



Is an informal leader always popular? The curvilinear relationships between informal leadership, threat to peers, and helping from peers

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Abstract

The positive effect of informal leadership has been well established, whereas our understanding of its potential negative effect in interpersonal interaction is still limited. This study explores the influence of individual informal leadership on helping received from peers from an interpersonal interaction perspective. Drawing upon social comparison theory, we posit that a focal employee's moderate level of informal leadership in a team can pose a threat to peers, which inhibits the helping behavior from peers to the focal employee. To test our hypothesis, we conducted an experiment in Study 1 and a field survey in Study 2. The results revealed that individual informal leadership had a curvilinear relationship with helping behavior from peers via threat to peers. Furthermore, the focal employee's political skill mitigated this curvilinear effect. Theoretical and future research implications are discussed.

Keywords Informal leadership · Threat · Helping behavior · Social comparison · Political skill

The increasing adoption of flat organizational structures and team-based work arrangements has significantly transformed employee behaviors in the workplace (Margolis, 2020; Sinha et al., 2021; van de Brake et al., 2023). This has resulted in the growing empowerment of individual employees, enabling them to take on greater responsibility and make independent decision-making, reducing their reliance on leadership originating from formal leaders in hierarchical positions (Cook et al., 2019; Fransen et al., 2020; Morgeson et al., 2010). Individual team members are also encouraged to take on informal leadership responsibilities, including the assignment of tasks, the creation of goals, the dissemination of information, and the facilitation of interpersonal relationships within their teams (e.g., Carson et al., 2007). In this case, informal leadership has attained great attention from scholars (e.g., Briker et al., 2021; Wellman et al., 2019; Zhang et al., 2012).

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Individual informal leadership refers to a perceived social status representing the extent to which an individual is perceived as a team leader by peers without formal authority (Chiu et al., 2021; Schneier & Goktepe, 1983; Shaughnessy et al., 2017). Informal leaders are always those individuals whom other team members like to seek for advice and assistance (Hu et al., 2019; Peng et al., 2023). Previous studies found a positive effect of informal leadership on teams, such as improving team performance (Neubert, 1999; Zhang et al., 2012) and promoting group efficacy (Pescosolido, 2001). Recent studies have begun to turn attention to the effect of informal leadership on focal employees (e.g., Liu et al., 2018; Pan et al., 2018; Peng et al., 2023; Shaughnessy et al., 2017). Some research suggested that informal leadership has positive effects on informal leaders themselves, such as increasing task performance (Liu et al., 2018; Shaughnessy et al., 2017), and promoting creativity (Pan et al., 2018), whereas other research showed a downside of informal leadership on informal leaders themselves, for example, decreasing their work satisfaction (Chiu et al., 2021).

In spite of the exploration of team-level effect and intrapersonal influence, there is a paucity of research concerning the interpersonal consequences of focal informal leaders. Exploring this issue is important since informal leadership emerges from the interpersonal interaction among team members (Hu et al., 2019; Luria & Berson, 2013) and a quality interpersonal outcome is crucial for receiving support and help from peers, which is important for individuals' career development and well-being (Regts & Molleman, 2013; Peng et al., 2021). Furthermore, the basic foundation of informal leadership is the informal power that exerts influences over the team members within teams (Guo et al., 2022; Luria & Berson, 2013; Zhang et al., 2012, 2020). Past research found that individuals with less power are likely to have a disadvantage in resource allocation within teams and tend to be ignored by others (Cremer, 2003). While, past research also suggests that exercising power in interpersonal interactions can lead to low trust (Yu et al., 2018), interpersonal conflict (Anicich et al., 2016), distractions from tasks (Bendersky & Hays, 2012), and even victimization from peers (Jensen et al., 2014). Thus, informal leadership might have a nuanced effect on interpersonal outcomes and exploring this issue might provide a comprehensive understanding of informal leadership.

In this study, we advance an interpersonal interaction lens of the influence of informal leadership on focal employees. Our research argues that the impact of informal leadership on interpersonal interaction (Graham et al., 2018; Jensen et al., 2014; Lam et al., 2011) might not be linear. Recent studies suggest that members have different levels of informal leadership within a team (Liu et al., 2018; Pan et al., 2018; Shaughnessy et al., 2017). Drawing upon social comparison theory (Festinger, 1954; Suls & Wheeler, 2013), we advance a curvilinear (inverted U-shaped) relationship between informal leadership and threat to peers, which further impacts the peers' helping behavior toward the focal employee. Although the interdependent nature of teamwork can motivate team members to collaborate, members inevitably experience competition and status conflicts in teams. This is because teams establish a social hierarchy in which members strive to gain greater social influence (Bendersky & Hays, 2012). The threat from informal leadership might be more salient in East Asian culture where people with collectivism show more ingroup vigilance (Liu et al., 2019), featuring a social tendency to perceive threats from ingroup members.

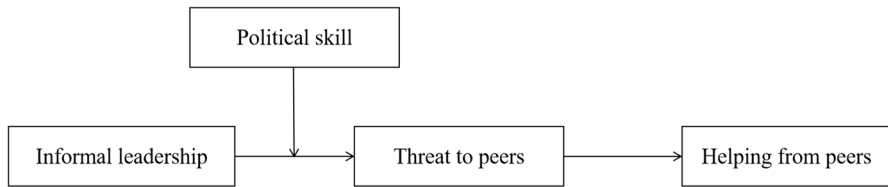


Fig. 1 Conceptual Model of Present Study

Informal leadership reflects an individual's control of valuable resources in teams. Hence, an informal leader may threaten the interests of peers through a social comparison mechanism. The current study contends that individuals with a medium-level informal leadership in a team are most likely to be chosen as referents of social comparison by most team members, compared with those with extremely higher or lower levels of informal leadership. This is due to the more substantial discrepancy between the focal individuals and other peers, thus suggesting that there is a curvilinear relationship between informal leaders and threats from peers (Suls & Wheeler, 2013).

Furthermore, we explore the conditions under which informal leaders can reduce the perceived threat from peers. Previous research (Call et al., 2015) suggests that impression management could reduce the potential negative effect on the interpersonal social comparison process. As such, we posit that an important impression management skill, political skill, defined as “the ability to effectively understand others at work, and to use such knowledge to influence others to act in ways that enhance one's personal or organizational objectives” (Ferris et al., 2007, p. 291), representing the ability to manipulate and adjust one's influence in interpersonal situations (Munyon et al., 2015; Summers et al., 2020), can ease the threat to peers of focal employees with informal leadership and further mitigate the negative effect on helping from peers. Figure 1 depicts the relevant theoretical framework.

This study makes several major contributions to the literature. First, we contribute to informal leadership by providing an interpersonal view of informal leadership on focal employees, which enriches our understanding of the interpersonal outcomes of informal leadership. Moreover, our research also contributes to informal leadership by proposing an inverted U-shape pattern in interpersonal interactions. Past research suggests that common presumptions of monotonic linear relations can lead to deficiency in the development and proliferation of theories (Pierce & Aguinis, 2013). Our research provides a more complete picture of informal leadership by proposing an inverted U-shaped effect of individual informal leadership on helping behaviors, revealing a new and comprehensive insight into informal leadership literature.

