

Leaders promote attendance in sport and exercise sessions by fostering social identity

M. Stevens¹  | T. Rees¹ | P. Coffee² | S. A. Haslam³ | N. K. Steffens³ | R. Polman⁴

¹Bournemouth University, Department of Sport and Physical Activity, Faculty of Management, Bournemouth, Poole, UK

²Faculty of Health Sciences and Sport, University of Stirling, Stirling, UK

³School of Psychology, The University of Queensland, Brisbane, QLD, Australia

⁴School of Exercise and Nutrition Sciences, Queensland University of Technology, Brisbane, QLD, Australia

Correspondence

Mark Stevens, Bournemouth University, Department of Sport and Physical Activity, Faculty of Management, Bournemouth, Poole, UK.
Email: mstevens@bournemouth.ac.uk

Sport and exercise participation exert a positive effect on numerous aspects of individuals' health. Although sport and exercise leaders have generally been observed to play a key role in shaping group members' behavior, our understanding of their impact on group members' attendance in sport and exercise sessions is limited. To address this, and building on promising findings in other domains, we examined the associations between perceptions of sport and exercise leaders' engagement in *social identity leadership*, group identification, and attendance. A sample of 583 participants from sports teams ($n = 307$) and exercise groups ($n = 276$) completed questionnaires measuring identity leadership, group identification, and attendance. Analyses demonstrated that perceptions of leader engagement in social identity leadership were positively associated with members' group identification, and that this in turn was positively associated with their attendance in either a sports group or an exercise group. Moreover, there was a significant indirect effect for perceptions of leader engagement in identity leadership on group members' attendance through their greater identification with these groups. Findings highlight the importance of considering the impact sport and exercise leaders have on group members' attendance and suggest that leaders who represent, advance, create, and embed a shared sense of identity (ie, a shared sense of "us") among attendees can promote participation in sport and exercise.

KEYWORDS

attendance, exercise, leadership, mediation, social identity

1 | INTRODUCTION

Physical activity is associated with numerous physiological and psychological health benefits, including a reduced risk of developing cardiovascular disease, Type 2 diabetes, and certain types of cancer, as well as greater life satisfaction, self-esteem, and cognitive functioning.^{1,2} Despite these benefits, physical inactivity levels remain high, with global data suggesting that almost a quarter of adults (23.3%) worldwide are insufficiently active.³ In addition to contributing to

approximately 9% of premature mortality,⁴ this "physical inactivity pandemic"³ is also conservatively estimated to generate global healthcare costs of approximately INT\$53.8 billion per year.^{*5} Although physical activity encapsulates all bodily movements that result in energy expenditure,⁶ it is often conducted within structured sport and exercise settings. In such

*INT\$ refers to international dollars. Costs of inactivity for all countries were converted to this hypothetical unit of currency by Ding et al.⁵ using purchasing power parity conversion factors.

settings, sport and exercise leaders represent a potentially powerful source of influence on group members' behaviors.⁷ However, current understanding of how they might facilitate individuals' positive health-related behaviors — in particular their participation — is limited. To address this, we examined associations between *social identity leadership*, group identification, and participants' attendance at sport and exercise sessions. While previous social identity leadership research in sport and exercise settings has focused on its potential to enhance performance,^{7,8} this study offers a fresh perspective on the way that leaders might encourage participation in sport and exercise.

1.1 | Leadership, Identity, and Participation

According to the *social identity approach*,^{9,10} individuals can categorize themselves, and behave, both in terms of personal identity (ie, as “I” and “me”) and social identity (ie, as “we” and “us”). The approach further asserts that individuals' capacity to categorize themselves in terms of a shared social identity (eg, as a member of a particular exercise group or soccer team) underpins various group behaviors including collaboration,¹¹ social influence,¹² and, of particular relevance to the present article, *leadership*.¹³ From a social identity perspective, leadership is a process of social influence, whereby a leader's effectiveness derives from his or her capacity to develop and promote a sense of shared social identity within the team they lead.¹⁴ This centers on the leader's capacity to *represent, advance, create, and embed* a shared sense of “us-ness” among members of that team.¹³ More specifically, the approach asserts that leaders should (a) embody the attributes of the group that make it special and distinct from other groups, (b) advance and promote the interests of the group over and above their personal interests and those of other groups, (c) actively create a sense of “we” and “us” among group members by defining the boundaries and content of the group's identity, and (d) develop and consolidate structures, events, and activities that make the group matter and enable the group's shared identity to be lived out.^{13,15} These four principles of identity leadership are termed prototypicality, advancement, entrepreneurship, and impresarioship.¹⁵

A large body of empirical evidence now supports these ideas. Of particular relevance to the present research, recent studies in organizational settings focusing on leaders' perceived identity entrepreneurship have found this to be positively associated with employees' engagement, and negatively associated with their burnout and turnover intentions.^{16,17} These findings speak to the potential value of identity leadership (particularly identity entrepreneurship) as a means of promoting group members' participation in physical activity settings. In particular, they point to the potential benefits of leaders helping to create a sense of shared group identity,

suggesting that this can help promote and sustain group members' involvement with, and commitment to, the group.

