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RESEARCH NOTE



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

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ABSTRACT

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. However, despite the importance of one's social identity in promoting these benefits, our understanding of the correlates of social identity within the sport context is limited by the absence of evidence. To address this gap, this study investigated the relations between perceived social support from coaches, family, and friends and social identification. **Method:** Male adolescent athletes ($N = 344$) completed measures of social support and social identity as part of a cross-sectional design. Latent profile analysis was used to identify distinct social support profiles. **Results:** Four latent profiles were identified: higher support, average support, diminished support, and lower support. ANCOVA results indicated that profile membership corresponded to significant differences in social identity perceptions, $p < .001$, partial $\eta^2 = .26$. Participants in the higher social support profile perceived significantly higher social identity when compared with profiles of average, diminished, and lower support ($ps < .05$, Cohen's $d \geq .67$). **Conclusion:** Results highlight the association between support from different social agents and social identity in youth sport. Better understanding the correlates of social identity may be critical in enhancing the developmental benefits of participation in organized team sports given the relationship with social identity.

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Social identity has been defined as “that part of an individual's self-concept which derives from his/her knowledge of his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, 1981, p. 255). One predominant approach applied in youth sport and underpinned by Social Identity Theory (Tajfel & Turner, 1979) has been to assess the strength with which individuals identify with a group (i.e. social identification) in relation to a number of developmental outcomes. For instance, sport team identification is positively associated with adaptive cognitions and positive affect (e.g., Martin et al., 2018), adaptive and maladaptive moral behavior (e.g., Benson & Bruner, 2018; Bruner et al., 2014), and positive youth development (e.g., Bruner et al., 2017). What is less understood, however, is the association between social identity with one's sport team and social influences from an athlete's broader social environment—such as perceived social support.

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 et al., 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 are vital to helping us to protect and maintain our sense of self and identity (Hobfoll et al., 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).

Salient social motives for youth involvement in sport include friendship, team membership, and social

recognition (e.g., Smith, 2019). Social agents such as family, friends,¹ and coaches all play a significant role in positively shaping youth sport and other physical activity experiences (Beets et al., 2006; Sallis et al., 2000; Sheridan et al., 2014). As a result, social support from these distinct social agents may be associated with the strength of an athlete's social identity in sport. Further, the positive association between social support and social identity is also documented in other settings (e.g., health psychology; Jetten et al., 2017).

The purpose of this study was to build upon previous research to evaluate if the co-occurrence of support from social agents that span a broad range of potential influence (i.e., coaches, family, and friends) is associated with the degree to which athletes identify with their sport teams. This co-occurrence (or lack thereof) was examined by testing for differences in social identity between athletes who exhibited different social support profiles. Given that this is a data-driven approach, we did not specify a priori hypotheses pertaining to which social support profiles may emerge and therefore which sources of support may exhibit independent effects. Generally, we expected to see an additive trend where participants who perceive the highest support from family, friends, and coaches would also identify to the highest degree with their sport team.

Method

Participants

Participants included a convenience sample of 357 adolescent male team sport athletes in Australia. Participants ranged in age from 12 to 18 years and participated in soccer ($n = 306$), basketball ($n = 31$), and Australia Rules Football ($n = 21$). Thirteen participants were removed due to missing data (e.g., did not complete one or more study measures; $n = 9$) or for not meeting the criteria of being an adolescent athlete (i.e., over 18) ($n = 4$). The final sample included a total of 344 participants from 85 sport teams ($M_{age} = 14.64$, $SD = 1.65$).

Procedure

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 take-home 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 Vella et al., 2018). 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.

Measures

Sport participation

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

Social support

Perceived social support provided by family and friends was measured using two 4-item subscales from the multi-dimensional scale of perceived social support (Zimet et al., 1988). Participants rated their degree of agreement on a 7-point Likert-type scale from 1 (*very strongly disagree*) to 7 (*very strongly agree*). Coach social support was measured using a 3-item shortened version of the perceptions of need support scale (Langan et al., 2015). One item was selected for each of the subscales of: autonomy support (*My coach encourages me to make my own choices*), competence support (*My coach provides me with good advice about how I can develop my ability*), and relatedness support (*My coach looks after me well*). These specific items were selected based on content coverage and being the highest loading items from each subscale in a comparable adolescent sample (Langan et al., 2015). Participants indicated their agreement with each item on a 7-point Likert-type scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The reliability was found to be

¹In 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.

acceptable ($\alpha = .89, .90, .85$ for family, friend, and coach support, respectively).

