

1 **Surveying the youth-to-senior transition landscape in Major league**

2 **Soccer: a new frontier**

3 **Abstract**

4 **Purpose:** The aim of this study was to survey Major League Soccer stakeholders' attitudes and
5 perspectives on the youth-to-senior transition with a particular interest in the league's evolving
6 club structures, specifically the reserve team and youth academy entities. The survey assessed
7 various stakeholders' views on clubs' organizational aims and structure, the capabilities of club
8 entities to prepare players for the first team, and the transition process to the first team within
9 MLS clubs.

10 **Methods:** A total of 80 participants working in various "player operation" roles for MLS
11 organizations in the United States and Canada voluntarily completed the online survey.

12 **Results:** The predominant aim for both reserve teams and academies in MLS organizations is
13 to develop players for the first team. The organizational structure and governance of reserve
14 teams are varied across the league, but an overarching feature of reserve teams is their function
15 as a development team. When players are transitioning, communication between staff may or
16 may not be clear and effective. Finally, for players within MLS clubs' talent pathway, a variety
17 of support strategies are made available during the transition into the first team, but
18 psychological support in particular may be limited or unavailable.

19 **Conclusion:** Similar to European soccer, the aim of MLS youth academies and reserve teams
20 is to develop first team players for the club. Though, while players are transitioning into the
21 first team, communication may or may not be clear and effective, and psychological support
22 may be absent, which may impair player development initiatives.

23 **Keywords:** *Career transition, player development, soccer*

24 **Introduction**

25 A strong domestic league along with a large talent pool of players are key
26 characteristics of established soccer (i.e., association football) nations (Bennett et al. 2019). In
27 the United States and Canada, the top-tier domestic league, Major League Soccer (MLS), has
28 undergone tremendous growth, expanding from 10 to 29 clubs over the course of its 28-year
29 history, subsequently providing unprecedented opportunity for young soccer talents in North
30 America. Alongside league expansion, MLS organizations have broadened their general club
31 infrastructure and operations, including the construction of soccer-specific stadiums and
32 modern training facilities, and the assemblage of youth academies and reserve teams, which
33 has significantly augmented the league’s talent pathway. In 2007, MLS adopted the globalizing
34 youth academy system established by leading European soccer clubs when it launched its
35 academy initiative (Bowers and Green 2016), and a year later, announced its homegrown player
36 initiative, which enabled a new “player acquisition mechanism” whereby clubs could directly
37 sign an academy player to a professional contract rather than retain him via the MLS
38 SuperDraft (Smolianov et al. 2015). Hence, a homegrown player has only been instituted in
39 MLS for less than two decades. Despite receiving strategic recommendations to cut spending
40 in youth development (Tenorio and Maurer 2019), the North American domestic league has
41 continued to finance its talent pathway in an effort to keep up with the ever-increasing
42 globalization, professionalism, and investment in elite soccer. To date, much of the player
43 development research in elite soccer has originated from British and European contexts, but
44 with the globalisation of soccer North America and MLS aims to become a much stronger
45 domestic league, as well as a major player in the transfer market. Consequently, there is a need
46 to generate more knowledge about the structural complexities and cultural nuances of player
47 development in North American soccer.

48 *The youth-to-senior transition*

49 In professional soccer, the transition from the youth-to-senior level is considered one
50 of the defining moments of a player's career (FIFA, 2021). This within-career transition has
51 been described as a turbulent time where players encounter athletic, social, psychological,
52 psychosocial, sociocultural, and cultural stressors both on and off the field (Egillson and Dolles
53 2017; Drew et al. 2019; Stambulova et al. 2009). An empirical youth-to-senior transition model
54 outlines the sequence and time course of the transition period into four discrete phases:
55 preparation, orientation, adaptation, and stabilization (Stambulova et al. 2017). In the model's
56 temporal structure, the components of the transition process (i.e., demands, resources, barriers,
57 coping strategies, and outcomes) and their dynamics within each phase are included. While
58 career transition phases and processes have been examined from a variety of perspectives in
59 elite soccer (Mitchell et al. 2020; Morris et al. 2015; Morris et al. 2016; Morris et al. 2017;
60 Swainston et al. 2020; Swainston et al. 2021), these investigations have been conducted solely
61 in a British context, limiting the scope of this research area and failing to account for
62 sociocultural differences that may impact players' transition experiences and outcomes (Drew
63 et al. 2019).