The nature of identities continues to attract research and debate. For example, although a motivational hierarchy of the personal, relational, and collective aspects of the self has been proposed,¹⁸ research also indicates that different identities can be interconnected.¹⁹ Indeed, there is evidence that shared social identity can strengthen and reinforce people's sense of personal identity,²⁰ as well as their sense of relational identity with other members of their group.²¹ Notwithstanding these perspectives, a social identity approach offers a clear analysis of the consequences of individuals forming strong social identities. Specifically, the approach suggests that this has important consequences for the way people think and act, not least because it helps them to make sense of who they are and provides them with a model of how to relate to others and what to strive for.²² That is, when people internalize a group (eg, an exercise group) as part of their self-concept, this group becomes a basis for their attitudes and behaviors such that they are motivated to engage with that group, its members, and its activities and interests.^{10,11} In line with these ideas, research has demonstrated the participation-related benefits of individuals possessing high levels of group identification in physical activity settings. More specifically, research has supported a key assertion of the social identity approach that categorizing oneself as a member of a specific group is associated with a desire to co-ordinate one's own behaviors with representative in-group members.¹⁰ Terry and Hogg²³ found that individuals who identified more strongly as a member of a group in which exercise was normative reported greater intentions to engage in regular exercise than those who identified weakly as a member of the group. Similarly, Strachan et al²⁴ found that runners who possessed a stronger identity as a member of their running group completed a greater percentage of their runs with the group and were less confident in their ability to continue running should the group disband. Taken together, these various findings suggest that, by engaging in identity leadership — and thereby fostering members' sense of group identification — sport and exercise leaders might have a positive impact on members' participation in group-relevant activity.

1.2 | The Present Research

The present research sought to test this idea. First, in line with identity leadership theorizing,¹³ we hypothesized that members' perceptions of their leader's engagement in identity leadership would be positively associated with their group identification (H1). Although previous research regarding the health-related benefits of identity leadership in organizational settings has focused specifically on identity entrepreneurship,^{16,17} the identity leadership approach suggests that

members' group identification should be greater to the extent that leaders engage in all four facets of identity leadership.¹³ Given this, and evidence for the benefits associated with leaders engaging in each of the four facets,^{7,8,13} we measured all four facets of identity leadership in the present study, rather than focusing on only one. Second, in line with a key proposition of the social identity approach that individuals' sense of social identification is positively associated with their desire to align behaviors with those who are representative of the in-group,¹⁰ and building on previous research supporting this proposition,^{23,24} we hypothesized that there would be a positive relationship between sports team and exercise group members' group identification and the frequency of their team or group session attendance (H2). Finally, given evidence that group identification represents both a consequence of identity leadership^{13,14} and an antecedent to participation,^{23,24} we also hypothesized an indirect effect of perceptions of leader engagement in identity leadership on members' attendance through group identification (H3).

2 | METHOD

2.1 | Participants

Our sample consisted of 583 participants (284 males, 299 females; aged 18 to 74, $M_{\text{age}} = 32.65$, $SD = 14.91$; 87.8% White British), drawn from sports teams ($n = 307$ from 37 different sports) and group exercise sessions ($n = 276$). In total, 271 participants completed the questionnaire online and 312 in person, while 410 participants indicated that their leader was male and 172 that their leader was female. The sports teams sub-sample (210 males, 97 females; aged 18 to 74, $M_{\text{age}} = 23.10$, $SD = 8.91$; 84.7% White British) was drawn exclusively from amateur sports teams. In this sub-sample, 108 participants completed the questionnaire online and 199 in person, and 257 participants indicated that their leader was male and 50 that their leader was female. In the exercise group sub-sample (74 males, 202 females; aged 18 to 74, $M_{\text{age}} = 43.31$, $SD = 12.89$; 91.3% White British), 163 participants completed the questionnaire online and 113 in person, and 153 participants indicated that their leader was male and 122 that their leader was female.

