

Est.  
1841

YORK  
ST JOHN  
UNIVERSITY

Mallinson-Howard, Sarah H. ORCID: <https://orcid.org/0000-0002-8525-1540>, Knight, Camilla J., Hill, Andrew P. ORCID: <https://orcid.org/0000-0001-6370-8901> and Hall, Howard K. (2018) The 2 × 2 model of perfectionism and youth sport participation: A mixed-methods approach. *Psychology of Sport and Exercise*, 36. pp. 162-173.

Downloaded from: <http://ray.yorks.ac.uk/id/eprint/2847/>

The version presented here may differ from the published version or version of record. If you intend to cite from the work you are advised to consult the publisher's version: <https://doi.org/10.1016/j.psychsport.2018.02.011>

Research at York St John (RaY) is an institutional repository. It supports the principles of open access by making the research outputs of the University available in digital form. Copyright of the items stored in RaY reside with the authors and/or other copyright owners. Users may access full text items free of charge, and may download a copy for private study or non-commercial research. For further reuse terms, see licence terms governing individual outputs. [Institutional Repository Policy Statement](#)

# RaY

Research at the University of York St John

For more information please contact RaY at [ray@yorks.ac.uk](mailto:ray@yorks.ac.uk)

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

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

2 Mallinson-Howard, S. H.<sup>a</sup>, Knight, C. J.<sup>b</sup>, Hill, A. P.<sup>a</sup>, & Hall, H. K.<sup>a</sup>

3 <sup>a</sup> School of Sport, York St John University, UK; <sup>b</sup> College of Engineering, Swansea

4 University, UK

5 Author note

6 Sarah H. Mallinson-Howard, School of Sport, York St John University, Lord Mayor's Walk,  
7 York, YO31 7EX, UK; Camilla J. Knight, College of Engineering, Swansea University, Bay  
8 Campus, Fabian Way, Skewen, SA1 8EN, UK; Andrew P. Hill, School of Sport, York St.  
9 John University, Lord Mayor's Walk, York, YO31 7EX, UK; Howard K. Hall, School of  
10 Sport, York St. John University, Lord Mayor's Walk, York, YO31 7EX, UK.

This research is based on data collected for and material contained in the corresponding author's doctoral dissertation. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

11 Correspondence concerning this article should be addressed to Sarah H. Mallinson-Howard,  
12 School of Sport, York St John University, Lord Mayor's Walk, York, YO31 7EX, UK.

13 E-mail: [s.mallinson-howard@yorks.ac.uk](mailto:s.mallinson-howard@yorks.ac.uk)

14 Tel: (+44)1904 876154

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

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

16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41

**Abstract**

**Objectives:** Research demonstrates that four subtypes of perfectionism from the 2 × 2 model are associated with different youth sport experiences. This study provided the first exploration of the experiences of youth sport participants exhibiting different subtypes of perfectionism using mixed-methods.

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

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

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

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

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

42            Participation in youth sports can afford young people many performance, physical  
43 health, and psychosocial benefits (e.g., Weiss, 2016). For instance, young people can develop  
44 motor skills, experience enhanced physical and psychological well-being, and build  
45 friendships and good moral character (e.g., Weiss, Kipp, & Bolter, 2012). Although  
46 participating in sports offers a range of desirable outcomes, this is not the case for all  
47 participants; sport can also be a source of negative experiences and undesirable outcomes  
48 (e.g., Fraser-Thomas & Côté, 2009). For example, long-lasting physical injuries, disordered  
49 eating, interpersonal difficulties, and morally questionable behaviors are also evident in youth  
50 sports (e.g., Martin, Gould, & Ewing, 2017). Whether sport is a positive, negative, or mixed  
51 experience for young people, and what young people come to understand about their own  
52 experiences, is known to be determined by a complex set of personal and contextual factors  
53 that collectively shape sport as a social domain (Roberts, 2012). Research dedicated to this  
54 topic seeks to identify what personal and contextual factors are most important and the ways  
55 in which these factors act upon one another. We do so in the current study by focusing on  
56 whether different subtypes of perfectionism are associated with different experiences of youth  
57 sport.

### 58 **Multidimensional perfectionism and the 2 × 2 model in sport**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

67 socially prescribed tendency to evaluate oneself harshly, to doubt one's capacity to bring  
68 about desired outcomes, and to perceive that others require perfection from oneself"  
69 (Gaudreau & Antl, 2008, p. 357).

70         Although initially research focused on examining these dimensions independently,  
71 more recently researchers have begun to examine combinations of these two dimensions.  
72 This approach was formalized by Gaudreau and Thompson (2010) in the form of a 2 × 2  
73 model of perfectionism, which includes four subtypes (or within-person combinations) of  
74 perfectionism. As outlined by Gaudreau and Thompson (2010), the first subtype of  
75 perfectionism is termed "non-perfectionism" and is characterized by low or no personal  
76 orientation towards perfectionistic standards and no sense of perceived pressure from others  
77 to pursue perfectionistic standards (low PSP/low ECP). The second subtype is "pure PSP" and  
78 is characterized by holding perfectionistic standards that are derived solely from the self (high  
79 PSP/low ECP). The third subtype is "pure ECP" and is characterized by the pursuit of  
80 perfectionistic standards derived from pressures in the social-environment (low PSP/high  
81 ECP). The fourth subtype is "mixed perfectionism" and is characterized by perceived pressure  
82 from significant others to strive for perfection but also personal adherence to perfectionistic  
83 standards (high PSP/high ECP).