64 The preparation phase is an academy player's physical and mental preparation for a
65 full-time move to the senior level following opportunities to train with the first team and
66 experience the professional setting (Pehrson et al. 2017; Swainston et al. 2020). Typically,
67 clubs utilize a "staggered entry system," giving young players a gradual introduction to the
68 professional environment and allowing them to integrate with senior players and staff (Morris
69 et al. 2015). Academy players are often promoted because either a professional player is injured
70 and a replacement is needed for training purposes, or first team technical staff have observed a
71 young player and subsequently invited him to train with the first team (Røynesdal et al. 2018).
72 After exiting the academy and signing a professional contract, a young player moves full-time

73 into the professional environment to begin the orientation phase where they learn more about
74 the demands of the new environment and become accustomed to the first team and its
75 organizational structure and culture (Swainston et al. 2020). In the adaptation phase, players
76 continue to learn and adapt to the first team environment, pushing for a bigger role in the roster,
77 while in the stabilization phase that follows, a player will have cemented their place as a regular
78 in the first team (Pehrson et al. 2017; Swainston et al. 2020).

79 The present study is concerned with determining the state of player development in
80 MLS particularly during the first three transition phases, as the successful management of a
81 young player's transition from academy to first team is still a major challenge that faces all
82 professional clubs (Mitchell et al. 2020). At an organizational level, player development
83 encompasses strategic, operational, and financial planning contributions from multiple
84 stakeholders with different levels of expertise, including coaching, sports science and
85 medicine, talent identification and management (Sotiriadou & Stability 2013). Exiting the
86 academy and signing a professional contract commences a new, critical phase of player
87 development often referred to as the 'post-academy phase' or 'developing mastery phase'
88 (Richardson et al. 2013). Adapted from Wylleman and Lavallee (2004), this soccer-specific
89 model encapsulates the ambiguity that players encounter as they progress through a club's
90 organizational structure and culture. Concomitantly, young players may not be fully prepared
91 for the first team and still require further development, such as opportunities for routine,
92 intensive training, and regular match play (Richardson et al. 2013; Webb et al. 2020). To better
93 support transitioning players' development, many clubs across the globe operate reserve teams,
94 also referred to as second teams or B teams, that compete in lower-tier leagues (e.g., 3
95 Bundesliga, Germany) or independent developmental leagues (e.g., Premier League 2,
96 England). Thus, the reserve team acts as a conduit between the academy and first team
97 (Dowling et al., 2018), giving young players a supportive yet challenging environment where

98 they can continue their development after graduating from the academy (Relvas et al., 2010).
99 Further, for many young contracted first team players, the reserve team also offers
100 opportunities for regular match play, as playing time in the first team may often be limited
101 (Swainston et al. 2021).

102 *MLS reserve teams*

103 The evolution of MLS reserve teams has been complicated in part due to incessant
104 changes in the US divisional structure below MLS, creating a complex professional soccer
105 landscape (Warren and Agyemang 2019). Previously, MLS had two independent reserve
106 leagues that commenced in 2005 and 2011 but they failed to provide developing players with
107 the required number of competitive fixtures due to the limited 12-match summer schedule
108 (Rueter 2020). Since 2013 various MLS clubs either consistently or sporadically operated
109 reserve teams, or partnered with affiliate clubs, that competed in the second- and third-tier
110 domestic league run by United Soccer League (USL). In 2022, MLS launched its third iteration
111 of a reserve league, MLS Next Pro, which ultimately led to an exodus of MLS reserve teams
112 from USL and ended a unique decade-long player development initiative between MLS and
113 USL, two commercially independent organizations part of the closed pyramidal structure in
114 US soccer. Consequently, reserve team operations for most MLS clubs have been in a constant
115 state of flux, causing both a paucity of organizational stability and strategic consistency, which
116 has impeded the clubs' abilities to establish and maintain a cohesive talent pathway. This
117 complicated evolution has made it difficult, if not impossible, to longitudinally evaluate MLS'
118 talent pathway, which has ultimately impacted the youth-to-senior transition process.