2.2 | Procedure

Sports teams from sports of various types (eg, team and individual, contact and non-contact) across the South of England were contacted via email and telephone to request permission for questionnaires to be distributed among team members. In line with each team's preference, the first author then attended training sessions to distribute paper copies or provided an online questionnaire link for electronic completion. Group exercisers were recruited from various exercise

classes and groups (eg, running groups, gym classes, spinning, aerobics, yoga, and Zumba). The same procedure was used to contact running groups across the South of England, while fitness managers at local leisure facilities were contacted to gain permission for the first author to distribute questionnaires at the beginning or end of exercise classes. Although participants were instructed to identify their sports team or exercise group, a high frequency of ambiguous responses (such that many participants simply wrote the name of their sport or activity rather than a specific team or exercise group) precludes a detailed breakdown of how participants were nested within teams and groups.

The study received ethical approval from the first author's institutional human research ethics board on 15th March 2016 (project reference ID 11153). Anonymity was assured and the decision of participants to complete the questionnaire represented their provision of informed consent.

2.3 | Measures

2.3.1 | Identity leadership

The 15-item Identity Leadership Inventory (ILI)¹⁵ was used to measure participants' perceptions of their leader's engagement in identity leadership. The ILI was developed from Haslam et al.'s¹³ identity leadership framework and includes four items measuring prototypicality (eg, "This leader embodies what the group stands for"), advancement (eg, "This leader stands up for the group"), and entrepreneurship (eg, "This leader makes people feel as if they are part of the same group"), and three measuring impresarioship (eg, "This leader devises activities that bring the group together"). Scales were anchored from 1 (not at all) to 7 (completely) and mean scores were obtained for the full inventory (resulting in a global identity leadership measure) and each sub-scale. A global identity leadership measure (comprised of all 15 items) demonstrated excellent internal consistency (Cronbach's $\alpha = .97$), as did each of the individual sub-scales (Cronbach's α s: prototypicality = .94; advancement = .92; entrepreneurship = .95; impresarioship = .93). Sports team players were asked to respond to items with reference to either (a) their team's coach or (b) their team's captain if their team did not have a coach. Exercise and running group members were asked to respond with reference to the designated leader of their group or class.

2.3.2 | Group identification

The strength of participants' identification as a member of their sports team or exercise group was measured using the four-item scale recommended by Postmes et al.²⁵ (eg, "I feel committed to my sports team/exercise group"). Items were scored on scales ranging from 1 (fully disagree) to 7 (fully

TABLE 1 Means, standard deviations and correlations for the sport and exercise groups separately and combined

Variable	M	SD	1	2	3	4	5	6	7
Sports teams									
1. Identity leadership	5.31	1.21	-	.92**	.94**	.94**	.86**	.36**	.07
2. Prototypicality	5.29	1.31		-	.83**	.80**	.70**	.32**	.05
3. Advancement	5.47	1.24			-	.87**	.70**	.38**	.07
4. Entrepreneurship	5.37	1.30				-	.75**	.33**	.08
5. Impresarioship	5.02	1.49					-	.27**	.05
6. Identification	5.97	1.08						-	.23**
7. Attendance	0.92	0.17							-
Exercise groups									
1. Identity leadership	5.96	1.20	-	.94**	.94**	.96**	.88**	.40**	.12*
2. Prototypicality	5.98	1.23		-	.87**	.89**	.73**	.36**	.10
3. Advancement	6.11	1.20			-	.88**	.74**	.38**	.09
4. Entrepreneurship	6.00	1.28				-	.81**	.39**	.14*
5. Impresarioship	5.67	1.51					-	.38**	.13*
6. Identification	5.95	1.22						-	.16**
7. Attendance	0.74	0.31							-
Both groups									
1. Identity leadership	5.61	1.25	-	.93**	.94**	.95**	.87**	.37**	<.01
2. Prototypicality	5.62	1.32		-	.86**	.85**	.73**	.32**	-.02
3. Advancement	5.77	1.26			-	.88**	.74**	.36**	-.02
4. Entrepreneurship	5.67	1.33				-	.79**	.35**	.02
5. Impresarioship	5.32	1.53					-	.32**	.01
6. Identification	5.96	1.15						-	.17**
7. Attendance	0.83	0.26							-

* $P < .05$.** $P < .01$.

agree). In line with previous research,¹⁴ this measure demonstrated good internal consistency (Cronbach's $\alpha = .92$).

2.3.3 | Attendance

Having been asked to identify the sports team or exercise group with which they exercised most frequently, participants were asked: "In a typical week, how many times does the sports team/exercise class or group that you have identified meet?" and "In a typical week how many of these sessions do you attend?" A measure of attendance was subsequently obtained by dividing the number of sessions attended by the total number of sessions.

