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Abstract

26 **Purpose:** Social identity (i.e., the strength with which individuals identify with a group) is a key mechanism through which youth sport participants derive developmental benefits 27 28 (Martin et al., 2018). However, despite the importance of one's social identity in 29 promoting these benefits, our understanding of the correlates of social identity within the 30 sport context is limited by the absence of evidence. To address this gap, this study 31 investigated the relations between perceived social support from coaches, family, and 32 friends and social identification. Method: Male adolescent athletes (N = 344) completed 33 measures of social support and social identity as part of a cross-sectional design. Latent 34 profile analysis was used to identify distinct social support profiles. **Results:** Four latent 35 profiles were identified: higher support, average support, diminished support, and lower 36 support. ANCOVA results indicated that profile membership corresponded to significant differences in social identity perceptions, p < .001, partial $\eta^2 = .26$. Participants in the 37 higher social support profile perceived significantly higher social identity when compared 38 with profiles of average, diminished, and lower support (ps < .05, Cohen's $d \ge .67$). 39 40 **Conclusion:** Results highlight the association between support from different social 41 agents and social identity in youth sport. Better understanding the correlates of social 42 identity may be critical in enhancing the developmental benefits of participation in 43 organized team sports given the relationship with social identity. 44

45 Keywords: group dynamics, youth sport, social support

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Exploring the Relations Between Social Support and Social Identity in Adolescent Male Athletes

49 Social identity has been defined as "that part of an individual's self-concept which 50 derives from his/her knowledge of his/her membership of a social group (or groups) 51 together with the value and emotional significance attached to that membership" (Tajfel, 52 1981, p. 255). One predominant approach applied in youth sport and underpinned by 53 Social Identity Theory (Tajfel & Turner, 1979) has been to assess the strength with which 54 individuals identify with a group (i.e. social identification) in relation to a number of 55 developmental outcomes. For instance, sport team identification is positively associated 56 with adaptive cognitions and positive affect (e.g., Martin, Balderson, Hawkins, Wilson, & 57 Bruner, 2018), adaptive and maladaptive moral behavior (e.g., Benson & Bruner, 2018; 58 Bruner, Boardley & Coté, 2014), and positive youth development (e.g., Bruner et al., 59 2017). What is less understood, however, is the association between social identity with 60 one's sport team and social influences from an athlete's broader social environment – 61 such as perceived social support. 62 To begin addressing this literature gap, an important step is to examine whether

To begin addressing this literature gap, an important step is to examine whether perceived social support from sources within and outside of the specific sport context (i.e., the broader social strata) relate to the strength with which individuals identify with one social group – their sport team. Social support can be defined as "the perceived comfort, caring, assistance, and information that a person receives from others" (Lox, Martin Ginis, & Petruzello, 2010, p. 102). These social resources are important because they extend beyond resources available at a personal level. Both theoretical and empirical research highlights that social support and connections within our broader social strata 70 are vital to helping us to protect and maintain our sense of self and identity (Hobfoll,

Freedy, Lane & Geller, 1990). In this way, social support serves an instrumental function as well as a self-defining function that supports the desire for a more stable sense of self (e.g., identification with a specific sport team). Further, recent work proposed and found support for the idea that people are more inclined to integrate a collective identity into their sense of self when group involvement is socially validated by others (Benson & Bruner, 2018).

77 Salient social motives for youth involvement in sport include friendship, team 78 membership, and social recognition (e.g., Smith, 2019). Social agents such as family, 79 friends¹, and coaches all play a significant role in positively shaping youth sport and 80 other physical activity experiences (Beets, Vogel, Forlaw, Pitetti, Cardinal, 2006; Sallis, 81 Prochaska, Taylor, 2000; Sheridan, Coffee, & Lavallee, 2014). As a result, social support 82 from these distinct social agents may be associated with the strength of an athlete's social 83 identity in sport. Further, the positive association between social support and social 84 identity is also documented in other settings (e.g., health psychology; Jetten et al., 2017). 85 The purpose of this study was to build upon previous research to evaluate if the 86 co-occurrence of support from social agents that span a broad range of potential influence 87 (i.e., coaches, family, and friends) is associated with the degree to which athletes identify 88 with their sport teams. This co-occurrence (or lack thereof) was examined by testing for 89 differences in social identity between athletes who exhibited different social support 90 profiles. Given that this is a data-driven approach, we did not specify a priori hypotheses

¹ In examining social support from friends, it is important to acknowledge that this will represent individuals who are teammates, but also individuals from one's peer group who have no association with the sport team. As such, this term needs to be interpreted accordingly so as to not solely reflect teammates.

