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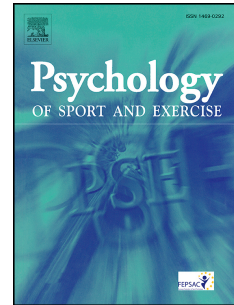
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The 2 × 2 model of perfectionism and youth sport participation: A mixed-methods approach

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5 exploration of the experiences of youth sport participants exhibiting different subtypes of
6 perfectionism using mixed-methods.

7 **Design:** A two-stage, mixed-methods, approach was adopted (quantitative identification then
8 qualitative data collection).

9 **Method:** In stage one (quantitative identification), 192 females enrolled in school- or
10 community-based sport groups (M age = 13.91; SD = .90; range 12 to 16 years) completed a
11 domain-specific perfectionism instrument (Sport-MPS-2) to identify participants prototypical
12 of the four subtypes of perfectionism. In stage two (qualitative data collection), 19
13 prototypical participants (M age = 13.74; SD = .65; range 13 to 15 years) described their
14 experiences of their youth sport involvement. One focus group (n = 4 to 5 per group) and one
15 follow-up individual, semi-structured, interview (n = 4 in total) per subtype were conducted.

16 **Results:** Thematic analysis revealed that the meaning youth sport participants gave to their
17 sport involvement (i.e., goals, values, and purposes) and the features of the social-
18 environment they perceived to be important differed between the four subtypes of
19 perfectionism. For the “pure PSP” and “mixed perfectionism” subtypes, sport was a time to
20 shine and experience success. For the “non-perfectionism” and “pure ECP” subtypes, sport
21 was a place to make friends and belong. Participants from all four subtypes described the
22 importance of the coach and peers, with some groups identifying different preferred roles for
23 the coach in terms of type and amount of involvement.

24 **Conclusions:** Youth sport participants exhibiting different subtypes of perfectionism vary in
25 their experiences of youth sport. Practitioners working with young people in sport should
26 consider these differences so to better understand and improve youth sport experiences.

27 *Keywords: qualitative; personality; motivation; parents; peers; coaches*

30 motor skills, experience enhanced physical and psychological well-being, and build
31 friendships and good moral character (e.g., Weiss, Kipp, & Bolter, 2012). Although
32 participating in sports offers a range of desirable outcomes, this is not the case for all
33 participants; sport can also be a source of negative experiences and undesirable outcomes
34 (e.g., Fraser-Thomas & Côté, 2009). For example, long-lasting physical injuries, disordered
35 eating, interpersonal difficulties, and morally questionable behaviors are also evident in youth
36 sports (e.g., Martin, Gould, & Ewing, 2017). Whether sport is a positive, negative, or mixed
37 experience for young people, and what young people come to understand about their own
38 experiences, is known to be determined by a complex set of personal and contextual factors
39 that collectively shape sport as a social domain (Roberts, 2012). Research dedicated to this
40 topic seeks to identify what personal and contextual factors are most important and the ways
41 in which these factors act upon one another. We do so in the current study by focusing on
42 whether different subtypes of perfectionism are associated with different experiences of youth
43 sport.

44 **Multidimensional perfectionism and the 2 × 2 model in sport**

45 Perfectionism is a multidimensional personality characteristic that involves setting and
46 striving for exceedingly high standards of performance accompanied by harsh critical
47 evaluations (Frost, Marten, Lahart, & Rosenblate, 1990). Several models and measures are
48 used to study perfectionism. However, perfectionism can be considered to have two broad
49 dimensions; personal standards perfectionism (PSP) (also referred to as perfectionistic
50 strivings) and evaluative concerns perfectionism (ECP) (also referred to as perfectionistic
51 concerns). PSP involves “a self-oriented tendency to set highly demanding standards and to
52 strive for their attainment” (Gaudreau & Antl, 2008, p. 357). Conversely, ECP “entails a

55 (Gaudreau & Antu, 2008, p. 337).

56 Although initially research focused on examining these dimensions independently,
57 more recently researchers have begun to examine combinations of these two dimensions.
58 This approach was formalized by Gaudreau and Thompson (2010) in the form of a 2×2
59 model of perfectionism, which includes four subtypes (or within-person combinations) of
60 perfectionism. As outlined by Gaudreau and Thompson (2010), the first subtype of
61 perfectionism is termed “non-perfectionism” and is characterized by low or no personal
62 orientation towards perfectionistic standards and no sense of perceived pressure from others
63 to pursue perfectionistic standards (low PSP/low ECP). The second subtype is “pure PSP” and
64 is characterized by holding perfectionistic standards that are derived solely from the self (high
65 PSP/low ECP). The third subtype is “pure ECP” and is characterized by the pursuit of
66 perfectionistic standards derived from pressures in the social-environment (low PSP/high
67 ECP). The fourth subtype is “mixed perfectionism” and is characterized by perceived pressure
68 from significant others to strive for perfection but also personal adherence to perfectionistic
69 standards (high PSP/high ECP).

70 The 2×2 model includes hypotheses that propose differences between the four
71 subtypes based on concepts such as internalization, motivation regulation, and person-
72 environment congruence (see Gaudreau, 2016). Hypothesis 1 offers three competing
73 assertions that pure PSP will either be associated with better (H1a), poorer (H1b), or no
74 different (H1c) outcomes compared with non-perfectionism. Hypothesis 2 (H2) asserts that
75 non-perfectionism will be associated with better outcomes compared to pure ECP. Hypothesis
76 3 (H3) asserts that mixed perfectionism will be associated with better outcomes compared to

79 Gaudreau (2016) recently reviewed research examining the 2×2 model in sport and
80 dance. Seven studies were considered in Gaudreau's review (Cumming & Duda, 2012;
81 Crocker, Gaudreau, Mosewich, & Kljajic, 2014; Gaudreau & Verner-Filion, 2012; Hill,
82 2013; Hill & Davis, 2014; Mallinson, Hill, Hall, & Gotwals, 2014; Quested, Cumming, &
83 Duda, 2014). These studies included predominantly adult sport participants ($k = 2$), youth
84 sport participants ($k = 2$), youth dancers ($k = 2$), and adult coaches ($k = 1$), and a range of
85 outcomes. Of these outcomes, some could be considered indicative of more positive
86 experiences among athletes and dancers (e.g., positive affect, intrinsic motivation, and
87 physical self-worth) and other outcomes indicative of more negative experiences (e.g.,
88 negative affect, fear of failure, and burnout). For each study, Gaudreau calculated effect sizes
89 and demonstrated that H1a was supported more often than H1b (89% of the time). H2 and H4
90 were supported the most (supported 97% of the time). Finally, H3 was supported the least
91 (80% of the time) with the notable exceptions being two studies in dance in which mixed
92 perfectionism was associated with worse outcomes when compared to pure ECP (see
93 Cumming & Duda, 2012; Quested, Cumming, & Duda, 2014). Overall, then, research has
94 generally provided support for the 2×2 model in terms of understanding differences in sport
95 experiences.

96 **Perfectionism in sport and qualitative research methods**

97 One feature of all studies examining the 2×2 model is that they have exclusively
98 relied on quantitative methods. Quantitative research methods have enabled the hypotheses of
99 the 2×2 model to be probed in a way that they can be supported (or contradicted) with some
100 degree of certainty. However, solely relying on such methods has the potential to produce an
101 artificial, static, and limited view of individuals' experiences (Cohen, Manion, & Morrison,

104 2007). Sport is a particularly complex setting and the experiences of athletes change over time
105 and contexts. In this regard, qualitative research methods are well suited to studying such
106 complexity and can offer a broader perspective on how and why phenomena might occur
107 (Sparkes & Smith, 2014). In context of perfectionism specifically, qualitative research
108 methods offer an alternative means of exploring the concept of perfectionism and an
109 opportunity to challenge (or affirm) the tenets of current models, here the 2 × 2 model (Hill,
110 Witcher, Gotwals, & Leyland, 2015).

111 Three studies have used qualitative research methods to explore perfectionism in sport
112 so far (Gotwals & Spencer-Cavaliere, 2014; Hill et al., 2015; Sellars, Evans, & Thomas,
113 2016). Of the three studies, one study opted to interview self-identified perfectionists without
114 any quantitative method (Hill et al., 2015). In total, 15 high-level athletes and performing
115 artists (dancers and musicians) were recruited and interviewed regarding their perceptions of
116 perfectionism. Of these participants, the majority were athletes who had competed or were
117 currently competing at International level (three males and four females; *M* age = 32 years;
118 range = 29 to 39 years). Using thematic analysis, drive, accomplishment, and strain emerged
119 as the main descriptors of how participants perceived perfectionism and its influence on their
120 lives. Drive characterized the participants' view that high standards of achievement and
121 performance are central to being a perfectionist. Accomplishment and strain highlighted the
122 specific benefits and drawbacks that participants perceived of being a perfectionist.