Second, we contribute to the leader-centric literature by extending the research to the outcomes of informal leadership. More and more attention has been paid to the effects of leadership behaviors on leaders themselves by adopting an actor-centric perspective (e.g., Lanaj & Jennings, 2020; Li et al., 2022; Liao et al., 2018; Priesemuth & Bigelow, 2020). Indeed, these studies shed light on the influences of leader behaviors on formal leaders themselves through the leader-centric perspective.

Answering the call for more leader-centric research and following this actor-centric trend (Lanaj et al., 2016; Lin et al., 2019), our research extends to the outcomes of informal leaders. Specifically, we argue that informal leadership has curvilinear impacts on helping behaviors through threat to peers.

Third, this research refined its perspective on helping behavior by shifting from the promotion of employee helping behavior to receiving help from other peers. Previous studies about helping behavior have paid much attention to how situational factors or characteristics of actors encourage employees to have more beneficial helping behavior (Hartog et al., 2007; Kamdar et al., 2006; Kim et al., 2013). However, the characteristics of recipients count once we take the shoes of helping recipients rather than helping actors. Past scholars also suggested that (e.g., del Carmen Triana et al., 2013; Van Der Vegt et al., 2006), the characteristics of helping targets are important in deciding whether to help or not, which partially explains why people could receive different amounts of helping behaviors. Thus, it is of both empirical and theoretical importance to explore what kind of employees could receive more help from peers and the mechanisms behind this.

Finally, we examine the boundary condition under which the detrimental effect of informal leadership on teammates can be buffered. Although scholars have found that comparison can generate unfavorable consequences, such as envy, jealousy, and harming behavior (Campbell et al., 2017; Kim & Glomb, 2014; Reh et al., 2018), only limited research investigates how the negative impacts on peers arising from social comparisons can be assuaged. Political skill enables individuals to understand the workplace environment and to use this understanding to adjust their behaviors to attain a desirable impression in interpersonal interactions (Ferris et al., 2007; Kimura, 2015). This study argues that politically skilled informal leaders can effectively manage their interactions with others, thereby reducing the perceived threat to others. Therefore, the present study advances a solution for the possible negative effect of interpersonal interaction by proposing the role of political skill in influencing the social comparison process and its consequences.

Theoretical background and hypotheses development

Social comparison includes the process of comparing information about one or more other people (Goodman & Haisley, 2007; Gerber et al., 2018; Wood, 1996). Team members are continuously confronted with attitude, performance, abilities, and the resources of other peers within a team. They are unavoidably enmeshed in social comparisons with their teammates. The social comparison process helps them to reduce uncertainty about the self and to evaluate themselves positively (Buunk & Gibbons, 2007; Festinger, 1954). As Brickman and Bulman (1977, p. 150) suggested, social comparison is a common phenomenon in interpersonal interaction and it is an “almost inevitable element of social interaction”. According to social comparison theory, the comparison processes in teams induce competition, which has the potential to be destructive in interpersonal interactions (Brickman & Bulman, 1977; Cohen-Charash & Mueller, 2007; Lam et al., 2011). Specifically, team members from East Culture are more likely to be vigilant against each other and perceive

threats, especially when facing competition (e.g., Liu et al., 2019). If an individual is regarded as a competitor by other peers through these social comparison processes, they are likely to become a threat to peers, thereby prompting a negative response from peers in interpersonal interactions.

The social comparison process involves acquiring, thinking about, and reacting to social information (Wood, 1996). Individuals in the team can acquire social information by selecting comparison targets for further observation (Gilbert et al., 1995a; Sun et al., 2021). Informal leadership originates in interpersonal interactions (e.g., individual-level LMX, Zhang et al., 2012; boundary-spanning behavior, Liu et al., 2018) and it can be observed and captured by peers. Given that teams possess limited resources and opportunities, members would compete for more resources and gain higher team status (Beersma et al., 2003; Goodman & Haisley, 2007). From the lens of the evolutionary perspective (Gilbert et al., 1995b), people compare their resource-holding potential to others' to estimate the likelihood of escaping or attacking. Besides, the resource comparison is a prototype of social comparison (Swencionis & Fiske, 2014). As high informal leadership denotes capability and the potential access to resources, individual informal leadership could be regarded as an important comparison attribute among team members.

However, not all individuals in work teams would be regarded as comparison targets. When individuals evaluate social information, they judge their relative standing with others and determine the comparison direction (Sun et al., 2021; Wood, 1996). Since individuals with the middle level of informal leadership are similar to most coworkers, they are more likely to be chosen as the comparison targets. Besides, individuals will attract others' attention and are likely to become the comparison target with the development of comparison attributes from a low level. Furthermore, individuals with extremely high levels of comparison attributes may frustrate others and be treated as geniuses in the work teams (Alicke et al., 1997), whereas extremely lower ones are more likely to be ignored (Farh & Chen, 2014). Thus, we suggest that individuals in teams who possess a moderate level of comparison attributes are more likely to become comparison targets (Harrison & Shaffer, 1994). Furthermore, the compared focal target represents a threat to peers, which can prompt unfavorable responses to the focal person (Reh et al., 2018), i.e., less helping from peers. This study proposes that a moderate level of individual informal leadership might cause a higher threat to peers, which leads to a decrease in helping-giving behavior from peers.

Moreover, previous research in interpersonal interactions appeals to explore how to alleviate interpersonal troubles and ameliorate relationships in interaction (e.g., Bendersky & Hays, 2012; Lam et al., 2011). In response to this call, we aim to investigate how to avoid negative interactions and promote positive interactions. Literature on impression management has suggested that individuals with interpersonal qualities, such as political skill, can notice social information in the environment, hide true intentions, and adjust personal behavior in accordance with the expectations of others (Ferris et al., 2007; Munyon et al., 2015). Thus, this research proposes that political skill could mitigate the negative influence of individual informal leadership in interpersonal interactions.

Informal leadership and threat to peers

Informal leadership reflects the extent of the social status of each member (Chiu et al., 2021; Schneier & Goktepe, 1983; Shaughnessy et al., 2017), which indicates the capability for acquiring future valuable resources (Magee & Galinsky, 2008). This leads to the case that people are likely to seek advice and help from informal leadership (Chiu et al., 2021; Peng et al., 2023). Given that team resources are limited, members tend to pay attention to the amount of informal leadership distributed in the team. Hence, informal leadership would evoke the social comparison process in the team. Such social comparison could further trigger perceptions of threat, which is a psychological state of fear and discomfort (Bonner et al., 2017; Williams, 2007) and it often comes from social comparisons with others in interactions among team members. Although team members recognize the value of an informal leader, there is no formal legitimate power gap amongst team members. Thus, informal leaders may threaten the positions and career development of others (Anicich et al., 2016; Lam et al., 2011).

Individuals with informal leadership may become a threat to peers in interpersonal interactions since they have informal influence and possess the capabilities to acquire social resources within teams. Specifically, those with low levels of informal leadership are less likely to pose a threat to others because they have little influence over other team members (Van der Vegt et al., 2010). When informal leadership develops from a low level to a medium level, the individuals concerned are more likely to get attention from peers and evoke the social comparison process of peers. Hence, they tend to become the target of comparison by peers, increasing their threat to peers.

