
Article:
Tafvelin, S., Nielsen, K. orcid.org/0000-0001-9685-9570, von Thiele Schwarz, U. et al. (1 more author) (2019) Leading well is a matter of resources : leader vigour and peer support augments the relationship between transformational leadership and burnout. Work and Stress, 33 (2). pp. 156-172. ISSN 0267-8373

https://doi.org/10.1080/02678373.2018.1513961

Routledge
Taylor & Francis Group

Work & Stress

An International Journal of Work, Health & Organisations

ISSN: 0267-8373 (Print) 1464-5335 (Online) Journal homepage: https://www.tandfonline.com/loi/twst20

Leading well is a matter of resources: Leader vigour and peer support augments the relationship between transformational leadership and burnout

Susanne Tafvelin, Karina Nielsen, Ulrica von Thiele Schwarz & Andreas Stenling

To cite this article: Susanne Tafvelin, Karina Nielsen, Ulrica von Thiele Schwarz & Andreas Stenling (2019) Leading well is a matter of resources: Leader vigour and peer support augments the relationship between transformational leadership and burnout, Work & Stress, 33:2, 156-172, DOI: 10.1080/02678373.2018.1513961

To link to this article: https://doi.org/10.1080/02678373.2018.1513961

Published online: 11 Mar 2019.

WORK & STRESS
2019, VOL. 33, NO. 2, 156–172
https://doi.org/10.1080/02678373.2018.1513961

Routledge
Taylor & Francis Group

Leading well is a matter of resources: Leader vigour and peer support augments the relationship between transformational leadership and burnout

Susanne Tafvelin[a], Karina Nielsen[b], Ulrica von Thiele Schwarz[c] and Andreas Stenling[a]

[a]Department of Psychology, Umeå University, Umeå, Sweden; [b]Institute of Work Psychology Sheffield, Sheffield University Management School, UK; [c]Medical Management Centre, Department of Learning, Informatics, Management and Ethics Karolinska Institutet, Stockholm, Sweden

ABSTRACT

Although studies suggest that transformational leaders play an important role in employee health and well-being, the relationship between transformational leadership and employee burnout remains unclear. One reason may be that moderators may play an important role. Building on conservation of resources theory, we examined if leaders' perceptions of internal and external resources in terms of vigour and peer support augmented the relationship between transformational leadership and employee burnout in a sample of municipality workers and their leaders in Sweden ($N = 217$). Multilevel analyses over two time points revealed that both vigour and peer support enhance this relationship, such that when leaders experience high levels of vigour or peer support, the negative relationship between transformational leadership behaviours and employee burnout was strengthened. Our findings suggest that both personal and contextual resources may help leaders to better engage in transformational leadership, which is important in order to protect employees from burning out.

ARTICLE HISTORY
Received 28 January 2017
Accepted 13 August 2018

KEYWORDS
Transformational leadership; burnout; vigour; peer support; conservation of resources theory

Introduction

Burnout is a central concern for organisations because of its potential negative consequences including reduced productivity and commitment and increased turnover and absenteeism (e.g. Halbesleben & Buckley, 2004). Although studies suggest that leaders play an important part in employee health and well-being (Skakon, Nielsen, Borg, & Guzman, 2010), the relationship between leadership behaviour and employee burnout is less studied (De Hoogh & Den Hartog, 2009). A recent meta-analysis found a weak negative relationship between transformational leadership and burnout and concluded that it is likely that moderators play a role, but that these remain unexplored (Harms, Credé, Tynan, Leon, & Jeung, 2017).