123 Like the intentions of the current study, the remaining two studies adopted specific
124 models of perfectionism and quantitative and qualitative methods so to explore the
125 experiences of specific groups of perfectionists. In the first study, Gotwals and Spencer-
126 Cavaliere (2014) used scores on Gotwals and Dunn's (2009) Sport Multidimensional

129 perfectionists and 11 unhealthy perfectionists were subsequently interviewed regarding their
130 perspectives on achievement (M age = 21.46 years; SD = 1.96). They found the experiences
131 associated with perfectionism differed depending upon the dimensions and/or combinations of
132 perfectionism dimensions that prevailed among the athletes. Specifically, when healthy
133 perfectionism was identified, athletes were driven to accomplish reasonable and self-referent
134 goals, had better coping skills, and felt socially supported. By contrast, when unhealthy
135 perfectionism was identified, athletes reported being motivated to accomplish unreasonable
136 goals, were preoccupied with winning and avoiding failure, had worse coping skills, and
137 experienced greater interpersonal pressure.

138 In the second study, Sellars et al. (2016), like Gotwals and Spencer-Cavaliere (2014),
139 used scores on the Sport-MPS-2 to identify perfectionistic athletes. They then conducted
140 interviews solely with athletes reporting unhealthy perfectionism (high PSP/high ECP). Their
141 findings were similar to Gotwals and Spencer-Cavaliere's (2014) in that these athletes were
142 highly motivated to reach lofty personal goals, had a fear of failure, and keenly felt pressure
143 from significant others. The findings provided additional insights in terms of athletes feeling
144 dissatisfied with current goal progress, being overly critical of mistakes, and employing a
145 range of skills to cope with their perfectionism (e.g., pre-performance routines). Taken
146 together, the findings of Gotwals and Spencer-Cavaliere (2014) and Sellars et al. (2016)
147 illustrate how groupings of perfectionistic athletes differ in various ways, including
148 motivational underpinnings and coping behaviors that contribute to their experiences in sport.

149 **The present study**

150 Despite these qualitative studies offering a broader, and arguably deeper,
151 understanding of perfectionism and experiences in sport, there are two notable limitations.

154 perspective (i.e., Hill et al., 2015) or adopted other theoretical approaches (i.e., tripartite
155 model of perfectionism; Gotwals & Spencer-Cavaliere, 2014; Sellars et al., 2016). Therefore,
156 while evidence using quantitative methods has begun to accrue to support the use of the 2×2
157 model, it has yet to be explored using qualitative research methods. The second limitation is
158 that all three studies have focused on the perspectives of perfectionistic adult sport
159 participants and not youth sport participants. This is important because youth sport
160 participants operate in sport domains that are shaped differently to adult sports and so require
161 their own consideration (Merkel, 2013). In addition, perfectionism and its effects are thought
162 to change across the adolescent developmental period and so this will likely render the
163 experiences of perfectionism in youth sport different to adult sport.

164 With these limitations in mind, the purpose of the current study was to identify youth
165 sport participants prototypical of the four subtypes of perfectionism in the 2×2 model using
166 quantitative research methods and, then, to explore their experiences of their youth sport
167 involvement through use of qualitative methods. The study had the potential to satisfy two
168 important aims: (i) to explore the 2×2 model of perfectionism in a novel manner, and (ii) to
169 provide novel insights into the sport experiences of youth participants who differ in
170 combinations (or subtypes) of perfectionism.

171 **Method**

172 **Methodology**

173 Consistent with previous studies examining specific models of perfectionism (e.g.,
174 Gotwals & Spencer-Cavaliere, 2014), a two-stage, mixed-methods approach was adopted. In
175 stage one (quantitative identification) participants completed the Sport-MPS-2 (Gotwals &
176 Dunn, 2009) to identify individuals whose PSP and ECP scores reflected the four subtypes of

179 the four subtypes of perfectionism. Focus groups were selected as they enable participants to
180 share their ideas and engage in conversation with their peers. Such interactive discussions
181 enabled both individual and collective insights into their sport experiences to be gained and
182 facilitated the identification of similar and different experiences (Kitzinger, 2005; Smith &
183 Sparkes, 2017). However, a limitation of focus groups is the public nature of the data
184 collection (Sparkes & Smith, 2014). Thus, to gain further insights into experiences and
185 clarification of the ideas that may be indicative of the socially constructed experiences of
186 individuals in each of the four subtypes of perfectionism, an individual, semi-structured,
187 follow-up interview was conducted with one participant from each group. The participant
188 selected was the individual considered the most prototypical of their subtype of perfectionism,
189 based on their scores for PSP and ECP and/or their focus group responses (as detailed in the
190 procedure). Overall, the two-stage, mixed-methods approach had a greater focus on the
191 qualitative over quantitative data. The approach was adopted because it allowed for a detailed
192 description of the experiences of numerous individuals representative of the four subtypes of
193 perfectionism in the 2×2 model of perfectionism (Sparkes, 2015; Sandelowski, 2000).

194 Overall, the study was approached from an interpretivist perspective, underpinned by
195 epistemological social constructivism (knowledge is believed to be socially constructed) and
196 ontological relativism (reality is multifaceted and subjective) (Sparkes & Smith, 2014). Such
197 an approach encouraged the emphasis of qualitative over quantitative data. The quantitative
198 data was collected solely to ensure that we accounted for the experiences of individuals who
199 fall within each of the four subtypes of perfectionism in the 2×2 model of perfectionism. The
200 qualitative data (focus groups and interviews) enabled us to gain detailed insights into the

204 Following institutional ethical approval, 192 females taking part in school- or
205 community-based sports (M age = 13.91; SD = .90; range 12-16 years) were recruited for the
206 quantitative identification stage. Only adolescent females were recruited because they are
207 known to have different experiences to adolescent males in youth sport (O'Sullivan &
208 MacPhail, 2010) and the focus here was on identifying similarities and differences in
209 individuals' sport experiences based on subtypes of perfectionism rather than gender.
210 Participants had been playing their sport for an average of 3.40 years (SD = 2.36) and
211 trained/played for an average of 2.87 hours per week (SD = 2.35). Most participants were
212 involved in their sport at club level and considered their participation very important
213 compared to other activities in their lives (M = 6.49; SD = 1.68; 1 = *not at all important* to 9 =
214 *extremely important*). In the qualitative data collection stage, participants were 19 females (M
215 age = 13.74; SD = .65; range 13-15 years) purposefully sampled from the quantitative stage
216 because they met the criteria (as detailed in the procedure) to be considered prototypical of
217 one of the four subtypes of perfectionism (see Table 1). Participants had been playing their
218 sport for an average of 2.56 years (SD = 1.90) and trained/played for an average of 2.31 hours
219 per week (SD = 1.60). Their participation in sport was also considered very important (M =
220 7.16; SD = 1.50).

221 Procedure

222 **Quantitative identification.** Sport-MPS-2 (Gotwals & Dunn, 2009) responses were
223 subjected to a missing value analysis, which revealed that there were 163 complete cases and
224 29 cases with missing data. The missing data cases had 24 unique patterns and so data was
225 deemed missing in a non-systematic manner. Due to having > 5% missing data (i.e., the

228 remaining missing data cases (see Graham, Cumisime & Elek-Fisk, 2005). To ensure that
229 participants could verbally discuss their sport experiences, 17 were removed for indicating
230 that English was not their first spoken language, one further participant was removed for not
231 reporting their age, and 10 participants were removed for perceiving their sport involvement
232 to be less than moderately important (i.e., a score of < 4 on a 9-point scale). As no univariate
233 and multivariate outliers were detected, the final sample for the quantitative identification
234 phase comprised 159 participants (M age = 13.85; SD = .90; range 12-15 years).

