Perfectionism and Perceptions of Parenting Styles in Male Youth Soccer

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Although perfectionist orientations have been linked to a variety of cognitive, affective, and behavioral correlates in youth sport, little is known about antecedent factors that may influence adolescent athletes’ perfectionist orientations. The purpose of this study was to determine whether perceptions of parenting styles differ as a function of adolescent athletes’ perfectionist orientations. A total of 194 male youth soccer players (M age = 13.64 years; SD = 1.51; range, 10.67–16.25 years) completed measures of their perfectionist orientations in sport and of their perceptions of maternal and paternal parenting styles. Scores from the parenting style measure were calculated such that higher scores were reflective of higher parental authoritativeness (as perceived by the athletes). Cluster analyses conducted on perfectionism responses produced independent clusters of unhealthy perfectionists, healthy perfectionists, and nonperfectionists. MANOVA results revealed that both healthy- and nonperfectionists had significantly higher perceptions of maternal and paternal authoritativeness than unhealthy perfectionists (ps < .005). Results indicate that exposure to heightened authoritative parenting may play a role in developing healthy perfectionist orientations (or decrease the likelihood of developing unhealthy perfectionist orientations) in youth sport.

Keywords: healthy perfectionism, unhealthy perfectionism, parents, adolescents, sport

Perfectionism has been shown to play an important role in relation to cognitive, affective, and behavioral aspects of youth sport. For example, different components or profiles of perfectionism have been found to be related to competitive state anxiety in high school runners (M age = 14 years: Hall, Kerr, & Matthews, 1998), attitudinal body image in female figure skaters (M age = 14.56 years: Dunn, Craft, Causgrove Dunn, & Gotwals, in press), burnout in competitive junior tennis players (M age = 16.4 years: Gould, Udry, Tuffey, & Loehr, 1996), anger in late adolescent Canadian football players (M age = 18.27 years: Dunn, Gotwals, Causgrove Dunn, & Syrotuik, 2006), self-confidence in high school athletes (M age = 15.8 years: Stoeberr, Otto, Pescheck, Becker, & Stoll, 2007), and achievement goal orientations in late adolescent Canadian football players (M age = 18.24 years: Dunn, Causgrove

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Dunn, & Syrotuik, 2002). Whereas all of these variables are typically presented by researchers as factors that are influenced by perfectionist tendencies, much less is known about antecedent factors that may lead to the development of perfectionist tendencies in youth sport.

Although there is no consensus among researchers as to a single definition of perfectionism (Hewitt & Flett, 2002), the predominant view among contemporary theorists is that perfectionism is a multidimensional dispositional achievement orientation, at the core of which lies an individual’s tendency to set and strive for the flawless attainment of high performance standards (Gilman & Ashby, 2006). Depending upon the nature of interactions between children and their parents, Hamachek (1978) proposed that two different types of perfectionist orientations can potentially develop: namely, unhealthy perfectionism and healthy perfectionism. Unhealthy perfectionism reflects an individual’s tendency to adopt high perfectionist strivings (i.e., the quest to flawlessly obtain high performance standards) combined with high perfectionist concerns (i.e., concerns about failing to reach high performance standards: Stoeber & Otto, 2006). In contrast, healthy perfectionism reflects an individual’s tendency to adopt high perfectionist strivings combined with low perfectionist concerns (Stoeber & Otto). Using the subscales from measures that have been typically used to assess perfectionism in sport—namely, Frost, Marten, Lahart, and Rosenblate’s (1990) Multidimensional Perfectionism Scale (Frost-MPS), Hewitt and Flett’s (1991) Multidimensional Perfectionism Scale (Hewitt-MPS), and Dunn et al.’s (2002) Sport-Multidimensional Perfectionism Scale (Sport-MPS)—a prototypical profile of unhealthy perfectionism would be reflected by high personal standards, high organization, and high self-oriented perfectionism (i.e., high perfectionist strivings) combined with high concern over mistakes, high doubts about actions, high perceived parental pressures, and high socially prescribed perfectionism (i.e., high perfectionist concerns). A prototypical profile of healthy perfectionism would be seen in the same pattern of high scores on the perfectionist strivings dimensions combined with low scores on the perfectionist concerns dimensions (see Stoeber & Otto).

Theorists propose that unhealthy perfectionism develops in children who grow up in family environments where love/approval (from the parent) is conditional upon performance and where positive feedback is withheld by the parent unless the child meets certain performance standards (Hamachek, 1978; Hollender, 1965; Missildine, 1963). In contrast, theorists propose that healthy perfectionism develops in children who grow up in family environments where love/approval is provided unconditionally by the parent irrespective of the performance standards that are actually met by the child (Hamachek). Evidence of the important (and differential) roles that unhealthy and healthy perfectionist orientations play in competitive youth sport is well documented. For example, unhealthy perfectionist orientations in sport have been linked to unhealthy achievement goal orientations (Dunn et al., 2002), negative attitudinal body image (Dunn et al., in press), and reduced self-confidence (Stoeber et al., 2007), whereas healthy perfectionist orientations in the same studies have been linked to healthy achievement goal orientations (Dunn et al., 2002), positive attitudinal body image (Dunn et al., in press), and heightened self-confidence (Stoeber et al.).

As alluded to previously, the type (and quality) of interactions that occur between children and their parents within the family environment can play an important role in the development of adolescents’ perfectionist orientations (Hamachek,
A number of “family history models” surrounding the development of perfectionism have been proposed in the literature: the three most common being the social expectations model, the social learning model, and the social reaction model (see Flett, Hewitt, Oliver, & Macdonald, 2002, for a detailed review). The social expectations model proposes that perfectionist tendencies (e.g., concern over making mistakes) are influenced by the potential provision (or withdrawal) of praise, love, and approval from parents regarding their children’s performance. As noted by Greenspon (2008), on the basis of continual interactions with significant others in the social (or family) environment, children may develop a sense of contingent self-worth, an understanding of the meaning of “the evaluative reactions of [significant] others” (p. 269) and a capability of answering self-directed questions such as, “Is what I just did acceptable in my parents’ eyes?” The social learning model proposes that children develop perfectionist tendencies (e.g., highly organized behaviors during the pursuit of high performance standards) by copying the same perfectionist tendencies they observe in their parents (see Speirs Neumeister, 2004). Lastly, the social reaction model proposes that children develop perfectionist tendencies in reaction to adversity from the social environment, such that perfectionist tendencies (e.g., striving for flawless performance) become coping mechanisms to escape from or minimize potential threats (e.g., criticism or rejection) from significant others within the social environment (Flett et al.). Given that each of these models identifies the important role of parent–child interactions in the development of perfectionism, examining potential links between the perfectionist orientations of youth athletes and the parenting styles to which these athletes are exposed seems warranted.

