

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Toward an Integrated Understanding of the Youth Sport System

Travis E. Dorsch¹, Alan L. Smith², Jordan A. Blazo³, Jay Coakley⁴, Jean Côté⁵,
Christopher R. D. Wagstaff⁶, Stacy Warner⁷, & Michael Q. King¹

¹Utah State University: Logan, Utah, USA

²Michigan State University: East Lansing, Michigan, USA

³Louisiana Tech University: Ruston, Louisiana, USA

⁴University of Colorado-Colorado Springs: Colorado Springs, Colorado, USA

⁵Queens University: Kingston, Ontario, Canada

⁶University of Portsmouth: Portsmouth, Hampshire, England

⁷East Carolina University: Greenville, North Carolina, USA

Author Note: The 3rd through 7th authors contributed equally to the completion of this manuscript and are listed in alphabetical order. The authors have no financial and/or personal relationships that influenced this work.

Address editorial correspondence to: Travis E. Dorsch, Department of Human Development and Family Studies, 2905 Old Main Hill, Utah State University, Logan, UT 84322, Phone: +001 435-797-4565, Email: Travis.Dorsch@usu.edu.

24 Abstract

25 The aim of the present paper was to outline a heuristic model that facilitates movement toward
26 an integrated understanding of the youth sport system. We define the *youth sport system* as the
27 set of interdependent persons and contexts that influence and are influenced by an athlete in
28 youth sport. Our model builds directly from a systems perspective, and its tenets of holism,
29 feedback loops, and roles (Broderick, 1993; von Bertalanffy, 1972). Specifically, we argue that
30 the persons and contexts that surround an athlete in youth sport should be examined collectively,
31 self-correct over time, and take on certain functions that are negotiated over time. The model
32 extends past contributions toward integration (e.g., García Bengoechea, 2002) by outlining how
33 proximal and distal processes within youth sport can be studied in a more unified way. Looking
34 forward, research designed to capture the nuanced ways persons and contexts influence and are
35 influenced by one another in youth sport will be best positioned to impact theory and practice in
36 meaningful ways.

37

38 Keywords: youth sport, athlete development, systems theory, pediatric kinesiology

39 **Toward an Integrated Understanding of the Youth Sport System**

40 Youth sport is perhaps the most common extracurricular activity across the world, with
41 most young people participating in structured or unstructured sport activities during childhood
42 and adolescence (Hulteen et al., 2017). Youth sport participation has been linked to numerous
43 physical, psychological, emotional, social, and intellectual benefits, but also has been associated
44 with negative outcomes such as risk-taking, eating disorders, low self-esteem, aggression, and
45 decreased morality (Fraser-Thomas et al., 2005). The extent to which youth experience positive
46 or negative outcomes in sport is influenced by their interactions with others as well as the
47 broader contexts in which their participation occurs (García Bengoechea & Johnson, 2001).

48 Despite extensive research addressing the many persons and contexts that surround youth
49 in sport, few scholars have attempted to generate an integrated understanding of the youth sport
50 system. This is surprising because fields such as communication, human development,
51 kinesiology, psychology, sport management, and others contribute to this interdisciplinary area
52 of inquiry. One attempt at integration was made by García Bengoechea (2002), who argued that
53 processes (e.g., coaching, parenting, peer interactions), personal characteristics (e.g., an athlete's
54 age, gender, and ability), contextual factors (e.g., an athlete's level of participation), and time
55 (e.g., the athlete's stage of maturation, the duration of a salient relationship) influence young
56 athletes' developmental experiences in sport. This conceptual perspective aligned with calls to
57 employ more dynamic models of reciprocal causation in sport (e.g., Brawley & Martin, 1995), as
58 well as broader theorizing in the human development literature (e.g., Bronfenbrenner's 2005
59 *process-person-context-time* framework).

60 Although it is important to examine the dynamic and reciprocal processes that influence
61 youth development in sport, it also remains essential to acknowledge the *interconnectedness* of

62 these processes across a range of persons and contexts. Researchers interested in family
63 dynamics have examined athletes' interactions with parents and/or siblings, those interested in
64 team dynamics have examined athletes' interactions with coaches and/or peers, and others have
65 examined the role structural factors play in youth sport. Such work has done much to extend
66 youth sport knowledge, yet has not captured the interconnected nature of the persons and
67 contexts that may reciprocally influence one another. A systems lens (von Bertalanffy, 1972;
68 Broderick, 1993) has the potential to guide researchers in capturing this interconnection by
69 enabling the examination of a broad range of social relationships and the ways these
70 relationships may shape or be shaped by the contexts in which persons interact. This affords
71 scholars the opportunity to highlight the extensive web of dynamic and reciprocal relationships
72 that define the youth sport system.

73 Here we define the *youth sport system* as the set of interdependent persons (i.e., parents,
74 siblings, peers, and coaches) and contexts (i.e., organizations, communities, and societies) that
75 have the potential to influence or be influenced by an athlete's behaviors, attitudes, experiences,
76 and outcomes in youth sport. Over the course of a young athlete's development, persons and
77 contexts interact systematically and change in relative salience from toddlerhood through
78 middle-to-late adolescence (Côté & Vierimaa, 2014). The systems perspective (von Bertalanffy,
79 1972; Broderick, 1993) consists of several tenets that can help us better understand the youth
80 sport system.

81 A primary tenet of the systems perspective is *holism*, which stresses that the persons and
82 contexts that surround an individual should be viewed collectively rather than independently
83 (Broderick, 1993). In youth sport, athletes' interactions within the family and team, as well as
84 with the broader contexts that surround them, should be seen as constituting a dynamic,

85 reciprocal, intricate, and sometimes coordinated system rather than as independent, top-down
86 influences on the athlete. A second tenet of the systems perspective is that the persons and
87 contexts that constitute a system participate in *feedback loops*, whereby self-corrections occur
88 based on interactions with other persons and contexts within the system. For example, families
89 and youth sport teams have the capacity to change course (e.g., offer feedback, discontinue
90 participation, start a new team or league) if the contexts in which sport takes place do not align
91 with their goals. Lastly, an important assumption specific to the systems perspective is that the
92 persons and contexts that constitute a system will take on certain *roles* that are negotiated over
93 time (see Smith & Hamon, 2012). For example, the roles that persons play in youth sport vary
94 across organizations, and the roles that organizations play in youth sport vary across
95 communities and societies. These three tenets can help researchers from a range of disciplines
96 better understand how persons and contexts may influence or be influenced by athletes’
97 behaviors, attitudes, experiences, and outcomes in youth sport.

98 Given the international proliferation of youth sport research over recent decades (see
99 Gould, 2019), it is fitting that empirical knowledge across multiple areas of the youth sport
100 literature has systematically deepened. Given this growth of knowledge, it is not surprising that
101 many scholars have narrowed their focus to more targeted areas of understanding. While this
102 narrowing has led to deeper consideration of the roles of parents, siblings, peers, and coaches, as
103 well as the organizations, communities, and societies in which young athletes engage, an
104 unintended consequence has been the construction of empirical “silos” that often remain
105 independent of one another (see Duda, 1999; Schary & Cardinal, 2015). Therefore, a need exists
106 to establish a conceptual framework that helps youth sport scholars move toward thoughtful
107 integration of the core areas of knowledge about youth sport. The process of pursuing this

108 integration has the potential to foster a range of interdisciplinary collaborations resulting in new
109 and important research questions and discoveries. This is likely to yield a more nuanced
110 understanding of the youth sport system.

111 The aim of the present paper is to outline a heuristic model that facilitates movement
112 toward an integrated understanding of the youth sport system. Heuristic models are early
113 practical and flexible frameworks that offer a working understanding of a specific area of inquiry
114 and that are useful in catalyzing theory development. In the subsequent sections, we briefly detail
115 how the *family subsystem* (comprised of an athlete, parents, and siblings), the *team subsystem*
116 (comprised of an athlete, peers, and coaches), and the *environmental subsystem* (comprised of
117 organizations, communities, and societies) have the potential to impact athletes' behaviors,
118 attitudes, experiences, and outcomes in youth sport. Our model integrates these three subsystems
119 and highlights some novel questions that could be tested by future scholars from a range of
120 disciplines. Although we identify elements within and links across the persons and contexts in
121 the model, we do not assume the model is inclusive of all possibilities, unchanging, or equally
122 applicable across all athletes, families, teams, or environments.

123 In presenting the model, we extend past contributions toward theoretical integration (e.g.,
124 García Bengoechea, 2002) by outlining how proximal (e.g., parent pressure and support, sibling
125 modeling and differentiation, peer social comparison and expectations, coach-relationships and
126 leadership) and distal (e.g., organizational culture and standards, community infrastructure and
127 access, societal traditions and values) aspects of the youth sport system can be studied in a more
128 integrated way. Our model has the potential to inform scholars who wish to examine the
129 intersections of persons and contexts in youth sport. Specifically, we hope to facilitate systemic
130 and interdisciplinary understanding of the youth sport system across a range of settings. This

131 offers the potential to inform practitioners who are charged with designing youth sport contexts
132 and shaping the daily interactions that occur among young athletes and their parents, siblings,
133 peers, and coaches.