235 Following computation of PSP (personal standards subscale) and ECP (concern over
236 mistakes subscale added to doubts about actions subscale) composite scores (i.e., total PSP
237 and total ECP), a median-split was conducted to categorize participants into groups reflective
238 of the four subtypes of perfectionism from the 2×2 model. This is consistent with extant
239 research adopting variable-centered approaches to form high and low perfectionism groupings
240 (e.g., Hill, Hall, Duda, & Appleton, 2011). Based on this approach and the withdrawal of one
241 school-based sport group due to the departure of their gatekeeper, 86 participants were
242 available for participation in the qualitative data collection stage: 26 non-perfectionism (M
243 $PSP = 1.97$, $SD = .50$; M $ECP = 3.90$, $SD = .80$), 15 pure PSP (M $PSP = 3.34$, $SD = .42$; M
244 $ECP = 4.24$, $SD = .64$), seven pure ECP (M $PSP = 2.43$, $SD = .23$; M $ECP = 5.77$, $SD = .83$),
245 and 38 mixed perfectionism (M $PSP = 3.42$, $SD = .52$; M $ECP = 6.39$, $SD = .84$) participants.
246 A one-way ANOVA with Scheffe post-hoc tests revealed that there was a statistically
247 significant difference between the four subtypes in terms of PSP, $F(3, 82) = 54.16$, $p < .05$,
248 $\eta^2 = .67$ and ECP, $F(3, 82) = 59.83$, $p < .05$, $\eta^2 = .69$, consistent with how the four subtypes
249 of perfectionism should have high and/or low levels of PSP and ECP.

252 from 34-43 minutes ($M = 39$ minutes, $SD = 4.50$). To help participants to feel comfortable
253 discussing their experiences each focus group comprised participants from the same school-
254 or community-based sport group. Participants were also reflective of the same subtype of
255 perfectionism so to create a homogeneous group and allow for any contrasts in sport
256 experiences between subtypes to be observed (Hennessy & Heary, 2005; Morgan, 1997).

257 Each focus group involved the same moderator (lead author) and a note taker. A semi-
258 structured questioning route with opening, introductory, transition, key (e.g., who, if anyone,
259 influences how much you like participating in your sport or not?), and ending questions was
260 employed (see Appendix 1). The questioning route was created and refined based on extant
261 qualitative research regarding the quality of youth sport experiences (e.g., Holland,
262 Woodcock, Cumming, & Duda, 2010), a review by a 'critical friend' (a researcher who had
263 previously conducted focus groups with youth sport participants), and a pilot focus group with
264 five 13-year-old female participants from the same school-based sport group. The pilot focus
265 group proved useful in terms of refining the questioning route, establishing the typical
266 duration of a focus group, and allowing the moderator and note taker to become familiar with
267 the questions (Morgan, 1997). Following the pilot, minor changes to the order of questions
268 were made and a question regarding future sport intentions was added.

269 To explore some of the concepts that emerged from the focus groups in greater depth,
270 an individual semi-structured follow-up interview was conducted with the one participant,
271 from each of the four focus groups, that was considered the most prototypical of their subtype
272 of perfectionism. Consistent with the interpretivist paradigm, interviews helped ensure that
273 the experiences of individuals (as well as the collective group) were fully explored. A
274 participant was considered most prototypical if they met the criteria of having a PSP and ECP

277 group responses were deemed typical for the subtype. This is consistent with the manner in
278 which the 2×2 model is typically examined (Gaudreau & Thompson, 2010). In total, four
279 individual follow-up interviews (one per subtype of perfectionism) were conducted (see Table
280 1). Interviews ranged from 21-33 minutes ($M = 27$ minutes; $SD = 5.00$). This excluded a 10-
281 minute re-familiarization period with participants, which took place prior to the interviews.

282 The same interviewer (also the focus group moderator) conducted all four follow-up
283 interviews. There was an introduction, main discussion, and a closure period. For the main
284 discussion, a semi-structured interview guide informed by Gotwals and Spencer-Cavaliere
285 (2014) was used because their study yielded insights into personal (e.g., perceptions of
286 success) and social-environment factors (e.g., role of coaches, parents, and teammates) that
287 had been identified as important by participants in the focus group stage (see Appendix 2).
288 Prompts were also employed to follow-up on responses. After each interview, the interviewer
289 documented her own reflections.

290 **Data analysis**

291 Each of the focus groups and individual interviews were audio-recorded and transcribed
292 verbatim. Participants were given pseudonyms to help ensure anonymity. Thematic analysis,
293 based on Braun and Clarke (2006), was then used to understand the sport experiences of
294 participants deemed prototypical of the four subtypes of perfectionism. For familiarization,
295 transcripts were read and re-read by the lead author and the second author. In the coding
296 phase, the lead and second author individually generated succinct codes for a focus group
297 transcript immediately followed by the corresponding individual interview transcript for each
298 subtype of perfectionism. The codes and collated data for each subtype of perfectionism were
299 then examined by the lead author to identify broader patterns of meaning (candidate themes).

302 throughout. To supplement this phase, the lead author created a data matrix of codes and
303 themes for each of the subtypes of perfectionism, which were reflected on with the second
304 author (see Miles & Huberman, 1994). Finally, to define the themes, a narrative account of
305 each theme was produced by the lead author and an informative name was determined with
306 the second author throughout the write-up as clear interpretations of the data occurred.

307 **Methodological rigour**

308 All eight key markers outlined by Tracy (2010) were considered to ensure
309 methodological rigor. First, the topic appears worthy and of significant contribution because
310 the 2×2 model of perfectionism is the most current conceptualization of perfectionism and
311 perfectionistic youth sport participants' views on their sport experiences have yet to be
312 elicited through qualitative research methods. The study was also designed in a manner that
313 should satisfy rich rigor as a variety of data collection methods (focus groups and interviews)
314 were employed to gain enough data to address the research question. In addition, the lead
315 author immersed herself in the context of the participants on multiple occasions to try and
316 ensure enough time was spent gathering the data. Participants were also selected based on
317 being at a stage of development where they should be able to discuss their sport experiences
318 in-depth. The study demonstrates sincerity as each step of the method and any challenges
319 faced when gathering and analyzing the data have transparently been documented. The
320 research is marked by thick description and the showing rather than telling of the participants'
321 experiences through inclusion of focus group exchanges between participants and individual
322 participant quotes. The study should resonate with adolescent female sport participants
323 exhibiting differing combinations of perfectionism dimensions and their coaches; potentially
324 influencing coach practice. Ethically, the study gained institutional ethical approval for

327 provide novel insights into the sport experiences of youth participants who differ in
328 combinations (or subtypes) of perfectionism dimensions. Through use of quantitative, and in
329 particular, qualitative research methods and analysis, these two objectives were met.

330 **Results**

331 Data analysis highlighted differences between the four subtypes of perfectionism in
332 terms of (i) the meaning youth sport participants gave to their sport involvement. That is, the
333 goals, values, and purposes participants expressed regarding sport. (ii) The environment that
334 they perceived could support or detract from them obtaining the outcomes they desired from
335 sport. The following sections provide a description of these two overarching themes for each
336 subtype of perfectionism. As a consequence of concurrently analyzing the focus group and
337 individual interview transcript data for each of the four subtypes of perfectionism, the
338 findings of both are interwoven in the following sections. To enable the voice of the
339 participants to be heard above and beyond pre-existing literature, the results are presented
340 devoid of links to the perfectionism and youth sport literature. Rather, the findings are
341 examined in the context of extant theory and research within the discussion.

342 **Non-perfectionism**

343 **Sport: An enjoyable hobby for friendship and learning.** For these participants,
344 netball was one of several hobbies they engaged in, as Erin said, “I feel netball is a big part of
345 my life” but she also stated that, “I personally have other hobbies.” Netball seemed to be
346 important to participants for social and personal reasons, as Erin also expressed, “I think
347 netball is a really great like social way of making friends and meeting new people but it’s also
348 really good exercise.” Although netball was important for this group, it was not necessarily

351 The social importance of netball initially appeared to be related to providing
352 opportunities for the participants to be with, and make friends, as Lorna said, “You make
353 loads of friends from it [netball].” However, the social value of netball was not restricted to
354 spending time with friends, but also having an opportunity to be part of a team that comprised
355 friendly and similar others. Erin explained, “I think mostly people are the same... so if you all
356 feel good afterwards then that means you’ve worked well as a team, used teamwork skills, so
357 everybody’s been quite encouraging and happy and things.” Further to social opportunities,
358 this group valued their participation in netball because it provided them with an opportunity to
359 develop, learn, and test their skills, as Erin said, “It’s fun because we do different exercises to
360 test different skills ... dodging and stuff ... and then you play a game and you use that in your
361 game and that shows how you can improve.”

362 In contrast to their focus upon learning and development, the participants appeared to
363 have limited regard for winning and losing as the following exchange shows:

364 Erin: ...I mean we finished last season quite positive where did we come second so that
365 was actually a big achievement for us because before we didn’t do.

366 Julia: Yeah we didn’t do that well.

367 Erin: But that proves that the training we’ve done has improved so that means if we’re
368 all dedicated players which I think most of us are with the training we have we can
369 always be improving and if not like coming third I’m not saying we have to like always
370 improve where we come just like noticing that we’re playing better.