However, when informal leadership exceeds the medium level and reaches a high level, employees will receive consensus endorsement from others. In this case, their distinct differences in informal leadership allow them apart from other team members, and the social proximity is unlikely to be activated. Consequently, as informal leadership increases, the individual is less likely to become the comparison target of other peers. Alicke et al. (1997) noted that people avoid comparing themselves with superior individuals or exaggerate the abilities of others in order to protect themselves from unfavorable comparisons. Thus, when an individual team member's informal leadership exceeds the medium level, the more informal leadership they have, the less threat they will pose to their peers. In this case, they are the center of the team and most peers rely on them to provide advice and support (Hu et al., 2019; Peng et al., 2023). In accordance with social comparison theory, when moving from a low level to an intermediate level of informal leadership, this paper predicts the emergence of a positive relationship between informal leadership and threat to peers. However, when moving from an intermediate level to a high level of informal leadership, this study predicts a negative relationship between informal leadership and threat to peers.

Hypothesis 1 There is an inverted U-shaped relationship between informal leadership and threat to peers.

Threat to peers as a mediator of the curvilinear informal leadership– Helping from peers relationship

The social comparison process further leads to behavioral reactions (Wood, 1996). This paper proposed that the presence of threat to peers is related to the negative responses of peers in interpersonal interactions, not least the help received from peers. Helping behavior is defined as interpersonal, cooperative, and affiliative extra-role behavior that targets group members (Van Dyne & LePine, 1998; Liao et al., 2008). Helping from peers involves activities such as receiving work-related information, suggestions, ideas, concerns, or opinions from peers, and assistance in the solving of work problems. Team members collaborate with others on regular tasks, wherein helping from peers is a common interpersonal interaction behavior in the workplace (Tse et al., 2013). It plays an important role in assisting individuals to improve their work performance, correct problems in a timely manner, and minimize potential mistakes.

Competition for resources, status, and positions, means that peers in teams are engaged in a constant process of concurrent cooperation and competition (Beersma et al., 2003; Kolbe et al., 2014). Research suggests that helping behavior, such as providing advice, could be regarded as an interpersonal strategy that is employed for self-interest (Grant & Mayer, 2009; Regts & Molleman, 2013). Team members choose to engage in such behavior because they view it as a tool that can satisfy certain needs (Bolino et al., 2013; Grant & Gino, 2010) and produce benefits, such as the receipt of a reward for the offering of advice (Korsgaard et al., 2010). Thus, when an individual becomes a threat to peers' interest (e.g., the opportunity to promote), peers may feel uncomfortable and are less likely to give help to this person. In other words, threats arising from comparisons with peers are likely to be met with a disinclination to provide assistance to the comparison target.

Hypothesis 2 Threat to peers is negatively related to helping from peers.

Given the negative relationship between threat to peers and helping from peers, this paper further proposes the existence of an inverted U-shaped relationship between informal leadership and helping from peers via the mediating effect of threat to peers. Helping behavior is a prosocial behavior that can be used to build relationships with others (Lepine & Van Dyne, 2001; Porath et al., 2015; Whiting et al., 2008). Peers tend to give more help to individuals with an extremely high level of informal leadership, because such a competitor already possesses overwhelming advantages which are unattainable to peers and demoralize them to compete (Lockwood & Kunda, 1997). Thus, it is wise to cooperate with them or depend on them rather than stand in opposition to them (Greer et al., 2017; Van Bunderen et al., 2018). In such cases, the informal leader does not become the comparison target of the peers and does not make peers feel threatened. The motivation to establish a quality relationship with the informal leader may encourage peers to give more help to individuals with a high level of informal leadership.

Meanwhile, individuals with low levels of informal leadership are also unlikely to threaten others, since they lack the requisite influence and resources (Jensen et al., 2014). Therefore, individuals with low levels of informal leadership might not necessarily have a reduced level of help from peers. In fact, team members tend to give more help to those who have a weak status because they are motivated either by sympathy or the desire to improve team performance. In contrast, at the medium level of informal leadership, it is easy for the informal leader to be the target of comparisons, which makes him or her appear to be a threat to their peers. Once the existence of a threat to peers has been identified, the resultant anxiety makes peers less likely to provide help to informal leaders (Lavric et al., 2003; Shin et al., 2015). Thus, this study predicts that intermediate-level informal leaders receive less help from peers. Based on this logic, this paper suggests that there is a mediated curvilinear relationship between informal leadership and helping from peers.

Hypothesis 3 Informal leadership has a U-shaped relationship with helping from peers through threat to peers.

The moderating role of political skill

To further mitigate the potential threat of individuals with informal leadership, this study examines the moderating role of political skill in the relationship between informal leadership and threat to peers. As politically skilled individuals are able to understand others and persuade them to behave in ways that enhance specific objectives (Kimura, 2015), informal leaders with a high level of political skill may be sensitive to the negative psychological states of their peers (i.e., perceived threat) and mitigate the threat posed to these peers by their informal leadership.

Political skill allows individuals to use social cues to identify, perceive, and understand the feelings of others in various situations (Summers et al., 2020; Treadway et al., 2007). In other words, they possess the understanding of the subtlety which allows them to identify the potential threat to other peers. Furthermore, according to Ferris et al. (2005), “people high in political skill not only know precisely what to do in different social situations at work, but how to do it in a manner that disguises any ulterior, self-serving motives, and appears to be sincere” (p. 128). This means that individuals with a high level of political skill can modify their behavior in order to avoid the negative effect of social comparisons, including the tendency to cause pressure on and threat to others. Therefore, when a focal employee’s political skill is high, the employee will pose less threat to peers when they display moderate levels of informal leadership in the team.

Conversely, individuals with a low level of political skill are not sensitive to the perceptions of others and are unlikely to adjust their behavior to suit other peers (Ferris et al., 2007). Hence, the threat caused by informal leadership is exposed to peers because they lack the skills required to effectively manage the dynamics of the relationship. Drawing upon the above arguments, we propose the following hypothesis:

Hypothesis 4 Political skill moderates the curvilinear relationship between informal leadership and threat to peers such that: there is an inverted U-shaped relationship between informal leadership and threat to peers when political skill is low, but a nonsignificant relationship when political skill is high.

Based on Hypotheses 1–4, we further argue that the indirect relationship between informal leadership and helping from peers varies as a function of political skill. Specifically, individuals with high political skill are sensitive to the feelings of others, which allows them to adjust their behavior to avoid posing a threat to their peers. This eliminates the possibility of unfavorable impacts on interpersonal interactions as a result of social comparisons. Hence, the curve relationship between informal leadership and helping from peers (via threat to peers) is flattened. In contrast, it is difficult for individuals with low political skill to understand peers' psychological status or to change their behaviors in the interaction with peers. Thus, the following hypothesis is offered:

Hypothesis 5 Political skill moderates the indirect curvilinear (i.e., U-shaped) relationship between informal leadership and helping from peers through threat to peers such that: there is a U-shaped indirect relationship between informal leadership and helping from peers through threat to peers when political skill is low, but a nonsignificant relationship when political skill is high.