84         The 2 × 2 model includes hypotheses that propose differences between the four  
85 subtypes based on concepts such as internalization, motivation regulation, and person-  
86 environment congruence (see Gaudreau, 2016). Hypothesis 1 offers three competing  
87 assertions that pure PSP will either be associated with better (H1a), poorer (H1b), or no  
88 different (H1c) outcomes compared with non-perfectionism. Hypothesis 2 (H2) asserts that  
89 non-perfectionism will be associated with better outcomes compared to pure ECP. Hypothesis  
90 3 (H3) asserts that mixed perfectionism will be associated with better outcomes compared to

91 pure ECP. Finally, hypothesis 4 (H4) asserts that pure PSP will be associated with better  
92 outcomes than mixed perfectionism.

93 Gaudreau (2016) recently reviewed research examining the 2 × 2 model in sport and  
94 dance. Seven studies were considered in Gaudreau's review (Cumming & Duda, 2012;  
95 Crocker, Gaudreau, Mosewich, & Kljajic, 2014; Gaudreau & Verner-Filion, 2012; Hill,  
96 2013; Hill & Davis, 2014; Mallinson, Hill, Hall, & Gotwals, 2014; Quested, Cumming, &  
97 Duda, 2014). These studies included predominantly adult sport participants ( $k = 2$ ), youth  
98 sport participants ( $k = 2$ ), youth dancers ( $k = 2$ ), and adult coaches ( $k = 1$ ), and a range of  
99 outcomes. Of these outcomes, some could be considered indicative of more positive  
100 experiences among athletes and dancers (e.g., positive affect, intrinsic motivation, and  
101 physical self-worth) and other outcomes indicative of more negative experiences (e.g.,  
102 negative affect, fear of failure, and burnout). For each study, Gaudreau calculated effect sizes  
103 and demonstrated that H1a was supported more often than H1b (89% of the time). H2 and H4  
104 were supported the most (supported 97% of the time). Finally, H3 was supported the least  
105 (80% of the time) with the notable exceptions being two studies in dance in which mixed  
106 perfectionism was associated with worse outcomes when compared to pure ECP (see  
107 Cumming & Duda, 2012; Quested, Cumming, & Duda, 2014). Overall, then, research has  
108 generally provided support for the 2 × 2 model in terms of understanding differences in sport  
109 experiences.

#### 110 **Perfectionism in sport and qualitative research methods**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

116 2007). This is because quantitative research methods can be mechanistic and reductive when  
117 attempting to understand the thoughts, feelings, and behaviors of individuals (Cohen et al.,  
118 2007). Sport is a particularly complex setting and the experiences of athletes change over time  
119 and contexts. In this regard, qualitative research methods are well suited to studying such  
120 complexity and can offer a broader perspective on how and why phenomena might occur  
121 (Sparkes & Smith, 2014). In context of perfectionism specifically, qualitative research  
122 methods offer an alternative means of exploring the concept of perfectionism and an  
123 opportunity to challenge (or affirm) the tenets of current models, here the 2 × 2 model (Hill,  
124 Witcher, Gotwals, & Leyland, 2015).

125         Three studies have used qualitative research methods to explore perfectionism in sport  
126 so far (Gotwals & Spencer-Cavaliere, 2014; Hill et al., 2015; Sellars, Evans, & Thomas,  
127 2016). Of the three studies, one study opted to interview self-identified perfectionists without  
128 any quantitative method (Hill et al., 2015). In total, 15 high-level athletes and performing  
129 artists (dancers and musicians) were recruited and interviewed regarding their perceptions of  
130 perfectionism. Of these participants, the majority were athletes who had competed or were  
131 currently competing at International level (three males and four females; *M* age = 32 years;  
132 range = 29 to 39 years). Using thematic analysis, drive, accomplishment, and strain emerged  
133 as the main descriptors of how participants perceived perfectionism and its influence on their  
134 lives. Drive characterized the participants' view that high standards of achievement and  
135 performance are central to being a perfectionist. Accomplishment and strain highlighted the  
136 specific benefits and drawbacks that participants perceived of being a perfectionist.

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

141 Perfectionism Scale-2 (Sport-MPS-2) to identify “healthy” (high PSP/low ECP) and  
142 “unhealthy” (high PSP/high ECP) perfectionists among intercollegiate athletes. Seven healthy  
143 perfectionists and 11 unhealthy perfectionists were subsequently interviewed regarding their  
144 perspectives on achievement (*M* age = 21.46 years; *SD* = 1.96). They found the experiences  
145 associated with perfectionism differed depending upon the dimensions and/or combinations of  
146 perfectionism dimensions that prevailed among the athletes. Specifically, when healthy  
147 perfectionism was identified, athletes were driven to accomplish reasonable and self-referent  
148 goals, had better coping skills, and felt socially supported. By contrast, when unhealthy  
149 perfectionism was identified, athletes reported being motivated to accomplish unreasonable  
150 goals, were preoccupied with winning and avoiding failure, had worse coping skills, and  
151 experienced greater interpersonal pressure.

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

### 163 **The present study**

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

166 The first limitation is that none of the qualitative studies explored the personal accounts of  
167 sport participants in terms of the 2 × 2 model. Rather, these studies adopted no theoretical  
168 perspective (i.e., Hill et al., 2015) or adopted other theoretical approaches (i.e., tripartite  
169 model of perfectionism; Gotwals & Spencer-Cavaliere, 2014; Sellars et al., 2016). Therefore,  
170 while evidence using quantitative methods has begun to accrue to support the use of the 2 × 2  
171 model, it has yet to be explored using qualitative research methods. The second limitation is  
172 that all three studies have focused on the perspectives of perfectionistic adult sport  
173 participants and not youth sport participants. This is important because youth sport  
174 participants operate in sport domains that are shaped differently to adult sports and so require  
175 their own consideration (Merkel, 2013). In addition, perfectionism and its effects are thought  
176 to change across the adolescent developmental period and so this will likely render the  
177 experiences of perfectionism in youth sport different to adult sport.

