 4-, and 3-item Demandingness subscales for both mother and father data sets failed to yield any acceptable values (all αs $\leq .62$ for mother data; all αs $\leq .53$ for father data).

Given the aforementioned problems, all five demandingness items were removed from the data sets and the same factor analytic procedures were employed with the remaining 10 items. For both parental data sets, scree test and parallel analysis results clearly indicated the retention of a single factor. In both solutions, one item intended to measure autonomy-granting parenting (Item 11: "My mother/father makes most of the decisions about what I can do") failed to achieve a meaningful loading (i.e., the factor loading was < .30) on the retained factor (see Appendix G). Item 11 was subsequently removed and the factor analytic procedures were conducted again. Both analyses produced clear "unidimensional" solutions for both the mother and father data sets. All items had factor loadings >.30 on the retained factor in both solutions (see Table 2). The internal consistency levels of the 9-item mother ($\alpha = .80$) and father ($\alpha = .77$) PSI-2 scales were acceptable (see Table 1). Examination of the magnitude and direction of the factor loadings for each version of the PSI-2 in Table 2 reveals that high scores on either scale (once negatively worded items are reverse scored) are indicative of individuals who perceive a high degree of responsiveness and autonomy-granting tendencies from either their mother or father respectively.

Table 2

Factor Loadings for Retained Items in the PSI-2 for Mother and Father Ratings

Item	Full item description	Original subscale designation	Factor Loadings	
			Mother	Father
1.*	My mother/father doesn't really like me to tell her/him my troubles.	(Responsiveness)	-.43	-.52
2.*	My mother/father hardly ever praises me for doing well.	(Responsiveness)	-.59	-.55
4.*	My mother/father tells me that her/his ideas are correct and that I shouldn't question them.	(Autonomy-granting)	-.43	-.33
5.	I can count on my mother/father to help me out if I have a problem.	(Responsiveness)	.43	.54
7.	My mother/father respects my privacy.	(Autonomy-granting)	.69	.47
9.	My mother/father spends time just talking to me.	(Responsiveness)	.61	.63
10.	My mother/father gives me a lot of freedom.	(Autonomy-granting)	.48	.49
14.	My mother/father and I do things that are fun together.	(Responsiveness)	.69	.64
15.	My mother/father believes I have a right to my own point of view.	(Autonomy-granting)	.73	.72

* Reverse scored items.

Given that high levels of responsiveness and autonomy-granting behaviors are generally indicative of healthy or positive parenting (Baumrind, 1971; Maccoby & Martin, 1983; Steinberg, 2001), the factor for both the mother and father data sets was tentatively labeled, *child-centered parenting* (Maccoby & Martin).

After establishing the adequacy of the psychometric characteristics of the measures, the PSI-2 and Sport-MPS-2 data were screened (at the subscale level) for the presence of univariate and multivariate outliers. Examination of Cook's distances and Mahalonobis distances did not reveal the presence of any univariate or multivariate outliers. Consequently, the data provided by all 194 athletes were included in all remaining analyses.

Checking for Presentation Order Effects

The final preliminary data check involved a one way MANOVA to ensure that there were no presentation order effects that may have influenced the data. Eight variables (i.e., six Sport-MPS-2 subscales and two unidimensional PSI-2 scales) were entered as the dependent variables, and "presentation order" (i.e., PSI-2-Father followed by PSI-2-Mother vs. PSI-2-Mother followed by PSI-2-Father) was entered as the independent variable. A non-significant multivariate test statistic was obtained: Wilks $\Lambda = .94$, $F\ (8, 179) = 1.50$, $p = .159$, indicating that presentation order effects were unlikely to have occurred.

Examining Relationships Between Perfectionism and Child-Centered Parenting

Bivariate correlations (r) between Sport-MPS-2 subscales and the two Parenting scales were calculated. As seen in Table 3, personal standards (PS) was unrelated to perceptions of child-centered parenting for mothers and fathers.

However, concern over mistakes (COM), perceived parental pressure (PPP), perceived coach pressure (PCP), and doubts about actions (DAA) all had significant negative correlations with perceptions of responsiveness/autonomy-granting parenting tendencies for both mothers and fathers. It appears that the male youth soccer players who scored higher on the more maladaptive/unhealthy components of perfectionism (i.e., COM, PPP, PCP, and DAA: see Gotwals & Dunn, 2009) were more likely to view both parents as being (a) less caring and less responsive to their needs, and (b) less likely to afford them freedom to make decisions or to allow for the expression of individuality.

In contrast to the clear pattern of negative correlations between the maladaptive/unhealthy aspects of perfectionism and child-centered parenting, the organization (ORG) subscale of the Sport-MPS-2 had a significant positive correlation (r = .25) with perceptions of father child-centered parenting (but a non-significant zero correlation with mother's parenting tendencies). In other words, as male youth soccer players' preferences for pre-game and within-game routines/plans increased, so too did their tendency to view their father as being responsive and autonomy-granting. This result seems to provide some support for the view that organization is a potentially adaptive/healthy perfectionist orientation in sport (Gotwals & Dunn, 2009).

Perfectionism Profiles and Child-Centered Parenting

Given that perfectionism is a multidimensional construct, many perfectionism theorists and researchers have argued that the best way to understand the functional (i.e., healthy vs. unhealthy) nature of perfectionism is to

Table 3

Bivariate Correlations (r) Among Sport-MPS-2 Subscales and Parenting Scales

	Perfectionism subscales						Parenting scales	
Subscale	PS	COM	PPP	PCP	DAA	ORG	Mother	Father
PS	-							
COM	.49**	-						
PPP	.20*	.46**	-					
PCP	.26**	.46**	.28**	-				
DAA	.14	.46**	.37**	.28**	-			
ORG	.44**	.12	.12	.10	.09	-		
Mother	-.05	-.41**	-.39**	-.34**	-.26**	-.01	-	
Father	.05	-.37**	-.38**	-.20*	-.25*	.25**	.56**	-

Note. Subscale abbreviations: PS = Personal standards; COM = Concern over mistakes; PPP = Perceived parental pressure; PCP = Perceived coach pressure; DAA = Doubts about actions; ORG = Organization.* $p < .01$. ** $p < .001$.

consider the pattern of scores across all perfectionism dimensions simultaneously (e.g., Dunn et al., 2002; Parker, 1997; Stoeber & Otto, 2006). The combination of high scores across all perfectionism dimensions is generally indicative of maladaptive/unhealthy perfectionist orientations in sport (see Dunn et al., 2002; Gotwals & Dunn, 2009), whereas high scores on the personal standards and organization subscales combined with low scores on the four remaining (maladaptive) Sport-MPS-2 subscales is indicative of adaptive/healthy perfectionist orientations in sport (see Dunn et al., 2002; Enns & Cox, 2002; Stoeber & Otto, 2006). A hierarchical cluster analysis was conducted upon the perfectionism data to help determine if different profiles of perfectionism would be differentially related to perceptions of child-centered parenting. It was hypothesized that individuals who exhibited more positive/healthy/adaptive perfectionist tendencies would have more favorable views of their interactions with their parents (i.e., higher perceptions of child-centered parenting) than those individuals who exhibited more negative/unhealthy/maladaptive perfectionist tendencies.

Sport-MPS-2 mean-item subscale scores were subjected to a hierarchical cluster analysis using Ward's agglomerative method with squared Euclidean distances (see Hair, Anderson, Tatham, & Black, 1998; Parker, 1997; Rice & Mirzadeh, 2000). This analytic method attempts to produce clusters that have relatively similar numbers of individuals within each cluster. Analysis of the resulting dendrogram and agglomeration schedule (see Appendix H) suggested

the retention of three clusters. In accordance with recommendations provided by Hair et al., the data were then re-analyzed using a nonhierarchical (K-means) cluster analysis whereby the cluster centroids that were derived from the hierarchical cluster analysis were entered as seed points to begin the analysis. This process is conducted to assess the reliability of the clusters and to ensure that different techniques provide similar analytic solutions.

The seed points used in the K-means analysis were the six Sport-MPS-2 subscale means from each of the three clusters that were initially derived from the hierarchical cluster analysis (see Appendix I). Again three clusters were retained. Examination of the cluster membership following the K-means analysis revealed that 148 of the 194 athletes (76%) remained in the same clusters in the second analysis, suggesting an acceptable degree of stability between the two solutions. In other words, this level of reliability indicates that the initial results provided a good starting point for the non-hierarchical analysis. The clusters from the non-hierarchical analysis were retained (see Hair et al., 1998). As seen in Table 4, Cluster 1 (C1) contained 60 athletes (31%: *M* age = 13.68, *SD* = 1.41), Cluster 2 (C2) contained 77 athletes (40%: *M* age = 13.97, *SD* = 1.51), and Cluster 3 (C3) contained 57 athletes (29%: *M* age = 13.13, *SD* = 1.51). The mean-item scores and standard deviations of the six Sport-MPS-2 subscales within each cluster are also presented in Table 4.

For descriptive purposes, a one way MANOVA was conducted to determine whether the clusters differed across the six Sport-MPS-2 subscales. Cluster membership was entered as the independent variable and the six Sport-

Table 4

Sport-MPS-2 Mean Item Scores, Standard Deviations, and Univariate Statistics for Between-Cluster Comparisons

	Cluster						Univariate test statistics		
	C1 (n = 60)		C2 (n = 77)		C3 (n = 57)				
Sport-MPS-2	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F* (2, 191)	*p*	Partial η^2
PS	3.96_a	.58	4.00_a	.58	3.15_b	.48	45.25	< .0001	.32
COM	3.72_a	.63	2.83_b	.52	2.02_c	.57	129.61	< .0001	.58
PPP	3.08_a	.66	2.78_b	.54	2.19_c	.52	36.32	< .0001	.28
PCP	3.90_a	.60	2.93_b	.45	2.92_b	.78	52.44	< .0001	.35
DAA	3.22_a	.66	2.40_b	.62	2.14_b	.53	50.98	< .0001	.35
ORG	3.46_a	.78	3.88_b	.67	2.89_c	.76	29.77	< .0001	.24

Note. Means with different subscripts indicate significant within-row differences between clusters following post-hoc independent *t* tests with Bonferroni corrections (all *ps* < .01). Sport-MPS-2 subscale abbreviations: PS = Personal standards; COM = Concern over mistakes; PPP = Perceived parental pressure; PCP = Perceived coach pressure; DAA = Doubts about actions; ORG = Organization.