Overview of the current studies

To demonstrate these hypotheses, we conduct both an experimental study and a field study. The first experiment study helps establish internal validity by verifying that moderate informal leadership presents a threat to peers. In the second study, we conduct a multi-source multi-time field study to establish the external validity of the whole model, including an examination of the relationship between informal leadership, threat to peers, and helping from peers. Thus, the mixed design provides complementary evidence for the internal and external validity of our theoretical model.

Study 1 Method

Participants

We used the G*Power 3 to calculate the sample size. The results showed that 49 participants were required to attain a 95% power with repeated ANOVA and .25 effect size. Thus, we recruited 210 employees from Credamo, which is a widely used data collection website in China (<http://credamo.com>) (Gong et al., 2020; Tang et al., 2023). After excluding participants who failed the attentional check, the final sample included 198 participants. Among them, 61.62% were male, and

87.37% had a bachelor's degree. Their average age was 31.42 years ($SD=7.95$) and their average work tenure was 7.63 years ($SD = 6.10$). They were asked to read a scenario and then answer questions. Each participant was compensated 5 RMB for their participation. This study was pre-registered at AsPredicted (<https://aspredicted.org/hy3ay.pdf>).

Measures

Informal leadership manipulation A scenario was designed to describe three employees with different informal leadership (low, medium, and high). The researchers manipulated their informal leadership according to its definition (i.e., informal leaders have an influence on others, Chiu et al., 2021; Schneier & Goktepe, 1983; Shaughnessy et al., 2017; Zhang et al., 2012) and previous research (i.e., others are likely to seek advice from informal leaders, Peng et al., 2023). The names used to denote the employees in the scenarios were gender-neutral names in China. The scenario is as follows.

Please imagine you are an employee in a company. Zhang, Li, and Wang are three typical employees in your team and their characteristics are described as follows. They all have similar competence at work.

Zhang has a great influence on other team members. Other team members always seek advice and help from Zhang when they encounter problems.

Li has an average influence on other team members. Other team members might seek advice and help from Li when they encounter problems.

Wang has almost no influence on other team members. Other team members seldom seek advice and help from Wang when they encounter problems.

Perceived threat After reading the scenario, participants were asked to evaluate the three employees in the scenario. The agreement with three questionnaire items measuring perceived threat was expressed using a 5-point Likert scale (1 = “strongly disagree”, 5 = “strongly agree”). The three-item scale was adapted from previous research (Menon et al., 2006) and one sample item is “this person has competitive relationships with me.” The Cronbach's alpha of the perceived threat scale for Zhang, Li, and Wang were .88, .88, and .87, respectively.

Study 1 Results

Confirmatory factor analyses As the threat to peers of Zhang, Li, and Wang were all evaluated by the participants, we first conducted confirmatory factor analyses (CFAs). As shown in Table 1, our hypothesis three-factor model (Zhang's threat to peers, Li's threat to peers, and Wang's threat to peers) fitted the data better than other alternative models. The results provided support for the distinctive validity of our measures.

Table 1 Model Fit Results for Confirmatory Factor Analyses in Study 1

Models	χ^2	df	$\Delta\chi^2/\Delta df$	CFI	TFI	RMSEA	SRMR
Hypothesized three-factor model	96.08	24		.93	.90	.12	.06
Two-factor model 1– combining Zhang’s threat to peers and Li’s threat to peers	411.56	26	315.48/2***	.65	.51	.27	.21
Two-factor model 2– combining Zhang’s threat to peers and Wang’s threat to peers	424.38	26	328.30/2***	.64	.50	.28	.21
Two-factor model 3– combining Li’s threat to peers and Wang’s threat to peers	411.56	26	315.48/2***	.65	.51	.27	.21

χ^2 = chi-squared value, *df* degree of freedom, Δ = change relative to the measurement model, *CFI* comparative fit index, *RMSEA* root mean squared error of approximation, *SRMR* standardized root mean-square residual

*** $p < .001$

Manipulation check Participants were asked to evaluate Zhang, Li, and Wang based on the question “To what degree does your team rely on this individual for leadership?” Participants responded using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*to a great extent*). We further conducted the repeated measure in Stata 15.0. The results revealed that there were significant differences in informal leadership ($F_{[2,393]}=920.39, p<.001, \eta^2=.85$) among Zhang ($Mean=4.62, SD=.57$), Li ($Mean=3.47, SD=.85$), and Wang ($Mean=1.86, SD=.75$). We asked the participants to evaluate the work competences of Zhang, Li, and Wang (“To what extent do you think this individual is competent in work?”) to control the confounding effect of competence. The results showed there was no significant difference in competence among Zhang ($Mean=3.32, SD=1.20$), Li ($Mean=3.38, SD=1.22$), and Wang ($Mean=3.46, SD=1.17$), $F_{[2,393]}=.66, p=.52, \eta^2=.00$. Furthermore, comparison test showed that Zhang has significant higher informal leadership than Li ($M_{\text{difference}}=1.14, t=17.67, p<.001, d=1.59$) and Wang ($M_{\text{difference}}=2.76, t=42.68, p<.001, d=4.14$). In addition, Li has higher informal leadership than Wang ($M_{\text{difference}}=1.62, t=25.07, p<.001, d=2.01$). Thus, the results supported our manipulation of informal leadership.

Hypothesis test The descriptive information for key variables was presented in Table 2. We also used the repeated measure to compare perceived threat related to individuals with different informal leadership. The results (see Fig. 2) indicated that participants had significantly different perception of threat ($F_{[2,393]}=44.31, p<.001, \eta^2=.48$). Specially, Li, who had a medium level of informal leadership, represented the highest threat to peers ($Mean=3.23, SD=1.00$), Zhang, who was described as having a high level of informal leadership, was viewed as a medium threat to peers ($M=2.66, SD=1.23$), while Wang, who was described as having a low level of informal leadership, was regarded as the lowest threat ($Mean=2.24, SD=1.07$). Moreover, Li had a significantly higher threat to peers than Zhang ($M_{\text{difference}}=.56, t=5.37, p<.001, d=.51$) and Wang ($M_{\text{difference}}=.98, t=9.38, p<.001, d=.96$). Wang, who was defined as having low informal leadership, was also regarded as a lower threat to peers than Zhang ($M_{\text{difference}}=.42, t=4.00, p<.001, d=.36$). The results support our hypothesis that there would be an inverted U-shaped relationship between informal leadership and the threat to peers.

Study 1 Discussion

Study 1 was primarily designed to indicate the extent to which informal leadership prompts peers to identify a threat. Although this was an experiment, the study revealed that neither the person with high nor low informal leadership represented an increased threat to peers. Conversely, the person with medium informal leadership was identified as the greatest threat to peers. This Study provides primary support for the influence of individual informal leadership on threat to peers. We further conducted Study 2 to test the whole model and provide more external validity.