371 Overall, opportunities to develop friendships and skills were especially important for
372 this group because they seemed to contribute to the overriding motive for participating in
373 netball, which was enjoyment. For example, Julia simply stated, “Netball is really fun to

377 **friendship and learning.** Several environmental influences supported or detracted from the
378 participants experiencing sport as an enjoyable hobby for friendship and learning. Perceptions
379 of coaches, parents, and peers were among the most prominent influencers. With regards to
380 coaches, having an understanding that sport was not the participants' only hobby appeared
381 desirable. Julia said, "But Jill [coach] if you can't play 'oh don't worry it's fine' she just says
382 'oh you can play next time' like she doesn't see it as a bad thing to do." Coaches who did not
383 understand the girls' competing priorities were seen as less desirable, as Erin explained,
384 "...matches are always on the days I have Spanish... and then if I say like 'oh I'm going to
385 Spanish' they [coaches] get really annoyed."

386 When coaches adopted a more supportive approach, by offering instructional feedback
387 in a non-threatening manner and praising the girls, they seemed able to reinforce the
388 participants' desire for improvement. This was clearly articulated by Erin, who said:

389 When you go wrong they [coaches] tell you how you can improve but they never shout
390 at you... Then when you do something right you get loads of praise and it makes you
391 feel good and it makes you keep going... so then you can improve that.

392 By being supportive of performance attempts and accepting of mistakes, a coach could further
393 support the value this group placed on developing their skills, as Julia said, "Yeah cos it's like
394 when like you get encouraged like you think you can do it and then you can do it well..."

395 However, a coach could detract from the participants' desire for improvement if they
396 expressed performance expectations or provided criticism. Such coach behaviours could
397 result in the girls withdrawing, as Julia shared:

400 know what to do in a situation and... they'd say 'oh no you shouldn't have done that .
401 Parents and peers also played an important role in supporting the participants' desire for
402 improvement and reinforcing their confidence. For instance, discussing parents, Erin said:
403 Well it's good when your parents encourage you... you could see the massive
404 difference between how confident you'd be without it and with it so when they say like
405 'oh you played really well there' or even if you didn't play well they still pick up on the
406 positive things cos they're parents... but it also helps when they say how you can
407 improve... cos you think I know what I have to do now so I can play better.

408 Peers could also support participants' desire to demonstrate competence through personal
409 improvement by acting as a reference point for improvement. Erin explained:
410 We played a game the other week and we noticed loads of techniques that the other
411 team were using that we hadn't and it wasn't really... that we didn't enjoy the match
412 but it was more like you thought 'oh maybe we should do that'... and it kind of makes
413 you feel a little bit like 'oh we should train harder we should be learning those things'.

414 Although peers could support the meaning of sport for this group, they could also detract from
415 it. For instance, peers were perceived as preventing participants from having an opportunity to
416 demonstrate improvement if they behaved in an unfair manner or undermined sport being an
417 enjoyable and social endeavour, as Sonia, Erin, and Melanie discussed:

418 Sonia: Maybe when you're playing against like a rough team that's bad... they're
419 really, really rough and they like elbow you and trip you up, stuff like that.

420 Erin: Yeah people like it can be quite sneaky cos people can do things like small things.

421 Melanie: And get away with it.

425 **Pure personal standards perfectionism**

426 **Sport: A collaborative adventure to achieve team success.** For these participants,
427 emphasis was placed on netball being a collaborative team endeavour, as Gemma said that
428 she liked netball because, “I think just like the whole team thing and playing like together.”
429 Collaborating with teammates seemed to be important to this group because it enabled them
430 to achieve success, as Ellie said, “you participate as a team... and motivate each other cos like
431 we all want to do well.” Success appeared to manifest in working to the best of their abilities
432 together and winning as a team. Lydia explained, “...we play a match like we all try and do it
433 the best we can and it like pays off cos like all our matches so far we’ve had we’ve won so
434 we’re doing pretty well.”

435 As success was linked to working as a team, it was vital that all team members were of
436 a similar disposition, as Gemma explained, “Just like trying with all their effort and just
437 constantly running and jumping and not giving up and just trying to stay positive even if it
438 could be a bad situation.” There was also a sense that teammates who did not put forth effort
439 to achieve team success were not tolerated by this group, as Gemma said, “...they
440 [teammates] don’t try and that’s like annoy like the rest of the team... it’s like well everybody
441 else is putting in their best so why can’t like you do the same.” Such was the emphasis placed
442 on working well as a team that it appeared to underpin enjoyment. As Gemma said, “Just that
443 you’re happy you played well you just feel like as a team you feel really like together and
444 happy and like you’ve really enjoyed it and you’ve done well.”

445 However, it was not just working well as a team that contributed to enjoyment, as
446 Gemma also described, “like when we win I always really enjoy that especially the whole like

449 triumphs came against opponents that were perceived to be of higher ability and the girls had
450 worked well together, then enjoyment was even more pronounced:

451 Ellie: I enjoyed our match on Thursday.

452 *Focus group moderator: What was it about that that was good Ellie?*

453 Lydia: We won.

454 Ellie: Well I dunno I think it's quite nice because they're like a private school and really
455 posh and I think it's quite nice that like it doesn't really matter what facilities you have
456 we still beat them and also I quite liked it because we worked quite well as a team.

457 Lydia: Yeah we started to concentrate more.

458 ...

459 Ellie: Yeah and we were quite competitive, yeah but in a positive way.

460 Winning and losing were kept in perspective, however, as Ellie said:

461 ...we did like really well compared to previous years because we like practiced a lot and
462 quite a lot of the game we might have lost overall but we actually like won one half of it
463 and it was against teams like that we've always considered much better than us... it was
464 a good achievement.

465 When this group did achieve as a team, there was a sense of pride, as Gemma stated,
466 "...everyone proud that you've actually like achieved something." Similarly, if individuals
467 were recognised for the efforts that they put forth to do their best for the team this also evoked
468 feelings of pride and satisfaction, as Gemma explained, "...you get a feeling of like pride like
469 I was picked out of all these people, it just makes you feel quite good about yourself."

470 Although there was a sense that the girls in this group could take pride and satisfaction from
471 their endeavours, they could also be frustrated and disappointed with themselves if they did

474 An environment without critical evaluation. Several factors were important for
475 supporting or detracting from participants being able to experience sport as an opportunity for
476 success through team collaboration. The two most prominent factors concerned the role of the
477 coach and perceptions of peers. In terms of the coach, this group seemed to require an
478 environment where they were setting the criteria for achievement, as Bryony said:

479 ...at [team] like if you want to change or you want to improve like your skills... if you
480 want like you don't have to do one set thing all the time and I like the freedom of that
481 like you can choose what you want to improve on.

482 The girls in this group also appeared most comfortable if their coach had limited expectations
483 of them, as Bryony expressed, "...I enjoy it at [team] a bit more because you get less kind of
484 like pressure on everything and it is a bit more enjoyable really because you're not yeah I
485 think a bit less is expected of you."

486 A coach who supported the girls' desire for collaborative team success by reinforcing
487 messages of trying their best and offering instructional feedback in a non-threatening manner
488 was also viewed positively. Imogen articulated this idea:

489 Well I like it cos our coach I feel like she knows us like inside out. She can have a joke
490 with us and kind of like have a laugh and stuff, but like she always wants us to like do
491 our best and stuff. And I like it cos like if you're a shooter she might say like if I shoot
492 she might say that was like rubbish or something cos she knows how I usually play and
493 like I understand then she'll tell me what to do next and she just like helps us all really.

494 In terms of peers, teammates could support this groups' desire to work well together as a team
495 by being encouraging, as Bryony and Ellie discussed:

498 like you're being part of the team.
499 Ellie: Yeah like whenever you make an interception and like people shout at you well
500 done and whatever it kind of helps motivate you and feel like you're working as a team.
501 Peers could detract from netball being a collaborative endeavour, however, if they were
502 unfriendly or judgmental. As the girls discussed:

503 Lydia: I don't know it's like with trials like with the [academy] thing from in June...
504 and I've gotten into it before but this time I didn't get in and it was absolutely awful and
505 I hated it.

506 Ellie: I felt like everyone was like much better than me.

507 Imogen: It was so difficult.

508 Lydia: The girls that do it weren't very supportive. They were more... for themselves.
509 In addition, this group viewed peers who were thought to be elevating themselves above the
510 team and again were judgmental, negatively. Lydia explained, "Stevie was telling us all what
511 we could do better, the thing is she wasn't doing it in a nice way she was like 'I'm gonna tell
512 you all what you're doing wrong you need to do this.'"