Recent studies suggest that the influence leaders have on followers may differ depending not only on the organisational context and follower characteristics (Hildenbrand, Sacramento,

CONTACT Susanne Tafvelin susanne.tafvelin@umu.se

& Binnewies, 2018; Judge & Piccolo, 2004), but also on factors related to the leaders themselves (Jung, Yammarino, & Lee, 2009; Tafvelin, Hyvönen, & Westerberg, 2014). However, research on transformational leadership and burnout has yet to address such moderators. More specifically, little is known about how leader perceptions of available internal and external resources (Holmgreen, Tirone, Gerhart, & Hobfoll, 2017) moderate the effect transformational leaders have on followers in general and on burnout in particular. In the present study, we aim to contribute to the leadership literature by investigating whether leaders' perceptions of resources affect the relationship between transformational leadership and follower burnout. We focus on two resources that may moderate the relationship of transformational leadership with burnout, namely leaders' own level of well-being in terms of vigour, and their perception of social support from their peers (i.e. fellow leaders).

Drawing on conservation of resources theory (COR: Hobfoll, 1989) we make two important contributions to the field. First, we extend the growing body of research investigating boundary conditions between transformational leadership and follower burnout by investigating if factors related to the leader may enhance the influence transformational leaders have on follower burnout. Previous studies suggest that contextual factors and follower characteristics moderate this relationship, however, calls have been made to also examine leader-related moderators (e.g. Tafvelin, 2017). Second, we add to the general literature on boundary conditions of transformational leadership by studying if leader perceptions of resources available to them, in terms of their own vigour and peer support, may affect the influence they as leaders have on follower burnout. This investigation answers the call for a better understanding of how leaders' own well-being and work environment may influence the leadership process (Nielsen & Cleal, 2011). Knowledge of boundary conditions of transformational leadership is important both from a theoretical and practical perspective in order to identify those situations in which transformational leadership is more or less effective (Chuang, Judge, & Liaw, 2012). Transformational leadership may not be equally effective in reducing burnout across all situations, and one such situational characteristic may be the resources available to leaders.

Transformational leadership and burnout

Burnout is a psychological response to chronic work stress typically defined by its dimensions (Halbesleben, 2006; Maslach, 1982); emotional exhaustion (depletion of emotional resources), depersonalisation (treating people as objects), and reduced personal accomplishment (no longer feeling effective at work). COR theory (Hobfoll, 2001) suggests that burnout is a consequence of resource loss, where resources represent anything the individual perceived as helpful in attaining his or her goals (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). COR emphasise the work context as particularly important in providing multiple resources, and within this context supervisors have been identified as offering employees a number of valuable resources including feedback and task significance (Piccolo & Colquitt, 2006).

Although leaders are in a unique position to influence employee emotions and motivation through the provision of resources, the impact of leaders on employee burnout has received relatively little research attention (Skakon et al., 2010). Most studies on the links between leaders and their impact on follower well-being have used transformational leadership as their theoretical framework (e.g. Harms et al., 2017;

Skakon et al., 2010). Transformational leadership is conceptualised as incorporating the four dimensions of idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration (Bass, 1985; Bass & Riggio, 2006). Idealised influence occurs when the leader acts as a role model and articulates high performance expectations. Inspirational motivation is displayed when the leader communicates a clear and attractive vision of the future providing meaning to followers. Intellectual stimulation occurs when leaders motivate and challenge followers to think for themselves and to be creative. Individualised consideration is conveyed when the leader pays attention to followers' individual needs, strengths, and aspirations. Research shows positive relationships of transformational leadership with individual and organisational outcomes such employee satisfaction, commitment, motivation, effort, and performance (DeGroot, Kiker, & Cross, 2000; Dumdum, Lowe, & Avolio, 2002; Fuller, Patterson, Rester, & Stringer, 1996; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996; Wang, Oh, Courtright, & Colbert, 2011).

From a theoretical perspective, transformational leadership is generally assumed to reduce burnout given its focus on individual needs and the provision of meaning and a higher purpose (Hildenbrand et al., 2018). This assumption is strengthened by studies consistently relating transformational leadership to employee well-being (Skakon et al., 2010). Nevertheless, theoretical arguments have also been made that high performance expectations and intellectual stimulation promoted by transformational leaders may be detrimental to employee health, resulting in increased burnout (Seltzer, Numerof, & Bass, 1989). Transformational leaders may be demanding, making employees work harder and for longer hours, putting more energy into their work in order to perform "above and beyond the call of duty" (Bass, 1990). The extra effort made by employees may result in stress, which over time translates into burnout (Arnold & Connelly, 2013).