119 In light of the previous literature and North American soccer context, the purpose of
120 this study was to survey MLS stakeholders' attitudes and perspectives on the youth-to-senior
121 transition with a particular interest in clubs' evolving organizational structures, including the
122 reserve team and youth academy entities. By surveying a variety of MLS stakeholders directly

123 involved in player development initiatives, this study will provide critical insights on clubs’
124 organizational aims and structure (1), the capabilities of club entities (i.e., reserve team and
125 academy) to prepare players for the first team (2), and the transition process within MLS.

126 **Methods**

127 *Participants*

128 A total of 80 participants working for MLS organizations in the US and Canada voluntarily
129 completed an online survey. Participants were recruited using a poster advertised on LinkedIn
130 and through the lead researcher’s network of professional contacts. To increase visibility,
131 ‘snowball sampling’ was implemented (Morgan 2012), whereby participants were encouraged
132 to circulate the poster amongst their colleagues within their club and across the league. The
133 survey was available on 1 June 2022 and remained open for 10 weeks. Inclusion criteria defined
134 participants as working full-time in a “player operations” role at either the first team, reserve
135 team, or youth academy level within a MLS club. The “player operations” categories included
136 were administration/operations, coaching/technical, executive/management, sports analytics,
137 sports medicine, sports science/strength and conditioning, and talent identification/recruitment.
138 Participants were able to view and download the participant information sheet via the first page
139 of the survey and were advised that by taking part their informed consent was given. To ensure
140 that responses were collected from the targeted population, inclusion criteria were also
141 provided on the first page of the survey, which included the stipulation that participants must
142 be working for an MLS club that operated a reserve team in either the second or third division
143 at the time of completing the survey. Participant information including age, gender, and club
144 identifiers was not requested to ensure responses remained confidential. The study received
145 full ethical approval from an institutional ethics committee (22/SPS/030).

146 *Survey design and distribution*

147 The present study utilized a cross-sectional design and incorporated a survey to collect data on

148 MLS stakeholders' attitudes and perceptions of the youth-to-senior transition. Online software
149 (SurveyMonkey, California, USA) designed the survey and a modified version of a previous
150 youth-to-senior transition instrument developed originally for the English Premier League was
151 used (Flower 2020). Adaptations included the removal of culturally ambivalent questions and
152 some minor adjustments in language, whilst context-specific questions were included based on
153 the primary author's experiences working in the US soccer landscape. The first iteration of
154 survey items included 16 multiple-choice, three simple multiple-choice (yes/no), two single
155 textboxes, one multiple textboxes, one checkbox, six numerical, and nine matrix/rating scale
156 questions. Operating as a Likert scale, each matrix/rating scale contained five points with all
157 points labelled with anchors (Vagias 2006), as fully labelled scales are more reliable and valid
158 than partially labelled scales (Krosnick and Presser 2010). The survey included questions to
159 systematically assess (a) participant information, (b) general club information, (c)
160 organizational aims and structure, (d) the preparation for the first team, (e) and the process of
161 transition. Final face and content validity (Stoszkowski and Collins 2016) of the survey was
162 conducted via discussions with 11 "player operations" personnel working in MLS. This
163 resulted in modifications to improve clarity and comprehension. For example, one of the
164 questions surrounding the organisational aims was changed from a Likert scale concerning
165 level of agreeability to a ranked item. The final survey consisted of 39 items and took
166 approximately 20 minutes to complete.

167 *Data analysis*

168 Responses were exported into Microsoft Excel and subsequently Statistical Package of Social
169 Sciences (SPSS, Version 26, IBM, New York, NY) for analysis. Data were initially screened
170 for missing or implausible values and frequency analysis was conducted for each question.
171 Results for multiple choice and simple multiple choice were presented as absolute frequency
172 counts or percentage of respondents. The percentage of responses was assigned the following

173 qualitative terms: All = 100% of respondents; Most = $\geq 75\%$; Majority = 55 to 75%;
174 Approximately half = $\pm 50\%$; Approximately a third = $\pm 30\%$; Minority = $< 30\%$ (Starling and
175 Lambert 2018). Likert scale responses were converted to integers and represented by the
176 qualitative anchor associated with the mean response (Hopkins 2010). Likert scale responses
177 are presented as the response label associated with the mean response expressed as an integer,
178 and also as the mean \pm SD. Answers to Likert scales pertaining to the level of agreeability were
179 grouped as Agree (Strongly agree and Agree), Neither Agree nor Disagree, and Disagree
180 (Strongly disagree and Disagree). Numerical responses are presented as Mean \pm SD.