513 **Pure evaluative concerns perfectionism**

514 **Sport: An opportunity to experience belonging, togetherness, and hide within a**
515 **crowd.** These participants placed considerable emphasis on sport providing an opportunity for
516 them to develop connections with others, as Bianca said she liked dance because, "...in dance
517 we work together cos we're in a group and so we're in a whole squad... so you get to work
518 with other people..." For this group, social connections appeared to be about more than just
519 working together and extended to feelings of belonging and togetherness, as Brooke said,
520 "...it's [rugby's] just fun cos we're all like a family..." Kiera reiterated this when she said,

523 there seemed to be a protective function associated with belonging to a group of equal
524 and supportive peers, as Keira explained, "...like you don't get judged for it like cos we all
525 like do the same... and like if you make a mistake it doesn't matter cos everyone's there to
526 support you." Being aware of other people's judgements was a recurring concern for this
527 group but feeling strongly connected with and supported by peers appeared to waylay some of
528 these worries. As Kiera and Maisie discussed:

529 Kiera: Like the first time we played in teams against each other I was panicking quite a
530 lot because I thought 'oh if I do a mistake then like will everyone hate me or something'
531 but like now when we're playing teams against each it's not like that at all like
532 everyone's really supportive and like even if you make a mistake it doesn't matter.

533 Maisie: Like yeah I thought that as well like when you first started going to the matches
534 and everything it was kind of like you wanted to like make sure you got it right... but
535 then like as it got on it was just really enjoyable going like on the bus and then coming
536 back and it never really mattered that much cos we were all like friends and we were
537 helping each other.

538 It was the feeling of belonging and not being exposed and judged that seemed to
539 underpin enjoyment for this group, as Maisie said, "I just like netball cos you're kind of like
540 one of the team... you do just kind of feel less like judged and you can just have fun and work
541 as you know like a team and work with your friends. Brooke went on to say, "I just like how
542 we can all be different but all like do the same thing like we can all like I dunno we can all
543 help each other out and not like be bothered by whatever goes on or anything, I find it fun,
544 different." As the enjoyment for this group was in belonging with others and not being
545 evaluated, winning was not a valued objective for these girls. Beatrice articulated this point

548 A judgement and challenge-free environment. Many personal and environmental
549 factors supported or detracted from sport being valued as a social opportunity free from
550 judgement for this group. This group seemed to require a sense of agency and control over
551 their sport involvement as this could temper concerns over being evaluated, as Kiera said,
552 “Like so if like you’re there [at lunchtime practice] voluntarily like there’s not as much like
553 pressure to do well because like you’re going voluntarily.” Brooke reiterated the preference
554 for an environment free from judgement of others, such as teachers/coaches, when she said:

555 Well on Tuesday some of our rugby like girls we went over to [another school] and
556 started training there like by ourselves without a teacher or anything and it was just fun
557 and like how we helped each other out like some of us weren’t good at kicking but the
558 people that were good at kicking like taught us how to do it like properly and stuff.

559 Teachers/coaches supported the girls’ values for social connection by being friendly,
560 supportive, or tolerant of mistakes, as Bianca described, “...our teacher ...she treats she
561 doesn’t treat us like little kids and students she treats us like friends she’s dancing with so that
562 makes it a lot it makes more fun...” In contrast, parents did not seem to be as instrumental in
563 supporting the girls’ desire for togetherness, as Bianca simply stated, “Well when they
564 [parents] come and watch I guess it’s nice to hear them say you danced well...” Parents
565 appeared more influential in detracting from the girls’ desire to be social and participate
566 devoid of evaluation. The way they did this was by having high expectations or being
567 unsupportive, as Brooke said:

568 My dad like is a really like he just pushes you and cos he was like he used to be on one
569 of the biggest like rugby teams he used to be like really known and then he just like tries

573 meaning of sport was supported or not were their peers. As Bianca explained:

574 If they're [peers] nice to you then it makes you want to be around them more ... in other
575 sports that I've played I have noticed people who get competitive makes you want to
576 play less because they kind of ruin the sport and ruin the fun because they care too
577 much for what they're gaining rather than actual taking part which kind of ruins it.

578 When unpacking what overly competitive peers meant, Kiera said:

579 Like you're playing and if you like miss with the pass or say if you like drop it when
580 like you catch it and you drop it and then the other person gets it and everyone just
581 starts having a go.

582 **Mixed perfectionism**

583 **Sport: A time to shine and affirm self-worth.** For these participants, sport was an
584 arena in which they could feel competent, as Caitlin said, "Well I'm usually quite confident in
585 sport... just kind of like having that reassurance that you are like good at something like just
586 find that comfort within like sports." Other domains in their lives did not seem to afford them
587 the same opportunity to feel confident, as Bridget said, "...when I'm at school I don't feel like
588 as confident but then when I'm at dance I'm confident and just a lot different and free."

589 Ultimately, these girls felt that through sport they could be themselves, as Caitlin said, "It's
590 [sport is] just reassuring and something where you can just be yourself..."

591 Perceptions of competence appeared to be linked with performing to the best of their
592 abilities, as Eden said, "If you've played a good game if you feel like you've done all you can
593 even if you didn't win as long as you've done all you can you've played at your best."

594 Competence judgements also involved winning, as Hannah said, "Well you just want to play

597 negative emotions were invoked when they did not perform to their best, as Caitlin said.

598 It's quite frustrating when like you can't do something like you try quite a few times
599 and it's not going well for you...it gives you that feeling like you feel like you've just
600 let yourself down a bit...

601 Being recognised by peers as being competent was a valued outcome for this group
602 because it seemed to hold positive implications for their self-worth, as Danielle said:

603 ...I do get into it a lot in rounders but cos it's sort of like I sort of like the fact that it's
604 sort of like depending on you to... score and get a rounder so it sort of like drives you
605 more to like do well in the sport...

606 There was a balancing act, however, between being recognised for their competence and not
607 feeling responsible when their personal contributions were not effective. Further, the girls
608 expressed concerns over having their competence negatively evaluated by others and letting
609 others down. As Caitlin said:

610 Well like at school it might be like my friends or like peers who like might be expecting
611 you to be good at that and then if I'm not... I'm not like sure how they feel but it might
612 be like disappointing or like might be unsure of how good I actually am at that sport.

613 Learning from others and for themselves was seen as vital to self-advancement and
614 being able to demonstrate their ability. This was clearly illustrated in the following exchange:

615 Hannah: Well you get to meet new people as well and you hear about how they play and
616 you also see their tactics and then you can use the tactics to make your team better.

617 Bridget: Yeah you hear like other people's stories of like what they use to help them so
618 you can sort of go off that and help yourself by hearing what they've said.

621 become better than others. On the other, it made them feel like they lacked competence and
622 this invoked self-criticism, as Eden said, “It’s usually like when I can’t do something that
623 everybody else can and so I feel like I’m letting myself down cos I know I can probably do it
624 cos everybody else can do it but then I just feel bad cos I’ve let myself down...”

625 Overall, demonstrating their best in sport, relative to themselves or others, was related
626 to some feelings of enjoyment, as Eden said, “I think I would feel like I’d achieved something
627 because obviously you’ve done well in your sport you feel proud of yourself that you’ve gone
628 and done something well and you can sort of feel good about it.”

629 **A competence-supportive environment/an environment for success.** Many important
630 influences could support or detract from participants’ experiences of sport as an opportunity
631 to develop and demonstrate competence. First, these girls seemed to require some clear
632 success criteria against which their competence would be judged, as Bridget said:

633 ... It sort of like puts me off because like when my dance teacher is like giving me
634 something to aim for then I feel fine and I’ve got something to go for but when like
635 they’re just watching me and not telling me anything I sort of feel like I don’t know
636 anything and any of my routines.

637 When judgements were perceived as unfair (e.g., incongruent feedback with the criteria for
638 success), offered by peers of perceived lesser status (e.g., those not as invested or as capable),
639 or were unexpected, this ran counter to the value this group placed on demonstrating
640 competence, as Eden said:

641 I usually don’t like it when they [coaches] sort of repeat on something but I already
642 know how to do it just I’ve made a mistake and they think that I can’t do it and are
643 telling me how to do it again...

640 you don't realise.