MPS-2 subscales were entered as the dependent variables. A significant multivariate test statistic was obtained: Wilk's $\Lambda = .175$, F (12, 372) = 43.08, $p < .0001$, partial $\eta^2 = .58$. Follow-up univariate F-tests identified significant between cluster differences across all six Sport-MPS-2 subscales (all ps < .0001: see Table 4). Post-hoc independent t-tests (with Bonferroni corrections) were then conducted to determine how clusters differed across the Sport-MPS-2 subscales. As reported in Table 4, Cluster 1 had significantly higher mean scores across all six Sport-MPS-2 subscales than Cluster 3. Cluster 1 also had significantly higher mean scores across four Sport-MPS-2 subscales (i.e., COM, PPP, PCP, DAA) than Cluster 2 but not on the personal standards (PS) and organization (ORG) subscales. Cluster 1 actually had a lower PS score than Cluster 2 (although this difference was not statistically significant) and a significantly lower organization score than Cluster 2 ($p < .01$). Cluster 2 had significantly higher mean scores across all Sport-MPS-2 subscales than Cluster 3, except for the perceived parental pressure and doubts about actions subscales.

The patterns of Sport-MPS-2 scores for Clusters 1 and 2 closely resemble profiles of maladaptive/unhealthy and adaptive/healthy perfectionism respectively (see Dunn et al., 2002; Gotwals & Dunn, 2009; Gould et al., 2002; Hamachek, 1978; Stoeber & Otto, 2006). Specifically, athletes in both clusters reported similarly high levels of personal standards (i.e., the core feature of perfectionism). However, maladaptive/unhealthy perfectionists (C1) had higher concern over mistakes (COM), higher perceptions of parental (PPP) and coach (PCP) pressure, and higher doubts about their preparation for competition (DAA) than the group

of adaptive/healthy perfectionists (C2). In contrast, the adaptive/healthy perfectionists (C2) reported higher levels of organization (ORG) in terms of pre-competition planning and routines than maladaptive perfectionists (C1) which is in keeping with Gotwals and Dunn's view that high levels of pre- and within-competition planning are likely to form adaptive functions in sport. Given these characteristics, clusters 1 and 2 were respectively labeled *maladaptive/unhealthy perfectionists* (C1) and *adaptive/healthy perfectionists* (C2). The third cluster was labeled *non-perfectionists* (C3) due to the relatively low scores across all six Sport-MPS-2 subscales.

To determine if theoretically meaningful differences existed across the clusters in terms of athletes' perceptions of child-centered parenting, a one way MANOVA was conducted with cluster membership entered as the independent variable and mother parenting and father parenting entered as the dependent variables. The multivariate test was statistically significant: Wilk's $\Lambda = 7.326$, $F(4, 368) = 7.326$, $p < .0001$, partial $\eta^2 = .07$. Follow-up univariate F tests were also significant for both perceptions of mother child-centered parenting (F [2, 185] = 11.973, $p < .0001$, partial $\eta^2 = .12$) and father child-centered parenting (F [2, 185] = 10.149, $p < .0001$, partial $\eta^2 = .10$).

Post hoc independent t tests (with Bonferroni corrections) were conducted to determine where specific between-cluster differences existed for each parenting variable (see Table 5). Results showed that, on average, adaptive/healthy perfectionists (C2) and non-perfectionists (C3) had significantly higher perceptions of mother ($p < .005$) and father child-centered

parenting tendencies ($p < .005$) than the maladaptive/unhealthy perfectionists (C1). All effect size indices (using Cohen's [1969] effect size [*d*] for independent means) for these significant differences were moderate to large in magnitude (*d*s range from .60 to .85). Adaptive perfectionists (C2) and non-perfectionists (C3) did not differ in their perceptions of mothers' or fathers' levels of child-centered parenting (ps > .05; ds ≤ .16). Collectively, these results indicate that individuals who exhibit maladaptive/unhealthy perfectionist tendencies in sport (in comparison to healthy/adaptive perfectionists and non-perfectionists) have, on average, an increased tendency to perceive their interactions with their mothers and fathers in a less favorable manner.

Table 5

Means and 95% Confidence Intervals (C.I.) for Tests of Group (Cluster) Main Effects

	Parenting					
	Mother			Father		
		95% C.I.			95% C.I.	
Cluster	*M*	Lower	Upper	*M*	Lower	Upper
C1 (maladaptive perfectionists)	4.87_a	4.63	5.11	4.97_a	4.75	5.19
C2 (adaptive perfectionists)	5.52_b	5.31	5.74	5.61_b	5.41	5.81
C3 (non-perfectionists)	5.66_b	5.41	5.91	5.54_b	5.31	5.78

Note. Means in the same column that do not share the same subscript differ at $p < .005$ in post hoc contrasts employing Bonferroni corrections. Means in the same column that share the same subscript are not statistically different ($p > .05$).

Chapter 4

Discussion

Although specific a priori hypotheses were generated around the links between perfectionist orientations in sport and Baumrind's (1971) authoritative and authoritarian parenting styles, these specific hypotheses could not be tested due to problems with the factorial composition of the PSI-2 (see Table 2). Nevertheless, the links between perfectionism in sport and a unidimensional parenting style (as dictated by the data) were still examined. Given that the unidimensional parenting style included positive dimensions of parenting (i.e., responsiveness and autonomy-granting: see Steinberg, 2001), the parenting style examined in this study is reflective of (but not identical to) Baumrind's (1971, 1991a) authoritative parenting style.

The purpose of this study was to examine the relationship between male youth soccer players' perfectionist orientations and their perceptions of parents' parenting styles. Between-cluster differences (Table 5) generally indicated that the athletes in this study with adaptive perfectionist tendencies perceived their parents as being more supportive, positive, and child-centered than athletes with maladaptive perfectionist tendencies. In other words, players who demonstrated unhealthy/maladaptive perfectionist tendencies (i.e., those who exhibited high perfectionist strivings [high PS] combined with high perfectionist concerns [high COM, PPP, PCP, DAA]: Stoeber & Otto, 2006) tended to view their parents as more controlling and parent-centered than athletes who demonstrated healthy/adaptive perfectionist tendencies. Although the methods employed in the

current study are non-experimental and therefore preclude the opportunity to make definitive causal inferences from the results, it does appear that male youth soccer players' perfectionist orientations are differentially related to the overall emotional climate of the family environment in which they are raised (where "emotional climate" is dictated by the daily interactions adolescents have with their parents). Perfectionism theorists have long speculated that the types of interactions parents have with their children surrounding performance expectations play an important role in the development of perfectionistic tendencies that are exhibited in those children later in life (see Blatt, 1995; Burns, 1980; Hamachek, 1978; Missildine, 1963).

Theory suggests that unhealthy perfectionists typically view their social environment as overly demanding and non-supportive (Hamachek, 1978). Theorists speculate that these individuals tend to be raised in home environments in which parental approval and love are conditional upon achieving high levels of performance (Blatt, 1995; Burns, 1980; Missildine, 1963) and where these performance standards are externally imposed by parents. As such, children exposed to these environmental conditions often feel that they have little choice surrounding the performance standards they are expected to meet and often come to view these standards as being unfair or unwarranted (Tangney, 2002). Given that authoritarian parents (Baumrind, 1971, 1989; Maccoby & Martin, 1983) are overly demanding, unrepsonsive to their children's needs, and unwilling to grant their children autonomy to make decisions surrounding performance expectations, it makes theoretical sense that athletes who exhibited unhealthy/maladaptive

perfectionist orientations in this study (see Cluster 1 in Table 4) perceived their parents as being non-responsive and controlling.

Although there is less research surrounding the developmental process that leads to healthy/adaptive perfectionism (Stoeber & Otto, 2006), theory suggests that adaptive perfectionists have a strong desire to achieve and relatively little concern about meeting the expectations of others (Hamachek, 1978). Adaptive perfectionists typically view their social environment as being supportive and relatively free from socially-driven pressures, and they feel accepted and loved by their parents regardless of achievement outcomes (Hamachek). Given that authoritative parents (Baumrind, 1971, 1989; Maccoby & Martin, 1983) are demanding, responsive to their children's needs, and willing to grant their children autonomy to make decisions surrounding performance expectations, it makes theoretical sense that athletes who exhibited healthy/adaptive perfectionist orientations in this study (see Cluster 2 in Table 4) perceived their parents as being supportive and more child-centered in their parenting style (in comparison to the maladaptive perfectionist athletes: see Table 5).

Child-Centered Parenting

Relatively few studies in the extant literature have used the PSI-2 as a measure of parenting styles. As such, it was determined in the current study that further research is needed to establish reliability and validity evidence supporting the use of the PSI-2 as a measure of parenting styles. The PSI-2 was designed by Darling and Toyokawa (1997) to measure Baumrind's (1971; 1991a) parenting-style typologies through the consideration of three parenting dimensions—

namely, responsiveness, demandingness, and autonomy-granting. Given that the factor analytic results in this study required the removal of all items that were designed to measure *demandingness*, Baumrind's overall parenting styles typologies could not be examined. Nevertheless, the parenting climate (i.e., responsiveness and autonomy-granting) that parents created for their children could still be examined (Steinberg & Silk, 2002) using the unidimensional conceptualizations of child-centered parenting that resulted from the factor analytic results (see Table 2).

Following the removal of the demandingness items in the exploratory factor analysis, the items that were originally designed to measure responsiveness and autonomy-granting parenting formed a single factor that was labeled "child-centered parenting". The fact that these two dimensions combined to form one factor is understandable given that different parenting style dimensions are often correlated (Gray & Steinberg, 1999). For example, Darling and Toyokawa (1997) previously reported a correlation of .46 between the autonomy-granting and responsiveness subscales of the PSI-2, indicating that children who perceived their parents as being responsive also tended to percieve their parents as being autonomy-granting (and vice versa). Baumrind (1991b) included aspects of warmth (e.g., responsiveness) and encouragement of individuality (e.g., autonomy-granting) in her conceptualisation of responsiveness and numerous researchers have identified a strong link between parental responsiveness/warmth and autonomy-granting parenting (e.g., Baumrind, 1966; Niemiec et al., 2006;

Steinberg, 2001). Thus, it does not seem overly surprising that the responsiveness and autonomy-granting items formed a single factor in this study.

The label "child-centered parenting" was deemed appropriate to describe the conceptual nature of the PSI-2 factor because the items contained in Table 2 are consistent with Maccoby and Martin's (1983) view that child-centered parenting reflects circumstances where the parent attempts to exert influence by being attuned and responsive to the child's needs rather than allowing parental needs to drive parent-child interactions. As such, child-centered parenting is generally accompanied by warmth (Item 5: "I can count on my mother/father to help me out if I have a problem."), open communication (Item 9: "My mother/father spends time just talking to me."), and encouragement of the child's autonomy (Item 15: "My mother/father believes I have a right to my own point of view.": see Baumrind, 1989; Maccoby & Martin). Clearly more research examining the latent structure and psychometric characteristics of the PSI-2 is necessary.