3 | RESULTS

3.1 | Preliminary analysis

Data were screened for missing values and indices of non-normality. Less than 1% of the possible data points were

missing, and Little's²⁶ Missing Completely at Random test indicated that data were missing completely at random ($\chi^2[59] = 68.94$, $P = .18$). Mean values were therefore imputed to replace missing values.²⁷ Univariate skewness values for questionnaire items across all participants ranged from -2.04 to 3.80 (only 14.3% of items were outside the cut-off range of -2 to 2)²⁸ and univariate kurtosis values ranged from $-.20$ to 29.06 (only 9.5% of items were above the cut-off value of 7).²⁸

Means, standard deviations, and correlations for the sport and exercise groups are presented separately and together in Table 1. As Table 1 shows, correlations between the four identity leadership dimensions were high ($r \geq .70$ and $P < .01$), lending support to the strategy of basing analysis on the global identity leadership measure (calculated by averaging the 15 items of the ILI). This measure — presented in Table 1 as "Identity Leadership" — was used to provide a global test of our hypothesis. Nevertheless, we also report additional exploratory analyses for each of the four facets of identity leadership separately.

3.2 | Main analysis

3.2.1 | Bivariate correlations

In line with H1, bivariate correlations demonstrated that identity leadership was significantly and positively associated with respondents' group identification in either a sports group ($r = .36$, $P < .01$), or an exercise group ($r = .40$, $P < .01$), and a group of either form (ie, where data from sport and exercise groups were combined; $r = .37$, $P < .01$). Moreover, lending further support to H1, significant correlations (all $P < .01$) were observed between each facet of identity leadership and respondents' group identification in a sports group or an exercise group, or when data from the two types of groups were combined (see Table 1 for full details of these analyses). In line with H2, group identification was significantly and positively associated with attendance in a sports group ($r = .23$, $P < .01$), or an exercise group ($r = .16$, $P < .01$), and when data from the two groups were combined ($r = .17$, $P < .01$).[†]

3.2.2 | Mediation analysis

To test the indirect effect proposed in H3, we used the PROCESS macro for SPSS^{29,30} (Model 4), which uses bootstrapping to calculate confidence intervals (CIs) for the indirect effect of an independent variable on a dependent variable, through a mediating variable. This method is more powerful than the Sobel test³¹ and more robust to deviations from normality.³² In the present instance, we used bias-corrected bootstrapping with 5000 resamples to calculate 95% CIs. A significant indirect (mediation) effect is indicated if the CI does not cross zero.²⁹⁻³¹ Because our measure of attendance might have been prone to extreme values when group meetings were infrequent (eg, if a group only met once per week, the attendance score could only be either zero or one), we controlled for the number of available group meetings, by entering this variable as a covariate (which was specified to influence attendance but not group identification). Relationships between the number of available group meetings and attendance were significant ($P < .01$ in all models) and are not reported individually.

Results from the indirect effect analysis demonstrated that, across both groups, and when the two data sets were

combined, greater perceptions of leaders' engagement in identity leadership were associated with stronger group identification (sports teams: $\beta = .318$, CI [.224, .412], $P < .001$; exercise groups: $\beta = .410$, CI [.299, .520], $P < .001$; two groups combined: $\beta = .335$, CI [.266, .405], $P < .001$), and that this stronger group identification was, in turn, associated with greater attendance (sports teams: $\beta = .040$, CI [.021, .058], $P < .001$; exercise groups: $\beta = .043$, CI [.012, .074], $P = .007$; two groups combined: $\beta = .051$, CI [.031, .070], $P < .001$). Consistent with these effects, the confidence interval around the indirect effect of identity leadership on attendance through group identification did not include zero in any instance (sports teams: $\beta = .013$, CI [.005, .024], SE = .005, $R^2 = .080$, $F = 8.739$; exercise groups: $\beta = .018$, CI [.007, .034], SE = .007, $R^2 = .148$, $F = 15.739$; two groups combined: $\beta = .017$, CI [.009, .026], SE = .005, $R^2 = 0.070$, $F = 14.569$). In all instances, the direct effect of identity leadership on attendance was non-significant (sports teams: $\beta = -.001$, CI [-.018, .015], SE = .008, $P = .835$; exercise groups: $\beta = .016$, CI [-.015, .047], SE = .016, $P = .308$; two groups combined: $\beta = -.017$, CI [-.035, .001], SE = .009, $P = .067$). Further supporting H3, significant indirect effects were also observed for the relationship between perceptions of leader engagement in identity leadership on group members' attendance through group identification when each of the four facets of identity leadership was tested individually in separate models.[‡] These effects were observed in both the sport and exercise groups and when the two groups were combined (see Table 2 for full details of these analyses). As proposed by H3, there was thus consistent evidence for the positive indirect effect of perceptions of leader engagement in identity leadership on group members' attendance through group identification.

