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# Leadership in Finnish elite football: associations between players' self-assessed leadership roles and player-assessed head coach leadership behavior by player gender and age

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## ABSTRACT

We investigated the associations between Finnish top tier footballers' self-assessed leadership roles (task, motivational, social, external) and player-assessed head coach leadership behavior (supportiveness/emotional composure, negative activation) and leadership role in both practices and games. We also explored the player age- and gender-related differences. Online survey data were anonymously collected from 53 male and 91 female footballers. One player did not identify as male or female, and one chose not to answer the question. Spearman rank-order correlations revealed that players' self-assessed leadership roles correlated positively with their evaluation of their head coach's supportiveness/emotional composure and negatively with negative activation during practices and games. Independent samples T-tests showed that male footballers rated their head coaches lower on negative activation during games and practices and themselves higher on external leadership than female players. The youngest age group, aged 17–20, rated themselves also lower on external leadership than the three older groups.

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## KEYWORDS

Athlete leadership; coaching behavior questionnaire; football; peer leadership; elite sports

## Introduction

For decades a coach's role has been intrinsically linked with leadership (Chelladurai and Saleh 1980), and particularly required from a coach of a sport team (Cotterill & Fransen, 2016). In team sports, athletes' leadership has also been established as a beneficial factor in a team's structure, processes, and functioning (Crozier et al. 2013). Keatthoetswe and Maleté (2019) observed a bias favoring coaches' self-evaluations and called for a greater attention to athletes' perceptions when studying coaches. In response, we examined head coaches' leadership behavior and roles from the perspective of elite football players in relation to players' self-rated leadership roles.

Smoll and Smith's (1989) Model of Leadership Behaviors in Sport, adopted in this study, proposes that the effectiveness of leadership depends on athletes' perceptions and recall. The model suggests that 'when a coach behaves in a certain way, the athletes perceive and recall these behaviors and based on this perception and recall the athletes have an evaluative reaction to the coach's behavior' (Williams et al., 2003, p. 17), and emphasizes that these perceptions and memories are as important for the outcome of a coach's behavior as the behavior demonstrated by a coach when evaluating players' reactions to that individual (Cotterill and Fransen 2021, Smoll & Smith, 1989). The model also assumes that coaches' behavior is influenced by individual differences between athletes as well as athletes' perceptions and recall, along with such situational factors as game vs. practice settings (Smoll & Smith, 1989).

Drawing on this model and given the paucity of knowledge on athlete-assessed coach behavior, Kenow and Williams (1992) developed the Coaching Behavior Questionnaire (CBQ) to measure the positive and negative aspects of coach behavior. Previous research has revealed that coaches' strong supportiveness/emotional composure can improve athletes' perceptions of the coach-athlete relationship and the team's athletic environment (Nicolas et al. 2011), enhance athletes' self-determined motivation, self-confidence (Kovács et al. 2021), increase the likelihood of athletes' positive self-talk (Zourbanos et al., 2007, Zourbanos et al., 2006), and predict greater collective efficacy (Høigaard et al. 2015). In contrast, negative activation seems to be negatively associated with athletes' self-confidence and athlete-coach compatibility (Williams et al., 2003), closeness, commitment, and complementarity in the coach-athlete relationship (Kovács et al. 2021), negative thinking in competitions (Zourbanos et al., 2006), role ambiguity in defense in ball games (Karamonsalidis et al., 2009), and decreased positive self-talk, which also can decrease athletes training efficacy and performance (Zourbanos et al., 2007). Coaches' negative activation has also been reported to predict lower collective efficacy (Høigaard et al. 2015).

Possible gender differences in athletes' coaching behavior evaluations by CBQ have been addressed by only a handful of coaching studies. The findings have been inconsistent. Bebetos et al. (2017) found that females gave higher scores than males for both supportiveness/emotional composure and negative activation, while Pavlogiannis (2022) documented

higher scores for negative activation in males only. Lee et al. (2013), in turn, found that supportiveness/emotional composure had a stronger impact on female athletes' perception of the compatibility for them of their coach's behavior.

In addition to dependency on the guidance and support of their coach, team sport athletes are also dependent on the leadership behavior of their teammates. An athlete leader has been defined as 'an athlete occupying a formal or informal leadership role influencing team members to achieve a common goal' (Loughead et al. 2006, p. 144). This definition combines two different conceptual perspectives: the (in)formality of the leadership role, and the leader's role in the team (Coker et al. 2022). In the first perspective, an athlete is formally appointed to a leadership function (e.g., team captain) by the coaching staff or other players. In the second perspective, focal in our study, an athlete rises to a leadership position through events and time shared with the same team (Fransen et al. 2014) and exhibiting characteristics that make for an effective athlete leader (Loughead 2017). Regardless the perspective, athletes' leadership roles have typically been evaluated by their teammates (Fransen et al. 2016), resulting in insufficient knowledge of the athletes' own views.