134 **The Family Subsystem in Youth Sport**

135 The first component of the youth sport system is the family subsystem. The family is the
136 most proximal – and in many cases most salient – subsystem with regard to athlete behaviors,
137 attitudes, experiences, and outcomes, especially in the earliest years of sport participation (Côté,
138 1999), and has been shown to have lasting impacts (Dixon et al., 2008). Thus, researchers from
139 various disciplines have targeted families as an important reference point for understanding the
140 development of athletes in sport and physical activity settings (e.g., Brustad, 2010). Two primary
141 family members who have the potential to influence and be influenced by athletes in youth sport
142 are parents and siblings.

143 As co-participants and important socialization agents in youth sport, *parents* are essential
144 contributors to the behaviors, attitudes, experiences, and outcomes of young athletes (Babkes &
145 Weiss, 1999; Côté, 1999; Fredricks & Eccles, 2004). Although researchers have extensively
146 explored parent-child interactions in youth sport (see Dorsch et al., 2019), few have examined
147 parents' roles as co-participants in the broader youth sport system. That is, much of this research
148 has considered parents as providers and interpreters of the youth sport experience without fully
149 acknowledging the many factors within the family, within the athlete's team, and across the
150 contexts in which an athlete participates that have the potential to influence and/or be influenced
151 by parent involvement. This is an important consideration, given recent ecological understanding
152 of parents' development in youth sport (Dorsch et al., 2015a; Holt et al., 2008). Whereas a rich
153 literature describes the influence of parents on young athletes, across various national contexts, it

154 is also important for researchers to consider the many ways persons and contexts may shape
155 parents' involvement in youth sport. For example, through a developmental lens, parents' roles
156 in youth sport are often driven by the changing characteristics of the athlete (e.g., age, gender,
157 ability), the organizational or community context (e.g., missions, standards, initiatives, and
158 support), and the societies in which the athlete participates (e.g., resources and policy). These
159 factors are dynamic and may shape the nature and development of parents' goals for their
160 children vis-à-vis the parent-child sport relationship and how parents are involved in their
161 children's participation on a day-to-day basis (Dorsch et al., 2015b; Knight & Holt, 2014). This
162 assertion aligns with Côté and colleagues' developmental model of sport participation, which
163 highlights the dynamic nature of parent roles and involvement patterns in youth sport (Côté,
164 1999; Côté & Vierimaa, 2014). In addition to these external factors, parents' person
165 characteristics as set forth in Bronfenbrenner's (2005) PPCT model of human development (e.g.,
166 gender, sport experiences, parenting style) also shape the roles they assume and goals they adopt
167 for their children in sport (Dorsch et al., 2015a; Holt et al., 2008).

168 To optimize parents' roles as socialization agents in youth sport, scholars and
169 practitioners have sought to shape parent involvement in ways that limit athlete perceptions of
170 parental pressure and facilitate athlete perceptions of parental support (e.g., Harwood & Knight,
171 2015). In line with this work, researchers have begun to document strategies that can be used to
172 engage parents in evidence-based learning (e.g., Dorsch et al., 2017; Thrower et al., 2017). Given
173 the multiple roles that parents hold, they have described feeling ill-equipped to optimally interact
174 with their children in youth sport (see Harwood & Knight, 2015). Accordingly, parents have
175 been shown to: (a) seek the help of extended family, friends, and community members to meet
176 the time demands of youth sport (Burgess et al., 2016), (b) draw on the professional and

177 interpersonal knowledge of coaches to begin to understand the needs of their children and the
178 technical aspects of the sport (Knight & Holt, 2014), and (c) encourage their children to model
179 siblings and build relationships with peers to manage the physical and emotional demands of
180 sport (Knight & Holt, 2014). It is important, therefore, to acknowledge that parents are an
181 integral part of the family subsystem and the larger youth sport system (Teques et al., 2018).

182 The developmental significance of *siblings* in youth sport is understudied, yet holds much
183 promise for helping build a holistic picture of the family subsystem and broader youth sport
184 system. Although siblings have attributes in common with many interpersonal relationships, they
185 also possess unique characteristics and developmental importance (Cicirelli, 1995). For example,
186 the sibling relationship is often marked by competition and cooperation, modeling and
187 differentiation, social comparison, and experiences of compassion (Furman & Buhrmester, 1985).
188 The potential depth and varied experiences of this relationship can be important to the roles
189 siblings play in shaping each other's social, emotional, and cognitive development (Yeh &
190 Lempers, 2004). Moreover, siblings can be developmentally salient in tandem with other social
191 agents such as parents and peers (e.g., Bell et al., 1985; Fagan & Najman, 2005). This is notable
192 considering prevailing evidence that parents are the primary providers and interpreters of youth
193 sport, and the documented increase in the salience of peers as a proxy for family during late
194 childhood and early adolescence (Duncan et al., 2005; Savin-Williams & Berndt, 1990).
195 Importantly, sibling interactions are thought to foster social comparison and social-cognitive
196 development, providing a foundation for relationships with other peers (Dunn, 2007; McHale et
197 al., 2012). Given that sibling interactions are consequential to development, siblings may
198 influence one another's participation in, and affective responses to, structured and unstructured
199 sport (Horn & Horn, 2007).

200 Researchers recently have begun to explore the roles of siblings in sport (see Blazo &
201 Smith, 2018). Examples of this work include the experience of having an athletically gifted
202 sibling in the household (Blazo et al., 2014; Newhouse-Bailey et al., 2015) and socialization into
203 and continued involvement in sport (e.g., Osai & Whiteman, 2017; Ziviani et al., 2006). Results
204 of this work suggest that young athletes engage in sibling processes such as modeling and
205 differentiation that shape their sport-related behaviors, attitudes, experiences, and outcomes. As
206 researchers seek to integrate these and other topics via sustained lines of investigation,
207 theoretically- and developmentally-informed studies that view siblings as a component of the
208 family subsystem and the broader youth sport system are needed.

209 **The Team Subsystem in Youth Sport**

210 The second component of the youth sport system is the team subsystem. The team is
211 considered proximal to the athlete and becomes especially important during adolescence, when
212 transitioning to sport contexts that are less often directed by parents (Côté, 1999). Two primary
213 persons within the team subsystem who may influence or be influenced by athletes are peers and
214 coaches.

215 *Peers* are essential yet relatively underappreciated contributors to athletes' behaviors,
216 attitudes, experiences, and outcomes in youth sport. Whereas most researchers exploring social
217 dynamics in sport have focused on coaches and parents, there have also been efforts focused on
218 peers (Smith et al., 2019; Weiss & Stuntz, 2004). There is much value to examining peers in
219 youth sport because, as youth move into more intensive participation during adolescence,
220 relationships with fellow participants can become a proxy for family. Peers serve as an important
221 reference for social comparison, spend extensive periods of time together, fulfill various

222 relational functions, and often hold relatively equal power to one another as compared to parents,
223 coaches, and other adults (Smith et al., 2019).

224 The empirical literature on peers in youth sport varies across countries and cultures,
225 though some persistent streams of inquiry are evident. There is a well-established link between
226 competence and social acceptance in sport (Evans & Roberts, 1987; Weiss & Duncan, 1992),
227 and sport can foster the cultivation and expression of friendships (Weiss et al., 1996; Weiss &
228 Stuntz, 2004) and social identity (Bruner et al., 2017). At the same time, high-performance sport
229 contexts that are competitive in nature can challenge the development of authentic relationships
230 (Adams & Carr, 2019), introduce conflict among peers that needs to be managed (Holt et al.,
231 2012), and even involve the victimization of some participants (Partridge & Knapp, 2016). Thus,
232 a young athlete's sport involvement can serve as a pathway to positive social outcomes or to
233 diminished social standing and well-being, suggesting that youth sport is a form of social
234 currency (Nicholson et al., 2013). The motivational climate reinforced by peers also has been
235 shown to be salient in youth sport (McLaren et al., 2016; Smith et al., 2010; Vazou et al., 2006)
236 as have peer relation-inferred self-efficacy (i.e., RISE) perceptions (Jackson et al., 2007; Jackson
237 et al., 2014). Collectively, the extant literature offers evidence of the importance of teammates
238 and competitors in youth sport and suggests that peers should be considered in any broader
239 treatment of the youth sport system.

240 Initial steps to integrate understanding of peers' contribution to the youth sport system
241 can be found in research designed to consider multiple persons simultaneously with respect to
242 social motivation, well-being, or other outcomes. Efforts of this nature have been conducted that
243 examine peers along with parents (e.g., Ullrich-French & Smith, 2006), coaches (Gardner et al.,
244 2016; Riley & Smith, 2011), and teachers (Cox & Ullrich-French, 2010). Exploring relationships

245 or interactions among people is challenging and complex. However, it is essential to pursue such
246 work and capture the integration of persons and contexts, as is advocated in systems theory (von
247 Bertalanffy, 1972; Broderick, 1993).