181 **Results**

182 *Participant demographics*

183 Of the 80 respondents who completed the survey (Administration/Operations: $n = 5$, 6.4 ± 5.7
184 years experience; Coaching/Technical: $n = 24$, 12.2 ± 8.0 y; Executive/Management: $n = 5$,
185 15.2 ± 6.1 y; Sports Analytics: $n = 3$, 3.7 ± 0.6 y; Sports Medicine: $n = 17$, 5.4 ± 6.2 y; Sports
186 Science: $n = 20$, 6.5 ± 4.0 y; Talent Identification/Recruitment: $n = 3$, 15.7 ± 6.7 y), 35 worked
187 in the first team, 21 in the reserve team, and 24 in the youth academy (Table 1). At the time of
188 data collection, the majority of respondents worked for a club that operated a reserve team in
189 the new third-tier league (84%), while the remaining (16%) respondents worked for a club that
190 operated a reserve team in the second-tier league. The survey had an equal distribution between
191 MLS' geographical conferences (i.e., Eastern and Western Conferences).

192 **!INSERT TABLE 1 ABOUT HERE!**

193 *Organizational aims and structure*

194 *Player development aims*

195 Tables 2 and 3 present the organizational aims of the reserve team and youth academy,
196 respectively.

197 **!INSERT TABLE 2 ABOUT HERE!**

198 !INSERT TABLE 3 ABOUT HERE!

199 *Reserve team dynamics*

200 A majority of respondents described the function of the reserve team as being a development
201 team within their club (64%). Next, over a third of respondents reported that the reserve team
202 head coach (39%) governed, or oversaw and managed, the environment, while 22
203 respondents reported the academy director (28%), and 13 respondents reported the first team
204 head coach (16%) held management authority. Other respondents (15%) reported a reserve
205 team general manager oversaw this entity within the club, or that collaboration in governance
206 existed between the first team, reserve team, and youth academy leadership.

207 *Club training site(s)*

208 A majority (72%) of respondents reported that club training facilities were located on a single
209 site, whilst twenty-three (28%) reported that club facilities were located on separate sites.
210 Subsequently, eleven (14%) respondents reported that their club's first team and reserve team
211 shared a training site separate from the youth academy , ten (13%) reported the reserve team
212 and youth academy shared a training site separate from the first team , and two (3%)
213 respondents reported all three club entities trained on separate sites.

214 *Preparation for the first team*

215 Tables 4 and 5 present stakeholder responses concerning the capabilities of the reserve team
216 and youth academy in preparing players for the first team, respectively.

217 !INSERT TABLE 4 ABOUT HERE!

218 !INSERT FIGURE 5 ABOUT HERE!

219 *Transition process*

220 Table 6 presents stakeholder responses concerning the transition process to the first team,
221 while figure 1 presents the. bespoke support strategies available to players transitioning to the
222 first team .

223 !INSERT TABLE 6 ABOUT HERE!

224 !INSERT FIGURE 1 ABOUT HERE!

225 Discussion

226 *Organizational aims*

227 As can be seen in tables 2 and 3, MLS stakeholders reported that the predominant aim for both
228 reserve teams and academies is to develop players for the first team . To the best of the authors'
229 knowledge these findings are the first to confirm the homogenisation of organizational aims in
230 MLS relative to European soccer (Relvas et al. 2010), and with the rest of the soccer world in
231 general (Ford et al. 2020). Consequently, MLS may now indeed be embracing a long-term
232 strategy in which its clubs utilize their youth academies and reserve teams to develop potential
233 talents for the first team. Meanwhile, the lowest ranked aims for reserve teams and academies
234 were the development of players for the national team and the US collegiate system,
235 respectively. These findings concerning the (US and Canadian) national teams are similar to
236 previous research conducted in Europe, where only professional clubs in Sweden have reported
237 prioritizing player development for the national team (Relvas, et al. 2010). As for collegiate
238 athletics, the present findings indicate that the least important aim for MLS academies is to
239 develop student-athletes for US collegiate soccer programs. *Function, governance, and*
240 *structure of reserve teams*