This study adopts a perspective in which the classification of leadership roles applies to both athletes and coaches. In his early work, Bales (1950) divided leadership roles into task leadership, which has an instrumental function, and social leadership, which has an expressive function. Loughead et al. (2006) added a third role, that of external leadership, in which the leader represents the team in meetings and the media. The latest addition to this classification, motivational leadership, proposed by Fransen et al. (2014), concerns interpersonal interactions during performance. These four roles divide into two on-field roles (task leader and motivational leader) and two off-field roles (social leader and external leader). The existence and value of athlete and coach leadership roles has been demonstrated in various team sports (e.g., Fransen et al. 2020, Fransen et al. 2020, Mertens et al. 2021, Leo et al. 2019).

Inspired by Loughead's (2017) call for researchers to continue investigating the factors that inform the athlete leadership construct, and Keatthoetswe and Malet's (2019) call for athletes' perceptions when studying coaches, we investigated the associations between Finnish top-tier footballers' self-assessed leadership role and player-assessed head coach leadership behavior. Methodologically, our appreciation of players' personal experiences and views on leadership led us to use self-reports, as noted by LeDoux and Hofmann (2018). Based on the earlier findings linking coaches' supportiveness/emotional composure or negative activation to athletes' attributes (Kovács et al. 2021, Williams et al., 2003), we expected coaches' athlete-evaluated supportiveness/emotional composure and negative activation to be associated with athletes' self-assessed leadership roles. We also aimed at shedding light on gender differences in athletes' assessments of coach behavior and leadership roles. Finally, we were interested in age-related differences in players' self-assessed leadership roles, a topic that has not yet been addressed in the sport literature. Based on previous findings from outside the sport context, showing that younger individuals tend to rate

themselves more negatively than mid-aged and older ones in various aspects of leadership (e.g., Larsson and Björklund 2021, Murphy et al. 2016), we assumed that younger players' leadership self-ratings would be lower than those of older players.

## Methods

### *Participants and data collection*

Participants were 146 (53 males, 91 females) Finnish top-tier footballers. One player did not identify as male or female, and one chose not to answer the question. The male players were aged 17–39 years (mean = 26.2, SD = 5.5), and females 17–34 years (mean = 22.5, SD = 3.8). Most participants ( $n = 127$ ) were from Finland and the rest ( $n = 19$ ) from four different continents (Europe, Africa, North America, South America).

The players were recruited in collaboration with the Football Players Association of Finland (FPA) and the Football Association of Finland (FAF). Before season start in 2021,<sup>1</sup> players answered a digital survey that included structured questions on head coaches' leadership behavior, head coaches' and athletes' leadership roles and players' assessments of their personal and their team's development under their current head coaches, who came from Finland, Sweden, the UK, Spain, and Estonia. Players were informed about voluntariness, anonymity and confidentiality on the first page of the survey. The research objectives, methodology, data processing and planned publication channels were also clearly described. Players consented by ticking a box and proceeding to the survey. The survey was in Finnish and Swedish, both official languages in Finland, and in English for non-Finnish or non-Swedish-speaking players. The sport-specificness of the language in the Finnish version was piloted with four male and two female footballers. The English and Swedish versions were reviewed by native speakers.

An online survey, created using Webropol, was sent to all first-tier FPA members playing in Finland<sup>2</sup> during the time data collection period, i.e., 6–26 April 2021. At the time of measurement, teams had spent at least two months working together. This is considered a sufficient period for athletes and coaches to get to know each other (Loughead and Carron 2004). To ensure the survey reached all the players, FAF and Veikkausliiga (Finnish Football League Association) sent a research participation request, including the online link to the survey, to all the team managers for forwarding to the players. Participants completed the survey anonymously and unsupervised.

### *Measures and variables*

#### *Players' self-assessed leadership role, gender, and age*

*Players' self-assessed leadership role* was measured with a modified version of the questionnaire by Fransen et al. (2014). The questionnaire contained four leadership role descriptions: 1) task leader, 2) motivational leader in on-field functions, 3) social leader and 4) external leader in off-field functions (Table 1). Participants were asked to report the extent to which they self-identified with the description of each leadership role on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

**Table 1.** Descriptions of player leadership roles, as presented in the survey (Modified from Fransen et al. 2014, p. 1392).

Leadership role	Description
Task leader	As a task leader I am in charge on the field. I am the person who helps the team to focus on our goals and help in tactical decision-making. Furthermore, as the task leader I give my teammates tactical advice during the game and adjusts them if necessary.
Motivational leader	As the motivational leader I am the biggest motivator on the field. I am the person who can encourage my teammates to go to any extreme. As the motivational leader I also put fresh heart into players who are discouraged. In short, as the motivational leader I steer all the emotions on the field in the right direction in order for us to perform optimally as a team.
Social leader	As the social leader I have the leading role besides the field. I am the person who promotes good relations within the team and cares for a good team atmosphere, e.g. in the dressing room or on social team activities. Furthermore, as the social leader I help to deal with conflicts between teammates away from the pitch. I am a good listener and trusted by my teammates.
External leader	As the external leader I am the link between our team and the people outside. I am the representative of our team toward the club management. If communication is needed with media or sponsors, I will take the lead. As the external leader I will also communicate the guidelines of the club management to the team regarding club activities for sponsoring.