248 *Coaches* have the potential to influence and be influenced by athletes' behaviors,
249 attitudes, experiences, and outcomes in youth sport, and several conceptual models have been
250 developed to better understand the coach's role in youth sport (e.g., Chelladurai, 2007; Côté et al.,
251 1995; Jowett, 2005; Smith & Smoll, 2002). These models have emerged from a range of
252 countries and are grounded in different literatures, including leadership, expertise, coaching,
253 motivation, and education. In a review of these models and the broader coaching literature, Côté
254 and Gilbert (2009) proposed a succinct, yet comprehensive, definition of coaching effectiveness:
255 "The consistent application of integrated professional, interpersonal, and intrapersonal
256 knowledge to improve athletes' competence, confidence, connection, and character in specific
257 coaching contexts" (p. 316). This integrative definition frames effectiveness as coaches' ability
258 to exhibit professional and interpersonal behaviors that foster positive developmental outcomes
259 in their athletes. Studies of coaches in various sports show an association between coaches'
260 effective behaviors and athletes' outcomes such as enjoyment, competence, persistence,
261 teamwork, and initiative (e.g., Álvarez et al., 2009; Coatsworth & Conroy, 2009; Erickson &
262 Côté, 2016; Pelletier et al., 2001).

263 Importantly, coaching requires consistent interactions with others within the family and
264 team subsystems (e.g., parents, siblings, peers, and other coaches). Because these interactions are
265 embedded within organizations, communities, and societies, coaching research would benefit
266 from efforts to generate a more holistic understanding of the complex factors that are linked to
267 coaching effectiveness. This is consistent with a systems approach, which suggests development

268 takes place via interactions among interrelated persons within salient developmental contexts
269 (Broderick, 1993).

270 Viewing coaches within the team subsystem and the broader youth sport system
271 necessitates a nuanced conceptualization of coaching processes. Examples of how to integrate
272 understanding of coaching effectiveness can be seen in the way coaches are expected to build
273 and maintain relationships. Specifically, research has been conducted on parent-coaches (e.g.,
274 Weiss & Fretwell, 2005), the coach-athlete relationship (e.g., Horne & Carron, 1985; Olympiou
275 et al., 2008), and the parent-athlete-coach triangle (e.g., Hellstedt, 1987; Jowett & Timson-
276 Katchis, 2005). Although this research has been designed to capture dyadic – and in some cases
277 triadic – relationships, it could be extended to integrate psychological, behavioral, and affective
278 processes and outcomes that occur within and across the family, team, and environmental
279 subsystems. This would be similar to the recent work from Canada examining transformational
280 leadership among youth sport coaches (e.g., Turnnidge & Côté, 2017). Moving forward,
281 conceptually-driven efforts to pursue such extensions would advance holistic understanding of
282 the youth sport system.

283 **The Environmental Subsystem in Youth Sport**

284 The third component of the youth sport system is the environmental subsystem. This is
285 considered a distal subsystem with reference to the athlete, reflecting the design and delivery of
286 youth sport as well as the norms associated with and meanings ascribed to sport participation.
287 Three primary contexts within the environmental subsystem that may influence or be influenced
288 by young athletes are organizations, communities, and societies.

289 The most proximal context to athletes, and to the families and teams in which they are
290 embedded, is the organization. *Organizations* are the entities (e.g., academies, clubs, schools,

291 municipal entities, for-profit and not-for-profit businesses) that design and deliver sport to youth
292 (Wagstaff, 2017, 2019). Perhaps the most pervasive line of organizational research in sport
293 targets the ways organizations impose numerous demands (i.e., stressors) on athletes and the
294 persons with whom athletes regularly interact (see Arnold et al., 2017). Many organizations that
295 offer sport seek to provide guidance regarding their missions, standards, and cultures to reduce
296 the demands faced by athletes and others, while developing opportunities for persons within the
297 organization to thrive. In recent years, this has included a focus on safe sport principles tied to
298 prevention of injury and abuse (Johnson et al., 2020; Mountjoy et al., 2020).

299 Utilizing a systems lens affords researchers the opportunity to acknowledge the presence
300 of feedback loops, as well as the narratives and metaphors people use to describe their
301 organizations. As such, researchers should consider how organizations design and deliver sport
302 opportunities for youth based on their missions, standards, and cultures, as well as the ways they
303 may be shaped by the parents, coaches, and other stakeholders who contribute to their operation
304 (Legg et al., 2016; Maitland et al., 2015). For instance, explorations of the structure, boundaries,
305 power, hierarchy, function, resource and information sharing, and subgrouping within
306 organizations might provide valuable insights into youth sport environments as interconnected,
307 living human systems. Initial attempts to conduct research in youth sport have largely failed to
308 attend to the impact athletes, and the persons and contexts that surround them, have on the
309 organizations in which they participate and vice versa in an iterative and transactional manner.
310 This gap may be addressed by incorporating organizational and systems-based thinking within
311 more established research lines on parents, siblings, peers, and coaches. In turn, a fuller
312 appreciation may be gained regarding the important role organizations play in such complex
313 systems.

314 The interaction of parents, siblings, peers, and coaches within organizations occurs
315 differently across *communities*. For example, research indicates that towns with fewer than
316 100,000 inhabitants may possess unique features related to community size and behavior patterns
317 of youth that are conducive to athletes' sustained engagement in sport (Turnnidge et al., 2014).
318 In terms of the physical environment, smaller communities provide youth with more space for
319 unorganized physical activity and sports with peers (Balish & Côté, 2014). However, this is
320 balanced by the fact that larger communities often provide youth with increased accessibility,
321 exposure, and competition (Grieve & Sherry, 2012). From a behavioral perspective, smaller
322 cities may provide integrated approaches to sport participation that foster more engagement from
323 parents, siblings, peers, and coaches whereas larger cities may offer a broader cross-section of
324 activities and competitive trajectories (Surya et al., 2012). Finally, the size of a community has
325 the potential to impact the value placed on positive social norms (e.g., purposeful mentoring,
326 prosocial behavior, communal child-rearing) and the ways parents, coaches, and organizations
327 design and deliver sport (Bale, 2003; Balish & Côté, 2014; Fraser-Thomas et al., 2010;
328 Turnnidge et al., 2014).

329 Communities establish and fortify the norms associated with sport participation while
330 also providing support at the group level and fostering a sense of belongingness among
331 individuals. This is often referred to as sense of community, and is vital because it fulfills an
332 innate human need for relatedness (McMillan & Chavis, 1986; Sarason, 1974). Because youth
333 have been shown to benefit in myriad ways from increased sense of community, sport is often
334 championed as a means to enhance personal and community development (Warner & Dixon,
335 2011, 2013; Warner et al., 2012). Specifically, sense of community has been linked to outcomes
336 such as better health (e.g., Warner et al., 2017) and fewer delinquent behaviors (e.g., Battistich &

337 Hom, 1997). Given the potential range of characteristics (e.g., size, initiatives, access,
338 infrastructure) that can impact how communities support youth in sport, as well as community
339 factors that shape how sport is designed and delivered, it is critical to understand how
340 communities fit within the environmental subsystem and broader youth sport system.

341 *Societies* shape the meanings that individuals, and the persons and contexts that surround
342 them, give to athletes' behaviors, attitudes, experiences, and outcomes in youth sport, and how
343 they integrate those meanings into norms for sport participation and ultimately the design and
344 delivery of sport (Bowers & Green, 2013). For example, in societies characterized by socio-
345 economic inequality, sports for youth from wealthier families tend to focus on skills and future
346 opportunities (e.g., college and/or professional participation), whereas programs for youth from
347 lower income families tend to focus on social control and personal deficit reduction (Coakley,
348 2002; Whitley et al., 2019). It is important to recognize that the perceived significance of youth
349 sport in societies depends on popular beliefs about the connection between sport involvement
350 and athletes' psychosocial development, social acceptance, and the achievement of educational
351 and occupational success.

352 Youth sport is generally designed and delivered in ways that reflect and reaffirm the
353 traditions and values that are important in a society; however, these values and traditions can be
354 expressed in positive or negative ways and can be inclusive or exclusive in nature. Importantly, it
355 is usually assumed that the lessons taught, and thought to be learned, in youth sport reflect and
356 reaffirm those traditions and values by way of various feedback loops (Coakley, 1983). As an
357 example, in Western societies where individualism is valued, youth sport is generally designed
358 and delivered in ways that place importance on characteristics such as independence, toughness,
359 competition, achievement, and self-reliance. It is also assumed that athletes who demonstrate

360 these characteristics will have success, and thus confirm these characteristics as important within
361 the society (see Bondin et al., 2020; Fine, 1987; Goodman, 1979; Mrozek, 1983).

