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The impact of identity leadership on team functioning and well-being in team sport: Is psychological safety the missing link?

Katrien Fransen[1], Desmond McEwan[2], Mustafa Sarkar[3]

Authors list:

Corresponding author:

Katrien Fransen
Department of Movement Sciences
KU Leuven
Address: Tervuursevest 101, box 1500, 3001 Leuven (Belgium)
Telephone: +32 16 376445
Fax: +32 16 329196
E-mail: Katrien.Fransen@kuleuven.be

Other authors:

[2] Department for Health, University of Bath,
Bath, United Kingdom
dam80@bath.ac.uk

[3] Department of Sport Science, Nottingham Trent University
Nottingham, United Kingdom
mustafa.sarkar@ntu.ac.uk

Abstract

The purpose of this study was to investigate the role of psychological safety in explaining the impact of identity leadership on team performance and athlete well-being. Adopting a cross-sectional survey design, 289 handball players rated the identity leadership skills of their coach, their captain, and the informal leaders in the team, as well as various performance- and well-being-related measures. Structural equation modelling (controlling for the nested structure of our data) revealed that by demonstrating identity leadership, coaches, captains, and in particular informal athlete leaders, all had a unique contribution in strengthening their team members' identification with their team. By this shared sense of 'us', athletes felt psychologically safe in their team to speak up, provide input, and take risks. In line with our hypotheses, this sense of psychological safety acted as a mediator between identity leadership and two subsequent pathways: (1) a team-oriented pathway in which psychological safety inspired good teamwork, which fostered team resilience and, in turn, enhanced athletes' satisfaction with their team's performance; and (2) an individual-oriented pathway wherein psychological safety buffered against athletes' burnout, thereby enhancing their health. In addition to these pathways mediated by psychological safety, the informal leaders directly influenced the performance pathway (with total effect sizes being 10 times larger than those of coaches and team captains), whereas coaches had a direct influence on the health pathway (with total effect sizes being three times larger than those of informal leaders and captains). Given the often-underestimated importance of the informal leaders, sport teams can be recommended to adopt a structure of shared leadership in which team members are encouraged to engage in identity leadership. In conclusion, we found that by nurturing a shared sense of 'we' and 'us' within the team, leaders are able to foster a psychologically safe environment, which in turn paves the way for an optimal team functioning and a healthier team.

Keywords: Athlete leadership; Health; Peer leadership; Performance; Shared leadership; Social identity approach

The impact of identity leadership on team functioning and well-being in team sport: Is psychological safety the missing link?

Decades of research across a range of team contexts (e.g., sport, business, health care) have shown that simply bringing together a collection of individuals who are highly skilled in performing their tasks is insufficient to create an effective team. Lembke and Wilson (1998), for example, argued that teams can only function effectively when team members share a social identity − a sense of themselves as group members. The resulting unified behaviour of the team members is guided and joined by their team's common purpose.

Identity leadership—whereby the team's interests are central and the *we's* outplay the *me's*—appears to be a key component in developing an effective team. Indeed, the social identity approach to leadership (Haslam et al., 2020a; Haslam et al., 2020b) asserts that effective leaders succeed in developing team members who think, feel, and behave as group members (as 'we' and 'us' in terms of their shared social identity), rather than as individuals (as 'I' and 'me' in terms of their personal identity). More specifically, leaders can strengthen athletes' identification with their team by adhering to four principles of identity leadership, whereby leaders need to be perceived by their followers as: (1) *in-group prototypes* (i.e., representing the unique qualities that define the team and what it means to be a team member); (2) *in-group champions* (i.e., advancing and promoting the core interests of the team); (3) *entrepreneurs of identity* (i.e., bringing people together to create a shared sense of 'we' and 'us' within the team); and (4) *embedders of identity* (i.e., developing structures that facilitate and embed shared understanding, coordination, and success) (Steffens et al., 2014).

In the sport context, it has been shown that by engaging in identity leadership, not only coaches, but also leaders within the team (i.e., the captain and informal athlete leaders) can strengthen team members' identification with their team (Fransen et al., 2016a; Slater & Barker, 2019; Steffens et al., 2014). It is worth noting that this identity leadership has

emerged as one of the most defining qualities of high-quality athlete leaders (Fransen et al., 2020). In turn, athletes' team identification has been positively related to a range of outcomes, including team confidence (e.g., Fransen et al., 2016b), exerted effort (Slater & Barker, 2019), social laboring (De Cuyper et al., 2016), and levels of attendence in practices (Stevens et al., 2018). Furthermore, teams with high-identifying athletes have been found to demonstrate more resilience when facing adversities (Morgan et al., 2015, 2017) and to perform better compared with teams lacking such strong sense of 'we' and 'us' (Fransen et al., 2015; Fransen et al., 2016b; Thomas et al., 2019). In addition to these performance-related outcomes, athletes who identified stronger with their team have also reported an increased well-being, thereby corroborating previous literature on the 'social cure' in organisational settings (Haslam et al., 2018; Steffens et al., 2017; Steffens et al., 2020). To illustrate, a recent study amongst professional Australian rugby teams revealed that effective leaders were able to create a shared sense of 'we' and 'us', and it was this increased team identification that in turn caused athletes to feel mentally healthier and to experience less burnout (Fransen et al., in press-b).

Despite all of the evidence on the benefits of identity leadership, there is not much known about the underpinning processes that may explain why fostering a shared sense of 'we' and 'us' activates all of the aforementioned benefits. A potential construct that may mediate this relationship, and that we will examine in this study, is *psychological safety*.

The Construct of Psychological Safety

As psychological safety is a relatively new concept within sport research, we will first elaborate on the nature of this construct. Psychological safety is defined as a belief that the team is safe for interpersonal risk-taking, such as asking for help, admitting one's errors, or seeking feedback from others (Edmondson, 1999). Within psychologically safe environments, team members are genuinely interested in their teammates, have positive

intentions to one another, and express mutual respect for each other's competence even (and especially) when mistakes are made (Newman et al., 2017). On the contrary, when individuals feel psychologically unsafe in their team, they will be reluctant to demonstrate their vulnerabilities (even if it could benefit the team) as they believe it puts them at risk of appearing incompetent or weak to others, thereby potentially posing a threat to their self-image (Edmondson, 1999).

In describing the term of psychological safety, it is important to explicate how this construct differs from other salient constructs such as trust, empowerment, engagement, and team cohesion that may appear conceptually similar (Edmondson, 1999; Frazier et al., 2017). The most similar term, *interpersonal trust*, has been described as a willingness to be vulnerable to others whose future actions will be favourable to one's interests (Mayer et al., 1995). As with psychological safety, trust involves elements of interpersonal vulnerability that one perceives within his/her team. One of the key differences between these constructs, though, is in the direction of this relationship. Specifically, trust focuses on one's willingness to *give another person* (e.g., a teammate) the benefit of the doubt when taking risks, whereas psychological safety involves one's perception that those *other persons will give him/her* the benefit of the doubt (Frazier et al., 2017). *Empowerment*, on the other hand, involves an intrinsic motivational state wherein team members have a sense of control over their roles and tasks within their team (Spreitzer, 1995), while *engagement* involves team members' investments of their personal resources into those roles and tasks (Christian et al., 2011). Hence, both empowerment and engagement refer to one's cognitions about the specific jobs or tasks he/she carries out within a team. In contrast, psychological safety refers to one's perceptions of the broader group environment and, in particular, the anticipated responses of other team members to the aforementioned "risky" interpersonal behaviours (Edmondson, 2004). Finally, psychological safety is also conceptually different from *team cohesion*, which

is defined as "a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives" (Carron, 1982, p. 124). More specifically, while team members in cohesive teams might feel pressure to conform to group norms and agree with each other, a psychological safe environment facilitates—rather than discourages—interpersonal risk taking, which can include constructive disagreements among members.