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

### 185 **Method**

#### 186 **Methodology**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

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

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

215 individual experiences of participants, while understanding how these experiences are similar  
216 and different to each other and influenced by social expectations and experiences.

### 217 **Participants**

218       Following institutional ethical approval, 192 females taking part in school- or  
219 community-based sports ( $M$  age = 13.91;  $SD$  = .90; range 12-16 years) were recruited for the  
220 quantitative identification stage. Only adolescent females were recruited because they are  
221 known to have different experiences to adolescent males in youth sport (O'Sullivan &  
222 MacPhail, 2010) and the focus here was on identifying similarities and differences in  
223 individuals' sport experiences based on subtypes of perfectionism rather than gender.  
224 Participants had been playing their sport for an average of 3.40 years ( $SD$  = 2.36) and  
225 trained/played for an average of 2.87 hours per week ( $SD$  = 2.35). Most participants were  
226 involved in their sport at club level and considered their participation very important  
227 compared to other activities in their lives ( $M$  = 6.49;  $SD$  = 1.68; 1 = *not at all important* to 9 =  
228 *extremely important*). In the qualitative data collection stage, participants were 19 females ( $M$   
229 age = 13.74;  $SD$  = .65; range 13-15 years) purposefully sampled from the quantitative stage  
230 because they met the criteria (as detailed in the procedure) to be considered prototypical of  
231 one of the four subtypes of perfectionism (see Table 1). Participants had been playing their  
232 sport for an average of 2.56 years ( $SD$  = 1.90) and trained/played for an average of 2.31 hours  
233 per week ( $SD$  = 1.60). Their participation in sport was also considered very important ( $M$  =  
234 7.16;  $SD$  = 1.50).

### 235 **Procedure**

236       **Quantitative identification.** Sport-MPS-2 (Gotwals & Dunn, 2009) responses were  
237 subjected to a missing value analysis, which revealed that there were 163 complete cases and  
238 29 cases with missing data. The missing data cases had 24 unique patterns and so data was  
239 deemed missing in a non-systematic manner. Due to having > 5% missing data (i.e., the

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

240 equivalent of more than 2 items missing; see Tabachnick & Fidell, 2007), five participants  
241 were removed. The mean of the missing item subscale was used to impute values for the  
242 remaining missing data cases (see Graham, Cumsille & Elek-Fisk, 2003). To ensure that  
243 participants could verbally discuss their sport experiences, 17 were removed for indicating  
244 that English was not their first spoken language, one further participant was removed for not  
245 reporting their age, and 10 participants were removed for perceiving their sport involvement  
246 to be less than moderately important (i.e., a score of < 4 on a 9-point scale). As no univariate  
247 and multivariate outliers were detected, the final sample for the quantitative identification  
248 phase comprised 159 participants ( $M$  age = 13.85;  $SD$  = .90; range 12-15 years).

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

264           **Qualitative data collection.** One focus group, involving four to five participants, was  
265 conducted for each of the four subtypes of perfectionism (see Table 1). Focus groups ranged  
266 from 34-43 minutes ( $M = 39$  minutes;  $SD = 4.50$ ). To help participants to feel comfortable  
267 discussing their experiences each focus group comprised participants from the same school-  
268 or community-based sport group. Participants were also reflective of the same subtype of  
269 perfectionism so to create a homogeneous group and allow for any contrasts in sport  
270 experiences between subtypes to be observed (Hennessy & Heary, 2005; Morgan, 1997).

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

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

289 score one standard deviation above or below the mean, dependent upon the subtype being  
290 examined (e.g., mixed perfectionism involves  $zPSP \geq 1$  and  $zECP \geq 1$ ), and/or their focus  
291 group responses were deemed typical for the subtype. This is consistent with the manner in  
292 which the 2 × 2 model is typically examined (Gaudreau & Thompson, 2010). In total, four  
293 individual follow-up interviews (one per subtype of perfectionism) were conducted (see Table  
294 1). Interviews ranged from 21-33 minutes ( $M = 27$  minutes;  $SD = 5.00$ ). This excluded a 10-  
295 minute re-familiarization period with participants, which took place prior to the interviews.

296 The same interviewer (also the focus group moderator) conducted all four follow-up  
297 interviews. There was an introduction, main discussion, and a closure period. For the main  
298 discussion, a semi-structured interview guide informed by Gotwals and Spencer-Cavaliere  
299 (2014) was used because their study yielded insights into personal (e.g., perceptions of  
300 success) and social-environment factors (e.g., role of coaches, parents, and teammates) that  
301 had been identified as important by participants in the focus group stage (see Appendix 2).  
302 Prompts were also employed to follow-up on responses. After each interview, the interviewer  
303 documented her own reflections.

### 304 **Data analysis**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

314 The candidate themes were reviewed and refined through further comparing against the coded  
315 data and entire data-set (Braun & Clarke, 2013). As such, abductive analysis was used  
316 throughout. To supplement this phase, the lead author created a data matrix of codes and  
317 themes for each of the subtypes of perfectionism, which were reflected on with the second  
318 author (see Miles & Huberman, 1994). Finally, to define the themes, a narrative account of  
319 each theme was produced by the lead author and an informative name was determined with  
320 the second author throughout the write-up as clear interpretations of the data occurred.

### 321 **Methodological rigour**

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

339 working with human subjects. Finally, there is meaningful coherence as the study set out to  
340 explore the tenets of the 2 × 2 model of perfectionism in a more innovative manner and to  
341 provide novel insights into the sport experiences of youth participants who differ in  
342 combinations (or subtypes) of perfectionism dimensions. Through use of quantitative, and in  
343 particular, qualitative research methods and analysis, these two objectives were met.