91 pertaining to which social support profiles may emerge and therefore which sources of 92 support may exhibit independent effects. Generally, we expected to see an additive trend 93 where participants who perceive the highest support from family, friends, and coaches 94 would also identify to the highest degree with their sport team. 95 Method 96 **Participants** 97 Participants included a convenience sample of 357 adolescent male team sport 98 athletes in Australia. Participants ranged in age from 12 to 18 years and participated in 99 soccer (n = 306), basketball (n = 31), and Australia Rules Football (n = 21). Thirteen 100 participants were removed due to missing data (e.g., did not complete one or more study 101 measures; n = 9) or for not meeting the criteria of being an adolescent athlete (i.e., over 102 18) (n = 4). The final sample included a total of 344 participants from 85 sport teams 103 $(M_{age} = 14.64, SD = 1.65).$ 104 Procedure 105 Ethical approval was attained from the university ethics review board.

Participants were recruited to participate through their sports team. Informed consent was obtained from each of the participants and the parents of those participants under the age of 16 years. Participants with signed parental consent completed a questionnaire on an iPad using the FileMaker Pro app (n = 165) or using paper and pencil (n = 192) at their training ground and with their sport team prior to, or after, a scheduled practice toward the end of the regular season. Some teams elected to have the survey sent home and returned at a later date. The combination of completed parental consent and the takehome option for survey completion resulted in some teams having very few participants(average 4.2 athletes per team across 85 total teams).

Data used in this study pertain to a subset of the total number of measures completed by participants at baseline (approximately 30 minutes total to complete) as part of the early phases of a larger study (see **1999**) (blind for peer review). As a result of having a large battery of study measures, a decision was made in the design phase to reduce participant burden by reducing the length of some measures. Those that pertain to this study are noted in the following section, and the implications of this decision are further illustrated in the study limitations.

122 Measures

123 Sport participation. Sport participation was operationalized as both frequency 124 and duration of sport involvement (i.e., two different scores). Frequency referred to the 125 self-reported number of days participating with their sport team per week, and duration 126 referred to the self-reported total time with their sport team in hours per week.

127 Social support. Perceived social support provided by family and friends was 128 measured using two 4-item subscales from the multidimensional scale of perceived social 129 support (Zimet, Dahlem, Zimet, & Farley, 1988). Participants rated their degree of 130 agreement on a 7-point Likert-type scale from 1 (very strongly disagree) to 7 (very 131 strongly agree). Coach social support was measured using a 3-item shortened version of 132 the perceptions of need support scale (Langan, Blake, Toner, & Lonsdale, 2015). One 133 item was selected for each of the subscales of: autonomy support (My coach encourages 134 me to make my own choices), competence support (My coach provides me with good 135 advice about how I can develop my ability), and relatedness support (My coach looks

136 after me well). These specific items were selected based on content coverage and being 137 the highest loading items from each subscale in a comparable adolescent sample (Langan 138 et al., 2015). Participants indicated their agreement with each item on a 7-point Likert-139 type scale from 1 (strongly disagree) to 7 (strongly agree). The reliability was found to 140 be acceptable ($\alpha = .89, .90, .85$ for family, friend, and coach support, respectively). 141 Social Identity. Social identity was assessed using a shortened three-item version 142 of the Social Identity in Sport Questionnaire (SIQS; Bruner & Benson, 2018). Similar to 143 the coach support subscale, the three highest loading items on each of the SIQS subscales

144 were purposefully selected; ingroup ties (*I feel a sense of being "connected" with other*

145 *members in this team*); cognitive centrality (*In general, being a member of this team is an*

146 *important part of my self-image*); and, ingroup affect (*I feel good about being a member*

147 of this team). Items were rated on a 7-point Likert-type scale ranging from 1 (strongly

148 *disagree*) to 7 (*strongly agree*) and deemed reliable ($\alpha = .83$).