Players were also asked to self-identify as male, female, other or prefer not to say, and to give their age rounded to the nearest year. For the one-way ANOVA comparisons, we recoded the continuous age variable into four age groups: 17–20, 21–25, 26–30 and 31–39.

### **Athlete-rated head coach leadership behavior and role**

*Head coach's negative activation and supportiveness/emotional composure* were measured with the football specific CBQ (Williams et al., 2003) in both game and practice environments. Seven items measure negative activation during games (e.g., 'My coach's sideline behavior distracts my attention during a game') and during practices (e.g., 'When my coach appears uptight, I don't train well'). Eight items assess coaches' supportiveness/emotional composure during games (e.g., 'My coach shows support for me even when I make a mistake in a game') and during practices (e.g., 'During breaks, my coach emphasizes what should be done rather than what we didn't do'). Participants responded to all items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Cronbach alpha coefficients for negative activation were .93 (games) and .93 (practices), and for supportiveness/emotional composure .92 (games) and .91 (practices) and exceeded those previously reported (Høigaard et al. 2015; Karamonsalidis et al., 2009; Kovács et al. 2021; Lee et al. 2013; Pavlogiannis 2022; Williams et al., 2003).

*Head coaches' athlete-assessed leadership role* was measured as the extent to which the head coaches fulfilled the leadership roles of task leader, motivational leader, social leader, and external leader using a modified version of the questionnaire by Fransen et al. (2014; Table 2). Participants rated their head coach on each of the four leadership roles on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

### **Data analysis**

The reliability of the sum scores was measured with Cronbach's alphas. Interrelations between the players' self-assessed leadership role and their head coach's player-assessed leadership behavior were analyzed with Spearman rank-order correlational coefficients. Group comparisons were conducted with independent samples T-test and with one-way ANOVA. All analyses were carried out without inputting data, using IBM SPSS version 26. A significance level of 0.05 was used for all statistical analyses.

### **Results**

As shown in Table 3, the footballers' evaluations of their head coach's supportiveness/emotional composure were positively associated with their self-assessed task, motivational and external leadership roles during practices. During games, the footballers' task leadership role was positively associated with their head coach's supportiveness/emotional composure and negatively with their head coach's negative activation.

Male players (Games  $M = 14.96$ ,  $SD = 5.64$ ; Practices  $M = 14.68$ ,  $SD = 4.77$ ) gave lower ratings of their head coaches' negative activation during games ( $t(131.97) = 3.25$ ,  $p \leq .05$ ) and practices ( $t(137.91) = 2.53$ ,  $p \leq .05$ ) than female players (Games  $M = 18.53$ ,  $SD = 7.41$ ; Practices  $M = 17.15$ ,  $SD = 6.92$ ). Male players (Coach's motivational leadership  $M = 3.53$ ,  $SD = 1.12$ ; Coach's social leadership  $M = 3.66$ ,  $SD = 1.21$ ) also gave higher ratings of their head coaches as motivational leaders ( $t(142) = 3.28$ ,  $p \leq .05$ ) and social leaders ( $t(142) = 2.60$ ,  $p \leq .05$ ) than female players (Coach's motivational leadership  $M = 2.92$ ,  $SD = 1.04$ ; Coach's social leadership  $M = 3.13$ ,  $SD = 1.16$ ). Male players (External leadership  $M = 2.68$ ,  $SD = 1.14$ ) more strongly perceived themselves as external leaders ( $t(142) = 3.23$ ,  $p \leq .05$ ) than female players (External leadership  $M = 2.10$ ,  $SD = 0.98$ ).

**Table 2.** Descriptions of the head coach's leadership roles, as presented in the survey (Modified from Fransen et al. 2014, p. 1392).

Leadership role	Description
Task leader	The head coach is in charge for what happens on the field. During practices and games he/she helps the team to focus on our goals. Furthermore, the head coach gives players tactical advice during the game and adjusts them if necessary.
Motivational leader	The head coach is the biggest motivator on the team. He/She can encourage the players to go to any extreme. He/She also puts fresh heart into players who are discouraged. In short, the head coach steers all the emotions on the field in the right direction in order for the team to perform optimally.
Social leader	The head coach has a leading role on and off the pitch. He/She promotes good team relations and cares about creating a good team atmosphere. This could be within the dressing room or during social team activities. Furthermore, the head coach helps to deal with conflicts between teammates away from the pitch. He/She is a good listener and is trusted by the team.
External leader	The head coach is the link between our team and the people outside. He/She is the representative of our team toward the club management. If communication is needed with media or sponsors, the head coach will take the lead. He/She will also communicate the guidelines of the club management to the team regarding club activities for sponsoring.