4 | DISCUSSION

This study examined the potential value of sport and exercise leaders engaging in identity leadership as a means of fostering greater group member attendance in sport and exercise sessions. Supporting our hypotheses, we observed positive

[†]Further supporting H1 and H2, similar results were observed when participants who completed the questionnaire online and in person were examined separately. In both instances, significant correlations (all $P < .01$) were observed between perceptions of leader engagement in identity leadership and group identification (whether identity leadership was considered as a global construct or each facet of identity leadership was considered individually), and between group identification and attendance. Full details of these analyses can be viewed in the supporting information Tables S1 and S2.

[‡]Significant indirect effects were also observed for the relationship between perceptions of leader engagement in identity leadership on group members' attendance through group identification when participants who completed the questionnaire online and in person were examined separately, regardless of whether identity leadership was considered as a global construct or its individual facets were examined separately. Full details of these analyses can be viewed in the supporting information. In these analyses, the number of group meetings was again entered as a covariate (specified to influence attendance but not group identification) and was significantly associated with attendance in all models ($P < .01$).

TABLE 2 Mediation analyses for the sport and exercise groups separately and combined with each facet of identity leadership considered individually

	Indirect effects							Direct effects	
	β [CI's]					Model		β [CI's] IL facet \rightarrow Att	SE
	IL facet \rightarrow GI		Indirect effect	Bootstrap SE	R^2	F			
	GI	GI \rightarrow Att							
Both groups									
Prototypicality	.282** [.215, .349]	.051** [.031, .070]	.014 [.008, .023]	.004	.072	14.991	−.018* [−.035, −.001]	.009	
Advancement	.330** [.260, .399]	.052** [.032, .071]	.017 [.010, .027]	.005	.073	15.113	−.020* [−.038, −<.002]	.009	
Entrepreneurship	.299** [.233, .365]	.048** [.029, .068]	.014 [.008, .023]	.004	.068	13.960	−.011 [−.028, .006]	.009	
Impresarioship	.238** [.180, .296]	.047** [.028, .066]	.011 [.006, .018]	.003	.067	13.755	−.008 [−.022, .007]	.007	
Sport group									
Prototypicality	.266** [.178, .354]	.040** [.022, .058]	.011 [.004, .022]	.004	.080	8.782	−.003 [−.018, .012]	.008	
Advancement	.329** [.238, .420]	.040** [.021, .059]	.013 [.005, .025]	.005	.080	8.750	−.002 [−.018, .014]	.008	
Entrepreneurship	.269** [.181, .357]	.039** [.021, .057]	.011 [.004, .021]	.004	.080	8.729	<.001 [−.015, .015]	.008	
Impresarioship	.199** [.120, .278]	.039** [.021, .057]	.008 [.003, .015]	.003	.080	8.729	−.002 [−.013, .013]	.007	
Exercise group									
Prototypicality	.351** [.241, .461]	.045** [.015, .075]	.016 [.007, .030]	.006	.146	15.542	.011 [−.019, .041]	.015	
Advancement	.382** [.270, .495]	.046** [.016, .077]	.018 [.007, .034]	.007	.146	15.444	.008 [−.023, .039]	.016	
Entrepreneurship	.375** [.271, .479]	.041** [.011, .072]	.016 [.005, .029]	.006	.150	15.946	.019 [−.011, .048]	.015	
Impresarioship	.306** [.217, .395]	.042** [.011, .072]	.013 [.004, .025]	.005	.150	15.935	.016 [−.009, .040]	.013	

Att, Attendance; GI, Group identification; IL, Identity leadership.

* $P < .05$.** $P < .01$.

associations between group members' perceptions of their leader's engagement in identity leadership and their own group identification (H1), and between group members' group identification and their sport or exercise session attendance (H2). Moreover, in line with H3, in all of our mediation models there were significant indirect effects for the relationship between perceptions of leader engagement in identity leadership and members' attendance through members' group identification.

These findings have several important theoretical and practical implications. First, the positive (albeit indirect) relationships that we observed between identity leadership (and its individual facets) and attendance indicates that (a) greater attention to the impact of sport and exercise

leaders on group members' attendance is warranted, and (b) the identity leadership approach has the potential to make a substantial contribution to knowledge in this regard. Indeed, findings provide initial evidence for a (perhaps *the*) key mechanism through which the positive relationship between leaders engaging in identity leadership and group members' attendance operates. The weak and, in all but two of our models (the prototypicality and advancement models when both groups were combined, see Table 2), non-significant, direct associations between identity leadership and attendance, coupled with the significant indirect effect observed when group identification was included as a mediator in each of our models, suggest that group identification underpins the

positive relationship between identity leadership and attendance. Our models explained between 6.7% and 15.0% of the variance in attendance (ie, low to moderate effects). Viewed in conjunction with previous research,^{23,24} these findings indicate that further consideration of the potential participation-related benefits of greater group identification in physical activity settings is warranted. More broadly, given evidence that group identification mediates the relationship between identity leadership and sporting performance,⁷ it would appear that, in physical activity settings at least, leaders' actions are associated with positive group member outcomes to the extent that these actions result in members feeling a stronger sense of group identification.