Darling and Steinberg (1993) defined parenting style as “a constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent’s behaviors are expressed” (p. 488). Parenting style reflects a global set of parenting attitudes and values that are transmitted to the child across a variety of settings and contexts; this is in contrast to parenting practices or behaviors which reflect parents’ domain- or context-specific interactions with their children (Darling & Steinberg). The two most frequently cited parenting styles that have been linked to the development of different perfectionist orientations are authoritarian parenting and authoritative parenting. According to Baumrind (1971, 1989), authoritarian parents are highly controlling, highly demanding, and relatively nonresponsive toward their children. According to Baumrind (1971, 1989), authoritative parents are highly controlling, highly demanding, and relatively nonresponsive toward their children. In contrast, authoritative parents are also highly demanding but much less controlling and more responsive/supportive of their children’s needs.

Perfectionism researchers (e.g., Kawamura, Frost, & Harmatz, 2002) propose that unhealthy perfectionist tendencies develop in children who are exposed to authoritarian parenting styles because these children internalize their parents’ criticism and eventually develop their own tendencies to engage in harsh self-criticism—a central feature of unhealthy perfectionism (Blatt, 1995; Hamachek, 1978). Theorists also speculate that children who grow up in families where parents only provide performance-contingent approval (or where the child is consistently urged to do better regardless of performance accomplishments: see Missildine, 1963) develop a nothing-is-ever-good-enough attitude regarding their own performance—another feature of unhealthy perfectionism. In other words, theory suggests that children exposed to this authoritarian style of parenting rarely feel that anything they do is
good enough to receive praise or approval from their overly demanding parents (Burns, 1980; Hollender, 1965). Unhealthy perfectionist orientations are also believed to develop in children whose parents engage in highly controlling behaviors (Hutchinson & Yates, 2008; Kenney-Benson & Pomerantz, 2005). This may result in a loss of autonomy in the standard-setting process for children which may foster an individual’s tendency to believe that his/her parents set unfair or unattainably high performance standards (Silk, Morris, Kanaya, & Steinberg, 2003)—a characteristic that is also common in unhealthy perfectionism (Stoeber & Otto, 2006).

In contrast to the aforementioned description of how exposure to authoritarian parenting styles might influence the development of unhealthy perfectionist orientations, it is conceivable that exposure to authoritative parenting styles may influence the development of healthy perfectionist orientations. Authoritative parents are demanding in their expectations for their children, but these demands and expectations are not so high or excessive that individuals feel “overwhelming pressure to meet them” (Speirs Neumeister, 2004, p. 268). As such, children exposed to authoritative parenting styles may be more likely to respond to parental demands by developing their own high personal standards—which are central to the definition of healthy perfectionism (Stoeber & Otto, 2006)—and/or by developing behavioral tendencies (e.g., via organization and structure) that will provide the best opportunity to meet these standards. Moreover, by virtue of the fact that authoritative parents are both emotionally responsive to their children’s needs (irrespective of success or failure), and allow their children a voice in the standard setting process (via bidirectional lines of communication), these children will likely develop low or weak evaluative concerns (e.g., concern over mistakes, doubts about actions, perceived parental pressure) around the attainment of performance standards—characteristics that reflect healthy perfectionist orientations (Stoeber & Otto). This process may be indirectly inferred from the results of a study by Rice and Mirzadeh (2000) with university undergraduates where healthy perfectionists were found to have stronger relational attachments to their parents (as reflected by perceived parental accessibility and perceived parental responsiveness) than unhealthy perfectionists. Although not referring to parenting styles per se, Rice and Mirzadeh concluded that “Adaptive perfectionism may emerge from unique qualities in attachment relationships that encourage the development of adaptive perfectionism without detrimental relational consequences for children [by their parents] when standards are not met” (p. 244).

Despite the long-held views about the role that different parenting styles play in the development of individuals’ perfectionistic orientations, relatively little empirical research has actually been conducted to support these contentions (Flett et al., 2002; Kenney-Benson & Pomerantz, 2005). Rice, Ashby, and Preusser (1996) examined the relationship between perfectionist orientations and perceptions of parenting behaviors (rather than parenting styles per se) among male and female undergraduates. Rice et al. found that unhealthy perfectionists perceived greater expectations, more criticism, and less encouragement (i.e., authoritarian parenting characteristics) from their parents than healthy perfectionists. Similarly, Flett, Hewitt, and Singer (1995) reported significant positive correlations between socially prescribed perfectionism (i.e., an unhealthy component of perfectionism: Hewitt & Flett, 1991) and both maternal authoritarianism ($r = .34$) and paternal authoritarianism ($r = .26$) among male undergraduates. Flett et al. also found significant positive
correlations between self-oriented perfectionism (i.e., a component of healthy and unhealthy perfectionism: Stoeber & Otto, 2006) and both maternal authoritativeness ($r = .42$) and paternal authoritativeness ($r = .26$) among the female students. In other studies involving undergraduate students, Speirs Neumeister (2004) and Kawamura et al. (2002) found similar links between unhealthy components of perfectionism (i.e., socially prescribed perfectionism, concern over mistakes, and doubts about actions) and retrospective perceptions of authoritarian parenting during childhood. Speirs Neumeister also reported that students who had been exposed to authoritative/supportive parenting tended to have greater levels of self-oriented perfectionism.