The majority of the empirical evidence, however, points towards the benefits of transformational leadership in reducing employee burnout (Harms et al., 2017; Hildenbrand et al., 2018; Kanste, Kyngäs, & Nikkilä, 2007; Leithwood, Menzies, Jantzi, & Leithwood, 1996), but there are a few studies that also have found a positive (Corrigan, Diwan, Campion, & Rashid, 2002; Seltzer et al., 1989), or no (Nielsen & Daniels, 2012; Stordeur, D'hoore, & Vandenberghe, 2001) relationship between transformational leadership and burnout partly depending on whether overall or subdimensions of transformational leadership were examined.

In addition, a recent meta-analysis pointed toward the potential importance of moderators after finding a weak negative relationship between transformational leadership and burnout (Harms et al., 2017). So far, only one study has examined boundary conditions between transformational leadership and follower burnout and found that transformational leaders affected burnout of employees high on openness to experience, but not of employees low on openness to experience (Hildenbrand et al., 2018). To the best of our knowledge, no previous studies have examined the role of leaders and their perceptions of resources and how this might affect the relationship between transformational leadership and follower burnout. In doing so, we aim to explain previous inconsistencies in the literature and answer calls for the examination of moderators of the said link (Breevaart, Bakker, Hetland, & Hetland, 2014). Also, in line with previous literature conceptualising transformational leadership as a resource that may extend the pool of available resources

to employees (Hildenbrand et al., 2018), we expect transformational leadership to reduce employee burnout.

The moderating role of leader resources

Given that transformational leadership is our most widely studied leadership model at present, surprisingly little effort has been invested in identifying the boundary conditions under which transformational leaders are more or less effective (Avolio, Walumbwa, & Weber, 2009). Previous research suggests that factors related to the leader impact the effectiveness of transformational leadership in general, including trust in the leader (Jung et al., 2009), the hierarchical level of the leader (Judge & Piccolo, 2004), and leader continuity (Tafvelin et al., 2014). However, previous research does not acknowledge the potential influence that leaders' own health or perception of their work environment may have in this process. Using COR theory as a theoretical framework (Hobfoll, 1989), we suggest that leaders' perception of their own resources in terms of vigour and peer support may also influence the effectiveness of transformational leadership behaviours.

COR theory proposes that humans are motivated to protect their current resources and to acquire new ones (Hobfoll, 1989). Resources are things perceived by the individual to help attain his or her goals (Halbesleben et al., 2014) and are usually defined as "objects, personal characteristics, conditions, or energies that are valued in their own right" (Hobfoll, 2001, p. 339). According to COR theory, resources improve overall well-being and strengthen resilience to stress by preventing the individual from perceiving events as stressors (Clarke, Arnold, & Connelly, 2015). COR theory further suggests that humans strive to protect and accumulate resources, and it predicts that those leaders in possession of more resources are more capable of gaining new resources. For leaders, it has been argued that engaging in transformational leadership is a resource (Arnold, Connelly, Walsh, & Martin Ginis, 2015; Tims, Bakker, & Xanthopoulou, 2011), which is based on studies showing that transformational leaders influence a wide range of positive organisational outcomes (Wang et al., 2011).Transformational leaders may therefore have an advantage because their leadership style can create positive outcomes for followers, which is a positive reflection of their leadership. According to COR theory (Hobfoll, 1989), resources do not exist in isolation, but have synergetic effects such that resources at one level, e.g. having peer support or high levels of vigour, may strengthen the impact of other resources, such as the relationship between transformational leadership on follower burnout. Building on COR theory, we argue that leaders who already are in possession of resources (such as peer support or vigour) may use these resources to mobilise their transformational leadership behaviours and the interaction between the two types of resource will result in followers' reporting being less burned out.