Table 2 Descriptive Statistics, Reliability Coefficients, and Inter-correlations among Studied Variables (Study 1)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Age	31.42	7.95									
2 Gender	1.62	.49	-.16*								
3 Education	5.03	.66	-.04	.13							
4 Tenure	7.63	6.10	.75**	-.13	-.11						
5 Zhang's informal leadership	4.62	.57	.06	-.01	.15*	.05					
6 Li's informal leadership	3.47	.85	.04	.19**	.06	-.00	.34**				
7 Wang's informal leadership	1.86	.75	-.02	.06	-.02	-.00	-.16*	.43**			
8 Zhang's threat to peers	2.66	1.23	-.06	.14	-.13	-.08	-.05	.14	.10		
9 Li's threat to peers	3.23	1.00	-.11	.06	.08	-.07	-.07	-.10	-.07	.18**	
10 Wang's threat to peers	2.24	1.07	-.06	-.12	-.04	-.04	-.12	-.24**	.05	-.11	.31**

N = 198; Informal leadership is the manipulation check.

* $p < .05$. ** $p < .01$

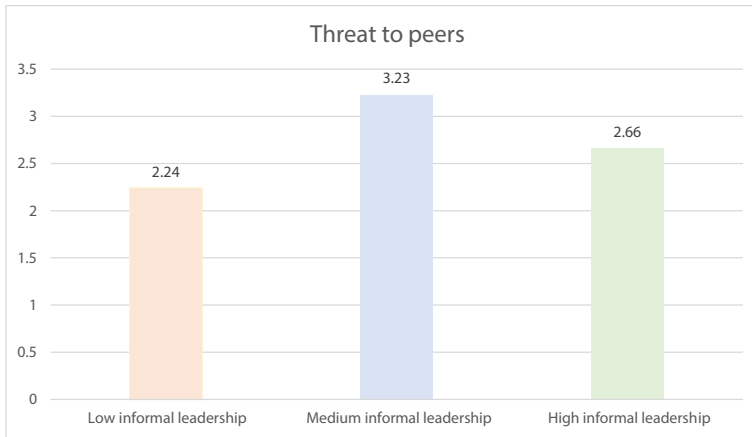


Fig. 2 Effect of Informal Leadership on Threat to Peers (Study 1)

Study 2 Method

Sample and procedure

Participants were employees in the marketing and sales departments of a branch of a large international pharmaceutical company in China. A pilot test was conducted and the results indicated that they understood the questions accurately. The interviews with the human resource manager confirmed the interdependent nature of these teams, whereby team members collaborated with one another to perform tasks. In addition, team members were given sufficient autonomy to respond quickly to customer requirements. The emergence of an informal leader is common in teams operating in such conditions. With the help of the human resource department, 56 teams participated in this survey. The researchers were supplied with the names and email addresses of all 287 employees within those teams. Their formal leaders were asked to explain the importance and purpose of the survey to their subordinates in order to ensure employee participation and data confidentiality.

Subsequently, online survey web links were sent to the email addresses of the employees two times. At time 1, employees were required to rate their own political skills and evaluate the informal leadership of every member of the team. In the first survey, 261 employees responded (response rate = 90.94%). One month later, employees reported the perceived threat from every team member and received help from peers. 253 employees completed the time 2 survey (response rate = 88.15%). After excluding the sample that could not be matched and had missing values on key variables, the final teams included 231 employees (138 males and 93 females) in 49 teams, with a final employee response rate of 80.49%. The mean team size was 4.71 ($SD = 1.21$), the average age of employees was 33.31 years ($SD = 4.29$), and the average organizational tenure of employees was 5.04 years ($SD = 3.59$).

Measures

Scales were translated from English to Chinese and validated through back-translation, as per Brislin's (1980) procedure. One researcher first translated the original English scales to Chinese. Then another researcher translated them back to English. We improved the Chinese translation via discussing differences with a third researcher. These steps helped us reduced discrepancies in the translation. We measured survey items using a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*), unless otherwise noted.

Informal leadership Following Zhang et al.'s (2012) process, we measured informal leadership using the perceived leadership influence over peers displayed by a team member. Each team member rated other members (excluding him/herself) on the question "to what degree does your team rely on this individual for leadership?". Previous research in shared leadership also used this networking measurement approach (e.g., Carson et al., 2007). We averaged the ratings of other team members within a team to calculate the informal leadership for each respective member. The average number of raters for a focal person is 4.01, ranging from 3 to 7. This score was aggregated from team members. For this reason, the aggregations were justified among raters using the intraclass correlation coefficients ICC (1) and ICC (2) and interrater agreement $r_{wg(j)}$. Thus, ICC (1), ICC (2), and $r_{wg(j)}$ were .41, .79, and .71, respectively, thereby indicating that there was an agreement in terms of how peers perceived informal leadership.

Threat to peers Threat to peers was measured using a 3-item scale adapted from Menon et al.'s (2006) measurement. One sample item is "The existence of this person threatens my status in the organization." Aggregation was justified by $r_{wg(j)} = .87$, the reliability of peer evaluations, ICC (1) = .31, ICC (2) = .68. Overall, $r_{wg(j)}$, ICC (1), and ICC (2) values were suitable for aggregation.

Helping from peers Helping from peers was measured by a 6-item scale adapted from Coleman and Borman (2000). One sample item is "My colleagues give constructive suggestions to me to improve my work." The reliability coefficient was .94.

Political skill Political skill was measured using an 18-item scale developed by Ferris et al. (2005). One sample item is "It is important that people believe I am sincere in what I say and do." The reliability coefficient was .93.

Control variables Previous research suggested that individual demographic information could influence the perceived power and status of interpersonal behavior (Lee et al., 2016; Zhang et al., 2012). Thus, we controlled for employee gender (1 = male, 0 = female), age (year), education (1 to 7 representing the primary school to Ph.D.), and tenure (year).

Table 3 Descriptive Statistics, Reliability Coefficients, and Inter-correlations among Studied Variables (Study 2)

	Variable	M	SD	1	2	3	4	5	6	7	8
1	Age	33.31	4.29								
2	Gender	1.60	.49	-.06							
3	Education	4.92	.73	-.12	.15*						
4	Tenure	5.04	3.59	.48**	-.02	-.20**					
5	Informal leadership	2.87	.57	.10	-.06	-.10	.16*	(.71)			
6	Political skill	3.71	.73	-.01	-.17**	-.15*	-.09	.03	(.87)		
7	Threat to peers	1.76	.37	-.05	-.02	.03	-.00	.03	-.10	(.93)	
8	Helping from peers	3.60	.59	-.11	.04	-.05	-.07	.01	.24**	-.18**	(.94)

N = 231; Reliability coefficients appear on the diagonal

p* < .05. *p* < .01

Analytic strategy

As employees in our sample were nested in teams, we controlled the multilevel effects in the analysis (Edwards & Lambert, 2007). We employed hierarchical linear models with Stata 15 (Rabe-Hesketh & Skrondal, 2008) to evaluate the hypotheses. Multicollinearity among predictors was minimized by centering the independent variable and moderator before creating interaction terms (Aiken & West, 1991).