362 Whether youth sport is subsidized by the government, its constituent communities, or
363 individual public or private organizations varies across societies and has the potential to impact
364 youth behaviors, attitudes, experiences, and outcomes in sport. For example, the structure of
365 youth sport in China is shaped by the federal government. State policy emphasizes elite sport
366 training among youth who are strategically selected for programs. Alternatively, the design and
367 delivery of sport in Japan is closely tied to physical education in the schools. In much of Europe,
368 Australia, and New Zealand, youth sport is linked to school-based physical education or
369 sponsored by local sport clubs that are age-integrated and focused on participation in one or
370 more sports around which the club and the social lives of its members are organized. Developing
371 countries often have limited public or private resources for youth sport, and the programs that do
372 exist may be sponsored through the outreach of non-governmental organizations from wealthier
373 societies. Developing countries that prioritize resources for youth sport (e.g., India, Kenya, South
374 Africa) tend to organize them around externally determined solutions to perceived cultural and
375 socialization deficits of its youth, with limited long-term impact (Whitley et al., 2019).

376 Youth sport programs in the United States have traditionally been associated with
377 communities (e.g., through parks and recreation departments) and/or organizations (e.g., Little
378 League Baseball) until age 12 or 13, after which sport is often linked to public school systems.
379 This model subsidizes (at least in part) the design and delivery of sport through state or
380 municipal tax dollars, and highlights the inherent value of sport as a public good. Increasingly,
381 however, youth sport is being designed and delivered by entities other than communities and
382 schools, and thus reflects the diverse missions of sponsors ranging from for-profit businesses to

383 non-profit organizations and local youth sport entrepreneurs. It can be argued, therefore, that
384 youth sport is becoming fragmented, with little continuity across organizations, communities,
385 and societies. Additionally, it appears that when the livelihoods of the adults who control and
386 coach youth sports depend on fees paid by families, programs are organized and marketed to
387 meet the financial missions of organizers and coaches, and the goals of fee-paying parents, rather
388 than the overall developmental needs of youth (Coakley, 2002, 2010; Hyman, 2012).

389 **Designing Future Research to Integrate the Subsystems**

390 Our aim is to outline a heuristic model that facilitates movement toward an integrated
391 understanding of the youth sport system. In pursuing this aim, the previous sections not only
392 detail that parents, siblings, peers, coaches, organizations, communities, and societies may
393 influence and be influenced by athletes' behaviors, attitudes, experiences, and outcomes in youth
394 sport, but how scholars might think of these persons and contexts as systemic and interrelated
395 across development. In highlighting the key constructs and connections within and across the
396 family, team, and environmental subsystems, we forward a heuristic model of the youth sport
397 system in Figure 1. It showcases key constructs related to the persons and contexts within youth
398 sport, but is not intended to be a comprehensive exposition of the many ways these persons and
399 contexts might interact. In youth sport, families, teams, and contexts should be viewed as
400 integrated and responsive to one another. We therefore hope the model encourages a range of
401 sport psychology and social science researchers to design and execute research in a more
402 integrated way within and across the family, team, and environmental subsystems. This means
403 not just seeking a greater understanding of athletes and the persons and contexts that surround
404 them, but of the myriad processes that have the potential to influence or be influenced by athletes'
405 behaviors, attitudes, experiences, and outcomes over the course of development.

406 Depicted by the curved outer shell of the model, societal factors are the most distal
407 context within the youth sport system. Much of our understanding of youth sport comes from
408 research conducted in Western and/or industrialized countries with relatively educated and
409 affluent persons. These societies afford the necessary resources (e.g., time, money, knowledge)
410 to engage in youth sport in an organized way. In light of this, our model calls researchers to
411 account for the many diverse ways sport is enacted, interpreted and experienced in other
412 societies. Societal factors are important in this regard, as they shape the meanings we give to
413 participation in sport. More inclusive future research is critical to a full understanding of the
414 youth sport system. Our model provides a potential starting point for scholars who wish to
415 understand the importance of, and the traditions associated with, youth sport in other societies.
416 Work in this area could target the range of societal values associated with sport participation, and
417 the policies that shape the socialization of athletes, parents, siblings, peers, and coaches.

418 An important aspect of the model to be explored in future research will be how societies
419 impact athletes' behaviors, attitudes, experiences, and outcomes. Questions originating from this
420 level of the model might include: (a) how do societal traditions impact the design and delivery of
421 youth sport by way of community initiatives and organizational missions? (b) in what types of
422 societies does the creation of youth sport policy impact community infrastructure, organizational
423 standards, and athlete behavior (e.g., participation rates, sport choice)? and (c) how do societal
424 resources (e.g., relative affluence versus non-affluence) impact organizational opportunities for,
425 and demands on, athletes, coaches, and parents? Importantly, future research questions in this
426 domain should be developed in light of evidence that societies define and engage in youth sport
427 in varying ways (Messner & Musto, 2016). Ethnographic research utilizing retrospective surveys,
428 interviews, and the archival analysis of national, regional, local, and personal records may be

429 well-positioned to address questions pertaining to societal effects on athletes' behaviors, attitudes,
430 experiences, and outcomes over time in youth sport. This might be of particular interest to
431 scholars who are investigating the legal aspects (e.g., protections of civil liberties, safe sport
432 initiatives, liability concerns) that shape youth sport in various cultures. Thoughtfully
433 constructed comparative research could afford scholars the opportunity to examine similarities
434 and differences across multiple societies.

435 Just beneath societies in the model exist communities. Empirical work in youth sport has
436 largely neglected to account for the roles communities play in the norms associated with
437 participation in youth sport. This is surprising because communities, more than societies at large,
438 have the potential to shape or be shaped by young athletes' (and other persons') behaviors,
439 attitudes, experiences, and outcomes in sport. Typically, community level influences are driven
440 by the size of a community, the initiatives and support it offers persons who engage in youth
441 sport, and the access and infrastructure that define how sports are engaged in (Ballish & Côté,
442 2014). Community factors therefore play an important role in the short- and long-term
443 developmental outcomes experienced by athletes.

444 An important factor to examine in future research will be how communities impact
445 family and team subsystems via organizations. Questions originating from this level of the model
446 might include: (a) how do community initiatives impact the design and delivery of sport by
447 organizations? (b) in what ways can community infrastructure shape the sport opportunities
448 provided by organizations to the athletes who participate? and (c) how do interactions within the
449 team subsystem (among, athletes, peers, and coaches) and family subsystem (among athletes,
450 parents, and siblings) differ across organizations within a community? Future research should be
451 designed in light of knowledge that communities are shaped by broader society and also have the

452 potential to shape and be shaped by families, teams, and organizations. Case-study research
453 utilizing multiple methodologies may be well-positioned to highlight these feedback loops.

454 At the center of the integrated model lie organizations, and it is organizations that serve
455 as an intermediary between the distal and proximal factors that can influence or be influenced by
456 athletes' behaviors, attitudes, experiences, and outcomes in youth sport. This central position in
457 the model is a result of organizations being formed in view of the broader roles played by
458 societies and communities, while also being charged with creating the direct contexts in which
459 athletes, families, and teams participate. Driven by feedback loops, organizations such as
460 academies, clubs, schools, municipal entities, places of worship, and businesses foster
461 opportunities for youth and serve as gatekeepers to the missions, standards, and cultures by
462 which success, failure, and development are judged, while also being shaped by the parents and
463 coaches who contribute to their functioning (Legg et al., 2016).

464 Considering extant research on organizations in youth sport (see Wagstaff, 2017, 2019),
465 an important direction for future work will be to address the potential feedback loops among
466 persons and organizations within the youth sport system. Questions stemming from this level of
467 the model might include: (a) what organizational factors foster or limit the enhancement of
468 coaches' professional and interpersonal knowledge? (b) how do the demands placed on coaches
469 and parents by organizations impact the team and family subsystems at various developmental
470 levels of sport? and (c) how is an organization's design and delivery of sport shaped by aspects
471 of the community (e.g., infrastructure and access) as well as attributes of the athletes it serves
472 (e.g., age, gender, race/ethnicity, sexuality, socioeconomic status, identity, ability, etc.)?

473 Future research in this domain should be developed considering that parents and coaches
474 are largely responsible for structuring the organizations that offer youth sport, especially those

475 that serve younger children at the recreational level (Project Play, 2015). Program evaluation
476 research incorporating focus groups, surveys, observation, and daily diaries with athletes,
477 parents, and coaches could be especially valuable in capturing the dynamic and reciprocal
478 relationships persons in the youth sport system have with sport-delivering organizations in their
479 respective communities. Additional research targeting feedback loops in the youth sport system
480 could be designed to examine the ways athletes “give back” to youth sport when they move into
481 new and different roles (e.g., as former athletes, parents, volunteers, coaches, or officials). Lerner
482 and colleagues’ 6Cs model could contribute to the conceptual extension of this developmental
483 knowledge, wherein the 6th C represents the concept of *contribution* to one’s self, family,
484 community, and society (Lerner 2004; Lerner et al., 2005).