149 Analyses

150 Descriptive and bivariate statistics were calculated for the study variables (see 151 Table 1). A latent profile analysis (LPA) was performed to identify subgroups within the 152 sample based on individual differences in perceived coach, friend, and parent social 153 support. We used Mplus with maximum likelihood estimation with standard errors that 154 are robust to non-normality (MLR; Muthén & Muthén, 2012). We evaluated the three-155 factor structure of the social support measure using confirmatory factor analysis (CFA), which supported the distinction between our three social support variables, $\gamma^2(41) =$ 156 157 137.60, p < .001, CFI = .96, RMSEA = .08, SRMR = .04. The factor scores generated

158 from the CFA were then used in the LPA to help control for measurement error. Each 159 social support variable correlated with social identity to a similar degree (r = .44 - .52). 160 To determine the optimal number of latent profiles, the Akaike Information 161 Criteria (AIC) and sample-size adjusted Bayesian Information Criteria (BIC) were first 162 examined, with lower values indicating a better model fit as the number of specified 163 profiles increases. Higher entropy scores denote greater classification accuracy. Finally, a 164 bootstrap likelihood ratio test (BLRT) tested the difference in model fit between two 165 consecutive models (i.e., k versus k-1 profiles). The profiles were also carefully inspected 166 to ensure they were meaningful, and not merely variations on a single theme (Ram & 167 Grimm, 2009). One component of this qualitative inspection was that profiles with less 168 than one percent of the sample were considered too small to be meaningful (Vella, 169 Magee, & Cliff, 2015). To assess whether the latent profiles differed in social identity 170 perceptions, a general linear model (ANCOVA) was tested using profile membership as 171 the independent variable while controlling for sport participation (i.e., days per week and 172 hours per week).

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Results

174 Latent Profile Analysis

The four-profile model provided a better model fit compared with preceding models of three-, two-, and one-profile solutions. Although the statistical fit of the model continued to improve after four profiles, the four-profile model was a more conceptually sound and parsimonious solution. Specifically, the three-factor model had unique profiles, however, the proportion of participants in each profile was unbalanced and the entropy value was deemed low. Further, the five-factor model separated one distinct profile into two overlapping profiles. Therefore, the four-profile solution was considered optimal in this study (see Table 2). The average probabilities for the most likely latent variable membership for the four-profile model ranged between .86 and .97.

184 The four profiles were as follows: (1) *Higher social support* (n = 165; $M_{age} = 14.4$ 185 years, 85.6% soccer athletes). This first profile contained participants with the highest 186 perceptions of social support from each of their coach, friends, and family (each of which were relatively similar in magnitude). (2) Average social support (n = 122; $M_{age} = 14.7$ 187 188 years, 82.6% soccer athletes). This second profile contained participants with consistent 189 and average relative perceptions of social support from each of the coach, friends, and 190 family. (3) Diminished social support (n = 51; $M_{age} = 14.8$ years, 91.8% soccer). This 191 third profile contained diminished perceptions of social support from each social agent. 192 Unlike higher and average support, one distinction in this profile was a particularly low 193 relative score for perceived family support, followed by perceived friend support. (4) 194 Lower social support (n = 6; $M_{age} = 14.0$ years, 66.7% soccer athletes). This fourth profile 195 contained a small portion of the sample with the lowest perceptions of social support. 196 Like the diminished profile, perceived family support scores were particularly low 197 relative to other participants. From a quantitative perspective, mean factor-adjusted 198 scores for coach, family, and friend support of adjacent profiles (i.e., 1 vs. 2, 2 vs. 3, 3 vs. 199 4) differed significantly (p < .05) with the exception of coach support between profile 3 200 and 4 (p = .25). The standardized scores are presented in Figure 1 to illustrate these social 201 support profile descriptions. 202 **Analysis of Variance**