Perfectionism and Parenting

Examination of the correlations between the Sport-MPS-2 subscales and child-centered parenting (see Table 3) sheds light on the relationship between different aspects of perfectionism and the parenting style to which youth athletes are presumably exposed. According to previous research in the sport psychology literature, concern over mistakes (COM), perceived parental pressure (PPP), perceived coach pressure (PCP), and doubts about actions (DAA) reflect maladaptive or unhealthy dimensions of perfectionism (see Dunn et al., 2002;

Gotwals & Dunn, 2009; Vallance et al., 2006). In contrast, organization (ORG) is generally viewed as a more adaptive or functional aspect of perfectionism in sport (Gotwals & Dunn, 2009). The functional nature of personal standards (PS) is generally less clear cut (Enns & Cox, 2002); numerous researchers suggest that heightened personal standards is healthy when accompanied by lower scores on the maladaptive dimensions (i.e., COM, PPP, PCP, and DAA) and maladaptive when accompanied by higher scores on these maladaptive dimensions (see Blatt, 1995; Dunn et al., 2002; Kilbert et al., 2005; Rice & Lapsley, 2001; Rice & Mirzadeh, 2000).

Looking at the correlations in Table 3, concern over mistakes (COM) had significant negative correlations with perceptions of both mother (r = -.41) and father (r = -.37) child-centered parenting tendencies. These results suggest that as the degree to which athletes become concerned about making mistakes in competition increases, there is an increased tendency for the athletes to view their parents as being less responsive and more restrictive (with respect to allowing the athlete/child to regulate his own standards). This relationship fits with theory, as children of more authoritarian parents (i.e., less child-centered) tend to fear making mistakes (indication of imperfect performance) because they will be met with harsh parental criticism or withdrawal of parental love (Flett et al., 2002; Kawamura et al., 2002). Furthermore, given that sport is a domain in which an individual's competencies are publicly scrutinized, potential mistakes are likely to be viewed as a major source of threat for young athletes who perceive pressures from parents to achieve error-free performance (Gould et al., 1993).

As seen in Table 3, the perceived parental pressure (PPP) and perceived coach pressure (PCP) subscales also had significant negative correlations with both mothers' and fathers' child-centered parenting. It appears that male youth soccer players who perceived high amounts of performance pressure from their parents and coaches also tended to view their parents as being more parent-centered. It is not surprising that experiencing high amounts of parental pressure in sport is indicative of a more controlling and parent-centered environment because these parents are more likely to hold high expectations for their children without providing warmth, support, or autonomy in the process (Holt et al., 2009; Horn & Horn, 2007). Although numerous factors contribute to perfectionism (such as societal pressures to measure up to unrealistic expectancies: see Flett et al., 2002), it seems reasonable to speculate that children who grow up in unresponsive family environments may adopt perfectionist orientations that reflect a belief that significant others hold excessive or unfair performance expectations for them (Gilman & Ashby, 2006; Hutchinson & Yates, 2008; Speirs Neumeister, 2004; Stoeber & Otto, 2006).

The two subscales that were recently added to the Sport-MPS-2 (i.e., DAA and ORG) were also related to perceptions of mothers' and fathers' child-centered parenting tendencies. Specifically, the DAA subscale had significant negative correlations with child-centered parenting for both mothers (r = -.26) and fathers (r = -.25). In other words, as the tendency for athletes to doubt their preparation and readiness to perform in competition increased, their tendency to perceive parents as being child-centered decreased. Given that authoritarian

parents are less child-centered and are rarely satisfied with their child's performance (Speirs Neumeister, 2004), it is not surprising that athletes in this study who perceived their parents in this manner possessed heightened doubts about their preparation and readiness for competition. It seems reasonable to speculate that these athletes may learn to doubt the quality of their preparation because they are unsure if their upcoming performance in competition will be good enough to meet their parents' standards. Kawamura and colleagues (2002) previously found that the perception of having authoritarian and harsh parents was related to higher levels of DAA, although it should be noted that the Kawamura study involved retrospective recall of adults looking back at their childhood interactions with their parents as opposed to their current interactions with their parents (as was the case in the present study).

Correlation results also revealed that the organization (ORG) subscale was positively related to perceptions of father child-centered parenting (but not to mother child-centered parenting). In other words, as the tendency for athletes to implement plans or routines prior to and during competition increased, so too did their tendency to view their fathers as being child-centered in their parenting style. Gotwals and Dunn (2009) recently argued that the ORG subscale is likely to be adaptive in sport; therefore, it is interesting that the ORG subscale is linked to perceptions of a more positive parenting style (for fathers). It is possible that these athletes have been encouraged to take responsibility for their own performance and have developed their own performance plans as a result of being encouraged by their fathers to find their own way to best prepare for competition and achieve

their performance goals. This speculative hypothesis fits with previous parenting research where it has been shown that child-centered parenting makes a child more receptive to parental influence because the parents do not force their beliefs on their children but instead provide them with reasons and explanations (see Darling et al., 2006; Darling & Steinberg, 1993; Maccoby & Martin, 1983).

Overall, correlation results indicate negative relationships between maladaptive components of perfectionism (i.e., COM, PPP, PCP, DAA) and child-centered parenting (see Table 3). These results are in accordance with theory which predicts that pressure to avoid mistakes and meet others' expectations increases with perceptions of being exposed to harsh, critical, and authoritarian parenting (Flett et al., 1995; Flett et al., 2002; Gilman & Ashby, 2006; Kawamura et al., 2002; Speirs Neumesiter & Finch, 2006). Current correlation results also support the positive relationship between an adaptive component of perfectionism (i.e., ORG) and child-centered parenting (for fathers). This finding is noteworthy given that perfectionism researchers have questioned whether adaptive facets of perfectionism are related to more "positive" or authoritative parenting styles (see Flett et al.; Kawamura et al.; Stoeber & Otto, 2006).

Perfectionism Profiles

Given that perfectionism is a multidimensional construct and that the best way to fully understand the functional nature of perfectionism is to consider the pattern of scores across all dimensions simultaneously (Dunn et al., 2002; Kilbert et al., 2005), the present study utilized a cluster analytic approach to create

different profiles of perfectionism. Parker (1997) was one of the first researchers to use this approach when he successfully classified a sample of academically gifted students into different perfectionism groups based on responses to the Frost-MPS (Frost et al., 1990). Parker identified three perfectionism clusters that he labeled nonperfectionists (i.e., low scores across all six Frost-MPS subscales), healthy perfectionists (i.e., high scores on the personal standards and organization subscales but low scores on the concern over mistakes, parental expectations, parental criticism, and doubts about actions subscales), and dysfunctional perfectionists (i.e., high scores across all six Frost-MPS subscales). Similar perfectionism clusters have since been identified in a number of studies including independent samples of university undergraduate students (e.g., Rice et al., 2003; Rice & Lapsley, 2001; Rice & Mirzadeh, 2000).

The participants in this study who reported the highest scores across the four dysfunctional dimensions of perfectionism measured by the Sport-MPS-2 (i.e., COM, PPP, PCP, and DAA) were labeled maladaptive perfectionists (see Cluster 1, Table 4). Athletes in this cluster set high personal standards for performance (M = 3.96), were concerned about making mistakes in competition, perceived high levels of pressure to perform up to others' expectations (i.e., parents and coaches), strongly doubted their preparation for competition, and demonstrated moderate levels of organization in terms of pre-performance planning (M = 3.46). This pattern of scores is conceptually analogous to profiles of unhealthy/maladaptive perfectionism that have been discussed or identified in

previous sport perfectionism studies (e.g., Dunn et al., 2002; Dunn, Gotwals, et al., 2006; Vallance et al., 2006).

In contrast to the athletes in Cluster 1, athletes in Cluster 2 (see Table 4) were labeled adaptive perfectionists because they reported high personal standards scores (M = 4.00) but much lower scores (in comparison to Cluster 1) on the maladaptive perfectionism dimensions (i.e., COM, PPP, PCP, DAA). Athletes in Cluster 2 were also inclined to report high levels of organization (M = 3.88) which reflects a tendency to engage in pre-performance planning and routines. This pattern of scores is conceptually analagous to profiles of healthy/adaptive perfectionism that have also been identified in the sport psychology literature (e.g., Dunn et al., 2002; Dunn, Craft, Causgrove Dunn, & Gotwals, 2009). The most striking features of the third cluster (see Table 4) in this study were that they were characterized by the lowest levels of PS, COM, PPP, and ORG among the three clusters. This cluster was subsequently labeled "non-perfectionists".

Numerous studies have previously reported that maladaptive perfectionists differ from the other perfectionism groups by their excessive concern over mistakes, perceptions that parents and coaches pressure them to perform at a near perfect level, and strong self-doubts prior to competition (e.g., Dunn et al., 2002; Gotwals & Dunn, 2009; Stoeber & Otto, 2006). However, it is interesting to observe that the adaptive perfectionists in this study (Cluster 2) had higher organization scores than the maladaptive perfectionists (Cluster 1). This finding appears to reinforce Gotwals and Dunn's (2009) view that high levels of pre- and

within-competition planning serve adaptive functions in sport as long as these routines do not become so rigid and controlling that failure to employ them then creates excessive stress for the athlete.

The current profiles of perfectionism help to address an important issue surrounding the conceptual difference between adaptive and maladaptive perfectionism in sport. Flett and Hewitt (2002) have questioned whether previously labeled groups of adaptive and maladaptive perfectionists differ in *degrees* of perfectionism (a dimensional view) or whether they differ in *kinds* of perfectionism (a categorical view). Previous research by Vallance et al. (2006) with youth hockey players identified three different clusters of perfectionists. However, their results supported a dimensional view of perfectionism given that the most "maladaptive" cluster in their study had higher scores on all subscales of the Sport-MPS than the other clusters. In other words, each successive cluster in the Vallance study had significantly lower Sport-MPS subscale scores than the previous cluster which seemed to indicate that perfectionism lay on a continuum (from high to low). The results of the current study, however, do not support this dimensional view of perfectionism.

Current results revealed that the maladaptive perfectionists in Cluster 1 had significantly higher scores than the adaptive perfectionists in Cluster 2 on the negative dimensions of perfectionism (i.e., COM, PPP, PCP, DAA), but had the same PS levels as the adaptive perfectionists, and significantly lower ORG scores than the adaptive perfectionists. As such, it appears that perfectionism did not lie on a continuum in this study, thereby supporting a categorical view of

perfectionism in which athletes differed in *types* of perfectionism and not just *levels* of perfectionism. Similar findings were reported in the general psychology literature in a study of university undergraduate students conducted by Rice et al. (2003) where a cluster of adaptive perfectionists had significantly higher PS and ORG scores than a cluster of maladaptive perfectionists. Clearly more research is required to determine if a dimensional or categorical view of perfectionism is the most appropriate manner in which to conceptualize the healthy versus unhealthy nature of the construct (see Rice & Ashby, 2007).