**Table 3.** Correlations between players' self-assessed leadership roles and head coach's leadership behaviors in practices and in games for the total sample (T,  $N = 146$ ), and for men (M,  $n = 53$ ) and women (W,  $n = 91$ ).

Head coach's leadership behavior	Task leader			Motivational leader			Social leader			External leader		
	T	M	W	T	M	W	T	M	W	T	M	W
Supportiveness/emotional composure												
Practices	.21*	.22	.20	.17*	.11	.23*	.05	.03	.05	.17*	.06	.19
Games	.20*	.29	.13	.11	.15	.10	-.08	-.01	-.14	.09	.05	.07
Negative activation												
Practices	-.11	-.21	-.05	-.11	-.17	-.11	-.04	-.08	.00	-.09	-.06	-.07
Games	-.19*	-.27	-.13	-.08	-.02	-.14	.01	-.04	.05	-.14	.10	-.18

Note. \* $p < .05$ .

**Table 4.** Age group differences in players' ( $N = 146$ ) self-assessed leadership roles.

Leadership role	Age group	N	Mean	SD	F (df)	p	Tukey HSD
Task leadership	17–20	46	3,13	1,00	5,35 (3)	.002	1 < 4**
	21–25	48	3,48	0,74			
	26–30	39	3,62	0,91			
	31–39	13	4,15	0,69			
Motivational leadership	17–20	46	3,20	0,86	3,25 (3)	.024	-
	21–25	48	3,65	0,84			
	26–30	39	3,64	0,71			
	31–39	13	3,77	1,17			
Social leadership	17–20	46	3,33	0,99	3,05 (3)	.031	-
	21–25	48	3,58	0,99			
	26–30	39	3,82	0,72			
	31–39	13	4,00	0,71			
External leadership	17–20	46	1,76	0,92	10,09 (3)	.000	1 < 2*, 3,4*** 2 < 4*
	21–25	48	2,38	1,04			
	26–30	39	2,67	1,03			
	31–39	13	3,23	0,93			

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

With respect to age (Table 4), the youngest players, aged 17–20, rated themselves lowest in external leadership. They also gave themselves lower task leadership ratings than the oldest players, aged 31–39. The 21 to 25-year-old players, in turn, gave themselves lower external leadership ratings than the oldest players.

## Discussion

The primary purpose of this study was to investigate the associations between Finnish top tier footballers' self-assessed leadership role and player-assessed head coach leadership behavior. We also focused on gender and age differences in the players' perceptions.

The results showed that, during practices, their head coach's supportiveness/emotional composure was associated with the players' self-ratings of their own task, motivational and external leadership roles and that, during games, the head coach's supportiveness/emotional composure was positively, and negative activation negatively, related to footballers' self-rated task leadership. Interestingly, social leadership was the only role not associated with head coaches' supportiveness/emotional composure in training. This may be because, unlike other players, social leaders receive more recognition from their teammates and thus need it less from their coach. Our findings further support the previously reported associations of athletes' characteristics with their coach's supportiveness/emotional composure and negative activation (Kovács et al. 2021, Williams et al., 2003). They also support Cotterill et al. (2022), who argue that enhancing player leadership roles relies heavily on the positive aspects of coach behavior, such as athlete-

centeredness and the creation of a positive team culture. The differences found between practice and game environments highlight the need for research on the role of pressure and other possible reasons why head coaches' positive behaviors in supporting players' leadership roles seemed to be greater in practices than in games.

Our results also revealed several gender differences. Male footballers rated themselves higher than female footballers in their external leadership role, a result consistent with Paustian-Underdahl et al. (2014) who concluded in their meta-analysis that males typically rate themselves as significantly more effective in leadership. Other findings show that females are generally less likely to be seen as 'leader-like' (Shen and Joseph 2021) and that underrating their task leadership appears to yield the best outcomes (Braddy et al. 2020) also support our result. One explanation for female player' lower self-ratings of their external leadership role might also be the rarity of female role models in sport in Finland; women are underrepresented in most national and regional sports organizations, while a significant gender gap exists in the membership (29% females vs. 71% males) of the services and lobbying organization Professional Coaches of Finland (Lehtonen et al. 2022). The gender differences in athlete-assessments might also reflect gendered coaching practices. Research has showed that coaches organize training and implement coaching practices differently for men's and women's teams (Gosai et al. 2021). Male coaches, for example, see female athletes as more relationship-oriented, easier to coach and less competitive than male athletes (Navarre 2011). Such prejudices partially explain why coaching behaviors can foster gender bias (Gosai et al. 2021). It is possible that gendered coaching practices would also have

impacted our results had the data been collected during or after the season. As Navarre (2011) points out, male coaches may sometimes see female athletes as less competitive than male athletes, a factor that may lead to differences in coaching behaviors during the competitive season when the results of games are taken into account.