### 344 **Results**

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

### 356 **Non-perfectionism**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

363 the hobby they most valued, as Julia articulated, “Sometimes it’s like, when I have a match I  
364 can’t drop everything to play netball.”

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

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

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

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

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

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

388 play,” and Erin explained, “Well I said making new friends that’s good it makes you feel  
389 happy... I like encouraging other people as well... and learning new skills.”

390 **An environment that enables non-perfectionists to enjoy sport as a hobby for**  
391 **friendship and learning.** Several environmental influences supported or detracted from the  
392 participants experiencing sport as an enjoyable hobby for friendship and learning. Perceptions  
393 of coaches, parents, and peers were among the most prominent influencers. With regards to  
394 coaches, having an understanding that sport was not the participants’ only hobby appeared  
395 desirable. Julia said, “But Jill [coach] if you can’t play ‘oh don’t worry it’s fine’ she just says  
396 ‘oh you can play next time’ like she doesn’t see it as a bad thing to do.” Coaches who did not  
397 understand the girls’ competing priorities were seen as less desirable, as Erin explained,  
398 “...matches are always on the days I have Spanish... and then if I say like ‘oh I’m going to  
399 Spanish’ they [coaches] get really annoyed.”

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

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

406 By being supportive of performance attempts and accepting of mistakes, a coach could further  
407 support the value this group placed on developing their skills, as Julia said, “Yeah cos it’s like  
408 when like you get encouraged like you think you can do it and then you can do it well...”

409 However, a coach could detract from the participants’ desire for improvement if they  
410 expressed performance expectations or provided criticism. Such coach behaviours could  
411 result in the girls withdrawing, as Julia shared:

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

412 Like when we played for our other team... They were a bit strict like they expected you  
413 to be... probably so much better than you actually like were... when you didn't really  
414 know what to do in a situation and... they'd say 'oh no you shouldn't have done that'.

415 Parents and peers also played an important role in supporting the participants' desire for  
416 improvement and reinforcing their confidence. For instance, discussing parents, Erin said:

417 Well it's good when your parents encourage you... you could see the massive  
418 difference between how confident you'd be without it and with it so when they say like  
419 'oh you played really well there' or even if you didn't play well they still pick up on the  
420 positive things cos they're parents... but it also helps when they say how you can  
421 improve... cos you think I know what I have to do now so I can play better.

422 Peers could also support participants' desire to demonstrate competence through personal  
423 improvement by acting as a reference point for improvement. Erin explained:

424 We played a game the other week and we noticed loads of techniques that the other  
425 team were using that we hadn't and it wasn't really... that we didn't enjoy the match  
426 but it was more like you thought 'oh maybe we should do that'... and it kind of makes  
427 you feel a little bit like 'oh we should train harder we should be learning those things'.

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

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

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

435 Melanie: And get away with it.

436 Erin: ...and then you might say something but it doesn't change how you like you can't  
437 change the score but you know you could have played better if that person wasn't there  
438 distracting you.

439 **Pure personal standards perfectionism**

440 **Sport: A collaborative adventure to achieve team success.** For these participants,  
441 emphasis was placed on netball being a collaborative team endeavour, as Gemma said that  
442 she liked netball because, "I think just like the whole team thing and playing like together."  
443 Collaborating with teammates seemed to be important to this group because it enabled them  
444 to achieve success, as Ellie said, "you participate as a team... and motivate each other cos like  
445 we all want to do well." Success appeared to manifest in working to the best of their abilities  
446 together and winning as a team. Lydia explained, "...we play a match like we all try and do it  
447 the best we can and it like pays off cos like all our matches so far we've had we've won so  
448 we're doing pretty well."

449 As success was linked to working as a team, it was vital that all team members were of  
450 a similar disposition, as Gemma explained, "Just like trying with all their effort and just  
451 constantly running and jumping and not giving up and just trying to stay positive even if it  
452 could be a bad situation." There was also a sense that teammates who did not put forth effort  
453 to achieve team success were not tolerated by this group, as Gemma said, "...they  
454 [teammates] don't try and that's like annoy like the rest of the team... it's like well everybody  
455 else is putting in their best so why can't like you do the same." Such was the emphasis placed  
456 on working well as a team that it appeared to underpin enjoyment. As Gemma said, "Just that  
457 you're happy you played well you just feel like as a team you feel really like together and  
458 happy and like you've really enjoyed it and you've done well."

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

461 winning with your friends as a team that's I really like the feeling of like well done and  
462 things." Thus, enjoyment for this group was also located in winning as a team. When team  
463 triumphs came against opponents that were perceived to be of higher ability and the girls had  
464 worked well together, then enjoyment was even more pronounced:

465 Ellie: I enjoyed our match on Thursday.

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

467 Lydia: We won.

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

471 Lydia: Yeah we started to concentrate more.

472 ...

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

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

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

479 When this group did achieve as a team, there was a sense of pride, as Gemma stated,  
480 "...everyone proud that you've actually like achieved something." Similarly, if individuals  
481 were recognised for the efforts that they put forth to do their best for the team this also evoked  
482 feelings of pride and satisfaction, as Gemma explained, "...you get a feeling of like pride like  
483 I was picked out of all these people, it just makes you feel quite good about yourself."  
484 Although there was a sense that the girls in this group could take pride and satisfaction from  
485 their endeavours, they could also be frustrated and disappointed with themselves if they did

486 not perform to their best. Imogen explained, "...when you get injured... it means that you  
487 can't play the best that you could... so it's frustrating."

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

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

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

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

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

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

510 Bryony: Well if you're playing and like you do something good and then someone  
511 cheers or whatever like you know like they think you're doing it well as well it feels  
512 like you're being part of the team.