Study 2 Results

Table 3 summarizes the means, standard deviations, and correlations of the variables. Informal leadership and threat to peers were measured using a networking approach, whereas political skill and helping from peers were self-reported. Therefore, we conducted confirmatory factor analysis (CFA) to determine the distinctiveness of political skill and helping from peers. The results showed that the hypothesized two-factor model had a better fit ($\chi^2 = 516.97$, *df* = 184, *CFI* = .90, *TFI* = .89, *RMSEA* = .09, *SRMR* = .09) than one-factor model ($\chi^2 = 1252.11$, *df* = 189, *CFI* = .69, *TFI* = .66, *RMSEA* = .16, *SRMR* = .10). Thus, these findings provide support for the discriminant validity of our measures.

Hypothesis 1 states that there is an inverted U-shaped relationship between informal leadership and threat to peers. Table 4 showed that informal leadership squared was significantly related to threat to peers ($\beta = -.12$, *p* < .01, Model 2), indicating an inverted U-shaped relationship between informal leadership and threat to peers. The results were presented in Fig. 3 and it revealed that when informal leadership increased from lower level to medium level, threat to peers increased. Once informal leadership reached a certain level, the threat to peers peaked and then fell as informal leadership continued to increase. Thus, Hypothesis 1 was supported.

Table 4 The Result of Hierarchical Linear Modeling (HLM) (Study 2)

Variables	Threat to peers				Helping from peers				
	Model1	Model2	Model3	Model4	Model5	Model6	Model7	Model8	Model9
Age	.00(.00)	-.00(.00)	-.00(.00)	-.00(.00)	-.01(.01)	-.01(.01)	-.01(.01)	-.01(.01)	-.01(.01)
Gender	-.01(.03)	-.01(-.01)	-.01(-.01)	-.01(.03)	.06(.08)	.04(.08)	.05(.08)	.09(.08)	.08(.08)
Education	.01(.02)	.01(.02)	.01(.02)	.00(.02)	-.06(.06)	-.05(.05)	-.06(.05)	-.03(.05)	-.03(.05)
Tenure	-.00(.00)	.00(.00)	.00(.00)	.00(.00)	-.01(.01)	-.01(.01)	-.01(.01)	-.00(.01)	-.00(.01)
Informal leadership		.03(.03)	.03(.03)	.02(.00)			-.05(.07)	-.09(.07)	-.06(.07)
Political skill			-.01(.02)	-.03(.03)				.28 ^{**} (.06)	.26 ^{**} (.06)
Informal leadership squared		-.12 ^{**} (.04)	-.12 ^{**} (.04)	-.08 [*] (.04)			.13(.08)	.09(.09)	.06(.09)
Informal leadership × political skill				-.05(.04)				-.06(.09)	-.06(.09)
Informal leadership squared × Political skill				.10 [*] (.05)				-.24 [*] (.11)	-.23 [*] (.11)
Threat to peers						-.28 ^{**} (.11)	-.25 [*] (.11)		-.19 [*] (.11)
Pseudo R square	.01	.02	.03	.05	.01	.04	.31	.35	.36

The coefficients are standardized β weights. Standard errors are presented in the parenthesis

* $p < .05$. ** $p < .01$

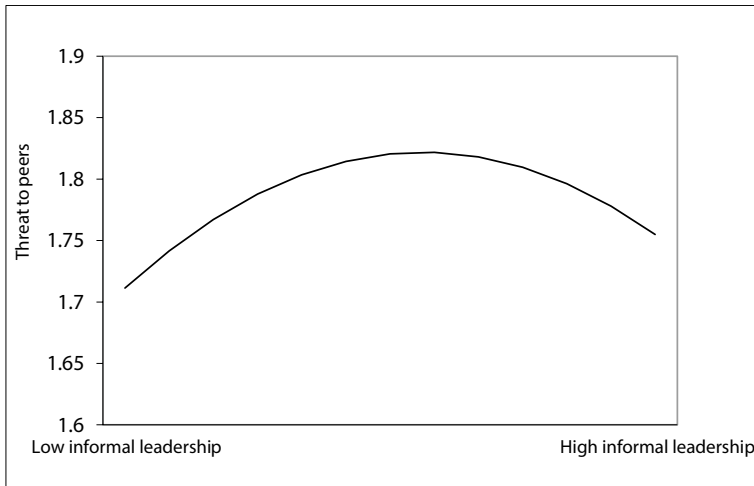


Fig. 3 The Relationship Between Informal Leadership and Threat to Peers (Study 2)

Hypothesis 2 suggests that the threat to peers is negatively correlated to helping from peers. Model 6 in Table 4 showed that the threat to peers was significantly and negatively associated with helping from peers ($\beta = -.28, p < .01$). Thus, Hypothesis 2 was supported.

Hypothesis 3 proposes the mediating role of threat to peers on the quadratic relationship between informal leadership and helping from peers. In respect of the model using threat to peers as the dependent variable, the coefficient of informal leadership squared was significant and negative ($\beta = -.12, p < .01$, Model 2). For the model using helping from peers as the dependent variable, the study added both informal leadership, informal leadership squared term, and threat to peers. The coefficient of threat to peers was significant ($\beta = -.25, p < .01$, Model 7). We used Hayes and Preacher's (2010) process to test the mediating role of threat to peers on the curvilinear relationship between informal leadership and helping from peers. An instantaneous indirect effect (Hayes & Preacher, 2010) at different values of informal leadership (i.e., $-1 SD$, $+1 SD$) was calculated with 5,000 bootstrap samples in order to assess the indirect effect of informal leadership on helping from peers through threat to peers. The results indicated that the instantaneous indirect effects of informal leadership on helping from peers via threat to peers were significant at both the lower level (indirect effect = $-.05$, 95% CI = $[-.10, -.01]$) and higher level (indirect effect = $.04$, 95% CI = $[.01, .07]$) of informal leadership. These findings denoted a rise in informal leadership from lower to medium levels wherein there was an associated reduction in helping from peers through the threat to peer relationships. Conversely, a rise in informal leadership from a medium to a higher level, was linked to a rise in helping from peers through the relationship with threat to peers. Hence, Hypothesis 3 was supported.

Hypothesis 4 suggests that political skill moderates the inverted U-shaped relationship between informal leadership and threat to peers. As shown in Table 4

(Model 4), and following previous research on testing the moderating effects of curvilinear relationships (e.g., Tangirala & Ramanujam, 2008; Vegt & Bunderson, 2005),¹ the interaction between informal leadership squared term and political skill was significant in the presence of the informal leadership squared term ($\beta = .10$, $p < .05$). The significant interaction term showed that the relationship between informal leadership and threat to peers, at any particular level of informal leadership, was a function of political skill. Moreover we examined the curves between informal leadership and the threat to peers for higher (+1 *SD*) and lower (−1 *SD*) political skill and plotted them in Fig. 4. As shown in Fig. 4, when political skill was higher, the relationship between informal leadership and threat to peers was more linear. However, when political skill was lower, the relationship was more curvilinear. Thus, Hypothesis 4 was demonstrated.