Compared to female footballers, male footballers seem to view their head coaches in a more positive light. A novel finding was that, compared to women, men rated their head coaches higher on motivational and social leadership roles. They also rated head coaches lower on negative activation in both practices and games, as also found previously (Bebetsos et al. 2017). This finding may reflect male players' familiarity with the male-dominant language in football (Kalkan and Celal 2020) which includes negative comments (Walters et al., 2012) and verbal aggression (Devís-Devís et al. 2021). de Haan and Knoppers (2020), in turn, suggest that male coaches reproduce stereotypical discourses about gender they learned from their coaches when athletes, and unconsciously cause their female athletes to feel inferior to various implicit male norms.

Finally, we found that age was an important factor in how players self-rated their various leadership roles: generally, the older the players, the higher their self-ratings. This is in line with earlier findings on leadership (e.g. Larsson and Björklund 2021, Murphy et al. 2016) in domains other than sport. Our results might explain Elgar's (2016) finding that team captains are consistently older than their teammates and support Duguay et al. (2018), who found that athletes believed it is more important for veteran athlete leaders to display leadership behaviors than rookie athlete leaders. It seems that experience and maturation can give older players an advantage in some abilities. However, we would call special attention to our finding that the youngest players, aged 17–20, rated themselves lower in external leadership than the other player age groups. Hence, we recommend that coaches pay more attention to the leadership skills of the younger players in a team to ensure that all team members feel as an important part of the collective.

As studies usually have, also we identified some limitations. First, one methodological limitation was the heavy reliance on self-reports, especially on athlete leadership. Players' self-reports can induce bias (van de Mortel, 2008), such as social desirability (Krumpal 2013) and typical response style (Weijters, Geuens, & Schillewaert, 2010). In addition, some players might lack insight into their own behavior, or reflect on the ideal self, not on the actual self, while responding to the survey items, as suggested by Brenner and DeLamater (2016) from the identity theory viewpoint. Moreover, there is always the possibility of false correlations due to the common method variance (Craighead et al. 2011) in our study, as all our variables were constructed using information from the same source, namely the players.

However, we agree with LeDoux and Hofmann (2018) in that self-reports are, regardless their pitfalls, vital for assessing individuals' personal experiences and views. Especially given that athletes' leadership roles have been previously evaluated mostly by their teammates' perceptions (Fransen et al. 2016), it is our position that players' own opinions are of importance and needed for a more complete picture of athlete leadership. As for our decision to study coach leadership via player-

assessments, Keattholetswe and Malete (2019) cautioned against possible bias in coach leadership research induced by favoring the coaches' self-evaluations when studying coaches. From a more practical viewpoint, a player-assessed coach leadership questionnaire might provide coaches a workable tool to gain feedback of their own leadership effectiveness from their team. However, this is not to say that our research design would not have benefited from information from several data sources. A real-time coaches' leadership behavior self-analysis instrument, coaches' self-reports, teammate assessments of athletes' leadership and the perception of neutral parties, such as an external observer, next to players' assessments, would have provided a higher degree of methodological rigor and increased the generalizability of our findings.

Second, our study is limited by sampling bias. The digital survey was sent to approximately 570 individual football players of whom close to 26% responded. It is possible that players with specific characteristics, such as those who are more interested in leadership or consider themselves leaders, might have been more likely to consent to the study (self-selection bias). Also, those players that have decided not to participate might differ from those that participated (non-response bias). Further, some players might be inadequately represented in our convenience sample (undercoverage bias). Under-sampling of players, for example, who are not occupying leadership roles affects our study's power to detect effect sizes. Indeed, Pearson's  $r$  ranged between .01 and .29 (or  $r$ -squared ranged between 0.01 and 8.4%), indicating only small or medium effects. Underrepresentation, on the other hand, reduces generalizability of our findings. In addition, the low number of participants ( $N = 146$ ) also prevented us from applying more advanced statistics. Finally, it has been proven that the coach-athlete relationship is dynamic in nature, and hence it is important to understand possible diversity in leadership behavior (Gomes et al. 2020). Our cross-sectional study design did not allow us to examine the dynamic change in footballers' perceptions that was likely to occur during the season or draw conclusions about causality between the study variables.

Our study also has its strengths. First, this was the first study to investigate coach and athlete leadership in a Nordic country. Second, in response to the call by Keattholetswe and Malete (2019) for greater attention to athletes' perceptions in coach studies, we measured both head coach leadership behaviors and leadership roles using player assessments. Third, our sample comprised both male and female elite footballers, which enabled us to investigate gender differences in the variables of interest. However, at the time of the data collection, only two of the 22 teams (men and women) playing in the Finnish top tier had a female head coach and, although to preserve anonymity, we did not distinguish them in the data collection, our results are largely limited to male coaches. Thus, athletes' perceptions of female coaches remain a topic for future research. Fourth, to our knowledge, our study is the first to address player age as a main variable and thus provides novel insights on age differences in elite footballers' self-assessed leadership roles. At the elite level in football, where winning is the main objective, it is suggested that long periods of success or failure can impact players' preferred coach behaviors (Høigaard et al. 2008). For this reason, and as an obvious methodological strength of the

study, the online survey was sent out just before the beginning of the season, meaning that the head coach (even a new one) would have had at least two months to work with the team to adjust his own leadership behavior and the players time to get used to new ways, while match results and season standings would not affect the research results. This study could also be replicated in a national team environment to see if the results differ from those obtained in the present more intense club environment, where head coaches have a lot more time to spend with the team and individual players.