513 Ellie: Yeah like whenever you make an interception and like people shout at you well  
514 done and whatever it kind of helps motivate you and feel like you're working as a team.

515 Peers could detract from netball being a collaborative endeavour, however, if they were  
516 unfriendly or judgmental. As the girls discussed:

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

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

521 Imogen: It was so difficult.

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

### 527 **Pure evaluative concerns perfectionism**

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

535 "...it's [netball's] kind of like... large community type thing and... everyone's just there to  
536 help you and give you encouragement."

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

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

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

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

560 when she said, “Well I just don’t think it’s all about the winning I don’t really care about the  
561 what you get I just like doing it [dance].”

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

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

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

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

584 to push me into doing well like trying to get me more out there into the rugby kind of  
585 thing and it just gets really really stressful.

586 The most prominent environmental factor that influenced whether this groups'

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

588 If they're [peers] nice to you then it makes you want to be around them more ... in other

589 sports that I've played I have noticed people who get competitive makes you want to

590 play less because they kind of ruin the sport and ruin the fun because they care too

591 much for what they're gaining rather than actual taking part which kind of ruins it.

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

593 Like you're playing and if you like miss with the pass or say if you like drop it when

594 like you catch it and you drop it and then the other person gets it and everyone just

595 starts having a go.

### 596 **Mixed perfectionism**

597 **Sport: A time to shine and affirm self-worth.** For these participants, sport was an

598 arena in which they could feel competent, as Caitlin said, "Well I'm usually quite confident in

599 sport... just kind of like having that reassurance that you are like good at something like just

600 find that comfort within like sports." Other domains in their lives did not seem to afford them

601 the same opportunity to feel confident, as Bridget said, "...when I'm at school I don't feel like

602 as confident but then when I'm at dance I'm confident and just a lot different and free."

603 Ultimately, these girls felt that through sport they could be themselves, as Caitlin said, "It's

604 [sport is] just reassuring and something where you can just be yourself..."

605 Perceptions of competence appeared to be linked with performing to the best of their

606 abilities, as Eden said, "If you've played a good game if you feel like you've done all you can

607 even if you didn't win as long as you've done all you can you've played at your best."

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

609 your best and just focus on the game and nothing else so if you play your best you're probably  
610 gonna win." Given the value this group placed on feeling competent, self-criticism and  
611 negative emotions were invoked when they did not perform to their best, as Caitlin said:

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

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

617       ...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  
618       sort of like depending on you to... score and get a rounder so it sort of like drives you  
619       more to like do well in the sport...

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

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

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

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

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

633 When peers demonstrated superior ability to these girls, they viewed this in a dichotomous  
634 manner. On the one hand, it was viewed as another opportunity to help them improve and  
635 become better than others. On the other, it made them feel like they lacked competence and  
636 this invoked self-criticism, as Eden said, “It’s usually like when I can’t do something that  
637 everybody else can and so I feel like I’m letting myself down cos I know I can probably do it  
638 cos everybody else can do it but then I just feel bad cos I’ve let myself down...”

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

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

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

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

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

658 Bridget further illustrated this idea when she said, “Well it’s kind of annoying when like you  
659 feel like you’ve done something good but then they [teacher/coach] pick up on something that  
660 you don’t realise.”

661 The coach seemed to play an important role in supporting this groups’ need to develop  
662 their abilities by ensuring equal opportunity for personal advancement, as Eden said, “...here  
663 everybody gets to play the same amount of games so we get the same amount of practice and  
664 no one gets left out...” Coaches also supported the girls’ desire to demonstrate competence by  
665 offering praise/recognition, as Hannah said, “It’s good when they [coaches] recognise you’ve  
666 done something good and it builds on your confidence as well...” The final way coaches  
667 supported the values of this group was by offering helpful advice. Parents also seemed to be  
668 able to support this groups’ desire for personal advancement by offering useful advice, as  
669 Eden articulated:

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

673 As was alluded to in earlier quotes, peers were viewed as important co-competitors in  
674 this groups’ quest for competence. However, there were a few ways in which they could  
675 detract from this role. Peers who overshadowed this group led to them feeling disappointed  
676 that their best may not be good enough, as Danielle said, “If you’re like if you’re working  
677 against each other in groups and then they win and then they boast it just makes you feel a bit  
678 like ‘great thanks for that.’” Further, when peers engaged in unsportspersonlike conduct, it ran  
679 counter to the enjoyment that this group could derive from demonstrating their best  
680 performance, as Eden said, “Bad sportsmanship people that don’t play by the rules argue back  
681 sort of make games unenjoyable to play.”

682 **Discussion**

683           The current study explored the sport experiences of youth participants who differ in  
684 subtypes of perfectionism based on the 2 × 2 model of perfectionism. First, we discuss how  
685 the themes that emerged relate to novel insights regarding the 2 × 2 model and its tenets. We  
686 then provide a comparison of the findings of the current study of perfectionistic youth sport  
687 participants with findings from previous qualitative research with perfectionistic adult sport  
688 participants. Finally, we provide a discussion of some of the practical implications of the  
689 findings.

### 690 **Youth participants and their experiences of sport**

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

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

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

708           The non-perfectionism group appeared to value sport because it was an opportunity to  
709 learn and develop their skills and to be with and make new friends. This aligns with adopting  
710 task or mastery goals and social affiliation goals, which are two orientations frequently  
711 observed in youth sports (Allen, 2003; Roberts, 2012). In context of extant perfectionism  
712 literature, this finding is particularly insightful as there is typically little focus on non-  
713 perfectionism. Moreover, to some, it could be considered counterintuitive to find individuals  
714 who report no internal commitment or external pressure to pursue perfectionistic standards in  
715 an achievement domain like sport. The findings here help to shed some light on this issue and  
716 are consistent with what might be expected of non-perfectionism as a control or relatively  
717 adaptive subtype in the 2 × 2 model (Gaudreau & Verner-Filion, 2012). Members of this  
718 subtype of perfectionism are participating in sport to pursue goals other than personally  
719 prescribed or socially prescribed perfection.