203	ANCOVA assumptions (e.g., homogeneity of variance) were satisfied, with the						
204	exception of a slight negative skew for social identity. As the transformed results						
205	mirrored the original data, we report the non-transformed scores for ease of						
206	interpretation. Sport participant metrics (i.e., frequency and duration of sport participation						
207	per week) were used as covariates in the analysis.						
208	Overall, the effect of profile membership was significant in terms of social						
209	identity perceptions, $F(3, 336) = 40.03$, $p < .001$, $\eta^2_p = .26$. Post-hoc analyses with a						
210	bonferroni correction revealed that those in the higher social support profile ($M = 6.23$,						
211	SD = .85) perceived significantly higher social identity compared with those in the						
212	average social support profile ($M = 5.62$, $SD = .1.00$, $p < .001$; Cohen's $d = .67$), the						
213	diminished social support profile ($M = 4.74$, $SD = 1.21$, $p < .001$; Cohen's $d = 1.60$), and						
214	the lower social support profile ($M = 3.56$, $SD = 1.50$, $p < .001$; Cohen's $d = 3.07$). In						
215	addition, those in the average social support profile perceived significantly higher social						
216	identity compared with those in the diminished social support ($p < .001$; Cohen's $d =$						
217	.83), and the lower social support profiles ($p < .001$; Cohen's $d = 2.02$). The two lower						
218	support profiles were not significantly different from one another in terms of social						
219	identity perceptions ($p = .09$; Cohen's $d = .95$). The effect sizes were generally medium-						
220	large or large in magnitude – indicating that these differences are meaningful.						
221	Discussion						
222	The purpose of this study was to examine how differing levels of social support						
223	from coaches, family, and friends relate to social identification in male adolescent						
224	athletes. Results revealed that after controlling for sport participation, differing levels of						

social support perceived by male athletes from family, coaches, and friends were found.

226 Generally speaking, the LPA suggested a tendency for social support to follow a trend 227 between social agents such that the degree of support from family matched that from 228 coaches and friends (i.e., co-occurrence of social support). Based on their profile 229 membership, those that perceived the highest degree of social support from their family, 230 coaches, and friends also had the highest social identity with respect to their sport team. 231 Collectively, these preliminary findings suggest that those youth sport participants 232 with the highest perceived social support from different social agents tend to more 233 strongly identify with their team. From the perspective of social identity formation, the 234 findings highlight the potential for adolescent male athlete's social identity to be formed, 235 to some extent, in relation to beliefs about how they receive support from family, 236 coaches, and friends. These findings are consistent with research in other social settings 237 (e.g., Jetten et al., 2017), and support the theoretical perspective that identity formation 238 does not take place in a vacuum (Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006). 239 Indeed, the relationship one has with their social environment (i.e., perceived social 240 support) appears at play in this process.

241 Given that this is the first study to examine the relationship between social 242 support and social identity with youth athletes, there are some limitations that need to be 243 acknowledged that offer avenues for future research. First, this study used shortened 244 versions of both the coach support and social identity measures. As a result, the findings 245 must be interpreted with caution, keeping the use of shortened measures in mind. 246 Although the specific items chosen are justified on pragmatic (e.g., survey length) and 247 statistical grounds (e.g., item loading scores), there are implications of these decisions in 248 terms of reliability and validity (Diamantopoulos, Sarstedt, Fuchs, Wilczynski, & Kaiser, 249 2012; Postmes, Haslam, & Jans, 2013). For instance, carry-over effects (i.e., where a 250 response to one item carries into the next due to respondents' state dependence) may 251 impact predictive validity of a scale. In cases where a scale has multiple items, it is more 252 likely that this bias is compensated (see also de Jong, Lehmann, & Netzer, 2012). A 253 single item may be more susceptible to this effect. The initial questionnaires from which 254 these items are drawn are validated in full, and therefore it is important to replicate these 255 findings using the full measurement scales.

256 In terms of social support, it may be beneficial to conduct qualitative research 257 with young athletes to probe deeper into the types of social support provided by social 258 agents outside of the team or those directly associated with the team (e.g., instrumental, 259 emotional). This also could inform the inclusion of quantitative measures of support 260 types to best capture the intricacies of this relationship with social identity. A second area 261 of future research should examine other sources of social support at the peer level beyond 262 those in this study (e.g., teammates). For instance, previous research in youth sport has 263 differentiated peer support into both friends and teammates and acknowledged that the 264 two sources are related but not the same (Smith, Ulrich-French, Walker, & Hurley, 2006). 265 It is possible to be a teammate but not a friend, and vice-versa. Therefore, it may be 266 fruitful to explore teammate support specifically in relation to social identity to 267 complement these findings using friend support. This would also allow researchers to 268 examine the strength of relations between social identity sources within the team and 269 outside of the team.