The findings of this study have implications for coaching education. Coaching programs could enhance coaches' self-awareness by giving them tools and tips on how to listen to players' opinions and reflections on their leadership behaviors. For example, coaches could administer surveys in their everyday work with athletes. Another useful tip for coaches wishing to achieve a more positive perception of their behavior from athletes is to not overlook the importance of athlete leadership and encourage athletes of all ages, including the youngest, to occupy leadership roles.

## Notes

1. Finland's football season lasts from April to November.
2. Finland has 22 (12 men's and 10 women's) first-tier teams.

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## Data availability statement

The data that support the findings of this study are available from the corresponding author, Holopainen, S., upon reasonable request.

## References

- Bales RF. 1950. Interaction process analysis: a method for the study of small groups. Cambridge, MA: Addison-Wesley.
- Bebetso E, Filippou F, Bebetso G. 2017. Athletes' criticism of coaching behavior: differences among gender, and type of sport. *Pol Psychol Bull*. 48(1):66–71. doi: [10.1515/ppb-2017-0008](https://doi.org/10.1515/ppb-2017-0008).
- Braddy PW, Sturm RE, Atwater L, Taylor SN, McKee RA. 2020. Gender bias still plagues the workplace: looking at derailment risk and performance with self-other ratings. *Group Organ Manage*. 45(3):315–350. doi: [10.1177/1059601119867780](https://doi.org/10.1177/1059601119867780).
- Brenner PS, DeLamater J. 2016. Lies, damned lies, and survey self-reports? Identity as a cause of measurement bias. *Soc Psychol Q*. 79(4):333–354. doi: [10.1177/0190272516628298](https://doi.org/10.1177/0190272516628298).
- Chelladurai P, Saleh SD. 1980. Dimensions of leader behavior in sports: development of a leadership scale. *J Sport Exerc Psychol*. 2(1):34–45. doi: [10.1123/jsp.2.1.34](https://doi.org/10.1123/jsp.2.1.34).
- Coker I, Cotterill ST, Griffin J. 2022. Player perceptions of athlete leadership and leadership development in an English premier league football academy. *Asian J Sport And Exer Psychol*. 2(3):182–189. doi: [10.1016/j.ajsep.2021.12.001](https://doi.org/10.1016/j.ajsep.2021.12.001).
- Cotterill ST, Fransen K. 2016. Athlete leadership in sport teams: Current understanding and future directions. *International Review of Sport and Exercise Psychology*. 9(1):116–133.
- Cotterill ST, Fransen K. 2021. Leadership development in sports teams. In: Zenko Z Jones L, editors. *Essentials of exercise and sport psychology: an open access textbook. Society for Transparency, Openness, and Replication in Kinesiology*; pp. 588–612. doi: [10.51224/B1025](https://doi.org/10.51224/B1025).
- Cotterill ST, Loughhead TM, Fransen K. 2022. Athlete leadership development within teams: current understanding and future directions. *Front Psychol*. 13:820745. doi: [10.3389/fpsyg.2022.820745](https://doi.org/10.3389/fpsyg.2022.820745).
- Craighead CW, Ketchen DJ, Dunn KS, Hult GTM. 2011. Addressing common method variance: guidelines for survey research on information technology, operations, and supply chain management. *IEEE Trans Eng Manage*. 58(3):578–588. doi: [10.1109/TEM.2011.2136437](https://doi.org/10.1109/TEM.2011.2136437).
- Crozier AJ, Loughhead TM, Munroe-Chandler KJ. 2013. Examining the benefits of athlete leaders in sport. *J Sport Behav*. 36(4):346–364.
- de Haan D, Knoppers A. 2020. Gendered discourses in coaching high-performance sport. *Int Rev Sociol Sport*. 55(6):631–646. doi: [10.1177/1012690219829692](https://doi.org/10.1177/1012690219829692).
- Devis-Devis J, Serrano-Durá J, Molina P. 2021. "The referee plays to be insulted!": an exploratory qualitative study on the Spanish football referees' experiences of aggression, violence, and coping. *Front Psychol*. 12:656437. doi: [10.3389/fpsyg.2021.656437](https://doi.org/10.3389/fpsyg.2021.656437).
- Duguay AM, Loughhead TM, Munroe-Chandler KJ. 2018. Investigating the importance of athlete leadership behaviors and the impact of leader tenure. *J Sport Behav*. 41(2):129–147.
- Elgar MA. 2016. Leader selection and leadership outcomes: height and age in a sporting model. *Leadersh Q*. 27(4):588–601. doi: [10.1016/j.leaqua.2015.12.005](https://doi.org/10.1016/j.leaqua.2015.12.005).
- Fransen K, Decroos S, Vande Broek G, Boen F. 2016. Leading from the top or leading from within? A comparison between coaches' and athletes' leadership as predictors of team identification, team confidence, and team cohesion. *Int J Sports Sci Coach*. 11(6):757–771. doi: [10.1177/1747954116676102](https://doi.org/10.1177/1747954116676102).
- Fransen K, Haslam SA, Steffens NK, Boen F. 2020. Standing out from the crowd: identifying the traits and behaviors that characterize high-quality athlete leaders. *Scand J Med Sci Sports*. 30(4):766–786. doi: [10.1111/sms.13620](https://doi.org/10.1111/sms.13620).
- Fransen K, Mertens N, Cotterill ST, Vande Broek G, Boen F. 2020. From autocracy to empowerment: teams with shared leadership perceive their coaches to be better leaders. *J Appl Sport Psychol*. 32(1):5–27. doi: [10.1080/10413200.2019.1617370](https://doi.org/10.1080/10413200.2019.1617370).
- Fransen K, Vanbeselaere N, De Cuyper B, Vande Broek G, Boen F. 2014. The myth of the team captain as principal leader: extending the athlete leadership classification within sport teams. *J Sports Sci*. 32(14):1389–1397. doi: [10.1080/02640414.2014.891291](https://doi.org/10.1080/02640414.2014.891291).
- Gomes AR, Almeida A, Resende R. 2020. Athletes' perception of leadership according to their perceptions of goal achievement and sport results. *Percept Mot Skills*. 127(2):415–431. doi: [10.1177/0031512519892384](https://doi.org/10.1177/0031512519892384).
- Gosai J, Jowett S, Rhind DJA. 2021. Coaching through a "gender lens" may reveal myths that hinder female athletes: a multistudy investigation. *Int Sport Coach J*. 9(2):222–233. doi: [10.1123/iscj.2021-0046](https://doi.org/10.1123/iscj.2021-0046).
- Høigaard R, De Cuyper B, Fransen K, Boen FM, Peters D. 2015. Perceived coach behavior in training and competition predicts collective efficacy in female elite handball players. *Int J Sport Psychol*. 46(4):321–336. doi: [10.7352/IJSP.2015.46.321](https://doi.org/10.7352/IJSP.2015.46.321).
- Høigaard R, Jones GW, Peters DM. 2008. Preferred coach leadership behaviour in elite soccer in relation to success and failure. *Int J Sports Sci Coach*. 3(2):241–250. doi: [10.1260/174795408785100581](https://doi.org/10.1260/174795408785100581).