The Mediating Role of Psychological Safety

We believe that the creation of a psychologically safe environment might be a key underpinning mechanism explaining how leaders who demonstrate identity leadership impact the team's functioning and athletes' well-being. To underpin our reasoning and justification for this assertion, we will first argue that leadership—and identity leadership in particular—has the capacity to strengthen athletes' identification with their team, which in turn cultivates psychological safety. Then, we will argue why a psychologically safe environment can foster team functioning and nurture member well-being.

First, a comprehensive review on psychological safety in organisational contexts highlighted the role of leadership as a key antecedent of psychological safety (Edmondson & Lei, 2014). More specifically, several studies spanning multiple industries have found that psychological safety mediates the relationship between leadership behaviour and team performance (Frazier et al., 2017; Newman et al., 2017). It could be argued that identity leadership in particular has a significant role in fostering psychological safety. First, previous studies demonstrated that leaders in sport teams were able to cultivate a shared team identity in their teams, to the extent that they demonstrated identity leadership. Different studies evidenced this relationship for coaches (Stevens et al., 2018), team captains (Steffens et al., 2014), and informal athlete leaders (Fransen et al., 2015; Fransen et al., 2016b; Mertens et al.,

2020). The present study will provide additional insights by comparing the impact of these three leaders in one single study.

Second, it can be argued that team identification is, in turn, positively linked to psychological safety. Although there is no empirical evidence yet to support this assumption in the sport context, the reasoning behind this argument is that shared team identity promotes similarity-based attraction among group members, while reinforcing distinctiveness between the own team and other teams (Tajfel & Turner, 1979). In other words, when team members identify highly with their team, they feel that they have a lot in common with their teammates. Focusing on the similarities instead of the differences with other team members is likely to result in team members feeling safe in their team environment, whereby they feel free to speak up, provide input, and take risks (Koopmann et al., 2016). In other words, the chances of experiencing negative repercussions (e.g., appearing incompetent to or disrespected by others) if one has a differing opinion, makes a mistake, or asks for help are likely to be lower in an environment with a strong shared identity. Therefore, we expect that leaders are able to create a psychologically safe environment to the extent that they succeed in cultivating a shared sense of 'we' and 'us' in their teams. In turn, it would seem that — based on the range of evidence from industrial and organisational psychology (Frazier et al., 2017; Newman et al., 2017) — psychological safety would predict both team-oriented measures (i.e., those focused on the team's functioning and effectiveness) and individual-oriented measures (i.e., those focused on the individual well-being of team members).

Team-oriented pathway. A longitudinal study by *Google*'s 'People Analytics Unit' found that psychological safety was the number one characteristic of high-performing teams (Bergmann & Schaeppi, 2016). Moreover, a recent meta-analysis of 117 studies (with over 22,000 individuals) within organisational psychology demonstrated that psychological safety led to an array of outcomes at both the individual and the group level, including

communication, work engagement, task performance, and satisfaction (Frazier et al., 2017). The reason for these beneficial effects was that psychological safety allows members to both seek and provide honest feedback from others, collaborate, voice opinions, and experiment with new ideas to existing approaches (Newman et al., 2017). These qualities are likely to be particularly important during difficult times, including within sport teams. Indeed, in their season-long ethnographic study with a high-level rugby team, Morgan et al. (2019) found that cultivating a team identity and a psychologically safe environment (in contrast to a 'blame culture') were vital for team resilience development. Although these observations have not yet been quantitavely evidenced in a sport context, some recent anecdotal evidence has hinted at its potential importance. For example, Gareth Southgate, manager of England's 2018 soccer team for the FIFA World Cup, noted that a psychologically safe environment is an ideal recipe for cultivating great performances: "I want the team to be making mistakes because if they are making mistakes, then they are trying things. For me, all of our players, if they want to try and be as good as they can be, they have to try things and we have to accept that it might mean the odd failure; but what you then maybe get is the odd moment like they produced tonight, which is 'wow!'" (McNulty, 2018). The impressive victory of the England team over Costa Rica, to which Gareth Southgate referred, suggests that psychological safety might be a key component in cultivating performance, not only within organisational settings, but within team sport as well.

Individual-oriented pathway. Besides team-level benefits, psychological safety might also have significant potential for safeguarding team members' well-being, although there is only very little empirical evidence to date to support this assumption. Previous research in the hotel industry revealed that when employees felt more psychologically safe in their work environment, their psychological well-being was also higher (Erkutlu & Chafra, 2016). In their review of the psychological safety literature, Newman et al. (2017) called for future

research in this area to focus specifically on variables that tap into team members' well-being and mental health (in addition to examining performance-related constructs). Those suggestions echo similar existing calls from the field of sport psychology. For example, a recent expert statement from the British Association of Sport and Exercise Sciences (Gorczynski et al., 2019) as well as a consensus statement from the International Olympic Committee (Reardon et al., 2019) highlighted the importance of mental health literacy within elite sport. This includes identifying causes of poor mental health in elite sport in order to provide guidance on future mental health promotion programmes and management strategies. Despite the potential relevance of psychological safety in facilitating team member well-being, research on its benefits for athletes' well-being has yet to be explored in sport.

The Present Study

Several studies have evidenced the importance of identity leadership (Fransen et al., in press-b; Fransen et al., 2016b; Slater & Barker, 2019; Steffens et al., 2014; Stevens et al., 2018), demonstrated by either the coach, the captain, or informal athlete leaders. Building on these studies, the first aim of the present study is to examine these three sources of identity leadership simultaneously, which allows us to examine their relative impact. Based on the correlations found between identity leadership and team identification in previous literature, respectively, $\beta = .59$, $p < .001$ for informal athlete leaders (Fransen et al., 2016b); $r = .29 - .40$, $p < .01$ for team captains (Steffens et al., 2014); $r = .36$, $p < .01$ for coaches (Stevens et al., 2018), we hypothesise that identity leadership provided by each of these leaders will be significantly positively related with athletes' identification with their team (H1a). Furthermore, given that informal athlete leaders are often perceived as better leaders than the team captains (Fransen et al., 2014) and that they are more closely related to their teammates than to the coach (e.g., in the dressing room the coach is not present), we believe that they will have the strongest link with their teammates' identification with the team (H1b).