485 The four “gears” within our model represent the most proximal persons to the athlete
486 within the youth sport system: parents, siblings, peers, and coaches. The gears contain
487 descriptive characteristics, words, and phrases that highlight salient concepts from an
488 international body of literature. These concepts, in many cases, represent proximal processes that
489 take place on a daily basis among these persons (García Bengoechea, 2002). In line with
490 Bronfenbrenner’s (2005) conceptualization of person characteristics, proximal processes are
491 guided by an athlete’s age, gender, race/ethnicity, sexuality, socioeconomic status, identity,
492 ability, and aspirations, among other factors. Importantly, we acknowledge that the personal
493 characteristics of parents, siblings, peers, and coaches also shape athletes’ behaviors, attitudes,
494 experiences, and outcomes in youth sport. Although not explicitly specified in Figure 1, the
495 personal characteristics of parents, siblings, peers, and coaches should also be considered in
496 work informed by our model. We also acknowledge that the same “system” is not experienced
497 by all athletes. As examples, family subsystem interactions occur differently if there are no

498 siblings in the household, in a single-parent household, or if the athlete is living and training
499 away from family (Wright et al., in press).

500 In line with Côte's developmental model of sport participation, the salience of athletes'
501 interactions with other persons evolves over the course of development. Specifically, athletes
502 experience (1) shifts in the sources of competence information that they prioritize, (2) plasticity
503 in the development and maintenance of relationships, and thus how they interact with other
504 persons, and (3) the dynamic roles and involvement of other persons (see Côte & Vierimaa,
505 2014). These factors change from toddlerhood through middle-to-late adolescence and are thus
506 highlighted by the athlete (depicted with a ball) moving from left to right across the black arrow
507 at the bottom of the model. Despite normative trends, it is important to note that the
508 developmental salience of athletes' relationships with parents, siblings, peers, and coaches is not
509 always linear, predictable, or mutually exclusive. Thus, as an example, the family subsystem has
510 the potential to be impactful well beyond childhood, even if it is expected that the team
511 subsystem might be of particular importance as a sport career evolves.

512 There are a wide range of research questions that could be addressed within this portion
513 of the model. Of particular interest is the interrelationship of the family and team subsystems via
514 the athlete. Questions situated within this portion of the model might include: (a) to what extent
515 are parents' goals for their children in youth sport associated with coaches' expectations, and
516 how is this shaped by the athlete's age and gender? (b) how do athletes balance social
517 comparison to siblings and peers, and how does this change over time? and (c) what impact does
518 an athlete's ability have on the way parents and coaches engage with the athlete's siblings and
519 peers in sport? Future questions attending to the integration of the family and team subsystems
520 should be developed considering evidence that proximal processes are not static and constant,

521 but dynamic and changing (Côté, 1999), and in light of the fact that they may vary across
522 communities and societies. Developmentally-informed research is needed to capture the nuance
523 of athletes' behaviors, attitudes, experiences, and outcomes over time in youth sport (Smith et al.,
524 2012).

525 In examining the model, it is important to acknowledge some of the conceptual work that
526 preceded it. In the bottom half of the model, we view members of the family and team
527 subsystems (i.e., parents, siblings, peers, and coaches) as interconnected. In doing so, our model
528 builds directly from a systems perspective, and specifically its tenet of holism (Broderick, 1993).
529 In depicting parents, siblings, peers, and coaches as “gears” engaging in dyadic reciprocal
530 relationships with the athlete (and in some cases each other), the model pays homage to work by
531 Bell (1968) and others who highlighted the feedback loops that drive socialization process within
532 close relationships. Last, our depiction of the athlete “ball” is informed, in part, by person
533 characteristics as set forth in Bronfenbrenner's (2005) PPCT model of human development.
534 Depicting the ball moving from left to right, spanning a time period from toddlerhood through
535 middle-to-late adolescence, aligns with Côté's developmental model of sport participation (see
536 Côté & Vierimaa, 2014) and personal assets framework for sport (Côté et al., 2019), as well as
537 the time component of Bronfenbrenner's PPCT model. It also highlights that athletes' behaviors,
538 attitudes, experiences, and outcomes are not static, but instead change and are negotiated over
539 time. This aligns with the systems perspective, and specifically its tenet of roles.

540 In the top half of the model, the environmental subsystem is comprised of three contexts:
541 organizations, communities, and societies. Our conceptualization of these contexts builds from
542 present understanding of organizational psychology (Wagstaff, 2019), community psychology
543 (Warner, 2016), and sport sociology (Coakley, 2016), but also broadens the scope of what

544 typically has been considered within the youth sport system. In our model, the family and team
545 subsystems are represented as being nested within the broader environmental subsystem. The
546 three subsystems, collectively, are posited to influence and be influenced by athletes via the
547 structure of, and daily interactions among, the persons and contexts that surround them.

548 **Challenges and Limitations**

549 Approaching youth sport through an integrated lens presents several challenges and
550 limitations. Most obviously, it can be difficult to integrate the higher levels of the model into
551 everyday research and practice. At the broadest level, for example, cross-cultural issues may
552 shape how the model is interpreted and applied in different youth sport contexts around the
553 world (Ryba et al., 2013; Si & Lee, 2007). Certain aspects of our model may be more salient in
554 societies or communities where competitive sport is more widely practiced.

555 An additional consideration is that our model is delimited to persons who interact with
556 young people in the youth sport context. This includes parents and siblings within the family
557 subsystem and peers and coaches within the team subsystem. Given the model's focus on the
558 youth sport system, it does not account for other potentially important persons, such as teachers,
559 mentors, and peers who are not teammates. These persons also can influence and be influenced
560 by the athlete's sport participation. Future research, therefore, could target the direct and indirect
561 impacts of these persons on children's sport-related outcomes and experiences.

562 Our model does not explicitly account for conflict that may be introduced within or
563 across the various subsystems. For example, athletes are often forced to reconcile differences
564 between their own goals and the goals their parents or coaches might have for their participation
565 in sport. The process of reconciliation can be further shaped by athletes' interpretation of peer
566 and sibling influences, as well as the broader expectations of their sport-delivering individual,

567 organization, or community. Moving forward, researchers might view conflict within or across
568 the family, team, and environmental subsystems through a lens of disequilibrium, another tenet
569 of the systems perspective (Broderick, 1993). Disequilibrium is the state of imbalance
570 experienced by an individual when new experiences cannot be understood or easily
571 accommodated (Berger, 2005). Applying this tenet to future research on the youth sport system
572 would further extend theoretically grounded understanding of the independent and simultaneous
573 effects various persons and contexts have within the youth sport system.

574 Finally, the potential impact of our model on current thinking in the field of kinesiology
575 may be discounted because our model speaks to concepts not usually measured or discussed in
576 kinesiology journals. The environmental subsystem is understudied in kinesiology research,
577 especially as it relates to the social, cognitive, and emotional aspects of sport and physical
578 activity behavior in young people. However, incorporating this subsystem in our model orients
579 kinesiologists to its importance and potential for advancing knowledge. Zelaznik and Harper
580 (2007) contend that the sociological, anthropological, and philosophical aspects of sport and all
581 other forms of human movement should be of central interest to kinesiologists who aim to
582 promote intrinsic motivation for physical activity. We hope that our model increases
583 consideration of these components of the youth sport system.

584 **Conclusion**

585 In presenting this heuristic model of the youth sport system, we have extended past work
586 championing theoretical integration (e.g., García Bengoechea, 2002) and have highlighted
587 potentially valuable research questions. Moreover, we have provided various considerations for
588 scholars who wish to examine the intersections of persons and contexts in youth sport. In doing
589 so, we hope to move sport scientists and leaders toward a systemic and interdisciplinary

590 understanding of the parents, siblings, peers, coaches, organizations, communities, and societies
591 that surround athletes in youth sport. Conversely, other aspects of the model may be more salient
592 where lifetime sports are practiced in less organized or competitive settings. In all cases,
593 conceptually-driven, interdisciplinary work attending to the systems perspective tenets of holism,
594 feedback loops, and roles remains best positioned to capture the nuanced ways persons and
595 contexts influence and are influenced by athletes in youth sport. We believe that such work has
596 the potential to meaningfully impact theory and practice with regard to the persons and contexts
597 that comprise the youth sport system.

598

References

- 599 Adams, A., & Carr, S. (2019). Football friends: Adolescent boys' friendships inside an English
600 professional football (soccer) academy. *Soccer & Society*, 20, 471-493.
- 601 Álvarez, M. S., Balaguer, I., Castillo, I., & Duda, J. L. (2009). Coach autonomy support and
602 quality of sport engagement in young soccer players. *The Spanish Journal of Psychology*,
603 12, 138-148.
- 604 Arnold, R., Fletcher, D., & Daniels, K. (2017). Organisational stressors, coping, and outcomes in
605 competitive sport. *Journal of Sports Sciences*, 35, 694-703.
- 606 Babkes, M. L., & Weiss, M. R. (1999). Parental influence on children's cognitive and affective
607 responses to competitive soccer participation. *Pediatric Exercise Science*, 11, 44-62.
- 608 Bale, J. (2003). *Sports geography* (2nd ed.). Routledge.
- 609 Balish, S., & Côté, J. (2014). The influence of community on athletic development: An
610 integrated case study. *Qualitative Research in Sport, Exercise and Health*, 6, 98-120.
- 611 Battistich, V., & Hom, A. (1997). The relationship between students' sense of their school as a
612 community and their involvement in problem behaviors. *American Journal of Public
613 Health*, 87, 1997-2001.
- 614 Bell, R. Q. (1968). A reinterpretation of the direction of effects in studies of socialization.
615 *Psychological Review*, 75, 81-95.
- 616 Bell, N. J., Avery, A. W., Jenkins, D., Feld, J., & Schoenrock, C. J. (1985). Family relationships
617 and social competence during late adolescence. *Journal of Youth and Adolescence*, 14,
618 109-119.
- 619 Berger, K. S. (2005). *The developing person through the life span* (6th ed.). Worth.