Resources can be classified as either internal or external based on their locus relative to the individual. Vigour, hope, and self-efficacy are examples of resources with an internal locus that provide energy and motivation to seek and maintain external resources such as supportive relationships (Holmgreen et al., 2017). Building on this division of resources as either internal or external, we intend to examine how both types of resources, represented by the leaders' perceptions of vigour and peer support may help them to engage in transformational leadership behaviour and thereby influence the impact transformational leadership behaviours have on employee burnout.

Leader vigour, transformational leadership, and follower burnout

Vigour refers to the experience of high levels of energy and mental resilience leading to a willingness to invest effort and persist in solving problems related to work (Schaufeli, Bakker, & Salanova, 2006). Vigour is considered to be the direct opposite of the burnout dimensions of exhaustion (Schaufeli et al., 2006) and represents one aspect of leader well-being. Previous studies on the impact of leaders' level of well-being on follower well-being have had difficulties establishing a direct relationship (Skakon et al., 2010). Instead, it has been suggested that leader's level of well-being may affect their leadership style (Vealey, Armstrong, Comar, & Greenleaf, 1998).

Building on COR theory (Hobfoll, 1989, 2001), vigour may be categorised as a internal resource that may enable leaders to engage in transformational leadership behaviours. COR theory suggests that in the absence of threats, people are motivated to create resources (Hobfoll, 1989, 2001). Leaders with higher levels of energy in terms of vigour, will activate or create job resources such as transformational leadership behaviours to use as a means to reduce burnout. High levels of energy, or vigour, may enable leaders to identify developmental opportunities for employees, to communicate a compelling vision that provides meaning and a higher purpose, and to be able to attend to employees' individual needs These ideas are in line with the work of Fredrickson (2003), who suggested that positive affective states can build enduring personal, social, and psychological resources by broadening momentary thought-action repertoires. Vigour, as a positive affective state, may enable the release of other resources, e.g. transformational leadership by creating the urge to expand the self through engaging in behaviours such as intellectual stimulation and inspirational motivation. The need for energy to positively interact with others is supported by studies showing that low levels of energy at work related to depression correlate to lower task performance (Wang et al., 2014), less engagement with others, and reports of "doing nothing" at work (Barge-Schaapveld, Nicolson, Berkhof, & deVries, 1999). COR theory further predicts that resources have synergetic effects (Hobfoll, 1989), which means that resources may interact to influence outcomes. Building on this idea, we suggest that leaders who experience high levels of vigour more easily engage in transformational leadership behaviours, and these two resources will interact to achieve a stronger impact on follower burnout. Thus, we predict:

> Hypothesis 1: Leader vigour moderates the relationship between transformational leadership and follower burnout, such that the negative relationship between transformational leadership and follower burnout is stronger when leader vigour is higher.

Leader peer support, transformational leadership, and follower burnout

Peer support refers to the extent to which employees can count on their colleagues to help and support them when needed (Liao, Joshi, & Chuang, 2004) and includes caring, tangible aid, and information (Ducharme & Martin, 2000; Parris, 2003). From a COR theory perspective (Holmgreen et al., 2017), peer support may be categorised as an external resource in leaders' working environment that may help them to acquire and build further resources such as engaging in transformational leadership behaviours. By fulfilling needs for esteem, approval, and affiliation (Stinglhamber & Vandenberghe, 2003), peer support may increase leaders comfort within the organisation. Further, spending time with peers may help leaders to better understand their role in the organisation, which

may be helpful in order to formulate and communicate a vision for the future and to identify possible opportunities for development and growth for employees within the organisation. Support from colleagues, in terms of discussions and feedback on potential problems with employees, as well as role modelling behaviours that provide examples of how other leaders behave towards their employees, may help the leader to better enact transformational leadership behaviours such as how to provide coaching, mentoring, or empowering of employees. This is line with studies of vicarious learning, which show that interactions with and observations of other people's behaviour at work is helpful for the learning of new behaviours (Dragoni, Park, Soltis, & Forte-Trammell, 2014). Building on COR theory, peer support may increase leaders' resource pools, enabling them to take a proactive leadership role in terms of transformational leadership behaviours, and this positive interaction will then result in increased effects on outcomes (Hobfoll, 1989, 2001), in our case, a strengthened relationship between transformational leadership and follower burnout. Based on both COR theory, we expect that leaders' perception of peer support will strengthen and enhance the negative relationship between transformational leadership and employee burnout.