Our next aims pertain to the relationships between team identification and various outcomes. With respect to team-oriented outcomes, we focus on three variables that reflect a sport team's functioning, namely teamwork, team resilience, and satisfaction with the team's performance. Based on previous literature, we expect that team identification is positively linked to each of these outcomes (H2a). In organisational contexts, for example, researchers already suggested that employees' identification with their team provides the foundation for good teamwork (Lembke & Wilson, 1998). Furthermore, previous research in sport settings revealed that team identification is one of the corner stone of the theoretical concept of team resilience (Morgan et al., 2013) and was also positively associated with perceived team performance (Thomas et al., 2019).

In addition, we expect these team-oriented measures to also be connected with each other. More specifically, Morgan et al. (2013, 2015, 2019) revealed that teamwork was an important antecedent to team resilience. McEwan (2020) added that teamwork had also both a direct and an indirect (via team cohesion and collective efficacy) effect on athletes' satisfaction with their team's performance. Furthermore, organisational research has established that team resilience is in turn positively related with perceived team performance (Meneghel et al., 2016). Taken together, we expect that team identification will be positively linked to teamwork, which will be associated to team resilience, and which will in turn be positively related to satisfaction with team performance (H2b).

Our third aim will focus on individual-oriented outcomes. While previous studies in the sport context have mainly focused on outcome variables related to team functioning and performance, we will also focus here on well-being outcomes (i.e., health and burnout). In line with recent research on social identity as a "social cure" (Fransen et al., in press-b; Haslam et al., 2018), we expect that team identification will be negatively related to athletes' burnout and positively related to athletes' health (H3a). Furthermore, we expect that these

variable also relate to one another, with athletes' burnout having a detrimental impact on athletes' health (Kim et al., 2011) (H3b).

Finally, we also aim to shed new light on the underpinning mechanisms that may explain how identity leadership relates to these benefits, specifically looking at the mediating role of psychological safety. Despite the importance of psychological safety across many team environments, along with recent anecdotal accounts from sport, it appears that empirical investigation into this construct has yet to be conducted within the sport context. Here, we expect that psychological safety will mediate the relationship between team identification and both individual- and team-oriented outcomes. More specifically, it is hypothesised that psychological safety will mediate the relationship between team identification and both teamwork (H4a) and burnout (H4b). The hypothesised model, as presented in Figure 1, brings together the different expected relationships that have been outlined above.

Methods

Participants

The final sample included 30 handball teams (428 players). To attain this sample, 83 coaches were invited via email to participate in our study, resulting in a response rate of 39%. Reasons for non-participation included that either the coach or the players did not want to invest time in this research, or were otherwise not specified. From the 428 players, 325 players started the questionnaire, and 289 players completed the entire questionnaire, resulting in a respective response rate of 68% for the players. From the participants who fully completed the questionnaire, 59% were female and 41% were male; 57% had Belgian nationality and 44% Dutch nationality; 61% of the participants were active at national level while 39% competed at regional level. Furthermore, participants were between 15 and 48 years old (M_{age} = 22.21; *SD* = 5.66) and had played on average 5.19 years on their team (*SD*

= 4.81). Their typical playing time in the season varied between almost none (*n = 17)*, 25-49% (*n = 45),* half of the game (*n = 48),* 51-75% (*n = 86),* and most of the game (*n = 87).*

Study Measures

Psychological safety. Participants completed the 7-item Team Psychological Safety questionnaire (Edmondson, 1999) to assess their perceptions of psychological safety within their team. For each item (e.g., "Members of this team are able to bring up problems and tough issues"), participants rated their level of agreement on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores indicated a greater perceived sense of psychological safety within one's team. Evidence of validity and reliability of data derived from this measure has been shown in previous research from other team contexts (e.g., business teams; Edmondson, 1999). However, unlike the other questionnaires included in our survey, this measure has not been tested yet within the sport context to the best of our knowledge. Appendix A provides more information on a critical examination of the reliability and structural validity of the questionnaire in our study, both from a theoretical and a data-driven viewpoint. Based on those results, one item (question 6) was omitted, which resulted in the use of a 6-item measure for the remaining analyses ($\alpha = .70$).

Leadership. The 4-item Identity Leadership Inventory – Short Form (Steffens et al., 2014) was used to assess athletes' perceptions of the leadership quality in their team (e.g., "This leader acts as a champion for our team"). More specifically, participants completed this questionnaire for both their coach, their team captain, and the informal athlete leaders in the team (who were defined as players without a formal leadership status but who still fulfilling an important leadership role in the team). For each item, participants provided ratings on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores on each subscale indicated greater perceptions of leadership quality. Previous research with team sport athletes has found support for the validity and reliability of data derived from this measure (Fransen

et al., 2016b; Steffens et al., 2014). In the current study, Cronbach's alpha was .86 for coach leadership, .89 for captain leadership, and .89 for informal athlete leadership.

Team identification. To examine team identification, participants completed the 12-item Social Identity Questionnaire for Sport (Bruner et al., 2014; Cameron, 2004). Scores on three subscales are provided to estimate in-group ties (e.g., "I have a lot in common with other members of this team"), in-group affect (e.g., "I feel good about being a member of this team"), and cognitive centrality (e.g., "I often think about the fact that I am a team member"). Items were scored on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher scores reflecting a greater degree of social identification with one's team. Evidence of validity and reliability of data derived from this measure has been found in research with team sport athletes (Bruner et al., 2014). With the current sample, Cronbach's alpha was .90 for in-group ties, .86 for in-group affect, and .83 for cognitive centrality.

Teamwork. To measure teamwork during team competitions (i.e., handball games), participants completed the 15-item execution subscale from the Multidimensional Assessment of Teamwork in Sport (McEwan et al., 2018). This measure provides estimates of athletes' perceived communication (e.g., "Teammates communicate effectively with each other"), cooperation (e.g., "Teammates help each other as needed"), and coordination (e.g., "Team members execute their jobs with the correct timing") within their team. Items are scored on a 7-point scale from 1 (*completely disagree*) to 7 (*completely agree*), with higher scores indicating higher levels of perceived teamwork. Previous research has found support for the reliability and validity of data derived from this measure (McEwan et al., 2018). In the current study, Cronbach's alpha was .94 for communication, .88 for cooperation, and .87 for coordination.

Team resilience. To assess the team's ability to withstand the stressors they collectively encountered, we used the 20-item Characteristics of Resilience in Sports Teams

Inventory (CREST; Decroos et al., 2017). Participants responded to a series of items—scored on a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*)—of the team's behaviours under pressure over the previous month. This questionnaire assesses two factors; one corresponding to resilient characteristics (e.g., "Team members fought hard to not let each other down") and one corresponding to vulnerabilities under pressure (e.g., "The team did not believe in its ability to withstand pressure"). Higher scores on the 'resilient characteristics' subscale indicated greater team resilience, whereas higher scores on the 'vulnerabilities under pressure' subscale suggested lower team resilience. Previous research has demonstrated evidence for the reliability and validity of data derived from this measure (Decroos et al., 2017; Gorgulu et al., 2018; Kegelaers et al., 2020). In the current study, Cronbach's alpha was .90 for resilient characteristics and .86 for vulnerabilities under pressure.