720           The pure PSP and mixed perfectionism groups also appeared to adopt similar goal  
721 orientations to the non-perfectionism group. This was demonstrated through their focus on  
722 putting forth effort to do their best. However, unlike the non-perfectionism group, these two  
723 groups also described the importance of winning and outperforming others (i.e., higher ego  
724 goals or performance goals; Roberts, 2012). In addition, the pure PSP group valued  
725 developing and maintaining mutually satisfying relationships with similar others (Allen,  
726 2003) and the mixed perfectionism group valued sport as a vehicle to maintain social status  
727 (see Smith, 2003). The different combinations of goals may account for some of the  
728 differences between the subtypes in terms of their experiences in sport. They also offer some  
729 insight into some of the complexities of pure PSP and mixed perfectionism, such as the need  
730 for multipronged hypotheses and mixed findings regarding the outcomes they are related to  
731 (see Gaudreau, 2016). Specifically, based on the accounts provided by the participants, sport

732 will be a positive experience for members of these two subtypes when they have superior  
733 comparative ability but less so when this is not the case.

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

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

756 instructional feedback, recognize improvement, and reinforce effort but not to criticize or  
757 display punitive behaviors.

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

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

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

780 Prior to the current study, there were three qualitative accounts of perfectionism and  
781 the experiences of perfectionists in sport. These accounts focused solely on adult athletes and  
782 the equivalent of two subtypes of perfectionism: pure PSP and mixed perfectionism (Gotwals  
783 & Spencer-Cavaliere, 2014; Hill et al., 2015; Sellars et al., 2016). In comparing the accounts  
784 of youth sport participants in the current study with adult sport participants in previous  
785 studies, some similarities but also some notable differences emerged. The similarities for pure  
786 PSP in youth and adult sport participants were that both expressed a drive to accomplish  
787 achievable, self-referent goals in sport and felt socially supported. Where the accounts from  
788 this subtype differed for youth sport participants, compared to adults, is that youth  
789 participants also reported feeling disappointed in themselves when personal/team expectations  
790 were not met. In addition, youth participants identified peers (not just coaches) as possible  
791 sources of social support and distress (not just social support). The presence of more  
792 dissatisfaction and, again, the importance of peers among youth sport participants require  
793 additional examination in future research examining this subtype of perfectionism, with the  
794 former finding being perhaps more surprising than the latter.

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

804 acceptance of a formative process of learning in youth sport than in adult sport (Weiss et al.,  
805 2012). This too might explain the differences.

806 **Practical implications for working with perfectionistic youth sport participants**

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

828 **Limitations and future research directions**

829           We adopted qualitative methods so to gain novel insights into the experiences of  
830 perfectionistic youth sport participants. In doing so, we acknowledge the subjective nature of  
831 our interpretations. In addition, we also acknowledge the limitations associated with  
832 idiographic methods and the importance of nomothetic methods in seeking to generalize the  
833 accounts of the participants. We presume the accounts of these prototypical individuals  
834 reflect, at least to some degree, the experiences of other similar youth sports participants.  
835 However, to assess if this is the case, based on the accounts documented, examining  
836 achievement goals, social affiliation goals, and perceptions of achievement climates in larger  
837 samples would be one means of gauging the representativeness of the youth sport participants  
838 in the current study.

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

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

854

**Conclusion**

855

This study was the first to explore the sport experiences of youth participants in context

856

of the 2 × 2 model of perfectionism using qualitative data collection methods. The findings

857

provide initial evidence that the experiences young people have of sport differs across the four

858

subtypes of perfectionism from the 2 × 2 model. This is reflected in both the meaning they

859

give to sports participation (i.e., goals, values, and purposes) and elements of the social-

860

environment they considered most important.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

861 Table 1

862 *Demographic information and mean scores for focus group and individual interview*863 *participants (n = 19)*

Demographic information			Mean scores	
Subtype of perfectionism	Age	Sport	PSP	ECP
Non-perfectionism	15	Netball	1.14	2.38
<b>Non-perfectionism</b>	<b>14</b>	<b>Netball</b>	<b>1.00</b>	<b>2.33</b>
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
<b>Pure PSP</b>	<b>13*</b>	<b>Netball</b>	<b>3.86</b>	<b>3.00</b>
Pure ECP	15	Dance	2.14	5.38
Pure ECP	14	Rugby	2.17	5.17
Pure ECP	13	Netball	2.29	6.71
<b>Pure ECP</b>	<b>13</b>	<b>Netball</b>	<b>2.67</b>	<b>5.54</b>
Mixed perfectionism	13	Netball	3.29	5.42
Mixed perfectionism	14	Dance/Athletics	3.71	6.42
<b>Mixed perfectionism</b>	<b>13*</b>	<b>Badminton</b>	<b>3.71</b>	<b>7.29</b>
Mixed perfectionism	13	Swimming	2.86	6.50
Mixed perfectionism	13	Horse Riding/Netball	3.57	5.63

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

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

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

2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

867 Appendix 1.

868 *Question guide for focus group participants (n = 19)*

Main questions	Specific follow-up/Clarifying questions
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?	What was it about that which you liked?
Can you give me an example of a time recently, during competition, when you really liked participating in your sport?	What was it about that which you liked?
Can you give me any more examples of times when you have really liked participating in your sport?	What was it about that which you liked?
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?	What was it about that which you disliked?
Can you give me an example of a time recently, during competition, when you disliked participating in your sport?	What was it about that which you disliked?
Can you give me any more examples of times when you have disliked participating in your sport?	What was it about that which you disliked?
Who, if anyone, influences how much you like participating in your sport or not?	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...?
What, if anything, would make you like your sport more?	Is there anyone else who is influential?
Looking to the next school year/season, how do you see yourself continuing with your sport?	