Hypothesis *2:* Leaders' perception of peer support moderates the relationship between transformational leadership and follower burnout, such that the negative relationship between transformational leadership and follower burnout is stronger when leaders' perception of peer support is higher.

Method

Sample and procedure

First line leaders ($N = 29$) and their employees ($N = 217$) from a midsized municipality in the northern part of Sweden participated in this study. Participants worked within the social services, education and childcare, or leisure and tourist sectors. The employees (females = 164, males = 51, 2 did not report their gender) had a mean age of 45.2 years ($SD = 11.1$), 68% worked full-time and 32% worked part-time. Employees had on average been employed in their current workplace for 8.8 years ($SD = 8.2$) and 5% had primary school, 34% had gymnasium, and 61% had university as the highest completed educational level. The leaders (22 females and 7 males) had a mean age of 47.1 years ($SD = 9.1$) and all had a university degree. They had on average been working as leaders for 6.6 years ($SD = 8.3$) and had on average been a leader in their current workplace for 1.2 years ($SD = 0.9$).

Leaders were invited to participate in a collaboration with the municipality's leadership development unit. A meeting was arranged during one of the leadership development unit's regular activities with leaders within the municipality where the leaders received verbal and written information about the project, had the opportunity to ask questions about the project, and were invited to participate. After this informational meeting, the leaders who agreed to participate informed their employees about the study, and then the employees received a separate invitation from the research team to participate in the study. The link to a web-based survey was sent out via email to the participating employees and leaders at two time points, four months apart. At the first time point, data was collected on background variables, employees' perceptions of their leader's

transformational leadership, and leaders' perceived peer support and vigour. At the second time point—four months later, we collected data on employee burnout.

At the first time point a total 329 employees responded to the questionnaire. To explore potential selection bias in our final sample ($N = 217$) we examined differences between those responding at both time points and those dropping out after T1. No statistically significant differences were found regarding age $t(252.09) = 0.78$, $p = .44$, tenure $t(305) = -1.34$, $p = .181$, or gender, $\chi^2(1) = 0.05$, $p = .830$. We did observe a statistically significant difference on perceived transformational leadership at the first time point $t(327) = 2.04$, $p = .042$, with those responding at both time points reporting slightly higher values ($M = 3.83$, $SD = 0.84$) compared to those only responding at the first time point ($M = 3.63$, $SD = 0.83$).

Measures

Transformational leadership

Employees' perceptions of their leaders' transformational leadership were assessed at Time Point 1 using the 7-item Global Transformational Leadership scale (GTL; Carless, Wearing, & Mann, 2000). The GTL contains the four dimensions of transformational leadership as well as the leader's consideration of trust, involvement, and cooperation among group members. It has shown a high degree of convergent validity in relation to longer multifactorial measures, such as the Multifactor Leadership Questionnaire (MLQ; Avolio, Bass, & Jung, 1995). An example item is "My leader gives encouragement and recognition to staff", and responses are given on a 5-point Likert scale ranging from 1 ("rarely or never") to 5 ("very frequently, if not always"). In the present study, internal consistency (omega coefficient [ω]; McDonald, 1999) of the GTL was .97.

Leader vigour

The three-item vigour subscale from the short version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006) was used to assess leaders' well-being at Time Point 1. An example item is "At my work, I feel bursting with energy", and responses are given on a 7-point Likert scale ranging from 0 ("never") to 6 ("always/every day"). The internal consistency (ω) of the 3-item vigour subscale in the present study was. 89.