241 The majority of respondents described the function of the reserve team as being a
242 development team within their club. Thus, an MLS reserve team is a critical entity where young
243 players may undergo the 'developing mastery phase' (Gregson and Littlewood, 2019), as it
244 strategically provides them with an environment that closely replicates the first team (Dowling
245 et al. 2018), but where they can continue to develop and prepare for the demands of first-
246 division soccer. Next, stakeholders reported that leadership personnel from either the academy,
247 reserve team, or first team oversee the management of the reserve team. Interestingly, a few

248 stakeholders also noted the role of a specific reserve team general manager that holds
249 leadership responsibilities over this club entity. The authors of this study are unaware of any
250 formal mandates set by the MLS concerning a standardized organizational structure for its
251 clubs. In European soccer, however, the reserve team is either managed by the academy or first
252 team entity and together they are typically based in a shared facility (Dowling et al. 2018,
253 Relvas et al. 2010).

254 *Training site location(s)*

255 While a majority of stakeholders reported that all three entities trained at a single
256 location (72%), some MLS organizations have their club entities in different geographical
257 locations (28%). Physical distances between training facilities have previously been reported,
258 which may be due to a predetermined club strategy (Relvas et al. 2010), but a recent global
259 transition survey reported that having the academy and first team on the same training site eases
260 the transition process for young players (Lundqvist et al. 2022). Club infrastructure that holds
261 both youth and senior players in the same training facility can provide the former an
262 opportunity to watch and emulate their role models (Aalberg and Saether 2016). However,
263 while bringing youth and professionals closer together into a single facility may be a suitable
264 strategy for player transition purposes, there still exists this cultural distance that can wedge a
265 gap in the organizational practices and communication between the youth and professional
266 entities (Relvas et al. 2010).

267 *Within-club communication*

268 Clear lines of communication within elite sport are critical to executing working
269 practices and fulfilling a club's organizational aims (Dijkstra et al. 2014; Nesti et al. 2012).
270 However, MLS stakeholders reported that communication concerning transitioning players
271 may or may not be clear and effective. Poor communication between the first team, reserve
272 team, and youth academy staff across management, coaching, sport science, and medicine

273 departments may impede a young player's progression to the senior level (Relvas et al. 2010).
274 In many clubs, large volumes of data are captured by sports science and medicine practitioners,
275 which is driven in part by the widespread application of technologies such as wearable devices
276 and athlete management systems (Gamble et al. 2020). The production of large datasets,
277 coupled with an inability by multidisciplinary teams to effectively deliver feedback on key
278 training- and match-related variables to technical staff can render an ineffective monitoring
279 process and be a missed opportunity for effective knowledge translation (Bartlett and Drust
280 2020, Nosek et al. 2021). Further, incoherent communication between staff can inflate injury
281 rates (Ekstrand et al. 2019; Larruskain et al. 2021), and deter player needs satisfaction (Li et
282 al. 2017). Evidence of transdisciplinary dialogue concerning optimal player development
283 strategies also remains limited (Figueiredo et al. 2014). Although, a recent global survey
284 indicated that strategic alignment among performance and medical practitioners exists between
285 the professional and youth environments within professional clubs and national federations
286 (Gregson et al. 2022). Nonetheless, future research should investigate the quality of
287 communication and working practices between practitioners within the three different club
288 entities to determine the state of player development for transitioning players.

289 *Psychological support*

290 The turbulent nature of within career-transitions in elite soccer (i.e., contractual release,
291 demotion from the first team, serious injury) (Mitchell et al. 2020), combined with the potential
292 for career shock (Akkermans et al. 2018) and the implications for player well-being warrant
293 the provision for psychological support in professional soccer clubs. However, stakeholders
294 reported a dearth of psychological support for transitioning players in MLS. Further,
295 stakeholders neither agreed nor disagreed whether the reserve team (Table 4) and academy
296 (Table 5) prepare players mentally for first team soccer. In more established academy systems
297 (i.e., Premier League, England), psychological support is part of the multidisciplinary services

298 outlined in the Elite Player Performance Plan (EPPP) and in the last two decades, British
299 academic institutions have embedded legally regulated practitioners into professional clubs to
300 facilitate and support the youth-to-senior transition (Champ et al., 2018). This process has
301 empowered practitioners to support players with their role in the social environment (Champ
302 et al., 2018), or deal with micro-level changes, such as moving to another club or country
303 (Egillson and Dolles, 2017). However, academy systems, including the EPPP, have drawn
304 criticism for promoting early sport specialization, which can lead to psychological overload
305 from excessive demands (Read et al. 2016). In addition, evidence from deselected English
306 academy players suggests they experience psychological distress including, anger, anxiety,
307 depression, fear, and identity crisis (Brown and Potrac 2009; Blakelock et al.2016). It is
308 unknown what the consequences are for deselected players from MLS academies, as they may
309 have opportunities to continue their athletic pursuits in US collegiate soccer and future research
310 is warranted.