Taken together, the results of existing studies that have examined links between perfectionist orientations and parenting styles seem to support theorized links between authoritarian parenting and the development of unhealthy perfectionism (i.e., heightened concern over mistakes, doubts about actions, and socially prescribed perfectionism), and to a lesser degree between authoritative parenting and the development of healthy perfectionism (i.e., high personal standards). Despite these important findings, there are limitations within the current literature that hinder the generalizability of the findings to adolescent sport. For example, all of the aforementioned studies were conducted with undergraduate students who provided information about their parents based on retrospective parenting-style measures or interviews. To avoid possible problems with retrospective recall (see Halverson, 1988), it would seem prudent to determine if these links between perfectionism and parenting styles actually exist during childhood or adolescence. Moreover, no studies examining parenting style and perfectionism have been conducted with adolescent athletes, so the extent to which links exist between perfectionist orientations in youth sport and parenting styles are still unknown. This latter issue is important because research has shown that perfectionism levels in sport can differ from perfectionism levels in other achievement domains (see Dunn, Gotwals, & Causgrove Dunn, 2005).

Sport psychology research has shown that parents play a vital role in their children’s sporting experiences during childhood and early adolescence (Côté, 1999; Horn & Horn, 2007). Perceived parental pressure and high parental expectations are associated with negative outcomes among youth athletes such as burnout (Gould et al., 1996), low levels of sport enjoyment (Brustad, 1988), and precompetitive state anxiety (Scanlan & Lewthwaite, 1984). In contrast, parents have also been shown to positively influence their children’s experiences in sport (Fredricks & Eccles, 2004); parental support, parental encouragement, and positive parental responses to children’s performances have been associated with heightened intrinsic motivation (Babkes & Weiss, 1999) and heightened levels of sport enjoyment (Leff & Hoyle, 1995) among youth athletes. Unfortunately, studies in youth sport settings have tended to examine athletes’ perceptions of specific parenting strategies/behaviors without framing these responses within the theoretical context of broader parenting styles. To overcome this limitation, researchers have recently highlighted the need to examine more global parenting concepts such as parenting styles to advance understanding of parental influence upon psychosocial development in sport (e.g., Holt, Tamminen, Black, Mandigo, & Fox, 2009; Horn & Horn, 2007).

Given that parenting styles are believed to influence adolescents’ experiences across a variety of achievement settings (Darling & Steinberg, 1993), the purpose of this study was to determine whether adolescent athletes’ perceptions of parent-
ing styles (i.e., authoritarian and authoritative) differ as a function of the athletes’ perfectionist orientations in sport (i.e., unhealthy vs. healthy perfectionism). We hypothesized that athletes with unhealthy perfectionist orientations would be inclined to report heightened perceptions of authoritarian parenting (i.e., high demandingness, low responsiveness/supportiveness, and low autonomy-granting tendencies) whereas athletes with healthy perfectionist orientations would be inclined to report heightened perceptions of authoritative parenting (i.e., high demandingness, high responsiveness/supportiveness, and high autonomy-granting tendencies: see Darling & Steinberg, 1993; Steinberg, 2001).^1^ It should be noted that the current study did not set out to directly examine the mechanisms by which perfectionist orientations develop in adolescent athletes (as described previously in the summary of family history models of development). Nevertheless, the study was largely framed within the social expectations model (see Flett et al., 2002) for two reasons. First, the distinction between healthy and unhealthy perfectionism is presented throughout this paper and the development of these contrasting perfectionist orientations (according to Hamachek [1978]) is influenced by the degree to which parents provide performance-contingent (or noncontingent) approval to their children (in accordance with the social expectations model). Second, previous research with adolescents has shown that the social expectations model “holds explanatory power in accounting for the experiences of different types of perfectionists growing up with either authoritarian or authoritative parents” (Speirs Neumeister, Williams, & Cross, 2009, p. 205) and these parenting styles were of specific interest in the current study.

### Method

#### Participants

Adolescence is considered a key period in the development of perfectionism (Flett et al., 2002). Consequently, adolescent athletes—with adolescence being defined as the second decade of an individual’s life (Lerner, Brown, & Kier, 2005)—were sampled. Male 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). We therefore 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.

Participants were 194 male youth soccer players (from 18 teams) who competed at the highest levels of age-group soccer within a western Canadian city (\(M_{\text{age}} = 13.64\) years; \(SD = 1.51\)). The sample consisted of 35 forwards, 68 midfielders, 74 defenders, and 15 goalkeepers. Two participants did not disclose their playing position. Athletes reported an average of 2.75 years of playing experience with their respective teams (\(SD = 1.59\)). 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 ethnic background.
Instruments

Participants completed four self-report questionnaires: (1) a demographic questionnaire, (2) the Sport-Multidimensional Perfectionism Scale-2 (Sport-MPS-2: Gotwals & Dunn, 2009), and (3) two versions of the Parenting Style Inventory-2 (PSI-2: Darling & Toyokawa, 1997) to examine athletes’ perceptions of maternal and paternal parenting styles.

**Sport Multidimensional Perfectionism Scale-2 (Sport-MPS-2).** The Sport-MPS-2 (Gotwals & Dunn, 2009) is an updated version of the Sport-MPS (Dunn et al., 2002) and is a 42-item measure of perfectionism in sport that was modeled upon Frost et al.’s (1990) measure of global perfectionism—the Frost Multidimensional Perfectionism Scale. 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”). Although the Frost-MPS served as the theoretical template for the creation of the Sport-MPS-2, it should nonetheless be noted that the PCP subscale of the Sport-MPS-2 is a domain-specific construct that is not measured by the Frost-MPS, and the ORG subscale of the Sport-MPS-2 is conceptualized quite differently than the similarly labeled ORG subscale of the Frost-MPS (see Gotwals et al., 2010, for a detailed discussion).