Leaders' peer support

Leaders' perceptions of social support from peers at Time Point 1 was assessed using a 3-item subscale from the Copenhagen Psychosocial Questionnaire II (COPSOQ II; Pejtersen, Kristensen, Borg, & Bjorner, 2010). An example item is "How often do you get help and support from your colleagues?", and responses are given on a 4-point Likert scale ranging from 1 ("never/hardly ever") to 4 ("always"). In the present study, internal consistency (ω) of the peer support scale was .69.

Employee burnout

At Time Point 2, employees' work-related burnout was measured using the 7-item Copenhagen Burnout Inventory (CBI; Kristensen, Borritz, Villadsen, & Christensen, 2005). An example item is "Is your work emotionally exhausting?" and responses are given on a 5-point Likert scale ranging from 1 ("to a very low degree" or "never/almost never",

depending on the item) to 5 ("to a very high degree" or "always", depending on item). Internal consistency (ω) of the work-related CBI in the present study was .95.

Statistical analyses

Given that employees were nested within work groups, we employed multilevel modelling to account for the hierarchical structure of the data (Heck & Thomas, 2015). The analyses were performed using Mplus software version 7.4 (Muthén & Muthén, 1998–2015). First, a random intercept model was estimated to explore the degree of variance attributable at the team and individual levels and to calculate intra-class correlation coefficients (ICC). A larger ICC indicates more variance at the team level. Second, we estimated a random intercept model in which burnout at Time Point 2 was regressed on transformational leadership at Time Point 1 at the team and individual levels to examine associations over time. Third, we estimated a random slope model in which the slope at the individual level was allowed to vary between groups. Fourth, cross-level interactions using the random coefficient prediction (RCP) method were examined by regressing the freely varying individual-level slope on leaders' vigour and peer support (Preacher, Zhang, & Zyphur, 2016). The team-level variables peer support and vigour were grand mean centered, whereas transformational leadership was grand mean centered at the team level and group mean centered at the individual level in line with recommendations for estimating cross-level interactions using multilevel structural equation modelling (e.g. Heck & Thomas, 2015; Preacher et al., 2016). All models were estimated using the robust full information maximum likelihood estimator.

Results

Descriptive statistics

Descriptive statistics and correlations between the study variables are displayed in Table 1. Employee-perceived transformational leadership was negatively related to employee-rated burnout at the team and individual levels. At the team level, transformational leadership was positively associated with leaders' self-rated peer support and vigour, burnout was negatively associated with leaders' peer support and vigour, and leaders' peer support and vigour was positively associated. The ICC of burnout indicated that employees' work group accounted for 15.5% of the variance in burnout and the between-group variance in the outcome variable (i.e. burnout) was statistically significant (0.092, $p = .010$), highlighting the need to account for the clustered data using multilevel analysis.

Table 1. Descriptives and bivariate between- (above the diagonal) and within-level (below the diagonal) correlations.

	M	*SD*	TL	BO	L-PS	L-VIG
TFL	3.75	0.42		−.50*	.20	.13
BO	2.36	0.32	−.29*		−.39*	−.41
L-PS	3.33	0.58				.38*
L-VIG	4.39	0.78				

Note. TFL = transformational leadership, BO = burnout, L-PS = leader peer support, L-VIG = leader vigour.
Between-level $N = 29$, within-level $N = 217$.
*$p < .0.05$.

Test of hypotheses

First, we estimated a random intercept model where employee-perceived transformational leadership predicted employee-rated burnout at the team and individual levels. The associations were negative and statistically significant at both levels indicating that individuals ($b = -0.28$, $SE = 0.06$, $p < .001$) and teams ($b = -0.39$, $SE = 0.14$, $p = .005$) experiencing their leader as more transformational reported lower levels of burnout.