311 *The reserve team and youth academy settings*

312 As reported previously, stakeholders shared uncertainty on whether the reserve teams
313 and youth academies mentally prepare players for first team soccer. Coaches working in the
314 reserve team have noted a lack of clarity over what the *right* environment is for this club entity
315 and find the task of preparing their players for the first team difficult as their roster can be
316 comprised of a diverse group of players who are at different stages within their development
317 (Dowling et al. 2018). Often, a reserve team roster on match day can be made up of reserve
318 team contracted players, along with temporarily demoted first team players in certain
319 circumstances (e.g., return-to-play process following injury), as well as promoted academy
320 players.

321 Researchers though have contended that when young players join the first team, they are often
322 insufficiently prepared because they lack the skills, knowledge, and experience to cope with its

323 brutish, hyper-masculine, and results-driven nature (Richardson et al. 2013). These
324 sociocultural features that characterize first team soccer are also a stark contrast to the academy
325 level that aspires to provide a more caring and nurturing environment for player development
326 purposes (Richardson et al 2004), ergo there are two counter sub-cultures coexisting within a
327 professional soccer club, and this cultural gap underscores the scale of the psychosocial
328 demands facing young transitioning players when moving upwards within a club's
329 organizational structure (Aalberg and Saether 2016; Relvas et al. 2010; Richardson et al. 2013).
330 Despite this dichotomy that prevails between high performance and development-oriented
331 environments (Lyle 1997), professional clubs cannot allow this notion to deter efforts to
332 optimize player development (Mills et al 2014). For example, coaches can encourage
333 developing players to raise their level of awareness and ownership of the developmental
334 process through the adoption of reflective practice (Mills et al. 2012). Such efforts by coaches,
335 in combination with professional psychological support, can provide players with a more
336 holistic development experience and enhance their preparation for the challenges and adversity
337 they will face, while their absence may instead compromise players' psychosocial and socio-
338 emotional development, which together could ultimately impact opportunities to successfully
339 progress into the first team (Mills et al 2014; Mitchell et al. 2021).

340 In the current study respondents were undecided over whether academies prepare
341 players physically for the first team. This is noteworthy because an increase in physical
342 demands has been cited by both coaches and transitioning players (Morris et al. 2016;
343 Swainston et al. 2020), and there is evidence of differences between the youth and senior levels
344 when comparing training and match loads (Houtmeyers et al. 2021; Reynolds et al. 2021). In
345 competitive matches, under-18 academy players generally record less high-speed running
346 distance ($>19.8 \text{ km}\cdot\text{h}^{-1}$) than under-23 players, and less sprinting distance ($>25 \text{ km}\cdot\text{h}^{-1}$) than
347 first team players (Reynolds et al. 2021). When examining differences in weekly training loads,

348 under-19 academy players recorded greater low-velocity distances, due in part to longer session
349 durations as well as a higher number of weekly sessions, but for sprint velocities ($>25 \text{ km}\cdot\text{h}^{-1}$),
350 the academy players recorded significantly less total distance than the first team (Houtmeyers
351 et al. 2021). Coaches and sports science staff working in a professional club's academy must
352 ensure their physical development programs are preparing young players for the demands of
353 professional soccer. In practical terms, it is suggested practitioners should first quantify the
354 physical differences between the club entities, including all age categories in the academy, and
355 progressively train players toward closing these gaps (Burgess and Naughton 2010).