Having identified theoretically interpretable clusters of perfectionism (Table 4), between-cluster comparisons of child-centered parenting perceptions revealed that, on average, athletes in the maladaptive perfectionism cluster viewed both their mothers and fathers as having lower child-centered parenting dispositions than athletes in the adaptive perfectionism cluster (Table 5). While causal inferences cannot be made from this research, it does seem reasonable to speculate that adolescents who are raised in controlling and less supportive home environments are less likely to develop healthy perfectionist orientations in sport in comparison to adolescents who are raised in less controlling and more supportive family environments. This speculation is in accordance with theory which predicts that maladaptive perfectionists are raised in demanding home environments in which they are exposed to unrealistically high performance standards from parents, are evaluated stringently by parents, and are shown approval only when parental standards are met (see Flett et al., 2002). Under these conditions it makes sense that the current athletes who possessed maladaptive

perfectionist tendencies would be more inclined to view both parents as being unresponsive and controlling. This type of parenting may predispose individuals to develop strong fears of failure or fears about negative social evaluation because their need for parental approval is conditional upon meeting their parents' standards (Hamachek, 1978; Flett et al., 1995; Kenney-Benson & Pomerantz, 2005; Speirs Neumeister; 2004; Tangney, 2002).

The cluster analytic profiles found in this study support the view that it is appropriate to differentiate between healthy and unhealthy perfectionism in sport (Dunn et al., 2002; Gotwals & Dunn, 2009; Stoeber & Otto, 2006). Although this is contrary to the views of some perfectionism theorists who argue that perfectionism is a predominantly dysfunctional or unhealthy achievement motivation in sport (e.g., Flett & Hewitt, 2005; Hall, 2006), recent studies have indicated that healthy perfectionism (or positive perfectionist strivings) can protect athletes from negative body image concerns (Dunn et al., 2009) and can even improve performance (Stoeber et al., 2009). If there are indeed benefits to developing healthy perfectionist orientations in sport (also see Dunn et al., 2002; Gould et al., 2002), the results of the current study may have implications from an applied perspective. Namely, educating parents about the benefits of child-centered parenting at home may assist youth athletes with the development of healthy perfectionist orientations in sport, or at least, minimize the likelihood of developing maladaptive perfectionist tendencies.

How then might parents create an optimal environment that facilitates the development of healthy perfectionist orientations in their child athletes? Answers

to this question can be found in the literature. Previous research indicates that both adaptive and maladaptive perfectionists describe their parents as having high expectations of them, however, adaptive perfectionists (in comparison to maladaptive perfectionists) describe their parents as being much less critical of performance endeavours (Gilman & Ashby, 2006; Rice et al., 1996; Rice & Dellwo, 2002; Speirs Neumesiter, 2004). Parker (1997) argued "high [parental] expectations that stimulate achievement are desireable, for they stretch the child's abilities and behavioral repertoire, with resulting positive effects on the child's self-concept" (p. 557). Gilman and Ashby (2006) suggested that "it is important to stress to key adult figures that maintaining high [parental] standards can be adaptive, provided that such standards are not taken to the extreme" (p. 307). Therefore, the critical feature as to how these standards are interpreted by and influence adolescents appears to lie in the manner by which parents provide warmth and the perception of choice (Steinberg, 2001). The greatest psychological and emotional benefits for children and adolescents come when realistically high standards are set and evaluated by parents who provide warmth and respect for the child and when the child's needs are put before the needs of the parent (Baumrind, 1971; 1989; Coplan et al., 2002; Darling & Steinberg, 1993; Macobby & Martin, 1983; Steinberg).

Rice and Mirzadeh (2000) made an interesting point when describing attachment patterns between parents and their perfectionist children. They suggested that parents of maladaptive perfectionists are less emotionally attuned to their children and are more concerned with their children's accomplishments

than their children's emotional well-being. This is highly characteristic of *parent*-centered parents, whose control is grounded in strict rules and expectations, not intimate knowledge of their child and their child's emotional needs (Kenney-Benson & Pomerantz, 2005; Maccoby & Martin, 1983). Children of these parents may excessively strive to meet their parents' standards in achievement settings because such accomplishments provide the greatest opportunity to gain approval (or avoid disapproval) from their parents (Missildine, 1963; Hamachek, 1978; Sorotzkin, 1998). Furthermore, children of authoritarian (i.e., parent-centered) parents may eventually internalize their parents' high expectations and develop their own harsh self-criticism methods because their sense of self-worth becomes dependent on parental approval (Speirs Neumeister, 2004).

While a considerable body of literature has focused on the development of maladaptive perfectionism (e.g., Flett et al., 1995; Kawamura et al., 2002; Rice et al., 1996), the search for the origins of adaptive perfectionism has received much less attention. Researchers have speculated that adaptive perfectionist tendencies are developed in children whose parents encourage the achievement of high standards but who do not create excessive pressure on the child to reach these standards (Hamachek, 1978; Rice & Dellwo, 2002). In other words, adaptive perfectionist tendencies may evolve in children and adolescents whose parents "are available, responsive, predictable, and nurturing" (Rice & Mirzadeh, p. 239, 2000) and when attainment of performance standards is not a pre-requisite for parental approval. These parental characteristics resemble more authoritative and *child*-centered parents who balance disciplinary demands with respect for the

child, and set expectations in ways that leave a degree of choice and control in the hands of the child (Baumrind, 1971; Grolnick, 2003; Maccoby & Martin, 1983). These parents' realistic expectations coupled with open lines of communication and unconditional support enhance the development of children and adolescents who do not feel external pressure to succeed or achieve perfection. The results of the current study (Table 5) appear to support this view.

It seems reasonable to propose that adaptive perfectionist orientations may be nurtured by a reciprocal parent-child relationship (Flett et al., 2002; Maccoby & Martin, 1983) in which parents and children have shared goals that may be based around high performance standards. In this type of reciprocal relationship—a characteristic of child-centered parenting—the use of parental pressure rarely occurs because parents express sensitivity by closely monitoring the state of their child and negotiating the support that is deemed necessary (Maccoby & Martin). This is in contrast to parent-centered parents who typically fail to consider how their imposed demands are influencing their child's emotional state (Coplan et al., 2002; Soenens et al., 2009; Sorotzkin, 1998). Since the goals of parent-centered parents prevail over their child's goals, children and adolescents exposed to this type of parenting may feel that they cannot meet the performance standards that were set by their parents (Frost et al., 1990), and so maladaptive/unhealthy perfectionist tendencies begin to develop.

Exposure to authoritative and child-centered parenting has benefits for children and adolescents including the development of a strong self-concept and clear sense of identity (Baumrind, 1971; Macobby & Martin, 1983; Steinberg,

2001). These benefits may also assist in the development of healthy perfectionism because the self-concept of adaptive perfectionists is self-generated and is not dependent on meeting others' expectations (e.g., Burns; 1980; Hamachek; 1978, Speirs Neumesiter, 2004). In contrast, children of authoritarian parents inevitably attribute their own actions (or achievements) to external pressures that were dictated by significant others. In many ways this is similar to the world view of maladaptive perfectionists who often feel that others drive their achievement standards (see Burns; Flett et al., 1995; Hamachek). As such, maladaptive perfectionists often develop a sense of self-worth that is conditional upon the reactions (and validation) of the people they are trying to please (Hutchinson & Yates, 2008; Kenney-Benson & Pomerantz, 2005; Rice & Dellwo, 2002; Speirs Neumesiter).

Although not a central purpose of this study, it is worth noting the correlation between perceptions of mother and father child-centered parenting (r = .56). The size and direction of this relationship suggests that the soccer players in the current study who perceived one parent as being child-centered were also more likely to perceive the other parent as being child-centered in their parenting style. Baumrind (1991a) suggested that mothers and fathers share the same parenting style 76% of the time and other research also indicates that children are likely to be raised in either supportive or controlling emotional climates that are created and shared by both parents (e.g., Dornbusch et al., 1987; Simons & Conger, 2007). It would be interesting to determine if youth athletes perceive their parents similarly (with regards to parenting style) if the measure of parenting style

focused specifically upon parenting interactions with the child that occurred solely in the sport environment. In other words, a domain-(or sport-)-specific view of parenting styles may yield different findings because previous research in sport indicates that fathers and mothers can have different levels of involvement and interest in their adolescent's sporting endeavours (Holt & Dunn, 2004). If one of the parents has, for example, greater interest or greater knowledge in a particular domain (e.g., sport) than the other parent, it is possible that the standards, expectations, and feedback that are communicated to the child may vary between the two parents under these circumstances. Moreover, regardless of parenting style, parents who communicate their valued goals to their children (e.g., high standards to achieve in sport) are believed to have a direct impact on their children because these goals and values influence the type of parenting practices parents engage in (e.g., providing feedback during/after competition) (see Darling & Steinberg, 1993). Given that perfectionism can be conceptualized and measured as a domain-specific construct (Dunn et al., 2005), it would be interesting to see if the current results changed if a similar domain-specific view of parenting style was adopted (cf. Coplan et al., 2002; Spera, 2005).

Chapter 5

Implications, Limitations, and Future Research

Given that this is the first study that has examined the relationship between perfectionism and parenting styles in youth sport, there is clearly room for more research in this area. It is known that the effectiveness of specific parenting practices are enhanced when parents are more supportive (i.e., authoritative) in their parenting style (Darling & Steinberg; Steinberg et al., 1992, Steinberg, 2001). Future research could examine if there are any types of sport-specific parenting practices that are associated with more positive and child-centered parenting styles. For example, are child-centered parents more effective than authoritarian-type parents during sport related interactions with their children? In regards to perfectionism, future research could examine how the practices of parent- versus child-centered parents differ in terms of their influence on youth athletes' perfectionist tendencies. Finally, since authoritative parenting has been consistently linked with enhanced academic achievement (Collins, Madsen, & Susman-Stillman, 2002; Steinberg et al., 1994; Steinberg), it would be interesting to determine whether authoritative parenting styles and practices are also linked to success of youth in sport.

Given the growing interest in the influence of parents in youth sport, important questions such as "how should sport parents 'parent' in sport?" are widespread in the youth sport literature (e.g., Fredricks & Eccles, 2004; Horn & Horn, 2007). Although researchers have discussed aspects of positive parenting in sport (e.g., Côté, 1999; Gould et al., 2002; Holt et al., 2009; Horn & Horn), no

specific set of universally accepted formalized guidelines exist that specify the most effective youth sport parenting. Horn and Horn argued that although specific parenting behaviors have been examined in youth sport (e.g., parental feedback, encouragement, and support), more research is needed on the broader parenting styles that parents exhibit at home and their potential impact on the psychological and emotional development of youth athletes. Child-centered parenting (in which parents are responsive, autonomy-granting, and willing to put their child's needs ahead of their own) may be one such style that can be further examined and applied to the sporting domain in future research.