647 The coach seemed to play an important role in supporting this groups' need to develop
648 their abilities by ensuring equal opportunity for personal advancement, as Eden said, "...here
649 everybody gets to play the same amount of games so we get the same amount of practice and
650 no one gets left out..." Coaches also supported the girls' desire to demonstrate competence by
651 offering praise/recognition, as Hannah said, "It's good when they [coaches] recognise you've
652 done something good and it builds on your confidence as well..." The final way coaches
653 supported the values of this group was by offering helpful advice. Parents also seemed to be
654 able to support this groups' desire for personal advancement by offering useful advice, as
655 Eden articulated:

656 Both my parents aren't really sporty anymore but they both used to play badminton so
657 they know like what it takes and what I've got to do to improve and what areas are
658 important so they can like help me to get better...

659 As was alluded to in earlier quotes, peers were viewed as important co-competitors in
660 this groups' quest for competence. However, there were a few ways in which they could
661 detract from this role. Peers who overshadowed this group led to them feeling disappointed
662 that their best may not be good enough, as Danielle said, "If you're like if you're working
663 against each other in groups and then they win and then they boast it just makes you feel a bit
664 like 'great thanks for that.'" Further, when peers engaged in unsportsmanlike conduct, it ran
665 counter to the enjoyment that this group could derive from demonstrating their best
666 performance, as Eden said, "Bad sportsmanship people that don't play by the rules argue back
667 sort of make games unenjoyable to play."

668 **Discussion**

071 the themes that emerged relate to novel insights regarding the 2×2 model and its tenets. We
672 then provide a comparison of the findings of the current study of perfectionistic youth sport
673 participants with findings from previous qualitative research with perfectionistic adult sport
674 participants. Finally, we provide a discussion of some of the practical implications of the
675 findings.

676 **Youth participants and their experiences of sport**

677 The two overarching themes identified provided a number of novel insights into the
678 sport experiences of youth participants who differ in subtypes of perfectionism. The first
679 theme was the meaning youth sport participants gave to their sport involvement. That is the
680 goals, values, and purposes expressed by the sport participants and how these were reflected
681 in their experiences. The second theme was the social environment that the youth sport
682 participants perceived supported or detracted from them obtaining the outcomes they desired
683 from sport. We discuss these two themes in relation to the 2×2 model and its tenets below.

684 One of the key tenets of the 2×2 model is that the four subtypes of perfectionism
685 differ in their motivational underpinning (Gaudreau & Verner-Filion, 2012). Typically, this
686 has been expressed and studied as a function of motivational regulation (e.g., intrinsic
687 motivation; Quested et al., 2014). In the current study, we found evidence that this extends
688 more broadly to the goals, values, and purposes that participants hold. We adopted the phrase
689 “meaning of sport participation” to reflect this and the social-cognitive approaches to
690 motivation that emphasize these factors (e.g., see Roberts, 2012). In particular, how socially
691 acquired beliefs influence the interpretation of events, such as whether success is construed as
692 personal effort or outperforming others, or whether the purpose of sport is considered to be
693 for personal development or social status.

690 task of mastery goals and social affirmation goals, which are two orientations frequently
697 observed in youth sports (Allen, 2003; Roberts, 2012). In context of extant perfectionism
698 literature, this finding is particularly insightful as there is typically little focus on non-
699 perfectionism. Moreover, to some, it could be considered counterintuitive to find individuals
700 who report no internal commitment or external pressure to pursue perfectionistic standards in
701 an achievement domain like sport. The findings here help to shed some light on this issue and
702 are consistent with what might be expected of non-perfectionism as a control or relatively
703 adaptive subtype in the 2×2 model (Gaudreau & Verner-Filion, 2012). Members of this
704 subtype of perfectionism are participating in sport to pursue goals other than personally
705 prescribed or socially prescribed perfection.

706 The pure PSP and mixed perfectionism groups also appeared to adopt similar goal
707 orientations to the non-perfectionism group. This was demonstrated through their focus on
708 putting forth effort to do their best. However, unlike the non-perfectionism group, these two
709 groups also described the importance of winning and outperforming others (i.e., higher ego
710 goals or performance goals; Roberts, 2012). In addition, the pure PSP group valued
711 developing and maintaining mutually satisfying relationships with similar others (Allen,
712 2003) and the mixed perfectionism group valued sport as a vehicle to maintain social status
713 (see Smith, 2003). The different combinations of goals may account for some of the
714 differences between the subtypes in terms of their experiences in sport. They also offer some
715 insight into some of the complexities of pure PSP and mixed perfectionism, such as the need
716 for multipronged hypotheses and mixed findings regarding the outcomes they are related to
717 (see Gaudreau, 2016). Specifically, based on the accounts provided by the participants, sport

720 The findings regarding the meaning of sport for the pure ECF group were also
721 illuminating. This group reported neither actively pursuing skill development nor wanting to
722 demonstrate their comparative superiority. Instead, they placed an especially high value on
723 taking part in sport for social reasons and the sense of belonging it can bring. Unlike social
724 affiliation goals, belonging in the manner that these participants described does not feature
725 prominently in social-cognitive approaches. However, it does feature in other approaches
726 (e.g., relatedness in organismic approaches; see Allen, 2006). That this group identified sport
727 as a means to feel valued and connected with others is a particularly novel finding in that it
728 might explain why we find individuals exhibiting this subtype of perfectionism participating
729 in sport when they also report other motivational qualities and experiences that suggest they
730 may shun sport participation altogether (e.g., amotivation and burnout; Nordin-Bates,
731 Raedeke, & Madigan, 2017; Madigan, Stoeber, & Passfield, 2016).

732 The second theme regarding the social environment revealed that sport experiences for
733 perfectionistic youth sport participants are at least in part dependent on significant others.
734 While this may be intuitive, research has yet to pay attention to the role of significant others
735 within the 2×2 model. Coaches, parents, and peers were mentioned throughout, with coaches
736 considered most important for all four subtypes. In particular, preferences for how coaches
737 should behave were expressed by all subtypes. This is a more novel finding than just
738 identifying they were important. All four of the subtypes desired coaches to be accepting of
739 mistakes and not to hold unrealistic expectations. Thereafter, there were differences. For
740 instance, the non-perfectionism and pure PSP groups appeared especially aware of the
741 instrumental value of the coach and were clear in their demands for coaches to provide

744 One further notable difference was that the mixed perfectionism group expressed a
745 desire to have opportunities to exercise their competitive instincts (i.e., outcompete peers).
746 This preference was unique to this particular group. This directly reflects the purpose of sport
747 and personal goals that members of this subtype held for their sport participation (e.g., social
748 status). While research has demonstrated that endorsing ego goals may be less problematic
749 when participants are more capable than others, there is a vulnerability associated with
750 coaches adopting such an approach (e.g., Standage, Duda, & Ntoumanis, 2003). That is, when
751 perceived ability is not comparatively superior, it cannot buffer the effects of ego goals and,
752 as was seen here, may lead to undesirable outcomes and negative experiences in youth sport
753 (e.g., feeling incompetent and engaging in self-criticism).

754 The pure ECP group desired minimal coach involvement. The marginalized role of the
755 coach may again reflect the primary purpose of sport for this particular group (i.e.,
756 belonging). It is revealing that the coach was not considered particularly important in
757 fulfilling this purpose. Rather, perhaps unsurprisingly, peers appeared to be most important in
758 this regard. At best, coaches were viewed as friendly and supportive facilitators of the sport
759 experience. At worst, they were viewed as overly observant and judgmental. Research
760 examining perfectionism and peers in sport is limited to only a few studies (e.g., Greblo,
761 Barić, & Erpič, 2015). The accounts provided here suggest that research examining the
762 interplay between perfectionism and peer-relations has the potential to offer additional insight
763 into the experiences that young people have in sport, particularly for those exhibiting pure
764 ECP.

765 **Sport experiences of perfectionistic youth and adult sport participants**

768 the equivalent of two subtypes of perfectionism: pure PSP and mixed perfectionism (Gotwals
769 & Spencer-Cavaliere, 2014; Hill et al., 2015; Sellars et al., 2016). In comparing the accounts
770 of youth sport participants in the current study with adult sport participants in previous
771 studies, some similarities but also some notable differences emerged. The similarities for pure
772 PSP in youth and adult sport participants were that both expressed a drive to accomplish
773 achievable, self-referent goals in sport and felt socially supported. Where the accounts from
774 this subtype differed for youth sport participants, compared to adults, is that youth
775 participants also reported feeling disappointed in themselves when personal/team expectations
776 were not met. In addition, youth participants identified peers (not just coaches) as possible
777 sources of social support and distress (not just social support). The presence of more
778 dissatisfaction and, again, the importance of peers among youth sport participants require
779 additional examination in future research examining this subtype of perfectionism, with the
780 former finding being perhaps more surprising than the latter.