356 *Limitations*

357 This study included a modest, voluntary, purposeful sample of stakeholders working in MLS,
358 and although the study adopted recruitment methods to avoid bias, the sample may
359 underrepresent the target population. There was a moderate completion rate (69%) number of
360 respondents ($n = 116$) who started the survey but for unknown reasons did not fully complete
361 it. The survey length though may have contributed to respondent fatigue and subsequent
362 dropout. Ultimately, this sample is low compared to the hundreds of 'player operations'
363 personnel currently working across MLS, which prevented an exploratory factor analysis and
364 must be acknowledged when generalizing the survey's results. Further, despite adopting
365 procedures to avoid reporting bias (e.g., providing answers in line with study outcomes), a
366 number of Likert scale responses were clustered around the mid-point suggesting respondents
367 opted for the neutral code, and signalling the pitfalls of utilizing a survey instrument that is not
368 validated. Still, this is the first paper to address player development initiatives in MLS by
369 specifically examining elements of the youth-to-senior transition, which provides unique
370 insights into this research area from a North American soccer perspective and helps build a
371 broader scope to the literature.

372 *Concluding remarks*

373 The present study surveyed MLS stakeholders' attitudes and perspectives on the youth-to-
374 senior transition, giving insights into this research area from a North American context. MLS
375 has joined the global game by adopting a club structure model, involving academies and
376 reserve teams that aim to develop young talent for the professional first team. However, when
377 players are transitioning, communication may or may not be clear and effective among staff,
378 which may impair player development initiatives. Additionally, while there are a variety of
379 traditional bespoke support strategies, such as strength and conditioning programming and
380 nutritional provision, that are made available to transitioning players, there may be a dearth of
381 psychological support within MLS organizations. This finding is compounded by
382 stakeholders also reporting that both the academy and reserve team may or may not prepare
383 players mentally for the first team. Future research should explore intra- and inter-department
384 communication when players are transitioning, as well as the experience and implications of
385 player deselection from MLS academies.

386 **Acknowledgments**

387 The authors would like to acknowledge the respondents for taking the time to complete the
388 survey.

389 **Data Availability**

390 The data that support the findings of this study are available on request from the
391 corresponding author (PM).

392 **Disclosure statement**

393 The authors report no conflict of interest.

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552 **Figures & Tables**

553 Table 1. Proportion of stakeholder respondents by club level and ‘player operations’ role.

Player Operations Role	First Team	Reserve Team	Youth Academy
Administration/Operations	0	1	4
Coaching/Technical	8	9	10
Executive/Management	4	0	1
Sports Analytics	1	1	1
Sports Medicine	8	6	3
Sports Science/Strength & Conditioning	13	4	3
Talent Identification/Recruitment	1	0	2
Total	35 (44%)	21 (26%)	24 (30%)

554 Table 2. Proportion of responses concerning the organizational aims of operating a reserve
555 team.

	Rank				556
	1	2	3	4	
At your club, the aim of operating the reserve team is to:					
Develop players for the club's first team	65 (81.3%)	14 (17.5%)	0 (0.0%)	1 (1.3%)	
Develop players to be sold for financial gain	6 (7.5%)	32 (40%)	23 (28.7%)	19 (23.8%)	
Develop players to have a career in professional soccer	8 (10%)	27 (33.8%)	32 (40%)	13 (16.3%)	
Develop players for the national team	1 (1.3%)	7 (8.8%)	25 (31.3%)	47 (58.8%)	

557 Table 3. Proportion of responses concerning the organizational aims of operating a youth
 558 academy.

	Rank				
	1	2	3	4	5
At your club, the aim of operating the youth academy is to:					
Develop players for the club's first team	58 (72.5%)	15 (18.8%)	5 (6.3%)	1 (1.3%)	1 (1.3%)
Develop players to be sold for financial gain	9 (11.3%)	19 (23.8%)	16 (20%)	19 (23.8%)	17 (21.3%)
Develop players to have a career in professional soccer	9 (11.3%)	23 (28.7%)	25 (31.3%)	18 (22.5%)	5 (6.3%)
Develop players for the national team	0 (0.0%)	10 (12.5%)	14 (17.5%)	31 (38.8%)	25 (31.3%)
Develop players to compete in U.S. collegiate soccer	4 (5%)	13 (16.3%)	20 (25%)	11 (13.8%)	32 (40%)

559

560 Table 4. Mean (\pm SD) level of agreeability amongst stakeholders concerning the capabilities
 561 of the reserve team environment in preparing players for the first team.