The child-centered parenting construct that was measured in this study appears to parallel another type of parenting reported previously by Gould et al. (2002) in a study of U.S. Olympic champions. Gould et al. coined the term "positive parental push" to describe the interactions that the Olympic Champions had experienced early in their careers with their parents. Interestingly, the athletes in Gould et al.'s study also exhibited profiles of adaptive perfectionism. Gould et al. found that these parents pushed their children in a positive way to achieve, but did not place undue pressure on the athletes and provided unconditional support and love during their child's early sporting development. This positive parental push may be similar to authoritative parenting in which parents are demanding (by providing a stimulating and challenging environment for their children), but also responsive (by providing support and unconditional love: Baumrind, 1971; 1989; 1991a). Maccoby and Martin (1983) stated that in various areas of the child's life, the success of the parent-child interaction is determined by how well

the parent balances demands with love and respect for the child. The key to successful sport parenting may be for parents to try and maintain a balance between pushing and supporting their child athlete (e.g., Côté, 1999; Grolnick, 2003; Holt et al., 2009). Future research is clearly required to determine what this "optimal push" looks like in sport and how it influences the development of healthy attributes that lead to success in sport.

A commonly held belief about overly-demanding sports parents is that they live "vicariously" through their children (e.g., Grolnick, 2003). These parents want their children to achieve high standards so that these accomplishments reflect positively on the parent (Gilman & Ashby, 2006). It is possible that parents who live vicariously through their children are engaging in "parent-centered" parenting practices and are inadvertently putting excessive pressures on their children to achieve these high standards. In other words, the parents are putting their own needs and desires ahead of what may be best for their children. No research to date has examined the extent to which parents' tendencies to live vicariously through their children's achievements in sport may influence the development of perfectionist orientations in youth sport athletes. Educating parents about the differences between child-centered and parent-centered styles (and their associated consequences) may become an important applied endeavor for practitioners who work in youth sport settings.

The relationships between perfectionism and child-centered parenting that were observed in this study can be useful in helping to teach parents to structure child-centered climates for their children that discourage the adoption of

unhealthy/maladaptive perfectionist orientations in sport. As Speirs Neumeister (2004) proposed, parents with a more authoritarian (parent-centered) approach may need guidance regarding how this approach may be inadvertently contributing to the development of maladaptive perfectionism within children and adolescents. As mentioned, sport psychologists may want to teach more child-centered parenting approaches directly to parents or to leaders of youth sport organizations. Learning to create a child-centered climate in which children and adolescents are provided with warmth, unconditional love, and autonomy to regulate personal standards may help reduce the development of maladaptive perfectionist tendencies in athletes. Consequently, instead of teaching youth athletes how to deal with their maladaptive perfectionist tendencies, applied sport psychologists may better serve the sport community by focusing their work on parents to help prevent the development of maladaptive perfectionist orientations in children and adolescents in the first place.

Although the results of this study provide some meaningful implications, the correlational design of this study does not allow for causal inferences. Therefore, we cannot say if child-centered parenting caused the development of adaptive perfectionism. It is possible that adaptive perfectionists are simply better adjusted and therefore perceive their parents as being more positive and supportive (see Flett et al., 1995; Kawamura et al., 2002; Rice et al., 1996). Given that perfectionism is linked to a wide range of cognitive, affective, and behavioral correlates in the sporting domain (see Hall, 2006), it would seem prudent for researchers to continue to identify factors that lead to the development of adaptive

and maladaptive perfectionist tendencies in youth athletes.

The results of this study were based on athletes' perceptions of their parents' parenting styles—as such, it is possible that the perceived parenting styles do not correpsond with actual parenting styles. This can be considered both a weakness and a strength of this study because actual parenting styles may not have been congruent with adolescent's perceptions of their parents' parenting styles. However, it has been suggested that a child's perception of parental style/behavior may be more important than actual parental style/behavior of the parents (Rice et al., 1996; Steinberg et al., 1992). Indeed, researchers have proposed that the meaning of the parenting context for the child determines its effects on the child more so than the actual parenting context (Boyce et al., 1998). Using an instrument that measures adolescents' perceptions of parenting styles (as opposed to making direct behavioral observations of parent-child interactions or getting parents to rate their own parenting styles) can therefore be considered a strength of the current study.

The current study's findings clearly identify issues surrounding the use of the PSI-2 as a measure of adolescents' perceptions of parenting styles because the demandingness items had to be removed from the overall measure due to factor analytic and internal consistency problems. Moreover, the two remaining dimensions (responsiveness and autonomy-granting) collapsed into a single factor, creating a unidimensional measure of parenting style. Future research is required to determine if these results were sample-specific or if the original latent structure of the PSI-2 that was proposed by Darling and Toyokawa (1997) is

appropriate. As it currently stands, the bivariate relationships between different aspects of parenting (i.e., responsiveness, demandingness, autonomy-granting) and the various dimensions of perfectionism in sport could not be examined in this study.

It is possible that more meaningful differences between adaptive- and non-perfectionists' perceptions of parenting styles would have been evident in this study if the demandingness dimension of parenting had been captured. Given that parental demandingness provides insight into the behavioral standards and expectations that parents have for their children, it is possible that adaptive perfectionists would have perceived their parents as being more demanding whereas non-perfectionists would have perceived their parents as less demanding (yet both groups may still have viewed their parents as providing child-centered parenting). This is an important area for future research because demandingness may play a role in parenting that influences the development of perfectionist orientations in youth (see Flett et al., 2002).

The generalizability of the current results must be limited to the current sample of male youth soccer players. As such, the study needs to be replicated with athletes from different sports, age-groups, and competition levels. Gender must also be considered in future research. For example, parents often place a higher emphasis on their sons' sporting achievements than their daughters' (see Horn & Horn, 2007), suggesting that parents may engage in different parenting behaviors with their sons and daughters depending upon the value that the parent places on each child in different achievement settings (see Flett et al., 1995).

Indeed, previous research with male and female intercollegiate athletes found that male athletes reported higher perfectionism levels than female athletes in sport (Dunn et al., 2005). The potential role that parenting styles played in these gender differences has never been investigated, but would shed valuable light on the possible link between the development of perfectionist orientations in sport and athlete gender.

The influence of parenting styles on athletes may also vary across cultures/ethnicities. Given that the majority of the current sample was Caucasian/White, ethnic differences were not examined. Although authoritative parenting has been consistently linked with positive child outcomes across all ethnicities, research suggests that children from African/Asian/Latin backgrounds are not as negatively affected by authoritarian parenting as children from European/White backgrounds (see Steinberg, 2001). Future research may examine whether more authoritarian forms of parenting may actually be linked with adaptive forms of perfectionism in athletes from African/Asian/Latin backgrounds.

The source and degree of parental pressure that athletes encounter in sport may also vary by competition level. Specifically, athletes in this study competed at the highest level of city club soccer. Therefore, it is possible that these athletes experienced greater performance pressure from their parents than athletes competing at lower recreational levels. It is possible that athletes' perfectionist tendencies may be developed to a greater extent when they compete at higher levels of performance because they experience greater societal pressure to achieve

or because they value success in this domain more than athletes who compete at lower levels (see Dunn et al., 2005, for related discussion). Future studies with athletes competing at different competitive levels (e.g., recreational and provincial/national levels) are required to determine the generalizability of the current findings.

Finally, the age of athletes in this study may have influenced the observed relationships between parenting styles and perfectionism. Parents are believed to play the largest role in their child's sporting experiences during childhood and early adolescence (Côté, 1999; Horn & Horn, 2007). In this study, the perceived parental pressure dimension of perfectionism played an important role in distinguishing between adaptive and maladaptive perfectionists (see Table 4). Sport perfectionism researchers (e.g., Dunn, Gotwals et al., 2006; Gotwals et al., 2003; Vallance et al., 2006) have suggested that the role of parental pressure may be greatest during childhood and early adolescence when athletes are living at home and are greatly influenced by their parents. For example, findings revealed that the perceived parental pressure subscale had a stronger association with trait anger among younger adolescent athletes (*M* age = 14.15 years: Vallance et al., 2006) than older adolescent athletes (*M* age = 18.27 years: Dunn, Gotwals et al.). The role of parental pressure is likely to decrease when athletes move into late adolescence and adulthood and become more dependent on coaches and less dependent on parents for performance feedback (Côté; Dunn, Gotwals, et al). It is possible that perceived parental pressure may play a lesser role in distinguishing

between adaptive and maladaptive perfectionism in older athletes whereas perceived coach pressure may play an even more salient role in this regard.

Conclusion

Overall, the results of the present study show a clear relationship between youth athletes' perfectionist orientations and their perceptions of parenting styles. Specifically, differential relationships were shown between adaptive and maladaptive perfectionists' perceptions of child-centered parenting. Adaptive perfectionist athletes perceived their parents as more supportive and child-centered, whereas maladaptive perfectionist athletes perceived their parents as less supportive and less child-centered in their parenting style. Further analysis into sport-specific parenting styles may provide a better understanding of the relationship between perfectionism and parenting styles in sport.

Given the growing amount of research on perfectionism in sport, there is great value in investigating factors linked to the development of perfectionism in athletes (Anshel & Eom, 2003). Indeed, Flett and colleagues (2002) stated that "one of the best ways to obtain insight into the nature of a personality construct is to examine the factors and processes that contribute to its development" (p. 89). The current results point to the potential role parenting styles may play in the development of perfectionist orientations in youth athletes. This type of research may have important practical implications for parents and athletes in youth sport settings.

Chapter 6

References

Ablard, K. E., & Parker, W. D. (1997). Parents' achievement goals and perfectionism in their academically talented children. *Journal of Youth and Adolescence, 26,* 651-667.

Amato, P. R. (1990). Dimensions of the family environment as perceived by children: A multidimensional scaling analysis. *Journal of Marriage and the Family, 52,* 613-620.

Anshel, M. H., & Eom, H. J. (2003). Exploring the dimensions of perfectionism in sport. *International Journal of Sport Psychology, 34,* 255-271.

Babkes, M. L., & Weiss, M. R. (1999). Parental influence on children's cognitive and affective responses to competitive soccer participation. *Pediatric Exercise Science, 11,* 44-62.

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67,* 3296-3333.

Barber, B. K. (2002). Reintroducing parental psychological control. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 3-13). Washington: American Psychological Association.

Barber, B. K., & Harmon, E. L. (2002). Violating the self: Parental psychological control of children and adolescents. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15-52). Washington: American Psychological Association.

Barber, B. K., Olsen, J. E., & Shagle, S. H. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviours. *Child Development, 65,* 1120-1136.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development, 37,* 887-907.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monograph, 4,* 1-103.

Baumrind, D. (1989). Rearing competent children. In W. Damon (Ed.), *Child development today and tomorrow* (pp. 349-378). San Francisco: Jossey-Bass.