Second, the current findings extend the growing body of evidence that highlights the benefits of identity leadership both within and outside the sport and exercise domain. Most notably, findings build upon growing evidence concerning (a) the positive relationship between identity leadership and group members' health and well-being in organizational settings,^{16,17} and (b) the positive relationship between identity leadership and group members' performance in sporting settings.⁷ Bridging the gap between these two lines of research, the current findings are the first to reveal a positive relationship between identity leadership and health-related outcomes in sport and exercise settings.

Finally, the present findings extend previous research which has explored sport and exercise leaders' impact on various health-related group member outcomes. For example, research has indicated (a) that facilitating positive coach-athlete relations is associated with reduced dropout in youth sports teams,³³ (b) that fitness class instructors' use of motivationally adaptive communication styles is positively associated with key outcomes including members' intentions to remain in the class,³⁴ and (c) that an "enriched" (ie, energetic, pleasant, and socially interactive) rather than "bland" (ie, technique focused, with group members offered only vague feedback and no individual encouragement or support) leadership approach is preferable as a means of promoting positive affective states in fitness classes.^{35,36} Taken together, these findings point to the impact (both positive and negative) that sport and exercise leaders can have on group members' behaviors and experiences. Extending these insights, the present findings suggest that sport and exercise leaders who behave in a way that speaks to their capacity to *create*, *represent*, *advance*, and *embed* an identity that is shared by the particular group they wish to lead (ie, leaders who engage in *social identity leadership*) may promote members' participation in group-relevant activity. Importantly, this complements evidence for the benefits of using groups as an active ingredient (rather than merely a setting) in attempts to promote physical activity participation.^{37,38} Specifically, the present findings indicate that engaging in identity leadership

may help create richer group environments, which, in turn, encourage participation — an effect that has also been observed following interventions based on group dynamics principles such as promoting a sense of distinctiveness.³⁷ Indeed, to enhance leaders' capacity to facilitate positive group environments, the 5R program may represent an appropriate starting point. This tailored approach to leadership training and development, based on the core principles of the identity leadership approach, has already proved successful in organizational settings, with a first test of the program's effectiveness demonstrating its capacity to improve leaders' team goal clarity, team identification, and ability to engage in identity leadership.¹⁴ Based on the initial evidence provided in this study, a similar program may prove beneficial in the physical activity domain.

5 | LIMITATIONS AND FUTURE RESEARCH

Against the backdrop of this study's strengths, which included its novelty, sample size, and strong theoretical underpinning, some potential limitations should be noted. Moreover, several avenues for future research (many of which are closely related to these potential limitations) are apparent. First, although the broad range of contexts from which participants were recruited could be considered a further strength of the present research (in the sense that it enhanced the generalizability of our findings), this wide variety of contexts precluded an objective assessment of attendance. Instead, the measure used in this study relied on accurate (and honest) recall from participants and future research might therefore aim to adopt designs that enable attendance to be measured objectively, rather than via self-report. For example, leaders (coaches, captains, exercise group, or class leaders) could be asked to take a register of participants' attendance at sessions over a designated period.

Further information regarding participants would also strengthen, and potentially broaden the scope of, future research. In particular, addressing a limitation of this study, information regarding how participants are nested within groups and teams would allow this to be accounted for in analyses (eg, using multilevel modeling). Similarly, further information regarding, for example, team or group size and the length of participants' tenure within their team or group would allow researchers to either control for these factors or draw comparisons based upon them.

To broaden our understanding of the various effects of identity leadership in sport and exercise settings, future research would also benefit from measuring (a) additional aspects of behavior besides attendance (eg, using accelerometers or pedometers), and (b) other variables associated with the health benefits people accrue from sport and

exercise (eg, effort). From a methodological perspective, research that uses longitudinal and experimental designs is also now needed to allow strong causal inferences to be drawn. Nevertheless, the cross-sectional evidence presented here lays the foundation for such efforts and provides empirical evidence that would appear to justify this investment of research resources.

Finally, the focus on formal leaders could also be considered a limitation of the present study. Recent research in sport indicates that, although formal leaders (eg, captains) fulfill important leadership functions, leadership is often shared throughout the team.³⁹ Indeed, among a sample of 4451 players and coaches, Fransen et al³⁹ found that only 43.6% of participants perceived the team captain to be the best leader on any of the four established leadership roles (task, motivational, social, and external), and only 1% perceived their captain to be the best on all four. Rather than focusing solely on formal leaders, future research may therefore involve first identifying the most influential leaders within teams with regard to these four roles, before going on to examine the relationship between these individuals' engagement in identity leadership and key health-related outcomes.