Satisfaction with team performance. The three-item Team Performance subscale from the Athlete Satisfaction Questionnaire (Riemer & Chelladurai, 1998) was used to assess athletes' satisfaction with their team's performance in the first half of the season (e.g., "The team's win/loss record this season"). Items were scored on a 7-point scale from 1 (*not at all satisfied*) to 7 (*extremely satisfied*), with higher scores indicating greater satisfaction with the team's performance. Support for the reliability and validity of data derived from this measure has been shown previously (Riemer & Chelladurai, 1998). Cronbach's alpha was .92 within the current sample.

Burnout. Using the 15-item Athlete Burnout Questionnaire (Raedeke & Smith, 2001), participants rated the frequency with which they had experienced the reported feelings since the start of their season on a 5-point scale from 1 (*almost never*) to 5 (*almost always*), with higher scores indicating higher levels of burnout. Three indicators of burnout are provided, including a reduced sense of accomplishment (e.g., "I am not achieving much in my sport"), emotional and physical exhaustion (e.g., "I feel overly tired from my sport participation"),

and devaluation of one's sport participation (e.g., "The effort I spend in my sport would be better spent doing other things"). Previous research has provided evidence of the validity and reliability of the data derived from this measure (Raedeke & Smith, 2001). In the current study, Cronbach's alpha was .79 for accomplishment, .82 for exertion, and .79 for devaluation.

Health. Participants' perceived health was assessed using the measure suggested by Khan et al. (2014), which comprises three items taken from the core module of the Centers for Disease Control and Prevention (U.S. Department of Health and Human Services, 2000). All items use the stem "Since the start of the season, how would you describe your…" and ask participants to evaluate three aspects of their health, including their 'physical health', 'state of mind', and 'energy levels' on 7-point Likert scales from 1 (*very poor*) and 7 (*very good*). Evidence of validity and reliability with athletes has been shown previously (Fransen et al., in press-b). Cronbach's alpha was .69 in the current study.

Procedure

APA ethical standards were followed in the conduct of this study and approval was obtained by the ethical committee of the first author's university prior to the commencement of data collection. After approval from the coach, the players were sent a link to an online survey at the end of the first half of the season (December). Confidentiality of responses was guaranteed and players were told that they had the opportunity to withdraw participation at any time. After giving informed consent, players completed a survey of the study questionnaires (see below). After two weeks, an email was sent to non-responders to remind them about their participation in the study. Furthermore, the coach (and possibly other team members if acquainted with the researchers) were notified to remind these non-responders in their team. If these methods were still not successful, a final reminder email was sent to non-

responders. No rewards were given for participation in the study, except for a report by email with the general study findings.

Data Analysis

To examine whether the data supported the proposed model in Figure 1, we performed Structural Equation Modelling (SEM) in MPlus (Muthén & Muthén, 2017), using robust maximum likelihood estimation method. SEM was chosen because — especially when examining mediation effects and inclusion of latent variables — this method provides information about the degree of fit of the entire model. To control for the nested structure of our data (i.e., players are nested within teams), the MPlus command (type = complex) was used. This procedure adjusts the standard errors to prevent them from being inflated due to clustering (McNeish et al., 2017; Muthén & Muthén, 2017). The constructs of team identification, burnout, teamwork, and team resilience were included in the model as latent variables inferred from the underpinning subscales (although these subscales were included for model fit testing, they are not presented in Figure 2 for the sake of clarity). The other variables, which do not have underlying subscales (i.e., leadership, psychological safety, satisfaction with performance, and health), were included as composite scores. The full model, including the underpinning subscales, is presented in Appendix B.

The following fit indices were used to evaluate the model fit: the normed chi-square statistic (χ^2/df), the Comparative Fit index (*CFI*), the Tucker-Lewis index (*TLI*), the Root Mean Square Error of Approximation (*RMSEA*), and the standardised root mean square residual (SRMR). While a non-significant chi-square (χ^2) implies a good fit of the data to the hypothesised model, the significance of this statistic increases with sample size. Accordingly, we used the normed chi-square statistic (χ^2/df), where a good fit is reflected by a value below 3 (Kline, 2005). Furthermore, a good fit of the model to the data is characterised by *CFI* and

TLI values larger than .90 and an *RMSEA* equal or smaller than .07, and an *SRMR* close to .08 (Hooper et al., 2008; Hu & Bentler, 1999).

Results

The means and standard deviations for each variable along with bivariate correlations are shown in Table 1. Structural Equation Modelling initially revealed inadequate fit of the hypothesised model (shown in Figure 1) to our data. The modification indices, suggested by MPlus, advised to add two direct pathways; one from the identity leadership of the informal athlete leaders to teamwork, and one from the identity leadership of the coach to burnout. The final model is shown in Figure 2 and showed adequate fit to the data (χ^2 = 275.38; *df* = 111; χ^2/df = 2.48; *CFI* = .91; *TLI* = .89; *RMSEA* = .07; *SRMR* = .08).

In addition to the direct effects presented in Figure 2, Table 2 presents the standardised indirect effects and total effects of this SEM model, which provide more insight in the underlying mediating role of the different variables. Given that all of the indirect effects are significant, we can conclude that all of the variables in the model indeed act as mediators between the antecedents and outcomes.

In line with H1a, we found that coaches, team captains, and informal athlete leaders each significantly contributed to athletes' identification with their team. In support of H1b, Table 2 highlights the important role of the informal leaders in the team-oriented pathway, with total effects being considerably (up to 10 times) greater than the effects of the coach or the team captain. In contrast, in the individual-oriented pathway, we notice that it is the coaches in particular who have the greatest influence on athletes' burnout and health.

Athletes' team identification was in turn significantly linked to a team-oriented pathway, which included teamwork, team resilience, and satisfaction with team performance (H2a). More specifically, team identification was positively associated with greater teamwork, which in turn was positively associated with greater resilience, which was then

associated with greater team performance satisfaction (H2b). In the individual-oriented pathway, team identification was negatively associated with athlete burnout and positively associated with athlete health (H3a). Moreover, higher athlete burnout was negatively associated with athlete health (H3b).

Finally, to test the mediating role of psychological safety between athletes' team identification and both the team- and individual-level outcomes, we added the direct links between team identification and both teamwork and burnout. Our findings partially supported H4a, with psychological safety partially mediating the relationship between team identification and teamwork, reflected by a significant indirect effect (β = .20; *SE* = .05; $p <$ .001) and a significant direct effect (β = .49; *SE* = .12; $p <$ .001). Furthermore, in line with H4b, psychological safety was found to fully mediate the relationship between team identification and burnout, reflected by a significant indirect effect (β = -.23; *SE* = .05; $p <$ .001), but a non-significant direct effect (β = -.16; *SE* = .10; p = .13). We can thus conclude that, in line with H4, psychological safety mediated the relationship between athletes' team identification and both the team- and individual-level outcomes.

Discussion

The main aim of this study was to examine the role of psychological safety in explaining the impact of identity leadership (of coaches, captains, and informal athlete leaders) on both a team-oriented pathway (teamwork, team resilience, and satisfaction with team performance) and an individual-oriented pathway (burnout, health) in team sport. To set the stage, we will first elaborate on the antecedents of psychological safety (i.e., how identity leadership was related to team identification, which in turn was related with psychological safety). Following up on our second and third aim, then, we found that team identification was significantly related to both the individual-oriented and the team-oriented pathways. Our

final aim was then to examine how psychological safety mediated the relationship between team identification and those team- and individual-oriented consequences.