Baumrind, D. (1991a). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner, & A. C. Petersen (Eds.), *The encyclopedia of adolescence* (pp. 746-758). New York: Garland.

Baumrind, D. (1991b). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*, 56-95.

Baumrind, D. (1996). The discipline controversy revisited. *Family Relations, 45,* 405-411.

Bieling, P. J., Israeli, A. L., & Antony, M. M. (2004). Is perfectionism good, bad, or both? Examining models of the perfectionism construct. *Personality and Individual Differences, 36,* 1373-1385.

Bieling, P. J., Israeli, A., Smith, J., & Antony, M. M. (2003). Making the grade: The behavioural consequences of perfectionism in the classroom. *Personality and Individual Differences, 35,* 163-178.

Blatt, S. J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist, 50*, 1003-1020.

Boyce, T. W., Frank, E., Jensen, P. S., Kessler, R. C., Nelson, C. A., & Steinberg, L. (1998). Social context in developmental psychopathology: Recommendations for future research from the MacArthur Network on Psychopathology and Development. *Development and Psychopathology, 10*, 143-164.

Brustad, R. J. (1988). Affective outcomes in competitive youth sport: The influence of intrapersonal and socialization factors. *Journal of Sport & Exercise Psychology, 10*, 307-321.

Burns, D. D. (1980). The perfectionist's script for self-defeat. *Psychology Today, 14*, 34-52.

Cohen, J. (1969). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: Academic Press.

Collins, W. A., Madsen, S. D., & Susman-Stillman, A. (2002). Parenting during middle childhood. In M. H. Bornstein (Ed.), *Handbook of parenting* (Vol. 1, pp. 73-101). Mahwah, NJ: Erlbaum.

Conroy, D. E., Kaye, M. P., & Fifer, A. M. (2007). Cognitive links between fear of failure and perfectionism. *Journal of Rational-Emotive & Cognitive-Behavior Therapy, 25*, 237-254.

Coplan, R. J., Hastings, P. D., Lagace-Seguin, D.G., & Moulton, C. E. (2002). Authoritative and authoritarian mothers' parental goals, attributions and

emotions across different childrearing contexts. *Parenting: Science and Practice, 2,* 1-26.

Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist, 13,* 395-417.

Darling, N., Cumsille, P., Caldwell, L. L., & Dowdy, B. (2006). Predictors of adolescents' disclosure to parents and perceived parental knowledge: Between-and within-person differences. *Journal of Youth and Adolescence, 35,* 667-678.

Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113,* 482-496.

Darling, N., & Toyokawa, T. (1997). *Construction and validation of the Parenting Style Inventory II.* The Pennsylvania State University: Internal publication.

Dornbusch, S. M., Ritter, P. L., Leiderman, P. I., Roberts, D. F., & Fraleigh, M. J. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58,* 1244-1257.

Dunn, J. G. H., Causgrove Dunn, J. L., Gotwals, J. K., Vallance, J. K. H., Craft, J. M., & Syrotuik, D. G. (2006). Establishing construct validity evidence for the Sport Multidimensional Perfectionism Scale. *Psychology of Sport & Exercise, 7,* 57-79.

Dunn, J. G. H., Causgrove Dunn, J. L., & Syrotuik, D. G. (2002). Relationship between multidimensional perfectionism and goal orientations in sport. *Journal of Sport & Exercise Psychology, 24,* 376-395.

Dunn, Craft, Causgrove Dunn, & Gotwals (2009). *Comparing a domain-specific and global measure of perfectionism in a competitive sport setting.* Manuscript submitted for publication.

Dunn, J. G. H., Gotwals, J. K., & Causgrove Dunn, J. L. (2005). An examination of the domain specificity of perfectionism among intercollegiate student-athletes. *Personality and Individual Differences, 38,* 1439-1448.

Dunn, J. G. H., Gotwals, J. K., Causgrove Dunn, J. L., & Syrotuik, D. G. (2006). Examining the relationship between perfectionism and trait anger in competitive sport. *International Journal of Sport & Exercise Psychology, 4,* 7-24.

Enns, M. W., & Cox, B. J. (2002). The nature and assessment of perfectionism: A critical analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 63-88). Washington: American Psychological Association.

Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4,* 272-299.

Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 5-31). Washington: American Psychological Association.

Flett, G. L., & Hewitt, P. L. (2005). The perils of perfectionism in sports and exercise. *Current Directions in Psychological Science, 14,* 14-18.

Flett, G. L., Hewitt, P. L., Oliver, J. M., & Macdonald, S. (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism, Theory, research, and treatment* (pp. 89-132). Washington: American Psychological Association.

Flett, G. L., Hewitt, P. L., & Singer, A. (1995). Perfectionism and parental authority styles. *Individual Psychology, 51,* 50-60.

Fredricks, J. A., & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 145-164). Morgantown, WV: Fitness Information Technology.

Frost, R. O., Heimberg, R. G., Holt, C. S., Mattia, J. I., & Neubauer, A. L. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences, 14,* 119-126.

Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research, 14,* 449-468.

Frost, R. O., Trepanier, K. L., Brown, E. J., Heimberg, R. G., Juster, H. R., Makris, G. S., & Leung, A. W. (1997). Self-monitoring of mistakes among subjects high and low in perfectionistic concern over mistakes. *Cognitive Therapy and Research, 21,* 209-222.

Gilman, R., & Ashby, J. S. (2006). Perfectionism. In G. G. Bear & K. M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 303-312). Bethesda, MD: National Association of School Psychologists.

Gorsuch, R. L. (1983). *Factor analysis*. Hillsdale, NJ: Erlbaum.

Gotwals, J. K., & Dunn, J. G. H. (2009). A multi-method multi-analytic approach to establishing internal construct validity evidence: The Sport Multidimensional Perfectionism Scale 2. *Measurement in Physical Education and Exercise Science, 13,* 71-92.

Gotwals, J. K., Dunn, J. G. H., & Wayment, H. A. (2003). An examination of perfectionism and self-esteem in intercollegiate athletes. *Journal of Sport Behavior, 26,* 17-38.

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology, 14,* 172-204.

Gould, D., Jackson, S., & Finch, L. (1993). The sources of stress in national champion figure skaters. *Journal of Sport & Exercise Psychology, 15,* 134-159.

Gould, D., Udry, E., Tuffey, S., & Loehr, J. (1996). Burnout in competitive junior tennis players: I. A quantitative psychological assessment. *The Sport Psychologist, 10,* 322-340.

Gray, M. R., & Steinberg, L. (1999). Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and the Family, 61,* 574-587.

Grolnick, W. S. (2003). *Psychology of parenting control: How well-meant parenting backfires.* Mahwah, NJ: Lawrence Erlbaum.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998): *Multivariate data analysis*, (5th ed.). Upper Saddle River, NJ: Prentice Hall.

Hall, H. K. (2006). Perfectionism: a hallmark quality of world class performers, or a psychological impediment to athletic development? In D. Hackfort, & G. Tenenbaum (Eds.), *Essential processes for attaining peak performance. Perspectives in sport and exercise psychology* (Vol. 1, pp. 178-211). Oxford, UK: Meyer & Meyer.

Hall, H. K., Kerr, A. W., & Matthews, J. (1998). Precompetitive anxiety in sport: The contribution of achievement goals and perfectionism. *Journal of Sport & Exercise Psychology, 20,* 194-217.

Halverson, C. F., Jr. (1988). Remembering your parents: Reflections on the retrospective method. *Journal of Personality, 56,* 435-444.

Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. *Psychology, 15,* 27-33.

Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology, 60,* 456-470.

Hewitt, P. L., & Flett, G. L. (2002). Perfectionism and stress processes in psychopathology. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 255-284). Washington: American Psychological Association.

Holt, N. L., & Dunn, J. G. H. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with

soccer success. *Journal of Applied Sport Psychology, 16,* 199-219.

Holt, N. L., Tamminen, K. A., Black, D. E., Mandigo, J. L., & Fox, K. R. (2009). Youth sport parenting styles and practices. *Journal of Sport & Exercise Psychology, 31,* 37-59.

Horn, T. S., & Horn, J. L. (2007). Family influences on children's sport and physical activity participation, behavior, and psychosocial responses. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 685-711). New York: Wiley.

Hutchinson, A. J., & Yates, G. C. R. (2008). Maternal goal factors in adaptive and maladaptive childhood perfectionism. *Educational Psychology, 28,* 795-808.

Juntumaa, B., Keskivaara, P., & Punamaki, R. L. (2005). Parenting, achievement strategies and satisfaction in ice hockey. *Scandinavian Journal of Psychology, 46,* 411-420.

Kawamura, K. Y., Frost, R. O., & Harmatz, M. G. (2002). The relationship of perceived parenting styles to perfectionism. *Personality and Individual Differences, 32,* 317-327.

Kenney-Benson, G. A., & Pomerantz, E. M. (2005). The role of mothers' use of control in children's perfectionism: Implications for the development of children's depressive symptoms. *Journal of Personality, 73,* 23-46.

Kilbert, J. J., Rohling, J. L., & Saito, M. (2005). Adaptive and maladaptive aspects of self-oriented versus socially prescribed perfectionism. *Journal of College Student Development, 46,* 141-156.

Krane, V., Greenleaf, C. A., & Snow, J. (1997). Reaching for gold and the price of glory: A motivational case study of an elite gymnast. *The Sport Psychologist, 19,* 53-71.

Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development,* 63, 1049-1065.

Leff, S., & Hoyle, R. H. (1995). Young athletes' perceptions of parental support and pressure. *Journal of Youth and Adolescence, 24,* 187-203.

Lerner, R. M., Brown, J. D., & Kier, C. (2005). *Adolescence: Development, diversity, context, and application. Canadian edition.* Toronto: Pearson.

Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical Psychology Review, 22,* 895-929.

Maccoby, E. E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology, 28,* 1006-1017.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent–child interaction. In P. H. Mussen (Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (4th ed., pp. 1-101). New York: Wiley.

McArdle, S., & Duda, J. L. (2008). Exploring the etiology of perfectionism and perceptions of self-worth in young athletes. *Social Development, 17,* 980-997.

Milevsky, A., Schlechter, M., Netter, S., & Keehn, D. (2007). Maternal and paternal parenting styles in adolescents: Associations with self-esteem, depression, and life satisfaction. *Journal of Child & Family Studies, 16,* 39-47.

Missildine, W. H. (1963*). Your inner child of the past.* New York: Simon and Schuster.

Mitchelson, J. K., & Burns, L. R. (1998). Career mothers and perfectionism: Stress at work and home. *Personality and Individual Differences, 25*, 477-485.

Morris, A. S., Steinberg, L., Sessa, F. M., Avenevoli, S., Silk, J. S., & Essex, M. J. (2002). Measuring children's perceptions of psychological control: Developmental and conceptual considerations. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 125-159). Washington: American Psychological Association.