Social identity

Social identity was assessed using a shortened three-item version of the Social Identity in Sport Questionnaire (SIQS; Bruner & Benson, 2018). Similar to the coach support subscale, the three highest loading items on each of the SIQS subscales were purposefully selected; ingroup ties (*I feel a sense of being “connected” with other members in this team*); cognitive centrality (*In general, being a member of this team is an important part of my self-image*); and, ingroup affect (*I feel good about being a member of this team*). Items were rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and deemed reliable ($\alpha = .83$).

Analyses

Descriptive and bivariate statistics were calculated for the study variables (see Table 1). A latent profile analysis (LPA) was performed to identify subgroups within the sample based on individual differences in perceived coach, friend, and parent social support. We used Mplus with maximum likelihood estimation with standard errors that are robust to non-normality (MLR; Muthén & Muthén, 2012). We evaluated the three-factor structure of the social support measure using confirmatory factor analysis (CFA), which supported the distinction between our three social support variables, $\chi^2(41) = 137.60$, $p < .001$, CFI = .96, RMSEA = .08, SRMR = .04. The factor scores generated from the CFA were then used in the LPA to help control for measurement error. Each social support variable correlated with social identity to a similar degree ($r = .44$ – $.52$).

To determine the optimal number of latent profiles, the Akaike Information Criteria (AIC) and sample-size adjusted Bayesian Information Criteria (BIC) were first examined, with lower values indicating a better model fit as the number of specified profiles increases. Higher entropy scores denote greater classification accuracy.

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						–

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

Finally, a bootstrap likelihood ratio test (BLRT) tested the difference in model fit between two consecutive models (i.e., k versus $k-1$ profiles). The profiles were also carefully inspected to ensure they were meaningful, and not merely variations on a single theme (Ram & Grimm, 2009). One component of this qualitative inspection was that profiles with less than one percent of the sample were considered too small to be meaningful (Vella et al., 2015). To assess whether the latent profiles differed in social identity perceptions, a general linear model (ANCOVA) was tested using profile membership as the independent variable while controlling for sport participation (i.e., days per week and hours per week).

Results

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.

The four profiles were as follows: (1) *Higher social support* ($n = 165$; $M_{\text{age}} = 14.4$ years, 85.6% soccer athletes). This first profile contained participants with the highest perceptions of social support from each of their coach, friends, and family (each of which were relatively similar in magnitude). (2) *Average social support* ($n = 122$; $M_{\text{age}} = 14.7$ years, 82.6% soccer athletes). This second profile contained participants with consistent and average relative perceptions of social support from each of the coach, friends, and family. (3) *Diminished social support* ($n = 51$; $M_{\text{age}} = 14.8$ years, 91.8% soccer). This third profile contained diminished perceptions of social support from each social agent. Unlike higher and average support, one distinction in this profile was a particularly low relative score for perceived family support, followed by perceived friend support. (4) *Lower social support* ($n = 6$; $M_{\text{age}} = 14.0$ years, 66.7% soccer athletes). This fourth profile contained a small portion of the sample with the lowest perceptions of social support. Like the diminished

Table 2. Model fit statistics of the latent profile analysis.

Classes	AIC	BIC	Entropy	Minimum probability for profile membership ⁺	H0 Loglikelihood	BLRT <i>p</i> -value
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

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.

profile, perceived family support scores were particularly low relative to other participants. From a quantitative perspective, mean factor-adjusted scores for coach, family, and friend support of adjacent profiles (i.e., 1 vs. 2, 2 vs. 3, 3 vs. 4) differed significantly ($p < .05$) with the exception of coach support between profile 3 and 4 ($p = .25$). The standardized scores are presented in Figure 1 to illustrate these social support profile descriptions.

Analysis of variance

ANCOVA assumptions (e.g., homogeneity of variance) were satisfied, with the exception of a slight negative skew for social identity. As the transformed results mirrored the original data, we report the non-transformed scores for ease of interpretation. Sport participant metrics (i.e., frequency and duration of sport participation per week) were used as covariates in the analysis.