Aim 1 – Coaches vs. Team Captains vs. Informal Athlete leaders

In line with H1a, the study findings revealed that by demonstrating high-quality identity leadership, coaches, captains, and informal athlete leaders all significantly contributed to strengthening team members' identification with the team. This finding corroborates previous research on coaches (Fransen et al., 2016a; Slater & Barker, 2019; Stevens et al., 2018), captains (Fransen et al., in press-b; Steffens et al., 2014), and informal athlete leaders (Fransen et al., 2015; Fransen et al., 2016b; Mertens et al., 2020). However, this work also moves beyond those studies by comparing the three leadership sources in one single study, thereby allowing us to compare their relative impact. Indeed, the Structural Equation Model adds that when being analysed together, each of these leaders had a unique impact on athletes' team identification. Moreover, in contrast with the abundant research on formal leaders (i.e., coach and captain), this study showed that the identity leadership of the informal leaders in particular was most strongly related with teammates' team identification. In addition, when comparing the indirect effects presented in Table 2 of coaches', captains', and informal leaders' identity leadership on the different outcomes, we found that each of these sources of identity leadership had a unique contribution in predicting the various outcomes.

Furthermore, the resulting model in Figure 2 also highlighted two additional direct pathways. The first one revealed a direct link between the identity leadership of the informal athlete leaders and teamwork. This finding aligns with previous research revealing that informal athlete leaders demonstrate a range of leadership behaviours including the provision of tactical guidance, encouragement, and social support (Fransen et al., 2014). By taking up these leadership responsibilities, informal athlete leaders are able to directly influence the

team's execution (i.e., communication, coordination, and cooperation behaviours). The importance of these informal athlete leaders (with total effects on the team-oriented pathway being 10 times larger than the effects of the coach or the captain) calls for structures of shared leadership, in which athletes are empowered to take responsibility for the team's development (Fransen et al., in press-a). As such, their potential to nurture teammates' identification with their team can be maximised, which appears to be of utmost importance given the consequences for both the team's functioning and individual athletes' well-being.

The second direct link that appeared reflected the coaches' direct influence on athletes' burnout. This finding further corroborates earlier evidence in non-sporting contexts that formal leaders do not only have the capacity to nurture but also to significantly hamper team members' well-being (Montano et al., 2016). Furthermore, our evidence quantitatively supports previous qualitative work in the sport context that coaches can not only have an important positive impact on their athletes' health, but also can become a negative source of stress for them with the capacity to induce those athletes' burnout (Cresswell & Eklund, 2007). Furthermore, in line with literature on the social cure (Haslam et al., 2018), we found here that identity leadership in particular was negatively related to athletes' burnout.

Aim 2 – Team Identification and Team Functioning

Considering the individual correlations (Table 1) and also the indirect effects of the resulting SEM model (Table 2), our findings show that athletes who strongly identified with their team also reported good teamwork, higher resilient characteristics and less vulnerabilities under pressure, as well as a high satisfaction with their team's performance (H2a). The results are in line with previous qualitative work outlining that cultivating a team identity was one of the key strategies being used to develop athletes' resilience to withstand pressures (Morgan et al., 2013, 2015, 2019). Furthermore, our findings add to the work of Fransen et al. (2016b) that team identification does not only impact perceptions of individual

performance, but is also positively related with perceptions of team performance. To the best of our knowledge, this is also the first study to reveal that effective teamwork execution mediates the relationship from team identification (and the resulting psychological safety) to team resilience and satisfaction with performance (H2b).

Aim 3 – Team Identification and Athlete Well-Being

In addition to its benefits for the team's functioning, a strong team identity also yielded important benefits for individual athletes' well-being, thereby corroborating the 'social cure' literature in organisations (Haslam et al., 2018; Steffens et al., 2017). Our study findings were in line with previous work on athlete leaders showing that by strengthening team members' identification with their team, leaders were able to nurture teammates' health, while providing a buffer against burnout (Fransen et al., in press-b). While the former research was conducted with elite male rugby teams, the present work corroborated these findings in a sample of male and female handball players.

Aim 4 – The Mediating Role of Psychological Safety

Building on the foregoing insights, the final aim of our study was then to shed new light on a potential mechanism to explain *how* team identification positively relates to both team-oriented and individual-oriented outcomes within sport teams. In line with H4, psychological safety emerged as a construct that mediated the relationship between team identification and both the team-oriented and individual-oriented pathways.

To the best of our knowledge, this is the first study to confirm earlier work in organisations (Chughtai, 2016) demonstrating the link between team identification and psychological safety. In other words, because of a common belief and a shared confidence that all members are making a concerted effort to do their best and help the team to be successful (i.e., high team identification), athletes also perceive that they can take risks, discuss problems, and engage in constructive conflict. Furthermore, in line with H4a, our

study provided the first quantitative evidence in the sport context that cultivating a psychologically safe environment is related to better team functioning, improved team resilience, and ultimately greater satisfaction with performance. The reason for this might be that achieving great performance inherently requires one to take risks and experience failure, as Gareth Southgate alluded to in his interview during the last World Cup (McNulty, 2018). Our findings thereby quantitatively corroborate earlier qualitative work of Morgan et al. (2019), which revealed that cultivating a psychologically safe environment (in contrast to a 'blame culture') was vital for team resilience development. Furthermore, our findings align with previous organisational work of Koopmann et al. (2016), who found that psychological safety was positively linked with creative team performance.

Attending to the call of Newman et al. (2017), we also evidenced the role of psychological safety in mediating the individual-oriented pathway that reflected individual's well-being, which confirmed H4b. In their theoretical model for organisations, Newman et al. (2017) predicted how the lack of psychological safety could lead to team conflicts, thereby increasing team members' stress and impairing their health. In line with these predictions, we found that in team sport, psychological safety was negatively related to athletes' burnout, which was in turn positively related to athletes' health. To the best of our knowledge, this is the first study to provide evidence linking psychological safety to athlete well-being.

We can thus conclude that our study revealed new insights in why exactly high-identifying athletes report an improved team functioning and an enhanced sense of well-being. As a shared team identity promotes shared values and norms as well as similarity-based attraction among group members, the chances of experiencing negative repercussions if one has a differing opinion, makes a mistake, or asks for help are likely to be lower than in an environment in which such a shared sense of 'we' and 'us' is lacking. In turn, this

psychologically safe environment appears to provide the basis not only for good team functioning, but also for enhanced well-being.

Limitations and Future Research Directions

One of the main limitations of our study is its cross-sectional design, which prevents us from drawing any causal conclusions. As this was the first study to shed light on the underpinning mechanisms that explain the relationship between identity leadership and both the team's functioning and athletes' well-being, we aimed to provide initial evidence that can provide a basis for future research. This future research should adopt longitudinal and intervention designs to verify the causality of our observed relationships. Furthermore, these types of design would allow researchers to examine how psychological safety evolves over time.