6 | CONCLUSION

Our findings provide extended understanding of the impact that sport and exercise leaders can have on group members' sport and exercise session participation. More specifically, findings point to the efficacy of identity leadership as a basis for fostering greater attendance, with the positive association between members' perceptions of their leader's engagement in this type of leadership and members' group identification seemingly a key mechanism through which this positive relationship operates. The present study therefore lays a foundation for a fresh line of research into a largely overlooked, but potentially very significant, correlate of physical activity participation, and suggests that the identity leadership approach offers a strong theoretical framework for this research. Given the number of physical activity settings in which leaders are found (eg, sports teams, exercise groups), targeting these individuals as the point of intervention could be a fruitful strategy with the potential for widespread impact.

7 | PERSPECTIVES

Previous research has indicated that sport and exercise leaders can promote various positive outcomes among group members.³³⁻³⁶ Our findings indicate that, with regard to promoting higher rates of attendance in sport and exercise

sessions, leaders are effective when they are perceived to behave in a way that demonstrates their capacity to *create*, *represent*, *advance*, and *embed* an identity that is shared by the particular group they lead. In other words, our findings extend growing evidence from other domains for the value of leaders engaging in *identity leadership*.^{13,16,17} As such, they add to growing evidence for the benefits of favorable group environments for promoting physical activity, and further demonstrate the impact of social factors on individuals' physical activity behaviors.⁴⁰ Our hope is that the findings reported here stimulate greater attention to the importance of leaders in physical activity settings, and, in particular, lay the foundation for (a) causal examinations of the effects of identity leadership in physical activity settings (eg, using longitudinal and experimental designs), and (b) attempts to implement the principles of identity leadership in physical activity settings (eg, through interventions).

ORCID

M. Stevens  <http://orcid.org/0000-0002-7908-3624>

REFERENCES

1. Biddle SJH, Mutrie N, Gorely T. *Psychology of Physical Activity: determinants, Well-being and Interventions*, 3rd edn. London: Routledge; 2015.
2. Warburton DER, Nicol CW, Bredin SSD. Health benefits of physical activity: the evidence. *CMAJ*. 2006;174:801-809.
3. Sallis JF, Bull F, Guthold R, et al. Progress in physical activity over the Olympic quadrennium. *Lancet*. 2016;388:1325-1336.
4. Lee IM, Shiroma EJ, Lobelo F, Puska P, Blair SN, Katzmarzyk PT. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *Lancet*. 2012;380:219-229.
5. Ding D, Lawson KD, Kolbe-Alexander TL, et al. The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *Lancet*. 2016;388:1311-1324.
6. Caspersen CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Pub Health Rep*. 1985;100:126-131.
7. Fransen K, Vande Broek G, Boen F, Steffens NK, Haslam SA, Vanbeselaere N. We will be champions: leaders' confidence in 'us' inspires team members' team confidence and performance. *Scand J Med Sci Sports*. 2016;26:1455-1469.
8. Slater MJ, Barker JB, Coffee P, Jones MV. Leading for gold: social identity leadership processes at the London 2012 Olympic Games. *Qual Res Sport Exerc Health*. 2015;7:192-209.
9. Tajfel H, Turner JC. An integrative theory of intergroup conflict. In: Austin WG, Worchel S, eds. *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks/Cole; 1979: 33-47.
10. Turner JC, Hogg MA, Oakes PJ, Reicher SD, Wetherell MS. *Rediscovering the Social Group: a Self-Categorization Theory*. Oxford: Blackwell; 1987.