781 For mixed perfectionism, both adult and youth sport participants pursued lofty
782 personal goals to be the best in sport. Further, the outcomes of competition mattered to both
783 youth and adult sport participants. Mixed perfectionists in both adult and youth sport could
784 also be overly critical of themselves particularly when they were not performing to their best
785 and expressed pressure from significant others to succeed. The differences were that, unlike
786 adults, these youth sport participants did not overly fear failure or feel dissatisfied with goal
787 progress so long as they could learn from others and their mistakes. It is possible that these
788 differences reflect the tendency for sport to become more serious, and the stakes higher, as
789 athletes get older. In addition, there is also greater opportunity for fun, less pressure, and

792 **Practical implications for working with perfectionistic youth sport participants**
793 In describing their goals and their preferred role of the coach, the participants
794 expressed preferences that map on to current literature regarding motivational climates
795 (Roberts, 2012). It appears that a more task-involving climate whereby coaches emphasize
796 self-improvement, effort, and co-operation matches the preferences of most of the subtypes.
797 Such a climate also has the advantage of being known to contribute to a range of positive
798 outcomes in youth sport such as self-esteem, intrinsic forms of motivational regulation, and
799 objective performance (Harwood, Keegan, Smith, & Raine, 2015). Providing such a climate
800 would entail using strategies like rewarding effort even if the skill is not perfect, emphasizing
801 the importance of the learning process rather than the result, and ensuring that, regardless of
802 ability, all participants have the chance to participate to their full potential (Miulli & Nordin-
803 Bates, 2011). Interestingly, providing the opposite type of motivational climate, an ego-
804 involving climate, whereby coaches emphasize comparative ability, reward only success, and
805 encourage competition would partly match the preferences expressed by the mixed
806 perfectionism subtype. However, an ego-involving climate is known to contribute to a range
807 of negative outcomes in youth sport such as negative affect, extrinsic regulation, and avoiding
808 practice/training (Harwood et al., 2015). In this instance, then, it would be unwise for coaches
809 to promote an ego-involving climate. Rather, emphasis on opportunities to learn and develop
810 their skills should take precedence, and offers greater benefit to this group over the longer-
811 term. With respect to acting on these practical implications, caution should be exercised.
812 Although the findings of qualitative research can be transferred to similar contexts, this is not
813 always the case.

814 **Limitations and future research directions**

817 our interpretations. In addition, we also acknowledge the limitations associated with
818 idiographic methods and the importance of nomothetic methods in seeking to generalize the
819 accounts of the participants. We presume the accounts of these prototypical individuals
820 reflect, at least to some degree, the experiences of other similar youth sports participants.
821 However, to assess if this is the case, based on the accounts documented, examining
822 achievement goals, social affiliation goals, and perceptions of achievement climates in larger
823 samples would be one means of gauging the representativeness of the youth sport participants
824 in the current study.

825 The manner in which we identified participants will have influenced the accounts
826 provided. This includes the instruments used as well as the specific procedure (e.g., median-
827 split). This may create findings specific to the instruments and also give an artificial sense of
828 discreet groups and experiences. Other instruments may capture different experiences and
829 warrant examination as has been the case outside of sport (e.g., Speirs Neumeister, Williams,
830 & Cross, 2007). Similarly, the use other techniques to establish groups (e.g., self-assessment
831 tools; Gaudreau, 2015) could be used to verify the experiences described here as
832 corresponding to subtypes of the 2×2 model.

833 Finally, the sample of the current study comprised only adolescent female youth sport
834 participants. Thus, the accounts of perfectionistic adolescent male youth sport participants,
835 and if they differ from females within the 2×2 model, remains unexamined. Previous
836 research highlights that adolescent females and males differ in their sport experiences
837 (O'Sullivan & MacPhail, 2010). Thus, differences are a distinct possibility. As such, it would
838 be valuable to account for the experiences of adolescent male sport participants from the
839 perspective of the 2×2 model in future research.

842 of the 2×2 model of perfectionism using quantitative data collection methods. The findings
843 provide initial evidence that the experiences young people have of sport differs across the four
844 subtypes of perfectionism from the 2×2 model. This is reflected in both the meaning they
845 give to sports participation (i.e., goals, values, and purposes) and elements of the social-
846 environment they considered most important.

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Demographic information			Mean scores	
Subtype of perfectionism	Age	Sport	PSP	ECP
Non-perfectionism	15	Netball	1.14	2.38
Non-perfectionism	14	Netball	1.00	2.33
Non-perfectionism	14	Netball	2.29	4.55
Non-perfectionism	14	Netball	1.57	3.83
Non-perfectionism	14	Netball	1.29	3.25
Pure PSP	14	Netball	3.43	4.79
Pure PSP	14	Netball	3.57	4.71
Pure PSP	14	Netball	3.00	4.71
Pure PSP	14	Netball	3.14	3.42
Pure PSP	13*	Netball	3.86	3.00
Pure ECP	15	Dance	2.14	5.38
Pure ECP	14	Rugby	2.17	5.17
Pure ECP	13	Netball	2.29	6.71
Pure ECP	13	Netball	2.67	5.54
Mixed perfectionism	13	Netball	3.29	5.42
Mixed perfectionism	14	Dance/Athletics	3.71	6.42
Mixed perfectionism	13*	Badminton	3.71	7.29
Mixed perfectionism	13	Swimming	2.86	6.50
Mixed perfectionism	13	Horse Riding/Netball	3.57	5.63

850 *Note.* Bold = participants included in individual interviews; * these participants were 14 years

851 old when interviewed; PSP = Personal Standards Perfectionism (range = 1-5); ECP =

852 Evaluative Concerns Perfectionism (range = 2-10).

What is it about your sport that you really like?

Can you give me an example of a time recently, in training, when you really liked participating in your sport?

Can you give me an example of a time recently, during competition, when you really liked participating in your sport?

Can you give me any more examples of times when you have really liked participating in your sport?

What do you least like about your sport?

Can you give me an example of a time recently, in training, when you disliked participating in your sport?

Can you give me an example of a time recently, during competition, when you disliked participating in your sport?

Can you give me any more examples of times when you have disliked participating in your sport?

Who, if anyone, influences how much you like participating in your sport or not?

What, if anything, would make you like your sport more?

Looking to the next school year/season, how do you see yourself continuing with your sport?

What was it about that which you liked?

What was it about that which you liked?

What was it about that which you liked?

What was it about that which you disliked?

What was it about that which you disliked?

What was it about that which you disliked?

What things can your coach do or say that influences how much you like participating in your sport or not?

What things can your parent(s)/guardian(s) do or say...?

What things can your peers/teammates do or say...?

Is there anyone else who is influential?

What motivates you to participate in your sport?

Can you give me any examples?

Are there any other things that motivate you to want to participate?

Describe what a typical 'good training session' looks like to you.

What would a training session where you feel good afterwards look like to you?

Can you describe the kind of thoughts and feelings you experience after a good training session?

Describe what a typical 'good game/competition' looks like to you.

What would a game/competition where you feel good afterwards look like to you?

Can you describe the kind of thoughts and feelings you experience after a good game/competition?

What makes you not want to participate in your sport?

Can you give me any examples?

Are there any other things that make you not want to participate?

Describe what a typical 'bad training session' looks like to you.

What would a training session where you feel bad afterwards look like to you?

Can you describe the kind of thoughts and feelings you experience after a bad training session?

Describe what a typical 'bad game/competition' looks like to you.

What would a game/competition where you feel bad afterwards look like to you?

Can you describe the kind of thoughts and feelings you experience after a bad game/competition?

What makes the difference between feeling good/bad about your sport participation?

How do you think you got your ideas of good/bad sport participation?

Where or who do you think you got your ideas from?

- 859 *Psychology*, 25, 551-567.
- 860 Allen, J.B. (2006). The perceived belonging in sport scale: Examining validity. *Psychology of*
861 *Sport and Exercise*, 7, 387-405.
- 862 Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research*
863 *in Psychology*, 3, 77-101.
- 864 Braun, V., & Clarke, V. (2013) *Successful qualitative research: A practical guide for*
865 *beginners*. London: Sage.
- 866 Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th Ed.).
867 London: Routledge.
- 868 Cumming, J., & Duda, J.L. (2012). Profiles of perfectionism, body-related concerns, and
869 indicators of psychological health in vocational dance students: An investigation of the 2
870 \times 2 model of perfectionism. *Psychology of Sport and Exercise*, 13, 729-738.
- 871 Crocker, P.R.E., Gaudreau, P., Mosewich, A.D., & Kljajic, K. (2014). Perfectionism and the
872 stress process in intercollegiate athletes: Examining the 2 \times 2 model of perfectionism in
873 sport competition. *International Journal of Sport Psychology*, 45, 325-348.
- 874 Fraser-Thomas, J., & Côté, J. (2009). Understanding adolescents' positive and negative
875 developmental experiences in sport. *The Sport Psychologist*, 23, 3-23.
- 876 Frost, R.O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of
877 perfectionism. *Cognitive Therapy and Research*, 5, 449-468.
- 878 Gaudreau, P. (2015). Self-assessment of the four subtypes of perfectionism in the 2 \times 2
879 model of perfectionism. *Personality and Individual Differences*, 84, 52-62.