Thus far, the analysis has suggested that (a) the threat to peers mediates the curvilinear relationship between informal leadership and helping from peers (Hypotheses 1–3); and (b) political skill moderates the curvilinear relationship between informal leadership and threat to peers (Hypothesis 4). To test Hypothesis 5, we further examined whether the indirect curvilinear effect was moderated by political skill (i.e., a moderated mediation model). As shown in Table 4, the interaction term of informal leadership squared and political skill was significant for helping from peers ($\beta = -.24$, $p < .05$, Model 8). This relationship became weaker when the threat to peers was added ($\beta = -.23$, $p < .05$, Model 9). We further followed Hayes & Preacher's (2010) method to estimate the indirect curvilinear effect of informal leadership on helping from peers via threat to peers (the instantaneous relationship between informal leadership and threat to peers, and the relationship between threat to peers and helping from peers) under different values of political skill. As shown in Table 5, when political skill was lower (−1 *SD*), the indirect effects were negative when informal leadership was lower (i.e., −2 *SD*, −1 *SD*), whereas the indirect effects were positive when informal leadership was higher (i.e., +1 *SD*, +2 *SD*). In contrast, when political skill was higher (i.e., +1 *SD*), the effect of informal leadership on helping from peers through threat to peers was not significant. Thus, Hypothesis 5 was supported.

¹ Prior research has proposed two equations to examine curvilinear moderation. On the one hand, some scholars, including Tangirala and Ramanujam (2008), have suggested a more constrained equation ($Y = b_0 + b_1X + b_2M + b_3XM + b_4X^2 + e$). On the other hand, Vegt and Bunderson (2005) adopted a less constrained mode ($Y = b_0 + b_1X + b_2M + b_3XM + b_4X^2 + b_5X^2M + e$), differing in the inclusion of a higher-order interaction between the moderator and the quadratic term of the predictor. The former assumes a fixed curvilinear shape, whereas the latter allows it to vary with the moderator, potentially altering the curve's direction. In terms of the conceptualization in the current research, it was predicted that the U-shaped relationship between informal leadership and helping from peers would change according to political skill. Therefore, we use the less constrained model.

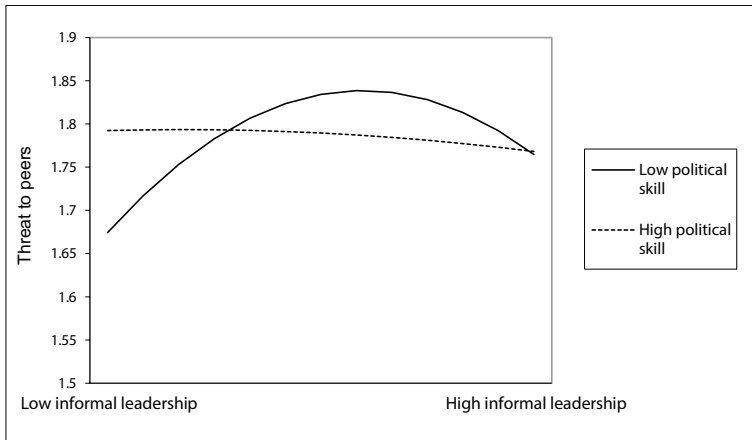


Fig. 4 The Interactive Effect of Informal Leadership and Political Skill on Threat to Peers (Study 2)

Study 2 Discussion

Study 2 also identified a curvilinear relationship between informal leadership and threat to peers. Furthermore, the results support our hypothesis that threat to peers reduces helping from peers. Hence, threat to peers mediates the indirect influence of informal leadership on help from peers. In addition, individual political skill mitigates the potential negative impact of informal leadership on threat to peers. This suggests that when the individual's political skill is high, the relationship between informal leadership and threat to peers and helping from peers becomes insignificant.

General discussion

Our research complements the literature on informal leadership by shedding light on the interpersonal outcomes of the focal employee with informal leadership. In line with previous literature (e.g., Lam et al., 2011), our research reveals the interpersonal risk as a result of social comparison. We found that individuals with a certain amount of informal leadership received less helping from peers via threat to peers. Moreover, our research found the U-shaped relationship between informal leadership and helping from peers through threat to peers, departing from previous studies that explore the effect of informal leadership in linear logic (e.g., Marion et al., 2016; Zhang et al., 2012). Furthermore, we also found that political skill, which functions as a social lubricant in past studies (e.g., Zhou et al., 2015), moderated the curvilinear (inverted U-shaped) effect of informal leadership on threat to peers, such that the curvilinear relationship was mitigated when political skill was high. Thus, our study not only explored the interpersonal outcomes of informal leadership, but also suggested its nuanced and complicated patterns.

Table 5 Results of Moderated Mediation Analysis (Study 2)

Moderator	Path a			Path b			Indirect effect			
	IFL=-2SD	IFL=-1SD	IFL = Mean	IFL = + 1SD	IFL = + 2SD	IFL=-2SD	IFL=-1SD	IFL = Mean	IFL = + 1SD	IFL = + 2SD
High political skill (+ 1SD)	-.02(.14)	-.02(.09)	-.02(.06)	-.02(.09)	-.02(.14)	-.26**(.11)	.00(.04)	.01(.02)	.01(.02)	.01(.04)
Low political skill (- 1SD)	.44**(.11)	.24**(.08)	.05(.05)	-.15**(.06)	-.34**(.09)	-.26**(.11)	-.11*(.06)	-.06*(.03)	.04*(.02)	.09*(.04)
Difference between indirect effects under two condi- tions							.12*(.06)	.07*(.03)	-.03(.03)	-.08+ (.05)

IFL-Informal leadership. *Path a* represents the path from informal leadership to threat to peers. *Path b* represents the path from threat to helping from peers. *Indirect effect* represents the indirect effect of informal leadership on helping from peers through threat to peers. Standard errors are presented in the parenthesis

+ <.01, * $p < .05$, ** $p < .01$

Theoretical implications

This study has several theoretical implications for the current literature. First, we contribute to informal leadership by providing a comprehensive view of informal leadership. Although scholars have shifted their attention from team-level informal leadership (e.g., Cook et al., 2019; Fransen et al., 2020; Morgeson et al., 2010) to individual-level informal leadership (e.g., Chiu et al., 2021; Liu et al., 2018; Pan et al., 2018; Peng et al., 2023; Shaughnessy et al., 2017), our understanding of the interpersonal lens of informal leadership is still limited. In this study, we make a first step to explore the interpersonal outcome of informal leadership on the focal employee. We suggested that employees with a certain level of informal leadership may receive less help from their peers through triggered threats. Furthermore, we found that the interpersonal interaction pattern is more nuanced and complicated. Specifically, we highlight that team members with moderate levels of informal leadership logjams in terms of their interactions with fellow team members.

Second, we contribute to leader-centric literature by extending to informal leadership. Past research mainly focused on the impacts of leadership on the formal leaders themselves (e.g., Li et al., 2022; Liao et al., 2018; Priesemuth & Biegelow, 2020). Similarly, informal leaders who undertake leader responsibility (e.g., setting goals, Souza & Klein, 1995; sharing information, Katz & Kahn, 1978) without formal authority also have influences on themselves as formal leaders. For example, Chiu et al. (2021) recently have found that informal leadership exhausts informal leaders' energy and provokes lower work satisfaction. Answering the call for leader-centric research and following this trend (Lanaj et al., 2016; Lin et al., 2019), we investigate the effects on informal leaders themselves. We found that the average level of individual informal leadership receives less helping from peers.