In the second step, we added a random slope and examined slope differences in the association between transformational leadership and burnout across work groups (as indicated by the slope variance). The slope variance was small and not statistically significant (slope variance = 0.01, $SE = 0.01$, $p = .51$). Despite a non-significant random slope, we followed consensus recommendations from several researchers (cf., Aguinis, Gottfredson, & Culpepper, 2013; LaHuis & Ferguson, 2009; Mathieu & Taylor, 2007) that a significant slope variance is not a prerequisite for testing cross-level interactions. A priori hypothesised cross-level interactions should be tested regardless of the significance of the slope variance (LaHuis & Ferguson, 2009). We therefore proceeded and examined cross-level interactions in the final step.

In the third and final step, we estimated cross-level interactions in two separate models. The first model used leader vigour as the team-level moderator and the second model used leader peer support as the team-level moderator of the association between perceived transformational leadership and self-rated burnout. Our hypotheses stated that leader vigour (Hypothesis 1) and peer support (Hypothesis 2) would augment the positive role of transformational leadership in protecting against burnout. The analyses showed that the association between employee-perceived transformational leadership and employee self-rated burnout was contingent upon leader vigour ($b = -0.14$, $SE = 0.07$, $p = .033$) and leader peer support ($b = -0.27$, $SE = 0.13$, $p = .042$), such that the negative association between transformational leadership and burnout was stronger when leader vigour and peer support was high. Thus, both Hypothesis 1 and 2 were supported and the cross-level interactions are graphically depicted in Figure 1. The *y*-axis displays the effect of transformational leadership on burnout and the *x*–axis displays levels of the moderator (i.e. leader vigour and leader peer support) in *SDs* away from the mean. The negative slopes in both figures indicates that higher leader vigour and peer support is associated with a stronger effect (i.e. a more negative effect) of transformational leadership on burnout.

Discussion

The present study aimed at shedding light on previous inconsistent findings regarding the relationship between transformational leadership and follower burnout. Our findings suggest that resources experienced by the leader in terms of his or her vigour and peer support moderate this relationship, such that when leaders experience high levels of vigour or peer support, the negative relationship between transformational leadership behaviours and follower burnout is strengthened.

The finding that leaders' level of vigour moderates the relationship between transformational leadership and follower burnout lend support to our first hypothesis and suggests that high levels of energy are beneficial for leaders as it enables them to enact