Niemiec, C. P., Lynch, M. F.,Vansteenkiste, M., Bernstein, J., Deci, E. L., & Ryan, R. M. (2006). The antecedents and consequences of autonomous self-regulation for college: A self-determination theory perspective on socialization. *Journal of Adolescence, 29*, 761-775.

Pacht, A. R. (1984). Reflections on perfection. *American Psychologist, 39*, 386-390.

Parker, W. D. (1997). An empirical typology of perfectionism in academically talented children. *American Educational Research Journal, 34*, 545-562.

Paulson, S. E. (1994). Relations of parenting style and parental involvement with ninth-grade students' achievement. *Journal of Early Adolescence, 14,* 250-267.

Rice, K. G., & Ashby, J. S. (2007). An efficient method for classifying perfectionists. *Journal of Counseling Psychology, 54,* 72–85.

Rice, K. G., Ashby, J. S., & Preusser, K. J. (1996). Perfectionism, relationships with parents, and self-esteem. *Individual Psychology, 52,* 248-260.

Rice, K. G., Bair, C. J., Castro, J. R., Cohen, B. N., & Hood, C. A. (2003). Meanings of perfectionism: A quantitative and qualitative analysis. *Journal of Cognitive Psychotherapy, 17,* 39-58.

Rice, K. G., & Dellwo, J. P. (2002). Perfectionism and self-development: Implications for college adjustment. *Journal of Counseling and Development, 80,* 188-196.

Rice, K. G., & Lapsley, D. K. (2001). Perfectionism, coping, and emotional adjustment. *Journal of College Student Development, 42,* 157-168.

Rice, K, G., & Mirzadeh, S. A. (2000). Perfectionism, attachment, and adjustment. *Journal of Counseling Psychology, 47,* 238-250.

Rice, K. G., & Slaney, R. B. (2002). Clusters of perfectionists: Two studies of emotional adjustment and academic achievement. *Measurement & Evaluation in Counseling & Development, 35,* 35-48.

Rothrauff, T. C., Cooney, T. M., & Shin An, J. (2009). Remembered parenting styles and adjustment in middle and late adulthood. *Journal of Gerontology: Social Sciences, 64,* 137-146.

Scanlan, T. K., & Lewthwaite, R. (1984). Social psychological aspects of competition for male youth sport participants: I. Predictors of competitive stress. *Journal of Sport Psychology, 6,* 208-226.

Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence, 13,* 113-128.

Simons, L. G., & Conger, R. D. (2007). Linking mother–father differences in parenting to a typology of family parenting styles and adolescent outcomes. *Journal of Family Issues, 28,* 212-241.

Soenens, B., Vansteenkiste, M., & Sierens, E. (2009). How are parental psychological control and autonomy-support related? A cluster-analytic approach. *Journal of Marriage and Family, 71,* 187-202.

Sorotzkin, B. (1998). Understanding and treating perfectionism in religious adolescents. *Psychotherapy, 35,* 87-95.

Speirs Neumeister, K. L. (2004). Factors influencing the development of perfectionism in gifted college students. *The Gifted Child Quarterly, 48,* 259-275.

Speirs Neumeister, K. L., & Finch, H. (2006). Perfectionism in high-ability students: Relational precursors and influences on achievement motivation. *The Gifted Child Quarterly, 50,* 238-251.

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review, 17,* 125-146.

Steinberg, L. (2001). We know some things: Adolescent–parent relationships in retrospect and prospect. *Journal of Research on Adolescence, 11*, 1-19.

Steinberg, L., Elmen, J., & Mounts, N. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development, 60*, 1424-1436.

Steinberg, L., Lamborn, S., Darling, N., Mounts, N., & Dornbusch, S. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*, 754-770.

Steinberg, L., Lamborn, S., Dornbusch, S. M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development, 63*, 1266-1281.

Steinberg, L., & Silk, J. S. (2002). Parenting adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting* (Vol. 1, pp. 103-133). Mahwah, NJ: Erlbaum.

Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review, 10*, 295-319.

Stoeber, J., Otto, K., Pescheck, E., Becker, C., & Stoll, O. (2007). Perfectionism and competitive anxiety in athletes: Differentiating striving for perfection and negative reactions to imperfection. *Personality and Individual Differences, 42*, 959-969.

Stoeber, J., & Stoeber, F. S. (2009). Domains of perfectionism: Prevalence and relationships with perfectionism, gender, age, and satisfaction with life. *Personality and Individual Differences, 46*, 530-535.

Stoeber, J., Uphill, M. A., & Hotham, S. (2009). Predicting race performance in triathlon: The role of perfectionism, achievement goals, and personal goal setting. *Journal of Sport & Exercise Psychology, 31,* 211-245.

Stumpf, H., & Parker, W. D. (2000). A hierarchical structural analysis of perfectionism and its relation to other personality characteristics. *Personality and Individual Differences, 28,* 837-852.

Suldo, S. M., & Huebner, E. S. (2004). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators Research, 66,* 165-195.

Tangney, J. P. (2002). Perfectionism and the self-conscious emotions: Shame, guilt, embarrassment, and pride. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism: Theory, research, and treatment* (pp. 199-215). Washington: American Psychological Association.

Vallance, J. K. H., Dunn, J. G. H., & Causgrove Dunn, J. L. (2006). Perfectionism, anger, and situation criticality in competitive youth ice hockey. *Journal of Sport & Exercise Psychology*, *28*, 383-406.

VanYperen, N. W. (1995). Interpersonal stress, performance level, and parental support: A longitudinal study of highly skilled young soccer players. *The Sport Psychologist, 9,* 225-241.

APPENDICES

Appendix A

Demographic Questionnaire

General Instructions

- Λ You will now be asked to complete *four questionnaires* relating to your personal sport experiences, your interactions with your parents/guardians, and your feelings, attitudes, and expectations toward achievement in sport.

- Λ Please read all instructions carefully before completing each questionnaire.

- Λ There are *no right or wrong answers* to any questions, so please respond honestly.

- Λ Make sure that you answer every question on each questionnaire, but do not spend too much time on any one question.

The individual information you provide here will be kept private. Your coaches, parents, and teammates will NOT see your individual responses to these questionnaires.

Please provide the following background information.

1. Age:_____ years,_____ months.

2. Name of team that you currently play on?
_____

3. What is your ***most regular*** playing position on this team?
_____

4. How many years have you competed for this team?
_____

5. Identify (circle) your ***ethnic/racial background***.

Asian
Black
First Nations
Hispanic
White
Other (Please specify) _____

6. Which parent/guardian (e.g., mother, father, grandma) is ***most-involved*** with your soccer participation (e.g., driving you to practices and games, watches your games, gives you soccer-specific advice/feedback).

_____

7. In **what ways** is your most-involved parent/guardian involved? (Check all that apply)

□ drives me to practices and games
□ watches my games
□ gives me soccer-specific advice and feedback
□ practices soccer with me

8. ***How involved*** with soccer is your most-involved parent/guardian? (Circle one response option below)

1= not involved at all
2= not too involved
3=somewhat involved
4=involved
5=extremely involved

9. ***How satisfied*** are you with your most-involved parent/guardian's level of involvement? (Circle one response option below)

1= very unsatisfied
2= unsatisfied
3= neither satisfied nor dissatisfied
4=satisfied
5=very satisfied

Appendix B

Parenting Style Inventory-2 (PSI-2): Mother

INSTRUCTIONS The purpose of this questionnaire is to identify your **general** experiences with your mother. Please indicate the extent to which you **agree or disagree** with the following statements. (Circle one response option to the right of each statement). **There are no right or wrong answers** so please don't spend too much time on any one statement; simply choose the answer that best describes how you view each statement. **Λ If you have no interactions with your mother (or female guardian) in your daily life, please do NOT complete this questionnaire.**

	Answer the following questions based on your experiences with your *MOTHER*	SD	D	Sl.D	N	Sl.A	A	SA
1.	My mother doesn't really like me to tell her my troubles.	1	2	3	4	5	6	7
2.	My mother hardly ever praises me for doing well.	1	2	3	4	5	6	7
3.	My mother really expects me to follow family rules.	1	2	3	4	5	6	7
4.	My mother tells me that her ideas are correct and that I shouldn't question them.	1	2	3	4	5	6	7
5.	I can count on my mother to help me out if I have a problem.	1	2	3	4	5	6	7
6.	My mother really lets me get away with things.	1	2	3	4	5	6	7
7.	My mother respects my privacy.	1	2	3	4	5	6	7
8.	If I don't behave myself, my mother will punish me.	1	2	3	4	5	6	7
9.	My mother spends time just talking to me.	1	2	3	4	5	6	7
10.	My mother gives me a lot of freedom.	1	2	3	4	5	6	7
11.	My mother makes most of the decisions about what I can do.	1	2	3	4	5	6	7
12.	My mother points out ways I could do better.	1	2	3	4	5	6	7
13.	When I do something wrong, my mother does not punish me.	1	2	3	4	5	6	7
14.	My mother and I do things that are fun together.	1	2	3	4	5	6	7
15.	My mother believes I have a right to my own point of view.	1	2	3	4	5	6	7

Appendix C

Parenting Style Inventory-2 (PSI-2): Father

INSTRUCTIONS The purpose of this questionnaire is to identify your **general** experiences with your father. Please indicate the extent to which you **agree or disagree** with the following statements. (Circle one response option to the right of each statement). **There are no right or wrong answers** so please don't spend too much time on any one statement; simply choose the answer that best describes how you view each statement. **Λ If you have no interactions with your father (or male guardian) in your daily life, please do NOT complete this questionnaire.**

	Answer the following questions based on your experiences with your *FATHER*	SD	D	Sl.D	N	Sl.A	A	SA
1.	My father doesn't really like me to tell him my troubles.	1	2	3	4	5	6	7
2.	My father hardly ever praises me for doing well.	1	2	3	4	5	6	7
3.	My father really expects me to follow family rules.	1	2	3	4	5	6	7
4.	My father tells me that his ideas are correct and that I shouldn't question them.	1	2	3	4	5	6	7
5.	I can count on my father to help me out if I have a problem.	1	2	3	4	5	6	7
6.	My father really lets me get away with things.	1	2	3	4	5	6	7
7.	My father respects my privacy.	1	2	3	4	5	6	7
8.	If I don't behave myself, my father will punish me.	1	2	3	4	5	6	7
9.	My father spends time just talking to me.	1	2	3	4	5	6	7
10.	My father gives me a lot of freedom.	1	2	3	4	5	6	7
11.	My father makes most of the decisions about what I can do.	1	2	3	4	5	6	7
12.	My father points out ways I could do better.	1	2	3	4	5	6	7
13.	When I do something wrong, my father does not punish me.	1	2	3	4	5	6	7
14.	My father and I do things that are fun together.	1	2	3	4	5	6	7
15.	My father believes I have a right to my own point of view.	1	2	3	4	5	6	7

Appendix D

Sport Multidimensional Perfectionism Scale-2

INSTRUCTIONS The purpose of this questionnaire is to identify how players view certain aspects of their competitive experiences in sport. Please help us to more fully understand how players view a variety of their competitive experiences by indicating the extent to which you **agree or disagree** with the following statements. (Circle one response option to the right of each statement). Some of the questions relate to your sport experiences in general, while others relate specifically to experiences on the team that you have most recently played with. **There are no right or wrong answers** so please don't spend too much time on any one statement; simply choose the answer that best describes how you view each statement.