Second, our findings are based on self-reports, which entail the risk that athletes may have overrated the qualities of their sport team. The reason for this can be found in the positive distinctiveness assumption, which is inherent to the social identity theory and asserts that individuals are intrinsically motivated to strive for a positive social identity (Tajfel & Turner, 1979). According to this theory, it could be possible that athletes who strongly identify with their team are eager to ascribe more positive characteristics to their team, regardless of the objective situation. Future research could use objective measures to verify whether teams with highly-identifying athletes indeed demonstrate better teamwork, are more resilient as a team to withstand pressures, feel more satisfied with their team's performance, and feel healthier. Despite this potential measurement bias, our findings do shed light on the underpinning mechanisms and the role of psychological safety in mediating the relationship between identity leadership and the resulting team identification on the one hand and the team-oriented and individual-oriented pathways on the other hand.

A third limitation concerns the reliability and structural validity of the psychological safety questionnaire used in this study. As we explain in detail in Appendix A, there are both theoretical considerations on the wording of the items and data-driven issues on the structural validity of the measure. Future research is needed to critically appraise (and potentially revise) the wording of the items, determine whether it is better to use positively-worded items only, and clarify whether psychological safety is indeed perceived as a team-level construct (one's perception that the *entire team* is safe for interpersonal risk taking) or an individual-level construct (one's perception that *they* are safety for interpersonal risk taking). With research on psychological safety within the context of sport gaining traction (illustrated by the current study and Morgan et al., 2019), it is imperative that a clear conceptualisation, operationalisation and appropriate measure (i.e., one that provides valid and reliable data) of the construct are developed.

A final limitation pertains to the nature of our sample. To obtain the required number of participants to conduct a reliable analysis of our model, we chose players from one sport, namely handball. An interesting avenue for future research would be to examine the generalisability of our findings to other sports. Moreover, it would be prudent to determine whether—and the extent to which—these findings vary across other demographics (e.g., age and competitive level).

Practical Implications

The findings from this study highlight the key role that coaches, captains, and informal athlete leaders play in fostering both the team's functioning and athletes' well-being. In particular, the mediating role of psychological safety highlights the importance of fostering an environment that encourages athletes to voice their opinions, engage in decision-making, ask others for help, seek feedback following mistakes, and take risks. Future intervention studies can take these findings into account and teach leaders how to foster a

psychologically safe environment. As our findings showed that identity leadership and the resulting shared sense of ‘we’ and ‘us’ provided the basis for such an environment, researchers could draw on earlier interventions that have specifically targeted these identity leadership skills (Fransen et al., in press-a; Haslam et al., 2017; Slater & Barker, 2019).

Furthermore, our resulting model highlighted the important role that informal athlete leaders play in cultivating an effective team. Specifically, informal leadership had the largest total effects on teamwork, team resilience, and performance satisfaction, with effect sizes being up to 10 times as large as the effect sizes of the coach and the team captain. This observed importance of the informal athlete leaders contrasts with the hierarchical structure that can still be seen in many sport teams. Coaches are typically in charge and if athletes are involved, it is often the captain that is occupying centre stage, with the captain selection process drawing a lot of media attention. The problem here is that in most teams, the team captains are chosen for the wrong reasons (e.g., because of their team tenure or personal relationships with the club president or sponsors) and cannot live up to the expectations of coaches and players (Fransen et al., 2019). Instead, informal athlete leaders are often perceived by their teammates as better leaders than the team captain (Fransen et al., 2014). In order to foster team effectiveness, programs should thus ideally implement a structure of shared leadership in which informal athlete leaders are given the necessary voice to maximise their impact on their team’s functioning (Fransen et al., in press-a).

However, it should be highlighted that in addition to the informal leaders, the coach and the team captain also had a unique contribution to athletes’ team identification, their sense of psychological safety, and all the different team-oriented and individual-oriented outcomes. With total effects of the coach on athletes’ burnout and health being up to three times larger than those of the captain and the informal leaders, it seems that the coach has an essential role in nurturing team members’ well-being.

Finally, given the evidence of the current study on the benefits of identity leadership in particular, leadership programs (whether targeting the coach, the captain, or the informal athlete leaders) should specifically target their identity leadership skills (Fransen et al., in press-a; Mertens et al., 2020; Slater & Barker, 2019). Moreover, keeping in mind the mediating role of psychological safety, leaders should also be encouraged to cultivate a psychologically safe environment for all team members in order to foster the team's effectiveness and nurture athletes' well-being.

Conclusion

The present research sheds light on the underpinning mechanisms that leaders in sport teams use to improve the team's functioning and enhance the well-being of their athletes. Specifically, it was shown that by creating and strengthening a shared identity in the team, leaders (and the informal athlete leaders in particular) were able to cultivate a psychologically safe environment, which in turn paved the way for both a team-oriented and an individual-oriented pathway. We can conclude that by creating a shared sense of 'we' and 'us' coaches, captains, and informal leaders not only improve the team's functioning and its effectiveness, but also enhance the well-being of their members.

Acknowledgements

We would like to thank Lotte Antonissen, Nele Antonissen, and Theresa De Ryck for their assistance in the data collection and Stef Van Puyenbroeck for assisting with the data analysis.

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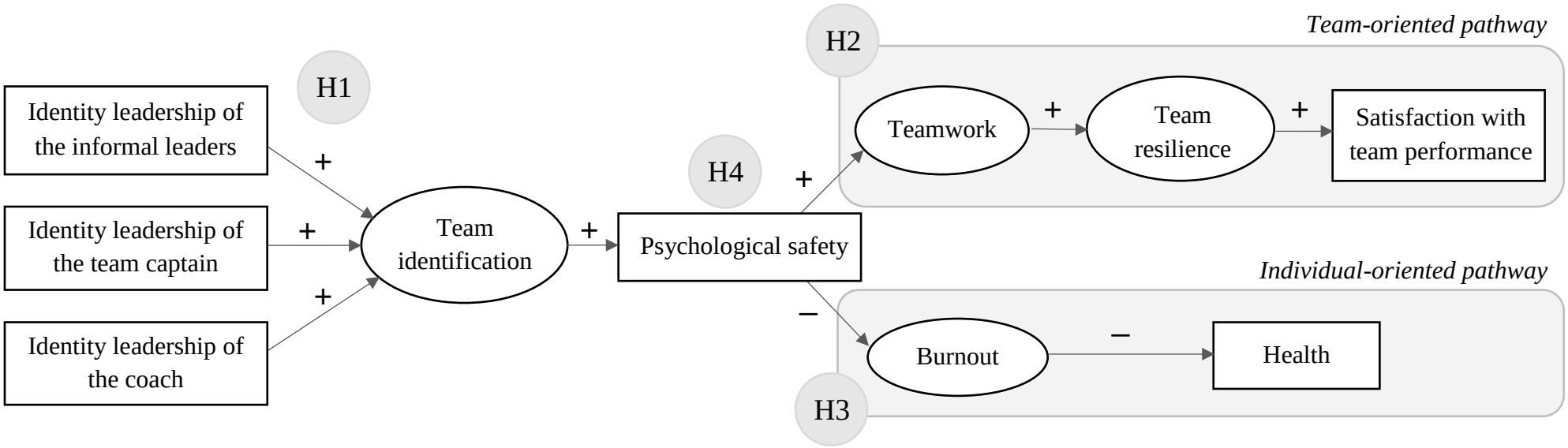


Figure 1. Initial hypothesized model of psychological safety as a mediator between antecedents and consequences. The hypothesized direction of the relationships are indicated by + (positive) and – (negative). The oval forms indicate the variables that include subscales (here, the latent variable, together with the subscales, was included in the model), whereas the square forms indicate variables without subscales (of which the composite scores were included in the model).