- Kalkan N, Celal M. 2020. Play like a woman! an overview of gender from the perspective of physical education football players' female students. *Eur J Edu Sci.* 7(4):131–144. doi: [10.19044/ejes.v7no4a8](https://doi.org/10.19044/ejes.v7no4a8).
- Keatthoetswe L, Maletle L. 2019. Coaching efficacy, player perceptions of coaches' leadership styles, and team performance in premier league soccer. *Res Q Exercise Sport.* 90(1):71–79. doi: [10.1080/02701367.2018.1563277](https://doi.org/10.1080/02701367.2018.1563277).
- Kenow LJ, Williams JM. 1992. Relationship between anxiety, self-confidence, and evaluation of coaching behaviors. *Sport Philos.* 6(4):344–357. doi: [10.1123/tsp.6.4.344](https://doi.org/10.1123/tsp.6.4.344).
- Kovács K, König-Görögh D, Földi RF, Gyömbér N. 2021. Az Edzői Viselkedés Kérdőív hazai adaptációja. *Mental.* 22(3):261–280. doi: [10.1556/0406.22.2021.009](https://doi.org/10.1556/0406.22.2021.009).
- Krumpal I. 2013. Determinants of social desirability bias in sensitive surveys: a literature review. *Qual Quant.* 47(4):2025–2047. doi: [10.1007/s11135-011-9640-9](https://doi.org/10.1007/s11135-011-9640-9).
- Larsson G, Björklund C. 2021. Age and leadership: comparisons of age groups in different kinds of work environment. *Manag Res Rev.* 44(5):661–676. doi: [10.1108/MRR-01-2020-0040](https://doi.org/10.1108/MRR-01-2020-0040).
- LeDoux JE, Hofmann SG. 2018. The subjective experience of emotion: a fearful view. *Current Opin Behavior Sci.* 19:67–72. doi: [10.1016/j.cobeha.2017.09.011](https://doi.org/10.1016/j.cobeha.2017.09.011).
- Lee HW, Magnusen MJ, Cho S. 2013. Strength coach-athlete compatibility: roles of coaching behaviors and athlete gender. *Intern J Appl Sports Sci.* 25(1):55–67. doi: [10.24985/ijass.2013.25.1.55](https://doi.org/10.24985/ijass.2013.25.1.55).
- Lehtonen K, Oja S, Hakamäki M. 2022. Equality in sports and physical activity in Finland in 2021. Vol. 2022. Finland: Publications of the Ministry of Education and Culture; p. 22.
- Leo FM, García-Calvo T, González-Ponce I, Pulido JJ, Fransen K, Clemente FM. 2019. How many leaders does it take to lead a sports team? The relationship between the number of leaders and the effectiveness of professional sports teams. *PLoS One.* 14(6):e0218167. doi: [10.1371/journal.pone.0218167](https://doi.org/10.1371/journal.pone.0218167).
- Loughead TM. 2017. Athlete leadership: A review of the theoretical, measurement, and empirical literature. *Curr Opin Psychol.* 16:58–61. doi: [10.1016/j.copsyc.2017.04.014](https://doi.org/10.1016/j.copsyc.2017.04.014).
- Loughead TM, Carron AV. 2004. The mediating role of cohesion in the leader behavior satisfaction relationship. *Psychol Sport Exerc.* 5(3):355–371. doi: [10.1016/S1469-0292\(03\)00033-5](https://doi.org/10.1016/S1469-0292(03)00033-5).
- Loughead TM, Hardy J, Eys MA. 2006. The nature of athlete leadership. *J Sport Behav.* 29(2):144.
- Mertens N, Boen F, Steffens NK, Haslam SA, Fransen K. 2021. Will the real leaders please stand up? The emergence of shared leadership in semi-professional soccer teams. *J Sci Med Sport.* 24(3):281–290. doi: [10.1016/j.jsams.2020.09.007](https://doi.org/10.1016/j.jsams.2020.09.007).