2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

869 Appendix 2.

870 *Question guide for individual interview participants (n = 4)*

Main questions	Specific follow-up/Clarifying questions
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?

871 **References**

- 872 Allen, J.B. (2003). Social motivation in youth sport. *Journal of Sport and Exercise*  
873 *Psychology, 25*, 551-567.
- 874 Allen, J.B. (2006). The perceived belonging in sport scale: Examining validity. *Psychology of*  
875 *Sport and Exercise, 7*, 387-405.
- 876 Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research*  
877 *in Psychology, 3*, 77-101.
- 878 Braun, V., & Clarke, V. (2013) *Successful qualitative research: A practical guide for*  
879 *beginners*. London: Sage.
- 880 Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th Ed.).  
881 London: Routledge.
- 882 Cumming, J., & Duda, J.L. (2012). Profiles of perfectionism, body-related concerns, and  
883 indicators of psychological health in vocational dance students: An investigation of the 2  
884 × 2 model of perfectionism. *Psychology of Sport and Exercise, 13*, 729-738.
- 885 Crocker, P.R.E., Gaudreau, P., Mosewich, A.D., & Kljajic, K. (2014). Perfectionism and the  
886 stress process in intercollegiate athletes: Examining the 2 × 2 model of perfectionism in  
887 sport competition. *International Journal of Sport Psychology, 45*, 325-348.
- 888 Fraser-Thomas, J., & Côté, J. (2009). Understanding adolescents' positive and negative  
889 developmental experiences in sport. *The Sport Psychologist, 23*, 3-23.
- 890 Frost, R.O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of  
891 perfectionism. *Cognitive Therapy and Research, 5*, 449-468.
- 892 Gaudreau, P. (2015). Self-assessment of the four subtypes of perfectionism in the 2 × 2  
893 model of perfectionism. *Personality and Individual Differences, 84*, 52-62.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

- 894 Gaudreau, P. (2016). The 2 × 2 model of perfectionism in sport, dance, and exercise. In A. P.  
895 Hill (Ed.), *The psychology of perfectionism in sport, dance, and exercise* (pp. 174-200).  
896 London: Routledge.
- 897 Gaudreau, P., & Antl, S. (2008). Athletes' broad dimensions of perfectionism: Examining  
898 change in life-satisfaction and the mediating role of motivation and coping. *Journal of*  
899 *Sport and Exercise Psychology*, *30*, 356-382.
- 900 Gaudreau, P., & Thompson, A. (2010). Testing a 2 × 2 model of dispositional perfectionism.  
901 *Personality and Individual Differences*, *48*, 532-537.
- 902 Gaudreau, P., & Verner-Filion, J. (2012). Dispositional perfectionism and well-being: A test  
903 of the 2 × 2 model of perfectionism in the sport domain. *Sport, Exercise, and*  
904 *Performance Psychology*, *1*, 29-43.
- 905 Gotwals, J.K., & Dunn, J.G.H. (2009). A multi-method multi-analytic approach to establish  
906 internal construct validity evidence: The Sport Multidimensional Perfectionism Scale 2.  
907 *Measurement in Physical Education and Exercise Science*, *13*, 71-92.
- 908 Gotwals, J.K., & Spencer-Cavaliere, N. (2014). Intercollegiate perfectionistic athletes'  
909 perspectives on achievement: Contributions to the understanding and assessment of  
910 perfectionism in sport. *International Journal of Sport Psychology*, *45*, 271-297.
- 911 Graham, J.W., Cumsille, P.E., & Elek-Fisk, E. (2003). Methods for handling missing data. In  
912 J.A. Schinka & W.F. Velicer (Eds.), *Research methods in psychology* (pp. 87-112). New  
913 York, NY: Wiley.
- 914 Greblo, Z., Barić, R., & Erpič, S.C. (2015). Perfectionistic strivings and perfectionistic  
915 concerns in athletes: The role of peer motivational climate. *Current Psychology*, *35*, 1-  
916 12.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

- 917 Harwood, C.G., Keegan, R.J., Smith, J.M., & Raine, A.S. (2015). A systematic review of the  
918 intrapersonal correlates of motivational climate perceptions in sport and physical  
919 activity. *Psychology of Sport and Exercise, 18*, 9-25.
- 920 Hennessy, E., & Heary, C. (2005). Exploring children's views through focus groups. In S.  
921 Greene and D. M. Hogan (Eds.), *Researching children's experiences: Approaches and*  
922 *methods* (pp. 236-252). London: Sage.
- 923 Hill, A.P. (2013). Perfectionism and burnout in junior soccer players: A test of the 2 × 2  
924 model of dispositional perfectionism. *Journal of Sport and Exercise Psychology, 35*, 18-  
925 29.
- 926 Hill, A.P., & Davis, P.A. (2014). Perfectionism and emotion regulation in coaches: A test of  
927 the 2 × 2 model of dispositional perfectionism. *Motivation and Emotion, 38*, 715-736.
- 928 Hill, A.P., Hall, H.K., Duda, J., & Appleton, P. (2011). The cognitive, affective and  
929 behavioural responses of self-oriented perfectionists following successive failure on a  
930 muscular endurance task. *International Journal of Sport and Exercise Psychology, 9*,  
931 189-207.
- 932 Hill, A.P., Witcher, C.S., Gotwals, J.K., & Leyland, A.F. (2015). A qualitative study of  
933 perfectionism among self-identified perfectionists in sport and the performing arts. *Sport,*  
934 *Exercise, and Performance Psychology, 4*, 237-253.
- 935 Holland, M.J., Woodcock, C., Cumming, J., & Duda, J.L. (2010). Mental qualities and  
936 employed mental techniques of young elite team sport athletes. *Journal of Clinical Sport*  
937 *Psychology, 4*, 19-38.
- 938 Kitinger, J. (2005) Focus group research: Using group dynamics to explore perceptions,  
939 experiences and understandings. In I. Holloway (Ed.), *Qualitative research in health*  
940 *care* (pp. 56-69). Maidenhead, UK: Open University Press.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