For social identity, it may be beneficial to consider the different dimensions of
social identity. Social identity has been conceptualized as both a multidimensional and

unitary construct (i.e., ingroup ties, cognitive centrality, and ingroup affect; Bruner &
Benson, 2018; Cameron, 2004). Although we did not have dimension-specific hypotheses
for the current research question, other work has documented different relations between
social identity and athlete outcomes (see Bruner et al., 2017). Thus, it may be beneficial
to explore social support in relation to these three dimensions of social identity.

277 A final point pertains to further unpacking why perceptions of social support 278 connect to social identification processes. The primary question would be to better 279 understand the directionality of the relations between social support and social identity. If 280 we look to health or organizational psychology literature, for example, it has been 281 suggested that an increased willingness to support a stranger exists when workers share a 282 relevant social identity (Haslam et al., 2005). In the physical activity setting more 283 generally, research to date is correlational (e.g., Beets et al., 2006). An appropriate next 284 step would then be to test for potential mechanisms (e.g., perceived versus actual support) 285 that explain the relation between social support and social identification in youth sport.

286 What Does this Article Add?

287 Emerging-yet independent-bodies of evidence highlight the benefits of social 288 support and social identity on athlete developmental outcomes. Although relations 289 between the two constructs have been established in other settings (e.g., health), this 290 article represents the first study to draw preliminary links between social support and 291 social identity in a youth sport setting. Further, these sources of support are considered 292 together rather than independently through the use of LPA. It appears that adolescent 293 male athletes who perceive a higher degree of social support from important social agents 294 (i.e., friends, family, and coaches) also identify with their youth sport team to the highest

295 degree. From a theoretical perspective, it is possible that greater social support from 296 important others could contribute in part to the efficacy motive (e.g., Vignoles et al., 297 2006), which serves as a motivational influence of identity. Here, the support from others 298 may feed athletes' perceived competence and control within youth sport settings. 299 Through deepening our understanding of the constructs in sport, coaches and sport 300 psychology practitioners can better enhance social support and social identity of athletes 301 to ultimately obtain greater athlete developmental benefits. In light of this study, future 302 research in this area is critical to isolate and better understand social identity correlates 303 given the role that social identity appears to play in enhancing the developmental benefits 304 tied with organized team sport participation.

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References

- Beets, M. W., Vogle, R., Forlaw, L., Pitetti, K. H., & Cardinal, B. J. (2006). Social support
 and youth physical activity: the role of provider and type. *American Journal of Health Behavior*, 30, 278-289.
- 309 Benson, A. J., & Bruner, M. W. (2018). How peer behaviours relate to adolescent social
- development: A daily dairy approach with youth hockey teams. *Psychology of Sport and Exercise*, *34*, 119-127.
- 312 Bruner, M. W., Balish, S., Forrest, C., Brown, S., Webber, K., Gray, E., ... & Shields, C.
- A. (2017). Ties that bond: youth sport as a vehicle for social identity and positive
- 314 youth development. *Research Quarterly for Exercise and Sport*, 88, 209-214.
- 315 Bruner, M. W., & Benson, A. J. (2018). Evaluating the psychometric properties of the
- 316 Social Identity Questionnaire for Sport (SIQS). Psychology of Sport and
- 317 *Exercise*, *35*, 181-188.
- 318 De Jong, M. G., Lehmann, D. R., & Netzer, O. (2012). State-dependent effects in surveys.
- 319 *Marketing Science*, *31*, 838-854.
- 320 Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P., & Kaiser, S. (2012).
- 321 Guidelines for choosing between multi-tem and single-item scales for construct
- 322 measurement: A predictive validity perceptive. *Journal of the Academy of*
- 323 *Marketing Science*, *40*, 434-449.
- 324 Haslam, S. A., O'Briend, A., Jetten, J., Vormedal, K., & Penna, S. (2005). Taking the
- 325 strain: Social identity, social support, and the experience of stress. *British Journal*
- *of Social Psychology*, 44, 355-370.