	Stakeholder response (Mean \pm SD)
For the following statements concerning your club's reserve team, please indicate your level of agreement to each answer:	
The reserve team prepares players for first team soccer	Agree (3.7 \pm 0.9)
The reserve team prepares players physically for first team soccer	Agree (3.9 \pm 0.9)
The reserve team prepares players tactically for first team soccer	Agree (3.7 \pm 1.0)
The reserve team prepares players technically for first team soccer	Agree (3.8 \pm 0.9)
The reserve team prepares players mentally for first team soccer	Neither agree nor disagree (3.4 \pm 0.9)
Reserve team players are aware of and understand the demands of the first team environment	Agree (3.6 \pm 1.0)
Reserve team staff are aware of and understand the demands of the first team environment	Agree (4.1 \pm 0.9)

562 Table 5. Mean (\pm SD) level of agreeability amongst stakeholders concerning the capabilities
 563 of the youth academy environment in preparing players for the first team.

	Stakeholder response (Mean \pm SD)
For the following statements concerning your club's youth academy, please indicate your level of agreement to each answer:	
The academy prepares players for first team soccer	Agree (3.5 \pm 0.9)
The academy prepares players physically for first team soccer	Neither agree nor disagree (3.3 \pm 1.0)
The academy prepares players tactically for first team soccer	Agree (3.8 \pm 0.9)
The academy prepares players technically for first team soccer	Agree (3.8 \pm 0.8)
The academy prepares players mentally for first team soccer	Neither agree nor disagree (3.2 \pm 1.1)
Academy players are aware of and understand the demands of the first team environment	Neither agree nor disagree (3.2 \pm 1.0)
Academy staff are aware of and understand the demands of the first team environment	Agree (3.8 \pm 1.0)

564

565 Table 6. Mean (\pm SD) level of agreeability amongst stakeholders concerning the transition
 566 process to the first team.

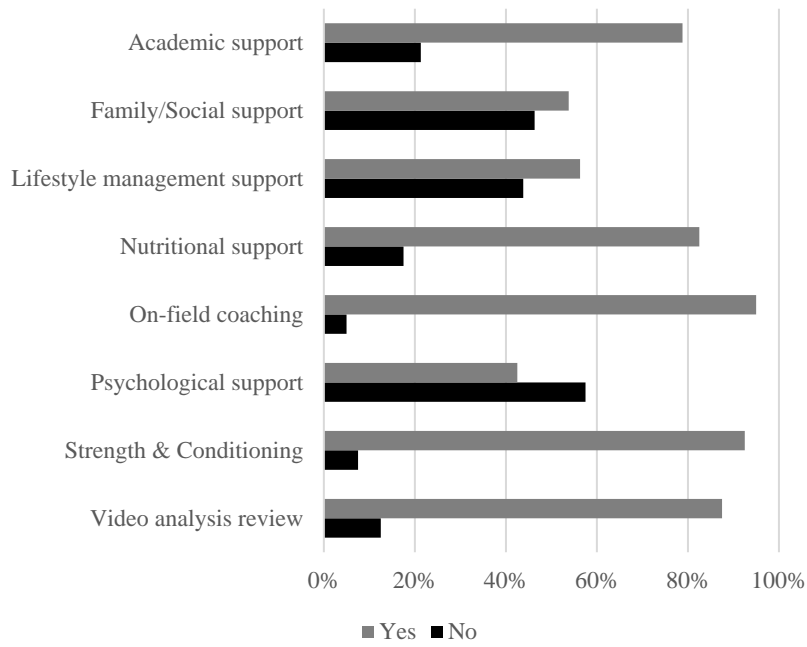
	Stakeholder response (Mean \pm SD)
For the following statements, please indicate your level of agreement to the listed answers with regards to the process of players transitioning to the first team at your club:	
There is a clearly defined "pathway" at your club for reserve team/youth academy players to progress to the first team	Agree (4.2 \pm 0.9)
There is a well-documented "pathway" at your club with written down development strategies and management practices	Agree (3.5 \pm 1.1)
Young players are given a lot of opportunities to progress into the first team at your club	Agree (3.7 \pm 1.0)
First team staff actively take an interest in the reserve team and youth academy	Agree (3.7 \pm 1.2)
There is always regular and effective communication between relevant staff about the performance and development of specific players	Agree (3.7 \pm 1.1)
When players are transitioning, communication between relevant staff is always clear and effective	Neither agree nor disagree (3.3 \pm 1.2)

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570 Figure 1. Percentage (%) of responses concerning bespoke support strategies available to
571 young players within MLS organizations.



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