Respondents rate the extent to which they agree with items using a 5-point scale (1 = strongly disagree; 5 = strongly agree). Higher composite subscale scores reflect higher levels of perfectionism on each dimension. Acceptable levels of internal consistency (Cronbach’s α ≥ .70) for the subscales comprising the Sport-MPS-2 have been consistently reported in the literature (e.g., Dunn, Causgrove Dunn, et al., 2006; Dunn et al., 2002; Gotwals & Dunn, 2009; Gotwals et al., 2010). Gotwals and Dunn (2009) and Gotwals et al. (2010) have recently provided structural validity evidence supporting all six factors/subscales using multidimensional scaling and/or factor analytic techniques with multiple independent samples of athletes. Convergent and divergent validity evidence in the form of theoretically interpretable correlations with measures of global perfectionism (see Gotwals et al., 2010) and self-esteem (see Gotwals & Dunn) has also been reported. Stoebner, Uphill, and Hotham (2009) stated that the Sport-MPS (Dunn et al., 2002)—i.e., the predecessor to the Sport-MPS-2 that contains all Sport-MPS-2 subscales excluding DAA and ORG—is the “most widely used sport-specific measure of perfectionism and has been tested in a number of studies showing high reliability and validity” (p. 216).

**Parenting Style Inventory-2 (PSI-2).**

The PSI-2 (Darling & Toyokawa, 1997) is a modified (and much shorter) version of the original Parenting Style Inventory developed by Steinberg, Lamborn, Dornbusch, and Darling (1992) and measures the perceptions that children and youth have about
their parents’ parenting styles. The instrument contains three 5-item subscales that are designed 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 tendencies (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 items using a 7-point scale (1 = strongly disagree; 7 = strongly agree). Higher subscale scores reflect stronger agreement toward each dimension. In this study, respondents rated their mothers and fathers on separate inventories because current research indicates the need to disaggregate parenting styles of mothers and fathers (see Holt et al., 2009; Simons & Conger, 2007).

The PSI-2 was developed in a study involving 318 sixth-, seventh-, and eighth-grade students by Darling and Toyokawa (1997) in which acceptable levels of internal consistency across all three subscales ($\alpha$s ranged from .72 to .75) were obtained. Although the PSI-2 has contributed to the measurement of parenting styles in the extant literature (e.g., Darling, Cumsille, Caldwell, & Dowdy, 2006; Nijhof & Engels, 2007), since its development the instrument has undergone relatively little psychometric testing.

**Procedure**

Permission to conduct the study was granted by the researchers’ institutional Human Research Ethics Board. 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. Participants (and parents) were informed that the study was interested in looking at athletes’ experiences in youth soccer and the types of interactions that athletes have with their parents.

All athletes voluntarily participated and written parental consent was obtained for all participants before testing. Questionnaire packages were administered by the principal author at various training facilities on nongame days during the teams’ respective seasons. Coaches and parents were not present at the time of testing. The presentation order of the PSI-2-Mother and PSI-2-Father was counterbalanced to minimize potential order effects; the demographic questionnaire was always presented first and the Sport-MPS-2 last. The testing protocol took approximately 25 min.

**Results**

A total of 92 missing data points (out of 13,968 possible responses) were received. Missing data points were replaced by computing an intraindividual mean-item score for the subscale with which the corresponding item was associated (see Hair, Anderson, Tatham, & Black, 1998). Examination of these missing data points revealed no systematic pattern at either the item- or person-level of analysis. All 194 athletes completed the Sport-MPS-2; however, not all athletes completed both versions of the PSI-2. Specifically, three athletes did not provide any responses on the PSI-2-Mother, and another three athletes did not provide any responses on the PSI-2 Father.
Preliminary Psychometric Analyses

Internal consistency values (α) were calculated for the six subscales of the Sport-MPS-2 and the three subscales of each version of the PSI-2. Although internal consistency levels for all six perfectionism subscales were acceptable (all αs ≥ .76), only the responsiveness subscales of the PSI-2-Mother and PSI-2-Father had acceptable levels of internal consistency (αs ≥ .70). Given the apparently questionable reliability of the autonomy-granting and demandingness subscales, we elected to treat both versions of the PSI-2 as unidimensional measures of perceived parental authoritativeness. Creating a single composite-scale score for the PSI-2—with higher scores reflecting higher perceptions of parental authoritativeness—is a strategy that has been previously employed by Darling et al. (2006). Following the removal of the same autonomy-granting item (Item 11: “My mother/father makes most of the decisions about what I can do”) from each scale (because internal consistency went up when the item was removed), both 14-item scales had acceptable levels of internal consistency (i.e., αs = .70). Treating the PSI-2-Mother and PSI-2-Father as unidimensional instruments has the obvious disadvantage of precluding the opportunity to study potential differences between perceptions of authoritative and authoritarian parenting (as they relate to perfectionism). Nevertheless, combining the items from all three subscales to form a single composite-scale score has two key advantages: namely, the researchers are provided with internally consistent measures, and all facets of Baumrind’s (1991) parenting styles (i.e., responsiveness, autonomy granting, and demandingness) are retained in the analyses which permits the study of perceived parental authoritativeness.

Means, standard deviations, and internal consistency values for all of the retained parenting-style and perfectionism subscales are contained in Table 1. The skewness and kurtosis values of all Sport-MPS-2 subscales were univariate normal (i.e., all observed zs ≤ 1.98, all ps > .01; see Tabachnick & Fidell, 1996, p. 73) as were the kurtosis values for perceived maternal and paternal authoritativeness (observed zs ≤ 2.14, ps > .01). The negative skewness values for perceived maternal and paternal authoritativeness (see Table 1) were both significant (observed zs ≥ 3.62, ps < .001) suggesting that these variables do not possess univariate normality for skewness. Nevertheless, the distributional characteristics of the variables were deemed suitable for inclusion in all of the remaining analyses (see Tabachnick & Fidell).