327	Hobfoll, S.E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources:						
328	social support resource theory. Journal of Social and Personal Relationships, 7,						
329	465-478.						
330	Jetten, J., Haslam, S. A., Cruwys, T., Greenaway, K. H., Haslam, C., & Steffens, N. K.						
331	(2017). Advancing the social identity approach to health and well-being:						
332	Progressing the social cure research agenda. European Journal of Social						
333	Psychology, 47, 789-802.						
334	Langan, E., Toner, J., Blake, C., & Lonsdale, C. (2015). Testing the effects of a self-						
335	determination theory-based intervention with youth Gaelic football coaches on						
336	athlete motivation and burnout. Sport Psychologist, 29, 293-301.						
337	Lox, C. L., Martin Ginis, K., Petruzello, S. J. (2010. The Psychology of Exercise:						
338	Integrating Theory and Practice. Scottsdale, Arizona: Holcomb Hathaway.						
339	Martin, L. J., Balderson, D., Hawkins, M., Wilson, K., & Bruner, M. W. (2018). The						
340	influence of social identity on self-worth, commitment, and effort in school-based						
341	youth sport. Journal of Sports Sciences, 36, 326-332.						
342	Muthén, L. K., & Muthén, B. O. (2012). Mplus statistical modeling software: Release						
343	7.0. Los Angeles, CA: Muthén & Muthén.						
344	Ram, N., & Grimm, K. J. (2009). Methods and measures: Growth mixture modeling: A						
345	method for identifying differences in longitudinal change among unobserved						
346	groups. International Journal of Behavioral Development, 33, 565-576.						
347	Sallis, J. F., Prochaska, J. J., & Taylor, W. C. (2000). A review of correlates of physical						
348	activity of children and adolescents. Medicine and Science in Sports and Exercise,						
349	32, 963-975.						

- Sheridan, D., Coffee, P., & Lavallee, D. (2014). A systematic review of social support in
 youth sport. *International Review of Sport and Exercise Psychology*, 7, 198-228.
- 352 Smith, A. L. (2019). A case for peer-focused efforts to understand and promote physical
- activity in young people. *Kinesiology Review*, *8*, 32-39. doi:10.1123/kr.2018-0058
- 354 Smith, A. L., Ullrich-French, S., Walker, E., & Hurley, K. S. (2006). Peer relationship
- 355 profiles and motivation in youth sport. *Journal of Sport and Exercise*
- 356 *Psychology*, 28, 362-382.
- 357 Tajfel, H. (1981). Human groups and social categories. Studies in social psychology.
- 358 Cambridge, England: Cambridge University Press.
- 359 Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin
- 360 (Eds.) The social psychology of intergroup relations (pp. 33-37). Monterey, CA:
 361 Brooks-Cole.
- 362 Vella, S. A., Magee, C. A., & Cliff, D. P. (2015). Trajectories and predictors of health-
- related quality of life during childhood. *The Journal of Pediatrics*, *167*, 422-427.
- 364 Vignoles, V. L., Regalia, C., Manzi, C., Golledge, J., & Scabini, E. (2006). Beyond self-
- 365 esteem: influence of multiple motives on identity construction. *Journal of*
- 366 *Personality and Social Psychology*, 90, 308-333.
- Wang, M., & Hanges, P. J. (2011). Latent class procedures: Applications to organizational
 research. *Organizational Research Methods*, *14*, 24-31.
- 369 Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional
- 370 scale of perceived social support. *Journal of Personality Assessment*, *52*, 30-41.

Tables and Figures

Table 1

Descriptive statistics and bivariate correlations

Variable	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)
(1) Social identity	5.74	1.14		.45**	.44**	.52**	.23**	.18**
(2) Coach support	5.59	1.17			.29**	.35**	.11*	.07
(3) Friend support	5.54	1.16				.58**	.07	.05
(4) Family support	5.83	1.18					.08	.11
(5) Participation- frequency	3.39	1.23						.57**
(6) Participation- duration	5.65	3.63						

Note: *p < .01, *p < .05. Participation frequency was measured as days per week spent with sport team, and duration measured as hours per week with sport team.

Table 2

Classes	AIC	BIC	Entropy	Minimum	H0	BLRT
				Probability for	Loglikeli-	<i>p</i> -value
				Profile	hood	
				Membership ⁺		
1	6326.03	6333.75				
2	2810.21	2817.26	.851	.92	-1528.28	< .001
3	2741.60	2751.47	.761	.84	-1395.10	< .001
4	2699.70	2712.40	.823	.86	-1356.80	<.001
5	2664.12	2679.63	.875	.90	-1331.85	< .001

Model fit statistics of the latent profile analysis

Note. BIC values are adjusted for sample size. ⁺Refers to the minimum average value obtained for the probability that a participant belongs to a specific profile.