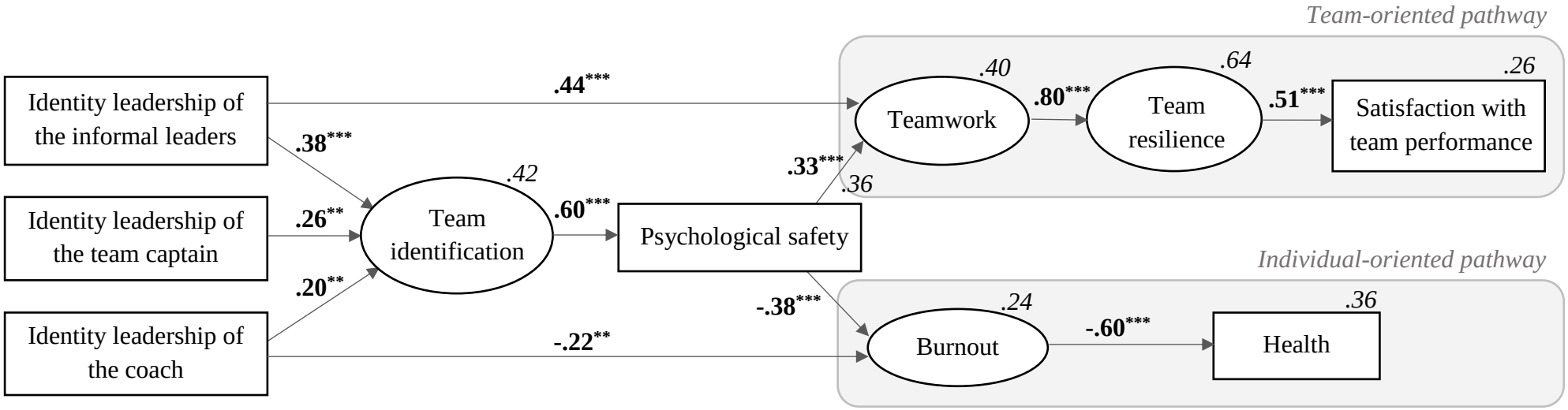


Figure 2. Structural model of psychological safety acting as a mediator between the team's identity leadership (and the resulting team identification) and both a team-oriented and an individual-oriented pathway. The oval forms indicate the variables that include subscales (here, the latent variable, together with the subscales, was included in the model), whereas the square forms indicate variables without subscales (of which the composite scores were included in the model). Standardized regression coefficients for each path are noted in bold; the proportions of explained variance are noted in italics.

Table 1.

Descriptive statistics and bivariate correlations

	M (*SD*)	1	2	3	4	5	6	7	8	9	10
1. Coach identity leadership	5.18 (1.08)										
2. Captain identity leadership	5.25 (1.10)	.25***									
3. Informal identity leadership	5.30 (1.03)	.35***	.44***								
4. Team identification	5.27 (0.91)	.35***	.42***	.49***							
5. Psychological safety	5.37 (0.85)	.29***	.31***	.36***	.45***						
6. Burnout	2.25 (0.57)	-.24***	-.08	-.09	-.21***	-.36***					
7. Health	5.06 (0.96)	.24***	.13*	.20**	.27***	.27***	-.50***				
8. Teamwork	4.94 (0.89)	.35***	.45***	.51***	.52***	.48***	-.22***	.29***			
9. Resilient characteristics	4.76 (0.87)	.39***	.32***	.44***	.51***	.43***	-.29***	.30***	.69***		
10. Resilient vulnerabilities	3.11 (1.03)	-.30***	-.28***	-.37***	-.31***	-.41***	-.27***	-.22***	-.55***	-.68***	
11. Performance satisfaction	4.43 (1.57)	.36***	.07	.22***	.13*	.16**	-.13*	.08	.39***	.46***	-.41***

Note. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 2.

Indirect effects and total effects, along with standard errors (SE) for all paths in the model between predictors (in rows) and outcomes (in columns).

Note. $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

	Team identification	Psychological safety	Burnout	Health	Teamwork	Team resilience	Performance satisfaction
		Effect (SE)	*Effect (SE)*	*Effect (SE)*	*Effect (SE)*	*Effect (SE)*	*Effect (SE)*
Indirect effects							
Coach identity leadership		.12** (.04)	-.05** (.02)	.16*** (.04)	.04* (.02)	.03* (.01)	.02* (.01)
Captain identity leadership		.15** (.05)	-.06** (.02)	.04* (.01)	.05* (.02)	.04* (.02)	.02* (.01)
Informal identity leadership		.23*** (.04)	-.09*** (.02)	.05** (.02)	.08*** (.02)	.41*** (.05)	.21*** (.04)
Team identification			-.23*** (.05)	.14*** (.04)	.20*** (.05)	.16*** (.04)	.08** (.02)
Psychological safety				.23*** (.05)		.27*** (.05)	.14*** (.03)
Teamwork							.41*** (.06)
Total effects							
Coach identity leadership	.20** (.06)	.12** (.04)	-.27*** (.07)	.16*** (.04)	.04* (.02)	.03* (.01)	.02* (.01)
Captain identity leadership	.26** (.07)	.15** (.05)	-.06** (.02)	.04* (.01)	.05* (.02)	.04* (.02)	.02* (.01)
Informal identity leadership	.38*** (.06)	.23*** (.04)	-.09*** (.02)	.05** (.02)	.51*** (.05)	.41*** (.05)	.21*** (.04)
Team identification		.60*** (.06)	-.23*** (.05)	.14*** (.04)	.20*** (.05)	.16*** (.04)	.08** (.02)
Psychological safety			-.38*** (.07)	.23*** (.05)	.33*** (.07)	.27*** (.05)	.14*** (.03)
Burnout				-.60*** (.06)			
Teamwork						.80*** (.03)	.41*** (.06)
Team resilience							.51*** (.06)

Appendix A. *Reliability and structural validity of the Team Psychological Safety questionnaire.*

Since, to our knowledge, this is the first study to utilize the Team Psychological Safety questionnaire (Edmondson, 1999) within a sport context, we critically revised the reliability and the structural validity, both from a theoretical and a data-driven viewpoint.

Theory-driven Considerations on the Scale's Reliability.

The Cronbach's alpha (.70) of the Team Psychological Safety questionnaire only barely reached the threshold to be perceived as a reliable scale (Nunnally, 1978). There are several potential reasons for not obtaining higher reliability scores here. For one, it should be noted that this measure was originally developed and used within organisational settings (and not sport settings). Hence, some of the items may not be as relevant to sport as they are to other team settings. Relatedly, there may also be components of psychological safety that are specific to the sport context and that should be tested in further research. Moreover, three of the seven items on the questionnaire are negatively-worded (e.g., "If I make a mistake on this team, it is often held against me") whereas the other four items are worded positively (e.g., "It is safe to take a risk on this team"). More recent research in sport (e.g., Eys et al., 2007) has shown that mixing positively- and negatively-worded items can harm the internal reliability of questionnaires (in comparison to positively-worded items only). In addition, four of the items were worded from an individual/first-person perspective (e.g., "When working together with team members, *my* unique skills and talents are valued and utilised"), while the other two were worded at a more general/team level (e.g., "*People on this team* sometimes reject others for being different"). In light of these potential issues, it may be worth considering how psychological safety within the context of sport can best be conceptualised (that is, as an individual-level construct, team-level construct, or both) and measured.