- Murphy KR, McManigle JE, Wildman-Tobriner BM, Little Jones A, Dekker TJ, Little BA, Doty JP, Taylor DC. 2016. Design, implementation, and demographic differences of HEAL: a self-report health care leadership instrument. *J Healthcare Leadership.* 8:51–59. doi: [10.2147/JHL.S114360](https://doi.org/10.2147/JHL.S114360).
- Navarre MJ (2011). Male college soccer coaches perceptions of gender similarities and differences in coach-athlete and teammate relationships: introducing the construct of relationship-performance orientation. Retrieved from the University of Minnesota Digital Conservancy. <https://hdl.handle.net/11299/108207>
- Nicolas M, Gaudreau P, Franche V. 2011. Perception of coaching behaviors, coping, and achievement in a sport competition. *J Sport Exerc Psychol.* 33(3):460–468. doi: [10.1123/jsep.33.3.460](https://doi.org/10.1123/jsep.33.3.460).
- Paustian-Underdahl SC, Walker LS, Woehr DJ. 2014. Gender and perceptions of leadership effectiveness: a meta-analysis of contextual moderators. *J Appl Psychol.* 99(6):1129–1145. doi: [10.1037/a0036751](https://doi.org/10.1037/a0036751).
- Pavlogiannis GM. 2022. Coaching behavior in youth sports: differences between gender, age and type of sport. *Inquir Sport Phys Edu.* 19(3):126–133.
- Shen W, Joseph DL. 2021. Gender and leadership: a criterion-focused review and research agenda. *Hum Resour Manage R.* 31(2):100765. doi: [10.1016/j.hrmr.2020.100765](https://doi.org/10.1016/j.hrmr.2020.100765).
- Smoll FL, Smith RE. 1989. Leadership behaviors in sport: a theoretical model and research paradigm 1. *J Appl Soc Psychol.* 19(18):1522–1551. doi: [10.1111/j.1559-1816.1989.tb01462.x](https://doi.org/10.1111/j.1559-1816.1989.tb01462.x).
- Van de Mortel TF. 2008. Faking it: social desirability response bias in self-report research. *Aust J Adv Nurs.* 25(4):40–48.
- Walters S, Schluter PJ, Oldham ARH, Thomson RW, Payne D. 2012. The sideline behaviour of coaches at children's team sports games. *Psychol Sport Exerc.* 13(2):208–215. doi: [10.1016/j.psychsport.2011.11.008](https://doi.org/10.1016/j.psychsport.2011.11.008).
- Weijters B, Geuens M, Schillewaert N. 2010. The stability of individual response styles. *Psychol Methods.* 15(1):96–110. doi: [10.1037/a0018721](https://doi.org/10.1037/a0018721).
- Williams JM, Kenow LJ, Jerome GJ, Rogers T, Sartain TA, Darland G. 2003. Factor structure of the coaching behavior questionnaire and its relationship to athlete variables. *Sport Philos.* 17(1):16–34. doi: [10.1123/tsp.17.1.16](https://doi.org/10.1123/tsp.17.1.16).
- Zourbanos N, Hatzigeorgiadis A, Theodorakis Y. 2007. A preliminary investigation of the relationship between athletes' self-talk and coaches' behaviour and statements. *Int J Sports Sci Coach.* 2(1):57–66. doi: [10.1260/174795407780367195](https://doi.org/10.1260/174795407780367195).
- Zourbanos N, Theodorakis Y, Hatzigeorgiadis A. 2006. Coaches' behaviour, social support, and athletes' self-talk. *Hellenic J Psychol.* 3(2):117–133.