- 620 Blazo, J. A., Czech, D. R., Carson, S., & Dees, W. (2014). A qualitative investigation of the
621 sibling sport achievement experience. *The Sport Psychologist, 28*, 36-47.
- 622 Blazo, J. A., & Smith, A. L. (2018). A systematic review of siblings and physical activity
623 experiences. *International Review of Sport and Exercise Psychology, 11*, 122-159.
- 624 Bondin, V. I., Luybetsky, N. P., Schalohyan, S. I., Garasimov, M. V., & Samygin, S. I. (2020).
625 Sport in the context of globalization. In E. G. Popkova & B. S. Sergi (Eds.), *Artificial*
626 *intelligence: Anthropogenic nature vs. social origin* (pp. 237-247). Springer.
- 627 Bowers, M. T., & Green, B. C. (2013). Reconstructing the community based youth sport
628 experience: How children derive meaning from unstructured and organized settings.
629 *Journal of Sport Management, 27*, 422-438.
- 630 Brawley, L. R., & Martin, K. A. (1995). The interface between social and sport psychology. *The*
631 *Sport Psychologist, 9*, 469-497
- 632 Broderick, C. B. (1993). *Understanding family process: Basics of family systems theory*. Sage.
- 633 Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human*
634 *development*. Sage.
- 635 Bruner, M. W., Balish, S. M., Forrest, C., Brown, S., Webber, K., Gray, E., McGuckin, M.,
636 Keats, M. R., Rehman, L., & Shields, C. A. (2017). Ties that bond: Youth sport as a
637 vehicle for social identity and positive youth development. *Research Quarterly for*
638 *Exercise and Sport, 88*, 209-214.
- 639 Brustad, R. J. (2010). The role of family in promoting physical activity. *President's Council on*
640 *Physical Fitness and Sports Research Digest, 10*, 1-8.

- 641 Burgess, N. S., Knight, C. J., & Mellalieu, S. D. (2016). Parental stress and coping in elite youth
642 gymnastics: An interpretative phenomenological analysis. *Qualitative Research in Sport,*
643 *Exercise and Health, 8,* 237-256.
- 644 Chelladurai, P. (2007). Leadership in sports. *Handbook of Sport Psychology, 3,* 113-135.
- 645 Cicirelli, V. G. (1995). *Sibling relationships across the lifespan.* Plenum Press.
- 646 Coakley, J. (1983). Play, games and sports: Developmental implications for young people. In J.
647 C. Harris & R. J. Park (Eds.), *Play, games and sports in cultural contexts* (pp. 431–450).
648 Human Kinetics.
- 649 Coakley, J. (2002). Using sports to control deviance and violence among youths: Let's be critical
650 and cautious. In M. Gatz, M. A. Messner, & S. J. Ball-Rokeach (Eds.), *Paradoxes of*
651 *youth and sport* (pp. 13-30). State University of New York Press.
- 652 Coakley, J. (2010). The “logic” of specialization: Using children for adult purposes. *Journal of*
653 *Physical Education, Recreation and Dance, 81,* 16-18.
- 654 Coakley, J. (2016). Youth sports in the United States. In K. Green & A. Smith (Eds.), *Handbook*
655 *of youth sport* (pp. 84-97). Routledge.
- 656 Coatsworth, J. D., & Conroy, D. E. (2009). The effects of autonomy-supportive coaching, need
657 satisfaction, and self-perceptions on initiative and identity in youth swimmers.
658 *Developmental Psychology, 45,* 320-328.
- 659 Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport*
660 *Psychologist, 13,* 395-417.
- 661 Côté, J., Allan, V., Turnnidge, J., Vierimaa, M., & Evans, M. B. (2019). Youth talent
662 development in sport. In T. S. Horn & A. L. Smith (Eds.), *Advances in sport and exercise*
663 *psychology* (4th ed., pp. 467-482). Human Kinetics.

- 664 Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and
665 expertise. *International Journal of Sports Science & Coaching*, 4, 307-323.
- 666 Côté, J., Salmela, J. H., Trudel, P., Baria, A., & Russell, S. (1995). The coaching expert model:
667 A grounded assessment of expert gymnastic coaches' knowledge. *Journal of Sport &*
668 *Exercise Psychology*, 17, 1–17.
- 669 Côté, J. & Vierimaa, M. (2014). The developmental model of sport participation: 15 years after
670 its first conceptualization. *Science & Sport*, 29, S63-S69.
- 671 Cox, A. E., & Ullrich-French, S. (2010). The motivational relevance of peer and teacher
672 relationship profiles in physical education. *Psychology of Sport and Exercise*, 11, 337-
673 344.
- 674 Dixon, M. A., Warner, S. M., & Bruening, J. E. (2008). More than just letting them play: The
675 enduring impact of parental socialization on female sport involvement. *Sociology of Sport*
676 *Journal*, 25, 538-559.
- 677 Dorsch, T. E., King, M., Dunn, C. R., Osai, K. V., & Tulane, S., (2017). The impact of evidence-
678 based parent education in organized youth sport: A pilot study. *Journal of Applied Sport*
679 *Psychology*, 29, 199-214.
- 680 Dorsch, T. E., Smith, A. L., & McDonough, M. H. (2015a). Early socialization of parents
681 through organized youth sport. *Sport, Exercise, and Performance Psychology*, 4, 3-18.
- 682 Dorsch, T. E., Smith, A. L., Wilson, S. R., & McDonough, M. H. (2015b). Parent goals and
683 verbal sideline behavior in organized youth sport. *Sport, Exercise, and Performance*
684 *Psychology*, 4, 19-35.

- 685 Dorsch, T. E., Vierimaa, M., & Plucinik, J. (2019). A citation network analysis of research on
686 parent-child interactions in youth sport. *Sport, Exercise, and Performance Psychology, 8*,
687 145-162.
- 688 Duda, J. L. (1999). The motivation to study motivation: Goal perspectives and their influence. In
689 G. G. Brannigan (Ed.), *The sport scientist: Research adventures* (pp. 57-73). Longman.
- 690 Duncan, S. C., Duncan, T. E., & Stryker, L. A. (2005). Sources and types of social support in
691 youth physical activity. *Health Psychology, 24*, 3-10.
- 692 Dunn, J. (2007). Siblings and socialization. In J. Grusec & P. Hastings (Eds.), *Handbook of*
693 *socialization: Theory and research* (pp. 309-329). Guilford Press.
- 694 Erickson, K. & Côté, J. (2016). A season-long examination of the motivational tone of coach-
695 athlete interactions in youth sport. *Psychology of Sport and Exercise, 22*, 264-272.
- 696 Evans, J., & Roberts, G. C. (1987). Physical competence and the development of children's peer
697 relations. *Quest, 39*, 23-35.
- 698 Fagan, A. A., & Najman, J. M. (2005). The relative contributions of parental and sibling
699 substance use to adolescent tobacco, alcohol, and other drug use. *Journal of Drug*
700 *Issues, 35*, 869-883.
- 701 Fine, G. A. (1987). *With the boys: Little league baseball and preadolescent culture*. University
702 of Chicago Press.
- 703 Fraser-Thomas, J. L., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster
704 positive youth development. *Physical Education & Sport Pedagogy, 10*, 19-40.
- 705 Fraser-Thomas, J. L., Côté, J., & MacDonald, D. J. (2010). Community size and sport settings:
706 Examining developmental assets and sport withdrawal. *Physical Health Education*
707 *Academic Journal, 2*, 1-9.