882 London: Routledge.

883 Gaudreau, P., & Antl, S. (2008). Athletes' broad dimensions of perfectionism: Examining
884 change in life-satisfaction and the mediating role of motivation and coping. *Journal of*
885 *Sport and Exercise Psychology*, 30, 356-382.

886 Gaudreau, P., & Thompson, A. (2010). Testing a 2 × 2 model of dispositional perfectionism.
887 *Personality and Individual Differences*, 48, 532-537.

888 Gaudreau, P., & Verner-Filion, J. (2012). Dispositional perfectionism and well-being: A test
889 of the 2 × 2 model of perfectionism in the sport domain. *Sport, Exercise, and*
890 *Performance Psychology*, 1, 29-43.

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

894 Gotwals, J.K., & Spencer-Cavaliere, N. (2014). Intercollegiate perfectionistic athletes'
895 perspectives on achievement: Contributions to the understanding and assessment of
896 perfectionism in sport. *International Journal of Sport Psychology*, 45, 271-297.

897 Graham, J.W., Cumsille, P.E., & Elek-Fisk, E. (2003). Methods for handling missing data. In
898 J.A. Schinka & W.F. Velicer (Eds.), *Research methods in psychology* (pp. 87-112). New
899 York, NY: Wiley.

900 Greblo, Z., Barić, R., & Erpič, S.C. (2015). Perfectionistic strivings and perfectionistic
901 concerns in athletes: The role of peer motivational climate. *Current Psychology*, 35, 1-
902 12.

- 905 activity. *Psychology of Sport and Exercise*, 18, 9-25.
- 906 Hennessy, E., & Heary, C. (2005). Exploring children's views through focus groups. In S.
907 Greene and D. M. Hogan (Eds.), *Researching children's experiences: Approaches and*
908 *methods* (pp. 236-252). London: Sage.
- 909 Hill, A.P. (2013). Perfectionism and burnout in junior soccer players: A test of the 2 × 2
910 model of dispositional perfectionism. *Journal of Sport and Exercise Psychology*, 35, 18-
911 29.
- 912 Hill, A.P., & Davis, P.A. (2014). Perfectionism and emotion regulation in coaches: A test of
913 the 2 × 2 model of dispositional perfectionism. *Motivation and Emotion*, 38, 715-736.
- 914 Hill, A.P., Hall, H.K., Duda, J., & Appleton, P. (2011). The cognitive, affective and
915 behavioural responses of self-oriented perfectionists following successive failure on a
916 muscular endurance task. *International Journal of Sport and Exercise Psychology*, 9,
917 189-207.
- 918 Hill, A.P., Witcher, C.S., Gotwals, J.K., & Leyland, A.F. (2015). A qualitative study of
919 perfectionism among self-identified perfectionists in sport and the performing arts. *Sport,*
920 *Exercise, and Performance Psychology*, 4, 237-253.
- 921 Holland, M.J., Woodcock, C., Cumming, J., & Duda, J.L. (2010). Mental qualities and
922 employed mental techniques of young elite team sport athletes. *Journal of Clinical Sport*
923 *Psychology*, 4, 19-38.
- 924 Kitzinger, J. (2005) Focus group research: Using group dynamics to explore perceptions,
925 experiences and understandings. In I. Holloway (Ed.), *Qualitative research in health*
926 *care* (pp. 56-69). Maidenhead, UK: Open University Press.

- 929 concerns perfectionism. *Psychology of Sport and Exercise*, 20, 52-59.
- 930 Mallinson, S.H., Hill, A.P., Hall, H.K., & Gotwals, J.K. (2014). The 2 × 2 model of
931 perfectionism and school- and community-based sport participation. *Psychology in the*
932 *Schools*, 9, 972-985.
- 933 Martin, E.M., Gould, D., & Ewing, M.E. (2017). Youth's perceptions of rule-breaking and
934 antisocial behaviours: Gender, developmental level, and competitive level
935 differences. *International Journal of Sport and Exercise Psychology*, 15, 64-79.
- 936 Merkel, D.L. (2013). Youth sport: Positive and negative impact on young athletes. *Journal of*
937 *Sports Medicine*, 4, 151-160.
- 938 Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook*
939 (2nd Ed.). Thousand Oaks, CA: Sage.
- 940 Miulli, M., & Nordin-Bates, S. M. (2011). Motivational climates: What they are, and why
941 they matter. *The International Association for Dance Medicine and Science*, 3, 5-8.
- 942 Morgan, D.L. (1997). *Focus groups as qualitative research* (2nd Ed.). Thousand Oaks, CA:
943 Sage.
- 944 Nordin-Bates, S.M., Raedeke, T.D., & Madigan, D.J. (2017). Perfectionism, burnout, and
945 motivation in dance: A replication and test of the 2 × 2 model of perfectionism. *Journal*
946 *of Dance, Medicine, and Science*, 21, 115-122.
- 947 O'Sullivan, M., & MacPhail, A. (2010) *Young people's voices in physical education and*
948 *youth sport*. London: Routledge.
- 949 Quested, E., Cumming, J., & Duda, J.L. (2014). Profiles of perfectionism, motivation, and
950 self-evaluations among dancers: An extended analysis of Cumming and Duda (2012).
951 *International Journal of Sport Psychology*, 45, 349-368.

954 *Advances in motivation in sport and exercise* (pp. 5-58). Champaign, IL: Human
955 Kinetics Publishers.

956 Sandelowski, M. (2000). Focus on research methods: Whatever happened to qualitative
957 description? *Research in Nursing and Health*, 23, 334-340.

958 Sellars, P.A., Evans, L., & Thomas, O. (2016). The effects of perfectionism in elite sport:
959 Experiences of unhealthy perfectionists. *The Sport Psychologist*, 30, 219-230.

960 Smith, A.L. (2003). Peer relationships in physical activity contexts: A road less traveled in
961 youth sport and exercise psychology research. *Psychology of Sport and Exercise*, 4, 25-
962 39.

963 Smith, B., & Sparkes, A.C. (2017). Interviews: Qualitative interviewing in the sport and
964 exercise sciences. In B. Smith & A. C. Sparkes (Eds.), *Routledge handbook of*
965 *qualitative research in sport and exercise* (pp. 103-123). London: Routledge.

966 Sparkes, A.C. (2015) Developing mixed methods research in sport and exercise psychology:
967 Critical reflections on five points of controversy. *Psychology of Sport and Exercise*, 16,
968 49-59.

969 Sparkes, A.C., & Smith, B. (2014). *Qualitative research methods in sport, exercise, and*
970 *health: From process to product*. London: Routledge.

971 Speirs Neumeister, K.L., Williams, K.K., & Cross, T.L. (2007). Perfectionism in gifted high-
972 school students: Responses to academic challenge. *Roeper Review*, 29, 11.

973 Standage, M., Duda, J., & Ntoumanis, N. (2003). Predicting motivational regulations in
974 physical education: The interplay between dispositional goal orientations, motivational
975 climate and perceived competence. *Journal of Sports Sciences*, 21, 631-647.

- 978 Tracy, S.J. (2010) Quantitative quality: Eight 'big-tent' criteria for excellent quantitative
979 research. *Qualitative Inquiry*, 16, 837-851.
- 980 Weiss, M. (2016). Old wine in a new bottle: Historical reflections on sport as a context for
981 youth development. In N. L. Holt (Ed.), *Positive youth development through sport*.
982 London: Routledge.
- 983 Weiss, M.R., Kipp, L.E., & Bolter, N.D. (2012). Training for life: Optimizing positive youth
984 development through sport and physical activity. In S.M. Murphy (Ed.), *The Oxford*
985 *handbook of sport and performance psychology* (pp. 448-475). New York: Oxford
986 University Press.

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- Both quantitative and qualitative research methods were employed.
- Sport experiences differed considerably dependent upon the subtype of perfectionism.
- Novel insights were gained into the meaning of sport for perfectionistic youths.
- Coaches/peers appeared vital in shaping perfectionistic youths' sport experiences.

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