Relationships Between Perfectionism and Perceptions of Authoritative Parenting

Bivariate correlations (r) between Sport-MPS-2 subscales and perceived maternal- and paternal-authoritativeness were calculated. As seen in Table 1, personal standards was unrelated to perceptions of maternal and paternal authoritativeness. However, concern over mistakes, perceived parental pressure, perceived coach pressure, and doubts about actions all had significant negative correlations with perceptions of authoritative parenting (for both mothers and fathers). These four subscales are typically associated with unhealthy perfectionist orientations in sport (Gotwals & Dunn, 2009; Gotwals et al., 2010). Thus, as the athletes’ scores on the unhealthy components of perfectionism increased (i.e., COM, PPP, PCP, and DAA), perceptions of maternal and paternal authoritativeness decreased.
In contrast to the clear pattern of negative correlations between the unhealthy aspects of perfectionism and perceived parental authoritativeness, the organization subscale of the Sport-MPS-2 had a significant positive correlation ($r = .26$) with perceptions of paternal authoritativeness. In other words, as the athletes’ preferences for pregame and within-game routines/plans increased, so too did their tendency to view their fathers as demonstrating heightened authoritativeness.

**Perfectionism Profiles and Perceptions of Authoritative 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 consider the pattern of scores across all perfectionism dimensions simultaneously (see Dunn et al., 2002; Parker, 1997; Stoeber & Otto, 2006). The combination of high scores across all perfectionism dimensions is generally indicative of unhealthy perfectionist orientations in sport (see Dunn et al., 2002; Gotwals & Dunn, 2009; Vallance, Dunn, & Causgrove Dunn, 2006), whereas the combination of high scores on the personal standards and organization subscales with low scores on the remaining subscales is indicative of healthy perfectionist orientations in sport (see Dunn et al., 2002; Gotwals et al., 2010; Gould, Dieffenbach, & Moffett, 2002).

A hierarchical cluster analysis was conducted upon the Sport-MPS-2 data to help determine if athletes’ perceptions of maternal and paternal authoritativeness differed as a function of the athletes’ perfectionist orientations in sport (i.e., unhealthy vs. healthy perfectionism). In accordance with theory (cf. Gilman & Ashby, 2006; Hamachek, 1978), it was hypothesized that individuals who exhibited healthy perfectionist tendencies would have higher perceptions of parental authoritativeness than individuals who exhibited unhealthy perfectionist tendencies.

Before conducting the cluster analyses, Sport-MPS-2 data were screened for the presence of multivariate outliers that might unduly influence the formation of clusters (see Bergman, Magnusson, & El-Khoury, 2003; Hair et al., 1998). Mahalanobis distances were computed for each individual (in accordance with procedures described by Tabachnick and Fidell, 1996, pp. 66–68) and evaluated with a $\chi^2$ statistic. All resulting Mahalanobis distances (and corresponding $\chi^2$ values [$df = 6$]) were not statistically significant (i.e., all $ps > .001$: see Tabachnick & Fidell, p. 94) indicating that the Sport-MPS-2 data for all participants were suitable for inclusion in the cluster analyses.

Mean-item Sport-MPS-2 subscale scores for each individual were subjected to a hierarchical cluster analysis using Ward’s agglomerative method with squared Euclidean distances (see Hair et al., 1998; Parker, 1997; Rice & Mirzadeh, 2000). This method attempts to produce clusters that have relatively similar numbers of individuals in each cluster. Analysis of the resulting dendrogram and agglomeration schedule suggested the retention of three clusters. In accordance with recommendations provided by Hair et al., the data were then reanalyzed using a nonhierarchical (K-means) cluster analysis whereby the cluster centroids that were derived from the hierarchical cluster analysis were entered as seed points for the nonhierarchical analysis. The three clusters resulting from the nonhierarchical analysis were retained (see Table 2). Cluster 1 (C1) contained 60 athletes ($M_{age} = 13.68$ years, $SD$
Cluster 2 (C2) contained 77 athletes ($M_{age} = 13.97$ years, $SD = 1.51$), and Cluster 3 (C3) contained 57 athletes ($M_{age} = 13.13$ years, $SD = 1.51$). The means and standard deviations of the six Sport-MPS-2 subscales within each cluster are also presented in Table 2.

For descriptive purposes, a one way MANOVA was conducted to determine whether the clusters differed across the six perfectionism dimensions (see Vallance et al., 2006). Cluster membership was entered as the independent variable and the six Sport-MPS-2 subscales were entered as the dependent variables. A significant multivariate test statistic was obtained: Wilks’s $L = .175$, $F(12, 372) = 43.08$, $p < .0001$, partial $\eta^2 = .58$. Follow-up univariate $F$-tests identified significant between-cluster differences across all six perfectionism subscales (all $ps < .0001$: see Table 2). Post hoc independent $t$ tests (with Bonferroni corrections) were then conducted to determine where clusters differed across the subscales. As seen in Table 2, C1 had significantly higher mean scores across all six Sport-MPS-2 subscales than C3. Cluster 1 also had significantly higher mean scores across four Sport-MPS-2 subscales (i.e., COM, PPP, PCP, DAA) than C2. The mean personal standards scores for clusters 1 and 2 did not differ significantly (i.e., $ps > .05$); however, C1 had a significantly lower mean ORG score than C2 ($p < .01$). Cluster 2 had significantly higher mean scores across all Sport-MPS-2 subscales than C3, except for the perceived parental pressure and doubts about actions subscales (where differences were not statistically significant).

The patterns of Sport-MPS-2 scores for C1 and C2 closely resemble profiles of unhealthy and healthy perfectionism respectively (see Dunn et al., 2002; Dunn et al., in press; Gotwals & Dunn, 2009; Gould et al., 2002; Hamachek, 1978; Parker, 1997; Rice & Mirzadeh, 2000; Stoeber & Otto, 2006). Specifically, athletes in both clusters reported similarly high levels of personal standards. However, unhealthy perfectionists (C1) had higher concern over mistakes, higher perceptions of parental- and coach-pressure, and higher doubts about their readiness for competition (DAA) than the group of healthy perfectionists (C2). In contrast, the healthy perfectionists (C2) reported higher organization levels in terms of precompetition planning and routines than unhealthy perfectionists (C1). Given these characteristics, Clusters 1 and 2 were respectively labeled unhealthy perfectionists (C1) and healthy perfectionists (C2). The third cluster was labeled nonperfectionists (C3) due to the relatively low scores across all six perfectionism subscales (cf. Parker, 1997; Rice & Mirzadeh, 2000).