- 708 Fredricks, J. A., & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M.
709 R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp.
710 145-164). Fitness Information Technology.
- 711 Furman, W., & Buhrmester, D. (1985). Children's perceptions of the qualities of sibling
712 relationships. *Child Development*, *56*, 448-461.
- 713 García Bengoechea, E. (2002). Integrating knowledge and expanding horizons in developmental
714 sport psychology: A bioecological perspective. *Quest*, *54*, 1-20.
- 715 García Bengoechea, E., & Johnson, G. M. (2001). Ecological systems theory and children's
716 development in sport: Toward a process-person-context-time research paradigm. *Avante*,
717 *7*, 20-31.
- 718 Gardner, L. A., Magee, C. A., & Vella, S. A. (2016). Social climate profiles in adolescent sports:
719 Associations with enjoyment and intention to continue. *Journal of Adolescence*, *52*, 112-
720 123.
- 721 Goodman, C. (1979). *Choosing sides: Playground and street life on the lower east side*.
722 Schocken Books.
- 723 Gould, D. (2019). The current youth sport landscape: Identifying critical research issues.
724 *Kinesiology Review*, *8*, 150-161.
- 725 Grieve, J., & Sherry, E (2012). Community benefits of major sport facilities: The Darebin
726 International Sports Centre. *Sport Management Review*, *15*, 218-229.
- 727 Harwood, C. G., & Knight, C. J. (2015). Parenting in youth sport: A position paper on parenting
728 expertise. *Psychology of Sport and Exercise*, *16*, 24-35.
- 729 Hellstedt, J. C. (1987). The coach/parent/athlete relationship. *The Sport Psychologist*, *1*, 151-160.

- 730 Holt, N. L., Knight, C. J., & Zukiwski, P. (2012). Female athletes' perceptions of teammate
731 conflict in sport: Implications for sport psychology consultants. *The Sport Psychologist*,
732 26, 135-154.
- 733 Holt, N. L., Tamminen, K. A., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental
734 involvement in competitive youth sport settings. *Psychology of Sport and Exercise*, 9,
735 663-685.
- 736 Horn, T. S., & Horn, J. L. (2007). Family influences on children's sport and physical activity
737 participation, behavior, and psychosocial responses. In G. Tenenbaum & R. C. Eklund
738 (Eds.), *Handbook of sport psychology* (pp. 685-711). Wiley.
- 739 Horne, T., & Carron, A. V. (1985). Compatibility in coach-athlete relationships. *Journal of Sport*
740 *Psychology*, 7, 137-149.
- 741 Hulteen, R. M., Smith, J. J., Morgan, P. J., Barnett, L. M., Hallal, P. C., Colyvas, K., & Lubans,
742 D. R. (2017). Global participation in sport and leisure-time physical activities: A
743 systematic review and meta-analysis. *Preventive Medicine*, 95, 14-25.
- 744 Hyman, M. (2012). *Until it hurts: America's obsession with youth sports and how it harms our*
745 *kids*. Beacon Press.
- 746 Jackson, B., Beauchamp, M. R., & Knapp, P. (2007). Relational efficacy beliefs in athlete dyads:
747 An investigation using actor-partner interdependence models. *Journal of Sport &*
748 *Exercise Psychology*, 29, 170-189.
- 749 Jackson, B., Gucciardi, D. F., Lonsdale, C., Whipp, P. R., & Dimmock, J. A. (2014). "I think
750 they believe in me": The predictive effects of teammate-and classmate-focused relation-
751 inferred self-efficacy in sport and physical activity settings. *Journal of Sport & Exercise*
752 *Psychology*, 36, 486-505.

- 753 Johnson, N., Hanna, K., Novak, J., & Giardino, A. P. (2020). US Center for SafeSport:
754 Preventing abuse in sports. *Women in Sport and Physical Activity Journal*, 28, 66-71.
- 755 Jowett, S. (2005). On repairing and enhancing the coach-athlete relationship. In S. Jowett & C.
756 Harwood (Eds.), *The psychology of coaching* (pp. 14-26). British Psychological
757 Association.
- 758 Jowett, S., & Timson-Katchis, M. (2005). Social networks in sport: Parental influence on the
759 coach-athlete relationship. *The Sport Psychologist*, 19, 267-287
- 760 Knight, C. J., & Holt, N. L. (2014). Parenting in youth tennis: Understanding and enhancing
761 children's experiences. *Psychology of Sport and Exercise*, 15, 155-164.
- 762 Legg, J., Snelgrove, R., & Wood, L. (2016). Modifying tradition: Examining organizational
763 change in youth sport. *Journal of Sport Management*, 30, 369-381.
- 764 Lerner, R. M. (2004). *Liberty: Thriving and civic engagement among American youth*. Sage.
- 765 Lerner R. M., Lerner J. V., Almerigi J., Theokas C., Phelps E., Gestsdottir S., Naudeau, S.,
766 Jelacic, H., Alberts, A., Ma, L., Smith, L. M., Bobek, D. L., Richman-Raphael, D.,
767 Simpson, I., Christiansen, E. D., & von Eye, A. (2005). Positive youth development,
768 participation in community youth development programs, and community contributions
769 of fifth grade adolescents: Findings from the first wave of the 4-H study of positive youth
770 development. *Journal of Early Adolescence*, 25, 17-71.
- 771 Maitland, A., Hills, L. A., & Rhind, D. J. (2015). Organisational culture in sport – A systematic
772 review. *Sport Management Review*, 18, 501-516.
- 773 McHale, S. M., Updegraff, K. A., & Whiteman, S. D. (2012). Sibling relationships and
774 influences in childhood and adolescence. *Journal of Marriage and Family*, 74, 913-930.

- 775 McLaren, C. D., Newland, A., Eys, M., & Newton, M. (2016). Peer-initiated motivational
776 climate and group cohesion in youth sport. *Journal of Applied Sport Psychology, 29*, 88-
777 100.
- 778 McMillan, D., & Chavis, D. (1986). Sense of community: A definition and theory. *Journal of*
779 *Community Psychology, 14*, 6-23.
- 780 Messner, M. A., & Musto, M. (2016). *Child's play: Sport in kids' worlds*. Rutgers University
781 Press.
- 782 Mountjoy, M., Vertommen, T., Burrows, K., & Greinig, S. (2020). #SafeSport: Safeguarding
783 initiatives at the Youth Olympic Games 2018. *British Journal of Sports Medicine, 54*,
784 176-182.
- 785 Mrozek, D. J. (1983). *Sport and American mentality, 1880–1920*. University of Tennessee Press.
- 786 Newhouse-Bailey, M., Dixon, M. A., & Warner, S. (2015). Sport and family functioning:
787 Strengthening elite sport families. *Journal of Amateur Sport, 1*, 1-26.
- 788 Nicholson, M., Brown, K., & Hoye, R. (2013). Sport's social provisions. *Sport Management*
789 *Review, 16*, 148-160.
- 790 Olympiou, A., Jowett, S., & Duda, J. L. (2008). The psychological interface between the coach-
791 created motivational climate and the coach-athlete relationship in team sports. *The Sport*
792 *Psychologist, 22*, 423-438.
- 793 Osai, K. V., & Whiteman, S. D. (2017). Family relationships and youth sport: Influence of
794 siblings and parents on youth's participation, interests, and skills. *Journal of Amateur*
795 *Sport, 3*, 86-105.
- 796 Partridge, J. A., & Knapp, B. A. (2016). Mean girls: Adolescent female athletes and peer conflict
797 in sport. *Journal of Applied Sport Psychology, 28*, 113-127.