	To what extent do you agree or disagree with the following statements?	SD	D	N	A	SA
1.	If I do not set the highest standards for myself in my sport, I am likely to end up a second-rate player.	1	2	3	4	5
2.	Even if I fail slightly in competition, for me, it is as bad as being a complete failure.	1	2	3	4	5
3.	I usually feel uncertain as to whether or not my training effectively prepares me for competition.	1	2	3	4	5
4.	My parents set very high standards for me in my sport.	1	2	3	4	5
5.	On the day of competition I have a routine that I try to follow.	1	2	3	4	5
6.	I feel like my coach criticizes me for doing things less than perfectly in competition.	1	2	3	4	5
7.	In competition, I never feel like I can quite meet my parents' expectations.	1	2	3	4	5
8.	I hate being less than the best at things in my sport.	1	2	3	4	5
9.	I have and follow a pre-competitive routine.	1	2	3	4	5
10.	If I fail in competition, I feel like a failure as a person.	1	2	3	4	5
11.	Only outstanding performance during competition is good enough in my family.	1	2	3	4	5
12.	I usually feel unsure about the adequacy of my pre-competition practices.	1	2	3	4	5
13.	Only outstanding performance in competition is good enough for my coach.	1	2	3	4	5
14.	I rarely feel that my training fully prepares me for competition.	1	2	3	4	5
15.	My parents have always had higher expectations for my future in sport than I have.	1	2	3	4	5
16.	The fewer mistakes I make in competition, the more people will like me.	1	2	3	4	5

Please complete the remaining items in this questionnaire on the next page. ☞

	To what extent do you agree or disagree with the following statements?	SD	D	N	A	SA
17.	It is important to me that I be thoroughly competent in everything I do in my sport.	1	2	3	4	5
18.	I follow pre-planned steps to prepare myself for competition.	1	2	3	4	5
19.	I feel like I am criticized by my parents for doing things less than perfectly in competition.	1	2	3	4	5
20.	Prior to competition, I rarely feel satisfied with my training.	1	2	3	4	5
21.	I think I expect higher performance and greater results in my daily sport-training than most players.	1	2	3	4	5
22.	I feel like I can never quite live up to my coach's standards.	1	2	3	4	5
23.	I feel that other players generally accept lower standards for themselves in sport than I do.	1	2	3	4	5
24.	I should be upset if I make a mistake in competition.	1	2	3	4	5
25.	In competition, I never feel like I can quite live up to my parents' standards.	1	2	3	4	5
26.	My coach sets very high standards for me in competition.	1	2	3	4	5
27.	I follow a routine to get myself into a good mindset going into competition.	1	2	3	4	5
28.	If a team-mate or opponent (who plays a similar position to me) plays better than me during competition, then I feel like I failed to some degree.	1	2	3	4	5
29.	My parents expect excellence from me in my sport.	1	2	3	4	5
30.	My coach expects excellence from me at all times: both in training and competition.	1	2	3	4	5
31.	I rarely feel that I have trained enough in preparation for a competition.	1	2	3	4	5
32.	If I do not do well all the time in competition, I feel that people will not respect me as an athlete.	1	2	3	4	5
33.	I have extremely high goals for myself in my sport.	1	2	3	4	5
34.	I develop plans that dictate how I want to perform during competition.	1	2	3	4	5
35.	I feel like my coach never tries to fully understand the mistakes I sometimes make.	1	2	3	4	5

Please complete the remaining items in this questionnaire on the next page. ☞

	To what extent do you agree or disagree with the following statements?	SD	D	N	A	SA
36.	I set higher achievement goals than most athletes who play my sport.	1	2	3	4	5
37.	I usually have trouble deciding when I have practiced enough heading into a competition.	1	2	3	4	5
38.	I feel like my parents never try to fully understand the mistakes I make in competition.	1	2	3	4	5
39.	People will probably think less of me if I make mistakes in competition.	1	2	3	4	5
40.	My parents want me to be better than all other players who play my sport.	1	2	3	4	5
41.	I set plans that highlight the strategies I want to use when I compete.	1	2	3	4	5
42.	If I play well but only make one obvious mistake in the entire game, I still feel disappointed with my performance.	1	2	3	4	5

Appendix E

Factor Loadings for 3-Factor Solution Following Principal Axes Analysis and Oblique Rotation of Mother Data with all 15 PSI-2 Items

Item	Full item description	Original subscale Designation	Factor Loadings 1	2	3
1.*	My mother doesn't really like me to tell her my troubles.	(Responsiveness)	-.42	-.07	-.07
2.*	My mother hardly ever praises me for doing well.	(Responsiveness)	-.59	-.11	-.25
3.	My mother really expects me to follow family rules.	(Demandingness)	.02	.55	-.17
4.*	My mother tells me that her ideas are correct and that I shouldn't question them.	(Autonomy-granting)	-.45	.30	-.22
5.	I can count on my mother to help me out if I have a problem.	(Responsiveness)	.43	.08	-.04
6.*	My mother really lets me get away with things.	(Demandingness)	.03	-.43	.09
7.	My mother respects my privacy.	(Autonomy-granting)	.69	-.09	-.02
8.	If I don't behave myself, my mother will punish me.	(Demandingness)	-.10	.67	.36
9.	My mother spends time just talking to me.	(Responsiveness)	.60	.11	.05
10.	My mother gives me a lot of freedom.	(Autonomy-granting)	.50	-.25	.13
11.*	My mother makes most of the decisions about what I can do.	(Autonomy-granting)	-.05	.28	-.11
12.	My mother points out ways I could do better.	(Demandingness)	.23	.26	-.27
13.*	When I do something wrong, my mother does not punish me.	(Demandingness)	.19	-.53	-.23
14.	My mother and I do things that are fun together.	(Responsiveness)	.73	.20	-.29
15.	My mother believes I have a right to my own point of view.	(Autonomy-granting)	.71	-.04	.02

Appendix F

Factor Loadings for 3-Factor Solution Following Principal Axes Analysis and Oblique Rotation of Father Data with all 15 PSI-2 Items

Item	Full item description	Original subscale Designation	Factor Loadings 1	2	3
1.*	My father doesn't really like me to tell him my troubles.	(Responsiveness)	-.53	-.01	-.15
2.*	My father hardly ever praises me for doing well.	(Responsiveness)	-.55	-.02	-.06
3.	My father really expects me to follow family rules.	(Demandingness)	.09	.42	-.20
4.*	My father tells me that his ideas are correct and that I shouldn't question them.	(Autonomy-granting)	-.34	.34	-.53
5.	I can count on my father to help me out if I have a problem.	(Responsiveness)	.56	.10	-.20
6.*	My father really lets me get away with things.	(Demandingness)	.09	-.34	-.39
7.	My father respects my privacy.	(Autonomy-granting)	.49	-.07	-.20
8.	If I don't behave myself, my father will punish me.	(Demandingness)	.11	.55	.04
9.	My father spends time just talking to me.	(Responsiveness)	.65	.22	.05
10.	My father gives me a lot of freedom.	(Autonomy-granting)	.50	-.32	-.23
11.*	My father makes most of the decisions about what I can do.	(Autonomy-granting)	-.04	.29	-.25
12.	My father points out ways I could do better.	(Demandingness)	.37	.13	-.22
13.*	When I do something wrong, my father does not punish me.	(Demandingness)	.15	-.52	-.20
14.	My father and I do things that are fun together.	(Responsiveness)	.64	.22	.10
15.	My father believes I have a right to my own point of view.	(Autonomy-granting)	.70	-.19	.03

Appendix G

Factor Loadings for Retained 10 Items in the PSI-2 for Mother and Father Data

Item	Full item description	Original subscale designation	Factor Loadings	
			Mother Data	Father Data
1.*	My mother/father doesn't really like me to tell her/him my troubles.	(Responsiveness)	-.43	-.53
2.*	My mother/father hardly ever praises me for doing well.	(Responsiveness)	-.59	-.56
4.*	My mother/father tells me that her/his ideas are correct and that I shouldn't question them.	(Autonomy-granting)	-.44	-.33
5.	I can count on my mother/father to help me out if I have a problem.	(Responsiveness)	.43	.54
7.	My mother/father respects my privacy.	(Autonomy-granting)	.69	.47
9.	My mother/father spends time just talking to me.	(Responsiveness)	.61	.63
10.	My mother/father gives me a lot of freedom.	(Autonomy-granting)	.49	.49
11.*	My mother/father makes most of the decisions about what I can do.	(Autonomy-granting)	-.05	-.05
14.	My mother/father and I do things that are fun together.	(Responsiveness)	.69	.63
15.	My mother/father believes I have a right to my own point of view.	(Autonomy-granting)	.73	.72

* Items requiring reverse scoring.

Appendix H

Abbreviated Agglomeration Schedule for Perfectionism Clusters

Agglomeration Schedule Beginning at Stage 179

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
179	29	39	226.545	158	157	182
180	1	71	234.917	175	166	183
181	12	48	243.911	168	144	186
182	15	29	254.580	162	179	190
183	1	11	265.259	180	174	189
184	5	20	278.288	178	170	191
185	6	7	292.736	167	177	190
186	3	12	307.611	173	181	191
187	4	22	322.500	165	176	188
188	4	61	341.798	187	159	189
189	1	4	371.979	183	188	193
190	6	15	404.253	185	182	192
191	3	5	453.280	186	184	192
192	3	6	518.741	191	190	193
193	1	3	674.553	189	192	0

Appendix I

Sport-MPS-2 Mean-Item Scores for Retained Clusters Following Hierarchical Cluster Analysis

Sport-MPS-2	Cluster		
	C1 (n = 60)	C2 (n = 86)	C3 (n = 48)
PS	4.13	3.79	3.15
COM	3.72	2.79	1.93
PPP	3.07	2.80	2.06
PCP	3.79	2.96	2.98
DAA	3.16	2.42	2.15
ORG	3.78	3.52	2.93

Note. The mean-item subscale scores contained within this table were used as cluster centroids (i.e., seed points) in the K-means non-hierarchical cluster analysis.