Data-Driven Considerations on the Structural Validity

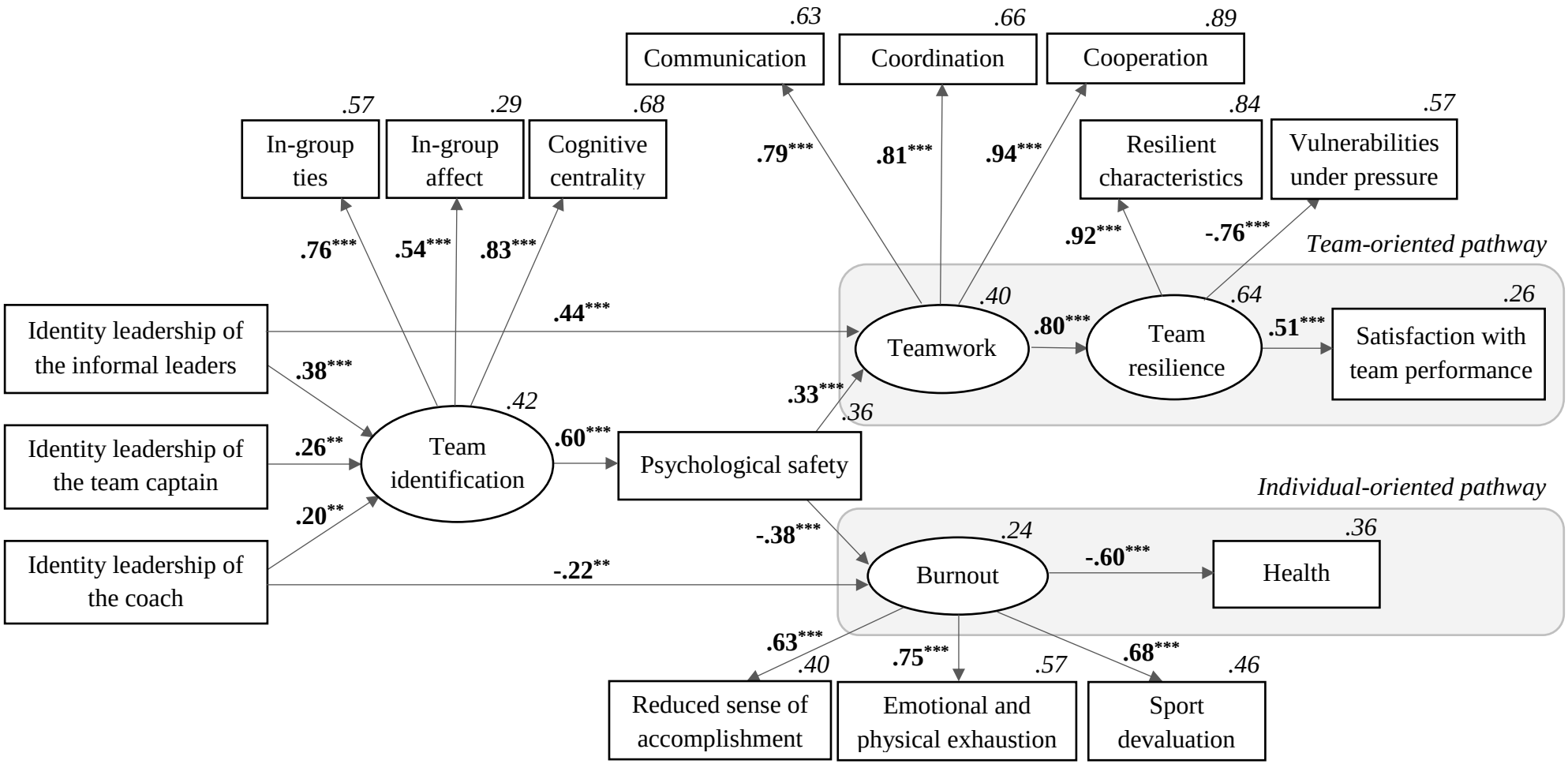
To test the scale's structural validity, we sought to assess the factor structure of this measure by conducting an Exploratory Factor Analysis (EFA) using Mplus version 8 software (cf. Brown, 2006; Muthén & Muthén, 2017). We first examined the item-level intraclass correlations (ICCs), which estimate how much variance in each item is observed at the group level. Factor loadings, inter-item covariances, and residual variances should also be used as indicators of potential local misfit.

All ICCs were well below .20 (total range = .03 – .14; six of seven items $\leq$.07). As such, it was deemed appropriate to conduct a single-level EFA of the data, rather than a

multilevel EFA (which provides estimates at the both the athlete [level 1] and team [level 2] levels; Muthén & Satorra, 1995)[1]. In the subsequent EFA, mediocre to good absolute and comparative fit was shown for a one-factor model, with all seven items loading onto a single factor of psychological safety (χ^2/df = 37.96; RMSEA = .08; CFI = .91; TLI = .87; SRMR = .04). However, there appeared to be some localized misfit for item 6 (i.e., "No one on this team would deliberately act in a way that undermines my efforts"), as indicated in particular by its poor factor loading (.23)—the factor loadings for the remaining six items ranged from .40 – .63. Inter-item covariances were also consistently lower for this item (range = .06 – .38) compared to the correlations between the other six items (range = .42 – .80). With regard to reliability, Cronbach's alpha for this baseline model was .68.

Due to the apparent localized misfit, we carried out a second model with item 6 deleted (cf. Brown, 2006). The global fit indices for this adjusted model were all similar to, or slightly better than, the original model (χ^2/df = 25.77; RMSEA = .08; CFI = .93; TLI = .89; SRMR = .04). Factor loadings were also similar (and all statistically significant) in the adjusted model (range = .40 – .63), as were inter-item covariances (range = .38 – .80); residual variances were also all within an acceptable range (.61 – .84; Comrey & Lee, 1992). Finally, Cronbach's alpha (.70) was slightly higher compared to that of the original 7-item model. Taken together, these results suggested that data from a six-item version of the Psychological Safety questionnaire (i.e., with item 6 removed) provided evidence of greater validity and reliability in this study compared to the original seven-item version of this measure. The six-item version was therefore used in the analyses of the present article.

[1] It should be noted that for the factor analyses reported here, we also conducted MLEFAs to ensure that the single-level EFA was the appropriate choice for our factor analysis. In both cases, model fit was better for the EFA models compared to the MLEFA models.



Appendix B. Complete structural model of psychological safety acting as a mediator between the team's identity leadership (and the resulting team identification) and both a team-oriented and an individual-oriented pathway, including all the subscales. Standardized regression coefficients for each path are noted in bold; the proportions of explained variance are noted in italics.