Figure 1. Social support profiles as determined through latent profile analysis. Scores are presented in standardized form.

Dear Dr. Williams:

My co-authors and I would like to thank you for your letter dated December 23, 2019. We are pleased to have the opportunity to revise and resubmit the research note, Manuscript ID 19-05-PSY-05.RI titled "Exploring the Relations between Social Support and Social Identity in Adolescent Male Athletes". We would like to thank you, the Associate Editor and the Reviewer for the additional comments. We believe the manuscript has been improved as a result of the changes that we made to address these comments. Below, we have provided a point-by-point response to all comments, indicating all changes that have been made to the manuscript. The revisions are displayed in blue font.

Associate Editor's Comments to Author:

I would like to commend the authors on their revisions, as the overall manuscript has been improved. Following the review received by an initial reviewer and examining the paper myself, there are some relevant questions that remain. As a result, I would like to invite the authors to respond to those broader questions, with a revised manuscript that could include some notable limitations and tempering of some results. **Response:** Thank you for the positive response on our revised manuscript. We have carefully responded to the broader questions and revised the manuscript to include several notable limitations (e.g., P11-12, L241-255) and tempering of the results (e.g., P11, L231; P12, L244-245; P13, L288). We have also made a small change to the order of the limitations to focus first on the limitation association with our reduced measurement scales (see P11, L241 to P13, L283 for these changes).

Reviewers' Comments to Author:

Reviewer: 1

Comments to the Author

I would like to start by congratulating the authors for addressing many of my concerns very well. The manuscript has definitely been strengthened as a result of the changes made. However, some significant concerns remain which in my opinion severely limit the potential contribution of this work. The first of these relates to the conceptual underpinnings of the study which for me remain confused as it is not clear why you would choose to examine social support from within and outside of sport when social identity within sport is the outcome of interest. The paper would be much more coherent if all forms of social support were from the sport context.

Response: Thank you for the positive comments on our revised manuscript. Although we can see the benefit of examining all forms of social support specific to sport and social identity in sport, it was not the intention of the study and is acknowledged as a viable future direction (P12, L267-269). To further strengthen the rationale for the global perspective of social support taken in the manuscript in relation to social identity, we have provided additional literature highlighting how social support and connections from our social strata help us to maintain our sense of self and identity (P3-4, L67-73).

Second, the use of short scales continues to be a significant concern, as the authors provide no evidence of validity for the short versions of validated scales they used. Psychometric instruments undergo a significant development and validation process to ensure they reliably assess the targeted construct. By selecting items from the full scales the authors are undoubtedly changing the nature of the construct they assess, and it is not possible to determine what these constructs are. Short versions and single items have there place but usually when repeat measures or rapid assessments are needed; neither is the case here. Both of these issues seem to stem - according to the authors - from the fact this paper is part of a larger project. Unfortunately it seems taking these data from the larger dataset - rather than conducting a separate study - has led to significant limitations being impacted on the present research.

Response: In the revised version of the manuscript, we acknowledge the limitations of the present study's approach to measurement of the constructs using the shorter versions of the scales (P11-12, L243-255). Given the measurement limitations outlined here by the reviewer, we understand that the results must be taken in light of the modified measures. Thus, we have further strengthened the wording to temper the results and implications and highlighted the need for more research examining the relations using the original validated scales (P11, L244-245). This is now the presented as the first and primary limitation.

A further remaining issue is the sampling. The authors offer no explanation of why they sampling mainly from football and as such one can only assume the sampling strategy was one of convenience. If this is the case then the researchers should acknowledge this. *Response:* The sampling strategy was indeed one of convenience. We have now acknowledged this in the participant section (P5, L97).

In sum, I believe the manuscript has been strengthened but severe issues remain in terms of the conceptualisation of the study and instrumentation used. I hope the authors find these comments useful when developing their research programme going forward. *Response:* We agree the revised manuscript has been strengthened and hope the revisions and response now address the Associate Editor and Reviewer's concerns.