Third, we shed light on the literature on interpersonal interactions. Previous studies have investigated positive and negative interpersonal interactions separately (Lam et al., 2011; Lynch & Rodell, 2018; Treadway et al., 2007). However, understanding of the change between negative and positive interactions is limited. Employing the social comparison mechanism, we propose a model that explains changes in helping behavior in interpersonal interactions. This facilitates a greater appreciation of why people's attitudes and behaviors have changed with the development of special characteristics. Specifically, in team settings in which resources are limited, the provision of helping from others depends on the extent of the threat to peers. Hence, this research enriches the understanding of interpersonal behavior within teams.

Fourth, we contribute to social comparison theory. Although the bulk of research has explored the social comparison process in specific situations, such as health judgments and family chores (e.g., Buunk & Gibbons, 2007; Gerber et al., 2018), scholars have also emphasized the importance of examining the implications of the social comparison process within teams (Gerber et al., 2018; Greenberg et al., 2007). As Greenberg et al. (2007, p. 23) suggested, "we find it curious that social scientists have not made more extensive use of work on social comparison processes in studying behavior in one of the most popular settings for investigating human behavior, the workplace." Furthermore, previous research using social comparison theory has focused on the dyadic relationship between two people and explored

upward comparisons and downward comparisons (e.g., Brown et al., 2007; Cheung & Lucas, 2016; Lam et al., 2011). We extend the social comparison process by exploring the interaction between one person and other team members. The referent individual perspective is adopted in preference to the perspective of actors in order to compare employees. Specifically, the present investigation suggests that individuals with moderate informal leadership are most likely to be viewed as competitors by peers thus explaining their subsequent oppression. This indicates a normal distribution in teams and suggests that the outstanding members are a minority.

This study also extends social comparison theory by utilizing the impression management perspective to elucidate the role of political skill in reducing the negative implications of comparison. Although research has found that social comparison could lead to unexpected negative feelings (e.g., Buunk et al., 1990; Gerber et al., 2018; Koopman et al., 2020), understanding of how to mitigate these negative influences is scant. Our research provides a solution to this issue by introducing an impression management skill, political skill, which can promote understanding of others and manipulate others' perceptions (Blickle et al., 2020; Ferris et al., 2007; Munyon et al., 2015). We reveal that high political skill could decrease the threat of informal leadership caused by the social comparison process. This finding supports the generalizability of the influence of political skill and helps to extend earlier studies (i.e., Grosser et al., 2018).

Finally, current findings make a salient contribution to research in interpersonal behavior. Previous studies have paid much attention to how to stimulate team members to help others (e.g., Carlson et al., 2019; Van Dijke et al., 2018). Indeed, the individual is not only the *actor* that performs the helping behavior but also the *target* of this behavior in interpersonal interactions. Recent scholars also appealed to explore the characteristics of the helping target which influence whether they receive help from others (e.g., del Carmen Triana et al., 2013; Van Der Vegt et al., 2006). Our study illustrated why and when individuals with informal leadership would be perceived as threats and further influence their received helping from peers. By doing this, we response to the previous appeal to explore what influences individuals to help others (i.e., give advice to peers) from the perspective of the receiver.

Practical implications

Our research has the following implications for management practice. First, learning more knowledge about the basic behavioral patterns of peers is necessary for helping encouragement. Our research reminds informal leaders of the ignored dark side of informal leadership and provides them with principles for conduct to mitigate the negative effects of informal leadership on peers' helping behaviors. Moreover, managers could help cultivate a friendly climate that encourages helping among each other.

Second, developing informal leadership within teams may be a challenging undertaking for managers. To this end, it is prudent for managers to enrich team resources and simultaneously reduce unhealthy competition within the team by providing support and caring. Peers feel threatened by individuals with a medium

level of informal leadership since informal leaders have greater potential to win the limited resources. Consequently, this threat drives peers to reduce helping behaviors, which makes the team run into unhealthy competition. Thus, it is essential for managers to address the unhealthy competition and enrich resources to provide team members with a sense of safety.

Third, when considering developing informal leadership, employees need to weigh the benefits and costs carefully. Our research reveals that informal leadership can result in interpersonal costs, which is that the medium level of informal leadership receives fewer helping behaviors from peers. Thus, it is recommended that employees need to seriously consider the decision to develop informal leadership before proceeding. Nevertheless, despite the potential threat posed by the medium level of informal leadership, this study encourages individuals to continue to hone their informal leadership as it would help them navigate the potentially nuanced implications of informal leadership. Finally, this study suggests that political skill could function as a lubricant in interpersonal interactions, which could help team members reduce the threat to peers, thereby securing their assistance in the future.

Limitations and future research

The study has several limitations that indicate avenues for future research. First, the cross-sectional data cannot provide evidence for causality. Future research could use longitudinal designs to provide causal support for the relationships presented in the current research and capture the accumulation process of informal leadership. In addition, it is less effective to capture interpersonal interactions by using other-report questionnaires of helping. The social network approach can effectively capture social relations, including relational, situated, patterned and formal or informal processes and structures (e.g., Borgatti et al., 2009; Carter et al., 2015; Contractor et al., 2006), which can better improve our understanding of helping from peers by measuring helping network density and size. Future studies can use the social network approach to explore the interpersonal outcomes of informal leadership.

Second, although we extend social comparison theory by comparing others' perceptions of the focal employee, more studies are needed. Future studies could consider comparing informal leadership about one or other people in relation to the self (Goodman & Haisley, 2007; Gerber et al., 2018; Wood, 1996) to examine the robustness of the current extension. Moreover, although the current study indicated that threat to peers can mediate the curvilinear relationship between informal leadership and helping from peers, the partially mediating path suggests that other critical mediations potentially exist. Future studies could examine additional mediating processes.

Finally, we select a convenient sample from Chinese employees, and thus, there is potential concern about the generalizability of the results to other cultural contexts although the China context is suitable for our research. High power distance in society (e.g., China) and care about *face* (public reputation) have a significant effect on helping from peers generally (e.g., Friedman, 2006). Future research should examine

curvilinear informal leadership in other cultural contexts to guarantee the generalizability of the findings.

Conclusion

Based on social comparison theory, this study finds a curvilinear (i.e., U-shaped) relationship between individual informal leadership and helping from peers, a mediating role for threat to peers, and a moderating role of political skill. This research supplies empirical evidence of the potential disadvantage of informal leadership and indicates how to mitigate the downside. Future research should develop more powerful theories of informal leadership and interpersonal reaction behavior, and alert practitioners to the nuanced effect of informal leadership.

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Data availability The data that support the findings of this study are available from the corresponding author upon request.

Declarations

The authors have no relevant financial or non-financial interests to disclose. All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript. The authors have no financial or proprietary interests in any material discussed in this article.

Conflict of interest The authors have no conflicts of interest to declare that are relevant to the content of this article.

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