Overall, the effect of profile membership was significant in terms of social identity perceptions, $F(3, 336) = 40.03$, $p < .001$, $\eta^2_p = .26$. Post-hoc analyses with a bonferroni correction revealed that those in the higher social support profile ($M = 6.23$, $SD = .85$) perceived significantly higher social identity compared with those in the average social support profile ($M = 5.62$, $SD = .1.00$, $p < .001$; Cohen's $d = .67$), the diminished social support profile ($M = 4.74$, $SD = 1.21$, $p < .001$; Cohen's $d = 1.60$), and the lower social support profile ($M = 3.56$, $SD = 1.50$, $p < .001$; Cohen's $d = 3.07$). In addition, those in the average social support profile perceived significantly higher social identity compared with those in the diminished social support ($p < .001$; Cohen's $d = .83$), and the lower social support profiles ($p < .001$; Cohen's $d = 2.02$). The two lower support profiles were not significantly different from one another in terms of social identity perceptions ($p = .09$; Cohen's $d = .95$). The effect sizes were generally medium-large or large in magnitude—indicating that these differences are meaningful.

Discussion

The purpose of this study was to examine how differing levels of social support from coaches, family, and friends relate to social identification in male adolescent 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. Generally speaking, the LPA suggested a tendency for social support to follow a trend between social agents such that the degree of support

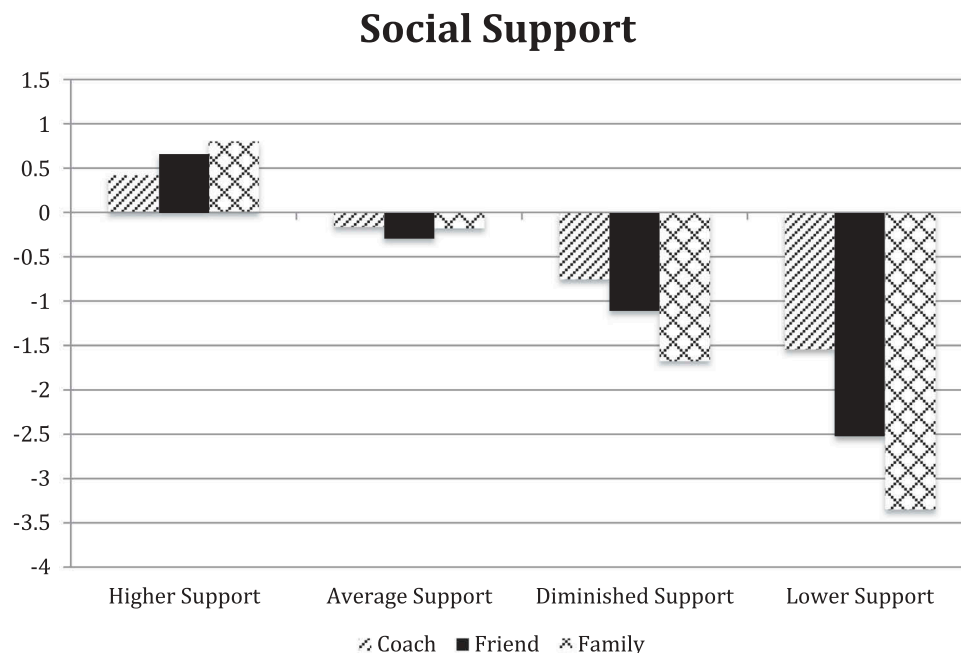


Figure 1. Social support profiles as determined through latent profile analysis. Scores are presented in standardized form.

from family matched that from coaches and friends (i.e., co-occurrence of social support). Based on their profile membership, those that perceived the highest degree of social support from their family, coaches, and friends also had the highest social identity with respect to their sport team.

Collectively, these preliminary findings suggest that those youth sport participants with the highest perceived social support from different social agents tend to more strongly identify with their team. From the perspective of social identity formation, the findings highlight the potential for adolescent male athlete's social identity to be formed, to some extent, in relation to beliefs about how they receive support from family, coaches, and friends. These findings are consistent with research in other social settings (e.g., Jetten et al., 2017), and support the theoretical perspective that identity formation does not take place in a vacuum (Vignoles et al., 2006). Indeed, the relationship one has with their social environment (i.e., perceived social support) appears at play in this process.

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

In terms of social support, it may be beneficial to conduct qualitative research with young athletes to probe deeper into the types of social support provided by social agents outside of the team or those directly associated with the team (e.g., instrumental, emotional). This also could inform the inclusion of quantitative measures of support types to best capture the intricacies of this relationship with social identity. A second area of future research should examine other sources of social support

at the peer level beyond those in this study (e.g., teammates). For instance, previous research in youth sport has differentiated peer support into both friends and teammates and acknowledged that the two sources are related but not the same (Smith et al., 2006). It is possible to be a teammate but not a friend, and vice-versa. Therefore, it may be fruitful to explore teammate support specifically in relation to social identity to complement these findings using friend support. This would also allow researchers to examine the strength of relations between social identity sources within the team and 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.

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

What does this article add?



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

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

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