To determine if theoretically meaningful differences existed across the clusters in terms of athletes’ perceptions of parental authoritativeness, a one-way MANOVA was conducted with cluster membership entered as the independent variable and perceived maternal and paternal authoritativeness entered as the two dependent variables. The multivariate test was statistically significant: Wilk’s $\Lambda = .873$, $F(4, 368) = 6.453$, $p < .0001$, partial $\eta^2 = .07$. Follow-up univariate $F$ tests were also significant for perceptions of maternal, $F(2, 185) = 12.192$, $p < .0001$, partial $\eta^2 = .12$, and paternal, $F(2, 185) = 9.22$, $p < .0001$, partial $\eta^2 = .09$, authoritativeness.

Post hoc independent $t$ tests (with Bonferroni corrections) were conducted to determine where specific between-cluster differences existed for each parenting variable (see Table 3). Results showed that, on average, healthy perfectionists (C2) and nonperfectionists (C3) had significantly higher perceptions of both maternal ($ps < .005$) and paternal ($ps < .01$) authoritativeness than unhealthy perfectionists
Perfectionism and Parenting Styles

All effect sizes (using Cohen’s [1969] d for independent means) for these significant differences were moderate to large in magnitude (ds ranged from .52 to .80). Healthy perfectionists (C2) and nonperfectionists (C3) did not differ in their perceptions of either maternal or paternal authoritativeness (ps > .05; ds ≤ .17). Collectively, these results indicate that the athletes who exhibited unhealthy perfectionist tendencies in sport were more inclined to perceive lower levels of parental authoritativeness than healthy perfectionists and nonperfectionists.

Discussion

The primary purpose of this study was to determine whether adolescent athletes’ perceptions of parenting styles (i.e., authoritarian and authoritative) differed as a function of the athletes’ perfectionist orientations in sport (i.e., unhealthy vs. healthy perfectionism). Due to psychometric problems with the PSI-2 that emerged following preliminary data analyses, both the maternal and paternal versions of the instrument were treated as unidimensional measures of perceived parental authoritativeness (as previously done by Darling et al. [2006]); consequently, only questions relating to perceived parental authoritativeness were examined. In accordance with theory (see Flett et al., 2002; Gilman & Ashby, 2006; Hamachek, 1978), it was anticipated that athletes who exhibited healthy perfectionist orientations would have stronger perceptions of parental authoritativeness than athletes who exhibited unhealthy perfectionist orientations. Overall, results supported this hypothesis (see Tables 1 and 3).

The bivariate correlations in Table 1 reveal that all four unhealthy perfectionism dimensions (i.e., COM, PPP, PCP, and DAA: Gotwals & Dunn, 2009) had significant negative correlations with perceptions of maternal and paternal authoritativeness. Given that lower scores on COM, PPP, PCP, and DAA are typically associated with healthier perfectionist orientations (see Dunn et al., 2002; Parker, 1997; Rice & Mirzadeh, 2000), these findings are consistent with theoretical expectations in that healthy perfectionists are believed to grow up in demanding yet supportive (i.e., responsive and autonomy-granting) family environments where parental approval is not conditional upon the child meeting the standards and expectations of the parent (Blatt, 1995; Burns, 1980; Hamachek, 1978; Missildine, 1963).

In contrast to the negative correlations that existed between the unhealthy dimensions of perfectionism and perceived parental authoritativeness, the organization subscale of the Sport-MPS-2 was positively correlated with perceptions of paternal authoritativeness. As the disposition for athletes to implement plans or routines before and during competition increased, so too did the athletes’ tendency to view their fathers as being more authoritative in their parenting style. Gotwals and Dunn (2009) proposed that organization (as measured by the Sport-MPS-2) is likely to play an adaptive function in sport; therefore, it is noteworthy that higher ORG scores were linked with higher perceptions of fathers’ authoritative parenting tendencies. It is possible that athletes with higher ORG scores had been provided with informational support (from coaches or parents) about how best to prepare for competition and had been encouraged (by their authoritative fathers) to take ownership for developing and implementing their own performance plans. This speculative hypothesis fits with previous research that has shown how authoritative 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 for adopting certain behaviors, actions, and values (see Darling & Steinberg, 1993; Maccoby & Martin, 1983). Clearly more research is required to identify factors that potentially influence the development of organization tendencies in youth athletes.

Although the bivariate correlations in Table 1 illustrate the independent links between various dimensions of perfectionism and perceived parental authoritative-ness, further insight into the nature of these relationships was obtained by examining patterns of scores across all Sport-MPS-2 subscales simultaneously (see Blatt, 1995; Dunn et al., 2002; Frost et al., 1990; Parker, 1997; Stoeber & Otto, 2006). Cluster analytic results revealed three highly interpretable clusters of perfectionists (see Table 2). The perfectionist characteristics (and labels) of Clusters 1 and 2 are very similar to conceptually analogous profiles of unhealthy and healthy perfectionism that have been previously reported in the general psychology (Parker, 1997; Rice & Mirzadeh, 2000) and sport psychology literature (Dunn et al., 2002; Gould et al., 2002).

Examination of the between-cluster differences on perceived parental authoritativity (see Table 3) revealed that healthy perfectionists (C2) had significantly higher perceptions of maternal and paternal authoritative-ness than unhealthy perfectionists (C1). Although causal inferences cannot be generated from the quasi-experimental (cross-sectional) nature of this aspect of the research, it seems reasonable to speculate that adolescent athletes who are raised in demanding, noncontrolling (i.e., autonomy-granting) and emotionally supportive home environments may be protected from developing unhealthy perfectionist tendencies in sport because they do not feel pressure to meet the required performance expectations that may be imposed upon them by their parents—as is believed to be the case for unhealthy perfectionists—(see Flett et al., 1995; Hamachek, 1978; Kenney-Benson & Pomerantz, 2005; Speirs Neumeister, 2004). As such, healthy perfectionists would be less likely to feel threatened by (or even recognize) the possibility that the praise and approval they desire from their parents would be withheld should performance standards not be achieved—factors that are believed to be root causes of the development of unhealthy perfectionism—(see Greenspon, 2008; Hollender, 1965; Missildine, 1963; Speirs Neumeister). To this end, we concur with Rice and Mirzadeh (2000) who speculate that healthy perfectionist tendencies may evolve in children and adolescents whose parents “are available, responsive, predictable, and nurturing” (p. 239) and who set performance expectations in ways that leave a degree of choice and control in the hands of the child (Baumrind, 1971; Grolnick, 2003; Maccoby & Martin, 1983). Longitudinal research that follows youth athletes through childhood and adolescence would be useful in substantiating these hypotheses.