11. Turner JC. Towards a cognitive redefinition of the social group. In: Tajfel H, ed. *Social Identity and Intergroup Relations*. Cambridge: Cambridge University Press; 1982:15-40.
12. Turner JC. *Social Influence*. Milton Keynes: Open University Press; 1991.
13. Haslam SA, Reicher SD, Platow MJ. *The New Psychology of Leadership: identity, Influence, and Power*. Hove: Psychology Press; 2011.
14. Haslam SA, Steffens NK, Peters K, Boyce RA, Mallett CJ, Franssen K. A social identity approach to leadership development: the 5R program. *J Pers Psychol*. 2017;16:113-124.
15. Steffens NK, Haslam SA, Reicher SD, et al. Leadership as social identity management: introducing the Identity Leadership Inventory (ILI) to assess and validate a four-dimensional model. *Leadersh Q*. 2014;25:1001-1024.
16. Steffens NK, Haslam SA, Kerschreiter R, Schuh SC, van Dick R. Leaders enhance group members' work engagement and reduce their burnout by crafting social identity. *Ger J Hum Res Manage*. 2014;28:173-194.
17. Steffens NK, Yang J, Jetten J, Haslam SA, Lipponen J. The unfolding impact of leader identity entrepreneurship on burnout, work engagement, and turnover intentions. *J Occup Health Psychol*. 2017. <https://doi.org/10.1037/ocp0000090>. [published ahead of print July 27, 2017].
18. Gaertner L, Sedikides C, Luke M, et al. A motivational hierarchy within: primacy of the individual self, relational self, or collective self? *J Exp Soc Psychol*. 2012;48:997-1013.
19. Gabriel S, Harris B, Carvallo M, Troisi JD. The interconnected self: the social individual is more than just social + individual. *Soc Personal Psychol Compass*. 2012;6:826-839.
20. Baray G, Postmes T, Jetten J. When I equals we: exploring the relation between social and personal identity of extreme right-wing political party members. *Br J Soc Psychol*. 2009;48:625-647.
21. Steffens NK, Haslam SA, Reicher SD. Up close and personal: evidence that shared social identity is a basis for the 'special' relationship that binds followers to leaders. *Leadersh Q*. 2014;25:296-313.
22. Ellemers N. The group self. *Science*. 2012;336:848-852.
23. Terry DJ, Hogg MA. Group norms and the attitude-behavior relationship: a role for group identification. *Pers Soc Psychol Bull*. 1996;22:776-793.
24. Strachan SM, Shields CA, Glassford A, Beatty J. Role and group identity and adjustment to the possibility of running group disbandment. *Psychol Sport Exerc*. 2012;13:436-443.
25. Postmes T, Haslam SA, Jans L. A single-item measure of social identification: reliability, validity, and utility. *Br J Soc Psychol*. 2013;52:597-617.
26. Little RJ. A test of missing completely at random for multivariate data with missing values. *J Am Stat Assoc*. 1988;83:1198-1202.
27. Schafer JL. Multiple imputation: a primer. *Stat Methods Med Res*. 1999;8:3-15.
28. West SG, Finch JF, Curran PJ. Structural equation models with nonnormal variables: problems and remedies. In: Hoyle RH, ed. *Structural Equation Modeling: concepts, Issues, and Applications*. Thousand Oaks, CA, US: Sage Publications Inc; 1995:56-75.
29. Preacher KJ, Hayes AF. Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behav Res Methods*. 2008;40:879-891.
30. Hayes AF. *Introduction to Mediation, Moderation, and Conditional Process Analysis: a Regression-based Approach*. New York: The Guilford Press; 2013.
31. Zhao X, Lynch JG, Chen Q. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *J Consum Res*. 2010;37:197-206.
32. Ng M, Lin J. Testing for mediation effects under non-normality and heteroscedasticity: a comparison of classic and modern methods. *Int J Quant Res Educ*. 2016;3:24-40.
33. Barnett NP, Smoll FL, Smith RE. Effects of enhancing coach-athlete relationships on youth sport attrition. *Sport Psychol*. 1992;6:111-127.
34. Ntoumanis N, Thøgersen-Ntoumani C, Quested E, Hancox J. The effects of training group exercise class instructors to adopt a motivationally adaptive communication style. *Scand J Med Sci Sports*. 2017;27:1026-1034.
35. Fox LD, Rejeski WJ, Gauvin L. Effects of leadership style and group dynamics on enjoyment of physical activity. *Am J Health Promot*. 2000;14:277-283.
36. Turner EE, Rejeski WJ, Brawley RL. Psychological benefits of physical activity are influenced by the social environment. *J Sport Exerc Psychol*. 1997;19:119-130.
37. Estabrooks PA, Harden SM, Burke SM. Group dynamics in physical activity promotion: what works? *Soc Personal Psychol Compass*. 2012;6:18-40.
38. Burke SM, Carron AV, Eys MA, Ntoumanis N, Estabrooks PA. Group versus individual approach? A meta-analysis of the effectiveness of interventions to promote physical activity. *Sport Exerc Psychol Rev*. 2006;2:19-35.
39. Franssen K, Vanbeselaere N, De Cuyper B, Vande Broek G, Boen F. The myth of the team captain as principal leader: extending the athlete leadership classification within sport teams. *J Sports Sci*. 2014;32:1389-1397.
40. Stevens M, Rees T, Coffee P, Steffens NK, Haslam SA, Polman R. A social identity approach to understanding and promoting physical activity. *Sports Med*. 2017;47:1911-1918.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

How to cite this article: Stevens M, Rees T, Coffee P, Haslam SA, Steffens NK, Polman R. Leaders promote attendance in sport and exercise sessions by fostering social identity. *Scand J Med Sci Sports*. 2018;28:2100-2108. <https://doi.org/10.1111/sms.13217>