- 941 Madigan, D.J., Stoeber, J., & Passfield, L. (2016). Perfectionism and changes in athlete  
942 burnout over three months: Interactive effects of personal standards and evaluative  
943 concerns perfectionism. *Psychology of Sport and Exercise*, 26, 32-39.
- 944 Mallinson, S.H., Hill, A.P., Hall, H.K., & Gotwals, J.K. (2014). The 2 × 2 model of  
945 perfectionism and school- and community-based sport participation. *Psychology in the*  
946 *Schools*, 9, 972-985.
- 947 Martin, E.M., Gould, D., & Ewing, M.E. (2017). Youth's perceptions of rule-breaking and  
948 antisocial behaviours: Gender, developmental level, and competitive level  
949 differences. *International Journal of Sport and Exercise Psychology*, 15, 64-79.
- 950 Merkel, D.L. (2013). Youth sport: Positive and negative impact on young athletes. *Journal of*  
951 *Sports Medicine*, 4, 151-160.
- 952 Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook*  
953 (2nd Ed.). Thousand Oaks, CA: Sage.
- 954 Miulli, M., & Nordin-Bates, S. M. (2011). Motivational climates: What they are, and why  
955 they matter. *The International Association for Dance Medicine and Science*, 3, 5-8.
- 956 Morgan, D.L. (1997). *Focus groups as qualitative research* (2nd Ed.). Thousand Oaks, CA:  
957 Sage.
- 958 Nordin-Bates, S.M., Raedeke, T.D., & Madigan, D.J. (2017). Perfectionism, burnout, and  
959 motivation in dance: A replication and test of the 2 × 2 model of perfectionism. *Journal*  
960 *of Dance, Medicine, and Science*, 21, 115-122.
- 961 O'Sullivan, M., & MacPhail, A. (2010) *Young people's voices in physical education and*  
962 *youth sport*. London: Routledge.
- 963 Quested, E., Cumming, J., & Duda, J.L. (2014). Profiles of perfectionism, motivation, and  
964 self-evaluations among dancers: An extended analysis of Cumming and Duda (2012).  
965 *International Journal of Sport Psychology*, 45, 349-368.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

- 966 Roberts, G.C. (2012). Motivation in sport and exercise from an achievement goal theory  
967 perspective: After 30 years, where are we? In G. C. Roberts & D. Treasure (Eds.),  
968 *Advances in motivation in sport and exercise* (pp. 5-58). Champaign, IL: Human  
969 Kinetics Publishers.
- 970 Sandelowski, M. (2000). Focus on research methods: Whatever happened to qualitative  
971 description? *Research in Nursing and Health*, 23, 334-340.
- 972 Sellars, P.A., Evans, L., & Thomas, O. (2016). The effects of perfectionism in elite sport:  
973 Experiences of unhealthy perfectionists. *The Sport Psychologist*, 30, 219-230.
- 974 Smith, A.L. (2003). Peer relationships in physical activity contexts: A road less traveled in  
975 youth sport and exercise psychology research. *Psychology of Sport and Exercise*, 4, 25-  
976 39.
- 977 Smith, B., & Sparkes, A.C. (2017). Interviews: Qualitative interviewing in the sport and  
978 exercise sciences. In B. Smith & A. C. Sparkes (Eds.), *Routledge handbook of*  
979 *qualitative research in sport and exercise* (pp. 103-123). London: Routledge.
- 980 Sparkes, A.C. (2015) Developing mixed methods research in sport and exercise psychology:  
981 Critical reflections on five points of controversy. *Psychology of Sport and Exercise*, 16,  
982 49-59.
- 983 Sparkes, A.C., & Smith, B. (2014). *Qualitative research methods in sport, exercise, and*  
984 *health: From process to product*. London: Routledge.
- 985 Speirs Neumeister, K.L., Williams, K.K., & Cross, T.L. (2007). Perfectionism in gifted high-  
986 school students: Responses to academic challenge. *Roepers Review*, 29, 11.
- 987 Standage, M., Duda, J., & Ntoumanis, N. (2003). Predicting motivational regulations in  
988 physical education: The interplay between dispositional goal orientations, motivational  
989 climate and perceived competence. *Journal of Sports Sciences*, 21, 631-647.

## 2 × 2 MODEL OF PERFECTIONISM AND YOUTH SPORT

- 990 Tabachnick, B.G., & Fidell, L.S. (2007). *Using multivariate statistics*. Boston: Allyn and  
991 Bacon.
- 992 Tracy, S.J. (2010) Qualitative quality: Eight ‘big-tent’ criteria for excellent qualitative  
993 research. *Qualitative Inquiry*, 16, 837-851.
- 994 Weiss, M. (2016). Old wine in a new bottle: Historical reflections on sport as a context for  
995 youth development. In N. L. Holt (Ed.), *Positive youth development through sport*.  
996 London: Routledge.
- 997 Weiss, M.R., Kipp, L.E., & Bolter, N.D. (2012). Training for life: Optimizing positive youth  
998 development through sport and physical activity. In S.M. Murphy (Ed.), *The Oxford*  
999 *handbook of sport and performance psychology* (pp. 448-475). New York: Oxford  
1000 University Press.