The current study illuminates important relationships between perfectionist orientations and perceived parenting styles in male adolescent soccer; nonetheless, the research is not without limitations. For example, it would be unwise to generalize the current results to female adolescent athletes, to athletes participating in different sports or at different competitive levels, or to younger (i.e., children younger than 10 years of age) or older athletes (e.g., late adolescents aged 17–19 years) until empirical evidence supporting or refuting the current findings is obtained with these different samples/contexts. We caution researchers about the potential limitations
Table 1  Descriptive Statistics, Internal Consistencies (α), and Inter-Subscale Correlations (r) for All Measures

<table>
<thead>
<tr>
<th></th>
<th>Sport-MPS-2&lt;sup&gt;a&lt;/sup&gt;</th>
<th>PSI-2&lt;sup&gt;b&lt;/sup&gt;</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PS</td>
<td>COM</td>
<td>PPP</td>
<td>PCP</td>
<td>DAA</td>
<td>ORG</td>
<td></td>
<td>Mother</td>
<td>Father</td>
</tr>
<tr>
<td>Personal standards</td>
<td>(.76)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concern over mistakes</td>
<td>.49**</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived parental pressure</td>
<td>.20*</td>
<td>.46**</td>
<td>(.78)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived coach pressure</td>
<td>.26**</td>
<td>.46**</td>
<td>.28**</td>
<td>(.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doubts about actions</td>
<td>.14</td>
<td>.46**</td>
<td>.37**</td>
<td>.28**</td>
<td></td>
<td>(.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>.44**</td>
<td>.12</td>
<td>.12</td>
<td>.10</td>
<td>.09</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSI-2-Mother</td>
<td>−.01</td>
<td>−.37**</td>
<td>−.32**</td>
<td>−.34**</td>
<td>−.25**</td>
<td>.06</td>
<td>(.70)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSI-2-Father</td>
<td>.07</td>
<td>−.33**</td>
<td>−.33**</td>
<td>−.22*</td>
<td>−.24*</td>
<td>.26**</td>
<td>.66**</td>
<td>(.70)</td>
<td></td>
</tr>
<tr>
<td>&lt;i&gt;M&lt;/i&gt;</td>
<td>3.74</td>
<td>2.87</td>
<td>2.70</td>
<td>3.23</td>
<td>2.58</td>
<td>3.46</td>
<td>5.32</td>
<td>5.37</td>
<td></td>
</tr>
<tr>
<td>&lt;i&gt;SD&lt;/i&gt;</td>
<td>0.67</td>
<td>0.87</td>
<td>0.67</td>
<td>0.76</td>
<td>0.75</td>
<td>0.83</td>
<td>0.71</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>−.065</td>
<td>.073</td>
<td>.204</td>
<td>.303</td>
<td>.245</td>
<td>−.134</td>
<td>−.736</td>
<td>−.642</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>−.480</td>
<td>−.385</td>
<td>.275</td>
<td>.157</td>
<td>−.497</td>
<td>−.697</td>
<td>.761</td>
<td>.137</td>
<td></td>
</tr>
</tbody>
</table>

Note. Subscale abbreviations: PS = Personal standards; COM = Concern over mistakes; PPP = Perceived parental pressure; PCP = Perceived coach pressure; DAA = Doubts about actions; ORG = Organization. Internal consistency coefficients are contained within parenthesis in the main diagonal of the correlation matrix.

<sup>a</sup>Items rated on a 5-point scale.

<sup>b</sup>Items rated on a 7-point scale.

*<i>p</i> < .01. **<i>p</i> < .001.
Table 2  Sport-MPS-2 Means, Standard Deviations, and Univariate Statistics for Between-Cluster Comparisons

<table>
<thead>
<tr>
<th>Sport-MPS-2</th>
<th>C1 (n = 60)</th>
<th>C2 (n = 77)</th>
<th>C3 (n = 57)</th>
<th>Univariate Test Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>PS</td>
<td>3.96( _a )</td>
<td>.58</td>
<td>4.00( _a )</td>
<td>.58</td>
</tr>
<tr>
<td>COM</td>
<td>3.72( _a )</td>
<td>.63</td>
<td>2.83( _b )</td>
<td>.52</td>
</tr>
<tr>
<td>PPP</td>
<td>3.08( _a )</td>
<td>.66</td>
<td>2.78( _b )</td>
<td>.54</td>
</tr>
<tr>
<td>PCP</td>
<td>3.90( _a )</td>
<td>.60</td>
<td>2.93( _b )</td>
<td>.45</td>
</tr>
<tr>
<td>DAA</td>
<td>3.22( _a )</td>
<td>.66</td>
<td>2.40( _b )</td>
<td>.62</td>
</tr>
<tr>
<td>ORG</td>
<td>3.46( _a )</td>
<td>.78</td>
<td>3.88( _b )</td>
<td>.67</td>
</tr>
</tbody>
</table>

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.