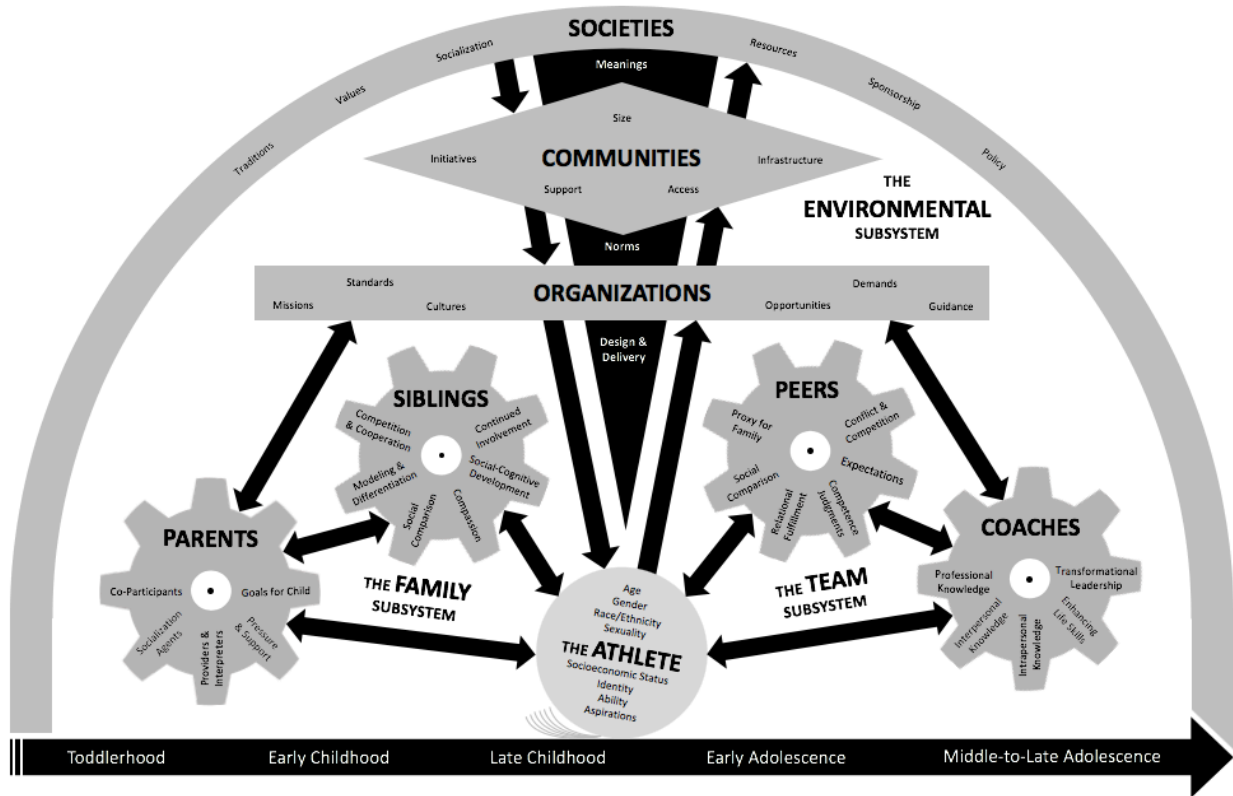
- 798 Pelletier, L. G., Fortier, M. S., Vallerand, R. J., & Brière, N. M. (2001). Associations among
799 perceived autonomy support, forms of self-regulation, and persistence: A prospective
800 study. *Motivation and Emotion*, 25, 279-306.
- 801 Project Play (2015). *Sport for all, play for life*. Washington, DC: Aspen Institute.
- 802 Riley, A., & Smith, A. L. (2011). Perceived coach-athlete and peer relationships of young
803 athletes and self-determined motivation for sport. *International Journal of Sport
804 Psychology*, 42, 115-133.
- 805 Ryba, T. V., Stambulova, N. B., Si, G., & Schinke, R. J. (2013). ISSP position stand: Culturally
806 competent research and practice in sport and exercise psychology. *International Journal
807 of Sport and Exercise Psychology*, 11, 123-142.
- 808 Sarason, S. B. (1974). *The psychological sense of community: Prospects for a community
809 psychology*. Jossey-Bass.
- 810 Savin-Williams, R. C., & Berndt, T. J. (1990). Friendship and peer relations. In S. S. Feldman &
811 G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 277-307). Harvard
812 University Press.
- 813 Schary, D. P., & Cardinal, B. J. (2015). Interdisciplinary and intradisciplinary research and
814 teaching in kinesiology: Continuing the conversation. *Quest*, 67, 173-184.
- 815 Si, G. C., & Lee, H. (2007). Cross-cultural issues in sport psychology research. In S. Jowett, & D.
816 Lavallee (Eds.), *Social psychology in sport* (pp. 279-288). Human Kinetics.
- 817 Smith, A. L., Dorsch, T. E., & Monsma, E. V. (2012). Developmentally informed measurement
818 in sport and exercise psychology research. In G. Tenenbaum, R. C. Eklund, & A. Kamata
819 (Eds.), *Measurement in sport and exercise psychology* (pp. 131-141). Human Kinetics.

- 820 Smith, A. L., Gustafsson, H., & Hassmén, P. (2010). Peer motivational climate and burnout
821 perceptions of adolescent athletes. *Psychology of Sport and Exercise, 11*, 453-460.
- 822 Smith, A. L., Mellano, K. T., & Ullrich-French, S. (2019). Peers and psychological experiences
823 in physical activity settings. In T. S. Horn & A. L. Smith (Eds.), *Advances in sport and*
824 *exercise psychology* (4th ed., pp. 133-150). Human Kinetics.
- 825 Smith, R. E., & Smoll, F. L. (2002). *Way to go, coach!: A scientifically-proven approach to*
826 *youth sports coaching effectiveness*. Warde Publishers.
- 827 Smith, S. R., & Hamon, R. R. (2012). *Exploring family theories* (3rd ed.). Oxford University
828 Press.
- 829 Surya, M., Bruner, M. W., MacDonald, D. J., & Côté, J. (2012). A comparison of developmental
830 activities of elite athletes born in large and small cities. *Physical and Health Education*
831 *Academic Journal, 4*, 1-8.
- 832 Teques, P., Serpa, S., Rosado, A., Silva, C., & Calmeiro, L. (2018). Parental involvement in
833 sport: Psychometric development and empirical test of a theoretical model. *Current*
834 *Psychology, 37*, 234-249.
- 835 Thrower, S. N., Harwood, C. G., & Spray, C. M. (2017). Educating and supporting tennis parents:
836 An action research study. *Qualitative Research in Sport, Exercise and Health, 9*, 600-618.
- 837 Turnnidge, J., & Côté, J. (2017). Transformational coaching workshop: Applying a person-
838 centred approach to coach development programs. *International Sport Coaching*
839 *Journal, 4*, 314-325.
- 840 Turnnidge, J., Hancock, D. J., & Côté, J. (2014). The influence of birth date and place of
841 development on youth sport participation. *Scandinavian Journal of Medicine & Science*
842 *in Sports, 24*, 461-468.

- 843 Ullrich-French, S., & Smith, A. L. (2006). Perceptions of relationships with parents and peers in
844 youth sport: Independent and combined prediction of motivational outcomes. *Psychology*
845 *of Sport and Exercise*, 7, 193-214.
- 846 Vazou, S., Ntoumanis, N., & Duda, J. L. (2006). Predicting young athletes' motivational indices
847 as a function of their perceptions of the coach-and peer-created climate. *Psychology of*
848 *Sport and Exercise*, 7, 215-233.
- 849 von Bertalanffy, L. (1972). The history and status of general systems theory. *Academy of*
850 *Management Journal*, 15, 407-426.
- 851 Wagstaff, C. R. D. (2017). *The organizational psychology of sport: Key issues and practical*
852 *applications*. Routledge.
- 853 Wagstaff, C. R. D. (2019) A commentary and reflections on the field of organizational sport
854 psychology, *Journal of Applied Sport Psychology*, 31, 134-146.
- 855 Warner, S. (2016). Sport and Sense of Community Theory. In G. B. Cunningham, J. Fink, & A.
856 Doherty (Eds.), *Routledge handbook of theory in sport management* (pp. 189-198).
857 Routledge.
- 858 Warner, S., & Dixon, M. A. (2011). Understanding sense of community from the athlete's
859 perspective. *Journal of Sport Management*, 25, 257-271.
- 860 Warner, S., & Dixon, M. A. (2013). Sports and community on campus: Constructing a sports
861 experience that matters. *Journal of College Student Development*, 54, 283-298.
- 862 Warner, S., Dixon, M. A., & Chalip, L. C. (2012). The impact of formal versus informal sport:
863 Mapping the differences in sense of community. *Journal of Community Psychology*, 40,
864 983-1003.

- 865 Warner, S., Sparvero, E., Shapiro, S., & Anderson, A. (2017). Yielding healthy community with
866 sport? *Journal of Sport for Development*, 5, 41-52.
- 867 Weiss, M. R., & Duncan, S. C. (1992). The relationship between physical competence and peer
868 acceptance in the context of children's sports participation. *Journal of Sport & Exercise*
869 *Psychology*, 14, 177-191.
- 870 Weiss, M. R., & Fretwell, S. D. (2005). The parent-coach/child-athlete relationship in youth
871 sport: Cordial, contentious, or conundrum? *Research Quarterly for Exercise & Sport*, 76,
872 286-305.
- 873 Weiss, M. R., Smith, A. L., & Theeboom, M. (1996). "That's what friends are for:" Children's
874 and teenagers' perceptions of peer relationships in the sport domain. *Journal of Sport &*
875 *Exercise Psychology*, 18, 347-379.
- 876 Weiss, M. R., & Stuntz, C. P. (2004). A little friendly competition: Peer relationships and
877 psychosocial development in youth sport and physical activity contexts. In M. R. Weiss
878 (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 165-
879 196). Fitness Information Technology.
- 880 Whitley, M. A., Massey, W. V., Camiré, M., Blom, L. C., Chawansky, M., Forde, S., Boutet, M.,
881 Borbee, A., & Darnell, S. C. (2019). A systematic review of sport for development
882 interventions across six global cities. *Sport Management Review*, 22, 181-193.
- 883 Wright, E., Gould, D., & Erickson, K. (in press). Home away from home: An examination of the
884 billet family experience in junior ice hockey. *Journal of Applied Sport Psychology*.
- 885 Yeh, H. C., & Lempers, J. D. (2004). Perceived sibling relationships and adolescent
886 development. *Journal of Youth and Adolescence*, 33, 133-147.

- 887 Zelaznik, H. N., & Harper, W. A. (2007). Skill and physical activity: A central dogma for
888 kinesiology. *Quest*, 59, 163-169.
- 889 Ziviani, J., Macdonald, D., Ward, H., Jenkins, D., & Rodger, S. (2006). Physical activity and the
890 occupations of children: Perspectives of parents and children. *Journal of Occupational*
891 *Science*, 13, 180-187.



892
893

Figure 1. Heuristic model of the youth sport system and its three interrelated subsystems.

894