Table 3  Means and 95% Confidence Intervals (C.I.) for Tests of Group Main Effects for Maternal and Paternal Authoritativeness

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Maternal Authoritativeness</th>
<th>Paternal Authoritativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95% C.I.</td>
<td>95% C.I.</td>
</tr>
<tr>
<td>C1 (unhealthy perfectionists)</td>
<td>4.96( _a ) 4.79 5.14</td>
<td>5.08( _a ) 4.91 5.25</td>
</tr>
<tr>
<td>C2 (healthy perfectionists)</td>
<td>5.52( _b ) 5.37 5.70</td>
<td>5.56( _b ) 5.41 5.71</td>
</tr>
<tr>
<td>C3 (nonperfectionists)</td>
<td>5.42( _b ) 5.24 5.60</td>
<td>5.45( _b ) 5.27 5.63</td>
</tr>
</tbody>
</table>

Note. Means in the same column that do not share the same subscript differ at \( p < .005 \) in post hoc contrasts employing Bonferroni corrections.

in generalizability because there is some evidence to suggest that perfectionist tendencies may differ between males and females in sport (see Dunn et al., 2005) and that perceptions of parenting styles may also differ as a function of gender (see Flett et al., 1995). Moreover, there has been speculation (based upon empirical evidence) that the salience of certain interpersonal dimensions of perfectionism in sport (e.g., perceived parental pressure and perceived coach pressure) may differ as a function of athletes’ age and competitive levels (see Dunn, Gotwals, et al., 2006).

Another key limitation surrounding this study relates to the psychometric problems (at the subscale level) with the parenting-style measure. Given that the 14 items retained within each version of the PSI-2 were summed to create single composite-scale scores, important questions about differential links between components of perfectionism and demandingness, responsiveness, and autonomy-granting
tendencies of parents (as perceived by the athletes) could not be examined, nor could questions about potential links between different perfectionist orientations and authoritarian parenting (as conceptualized by Baumrind [1991]) be addressed.

The current study is also limited by the fact that no consideration was given to the potential influence that family structure (i.e., single vs. dual-parent families), or the extent to which one parent over another (i.e., mother vs. father), might have influenced the development of athletes’ perfectionist orientations and/or athletes’ perceptions of parenting styles. These are important limitations to consider (and to address in future research) because it is possible that contrasting patterns of parenting styles within a single household (e.g., an authoritative mother and an authoritarian father) may have distinctly different influences upon the development of athletes’ perfectionist orientations relative to a family environment in which a child is exposed to similar parenting styles from both parents. Having said this, it should be noted that the direction and magnitude of the correlation between perceived maternal and perceived paternal authoritativeness ($r = .66$, $p < .001$) indicates that athletes in the current study generally perceived very similar patterns of parental authoritativeness from both parents.

As is always the case with cluster-analytic studies, the clusters are sample specific and data driven. In other words, there is no guarantee that clusters with the same profiles of Sport-MPS-2 scores would emerge in a different sample (cf. Vallance et al., 2006). Having said this, the characteristics of the three clusters showed remarkable similarity to those obtained in other cluster-analytic studies that have used the Frost-MPS (Frost et al., 1990) to measure perfectionism (see Parker, 1997; Rice & Lapsley, 2001; Rice & Mirzadeh, 2000). Lastly, the study relied upon athletes’ perceptions of their parents’ parenting styles, and for some athletes these perceptions may not have been congruent with their parents’ actual parenting styles. However, it should be noted that even if these discrepancies did exist, researchers have argued that children’s perceptions of their parents may be more important (from a developmental perspective) than actual parenting behaviors (Rice et al., 1996; Steinberg et al. 1992).

Given the design of the current study, we cannot definitively say whether exposure to authoritative parenting (as perceived by the respondents) caused athletes to develop healthy perfectionist orientations (or helped prevent the development of unhealthy perfectionist orientations), or whether healthy perfectionist orientations caused athletes to perceive stronger parental authoritativeness in their mothers and fathers (in comparison to athletes with unhealthy perfectionist orientations). Despite these limitations, the study answers calls from various perfectionism researchers (i.e., Flett et al., 1995; Kawamura et al., 2002) for more research into potential links between perfectionism and authoritative parenting. Moreover, this is the first study of its kind to be conducted with adolescents in a youth sport setting that has shown clear (and theoretically interpretable) links between athletes’ healthy perfectionist orientations and (perceived) authoritative parenting tendencies of the athletes’ mothers and fathers.

Although the current study was situated within a social expectations framework (that describes the potential influence of contingent parental approval in the development of perfectionism: see Flett et al., 2002, pp. 90–91), we should reiterate that the actual mechanisms by which perceived authoritative parenting may have influenced the development of perfectionist orientations were not examined.
Consequently, future research is required to determine if or how different parenting styles (e.g., authoritative vs. authoritarian parenting) influence the development of different perfectionist orientations in adolescent athletes. A recent study of 15 academically gifted high-school students conducted by Speirs Neumeister et al. (2009) provided evidence of a variety of parentally-driven mechanisms (i.e., family history models) that appeared to influence the development of different dimensions of perfectionism within the sample. However, the study by Speirs Neumeister et al. did not examine parenting styles per se, nor did it differentiate between healthy and unhealthy perfectionism. We hope that the current results (a) provide direction for future research that examines the potential roles that different parenting styles may play in the development of perfectionist orientations in youth sport athletes, and (b) illustrate why it is important to consider profiles or patterns of scores across perfectionism dimensions simultaneously when examining the healthy vs. unhealthy nature of perfectionism in sport (see Stoeber & Otto, 2006).

Note

1. It is important to acknowledge that our original intention was to pursue the research questions using canonical correlation analysis given that this statistical approach has been used successfully in a number of studies where distinct (but theoretically meaningful) relationships have been identified between profiles of perfectionism (i.e., unhealthy vs. healthy perfectionism) and a variety of multidimensional constructs in sport including achievement goal orientations (Dunn et al., 2002), global perfectionism (Dunn, Causgrove Dunn, Gotwals, Vallance, Craft, & Syrotuik, 2006), attitudinal body image (Dunn et al., in press) and competitive trait anxiety (Gotwals, Dunn, Causgrove Dunn, & Gamache, 2010). However, preliminary data analyses in the current study subsequently revealed psychometric problems with the parenting style measure (see Results section) and this precluded the use of canonical correlation analysis because (a) perceived parenting style could no longer be treated as a multidimensional construct, and (b) a profile resembling authoritarian parenting could no longer be identified. As such, a between-group-differences approach (using cluster-analytic and MANOVA procedures) was used to analyze the data and only athletes’ perceptions of authoritative parenting could be examined.

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References


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