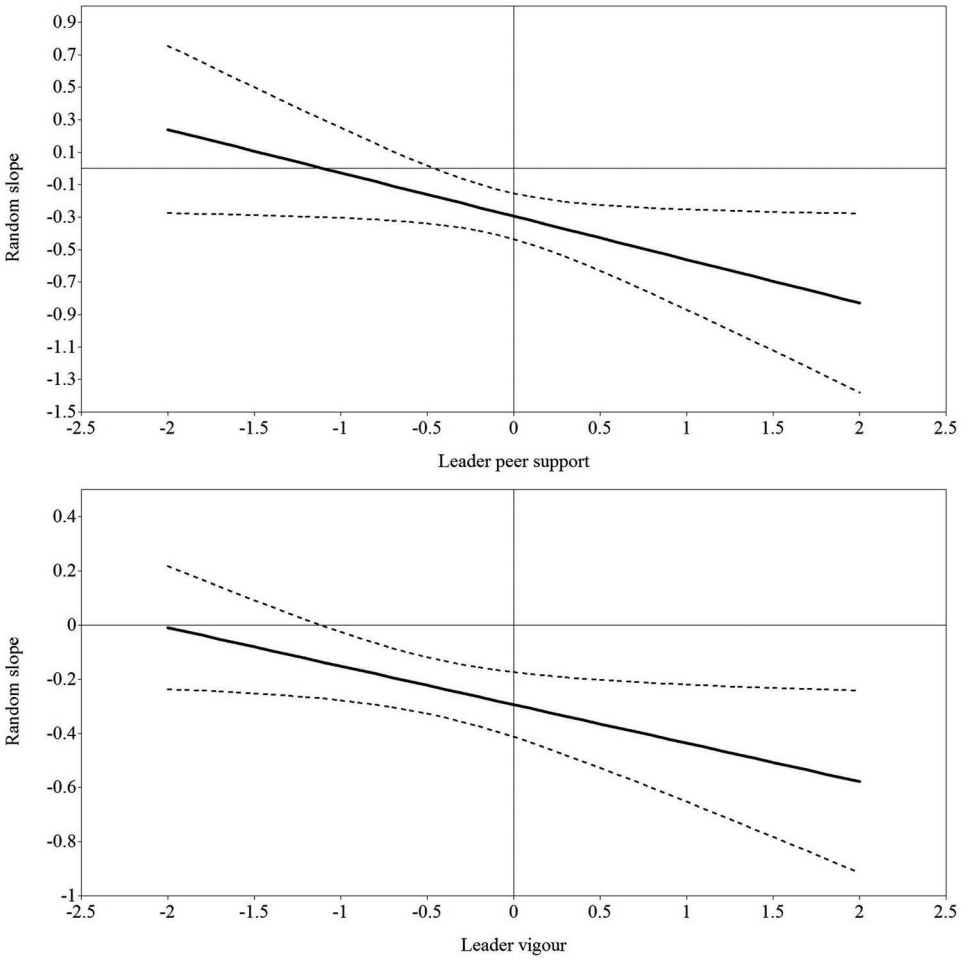

Figure 1. Follower burnout as a function of transformational leadership and leader vigour (bottom figure) and leader peer support (top figure). The black line displays the effect of transformational leadership across levels of the moderator and the dotted lines indicate the lower and upper 95% confidence bands.

transformational leadership behaviours. The two resources interact to help reduce follower burnout. Feeling strong and energetic may help leaders to engage in transformational leadership behaviours. Building on COR theory (Hobfoll, 1989, 2001), leaders who already are in possession of resources such as vigour may more easily acquire additional resources in terms of the enactment of transformational leadership behaviours and the enactment of transformational leadership is related to lower levels of burnout among followers. Also, following the broaden and build theory (Fredrickson, 2013), it can be suggested that leaders who are more vigorous experience a broader mind-set that facilitates engaging in transformational leadership behaviours. As the theory postulates, having a wider range of thoughts, attitudes, and perceptions may not be needed for survival but it is a key for the formation of new knowledge and skills (Fredrickson, 2013). A broader mind-set may therefore be helpful for leaders in order to question assumptions

(intellectual stimulation) or communicate an attractive vision of the future (inspirational motivation). The present study contributes to the discussion of how leaders' own well-being may influence their ability to manage employee well-being. It has been proposed that leaders' level of well-being may influence followers' well-being through a contagion effect (Skakon et al., 2010). Our results indicate that it may rather, or at least partly, be that leaders' level of well-being enables the leader to better engage in transformational leadership behaviours, thereby strengthening the relationship transformational leadership behaviours have to follower burnout. These findings are also in line with studies on antecedents to transformational leadership, where leaders' depression and anxiety have been negatively related to transformational leadership (Byrne et al., 2014). Although we examined leaders' perception of resources as moderators, future studies are needed to examine if vigour and peer support also are antecedents to transformational leadership.

In line with our second hypothesis, the leaders' experience of peer support moderates the relationship between transformational leadership and follower burnout. It is well known that followers' own social support is of great importance to well-being in general and burnout in particular (e.g. Halbesleben, 2006). This study adds to that knowledge by showing that the degree of peer support that leaders experience may also impact followers' well-being—in this case, burnout. It has been suggested that social support can have a direct effect on health and act as a moderator of the stress–strain relationship (Cohen & Wills, 1985). Based on this, it can be suggested that leaders who experience peer support are more prone to engage in transformational leadership behaviours that reduce follower burnout for one of two reasons. Either they are part of a supporting social network that increases their resources in general. Or they have practical or emotional support that shapes their appraisal of stressors or facilitates the management of the stressor or the stress response. This view of peer support is in line with COR theory, according to which the reciprocal quality of social support offers additional insights into the process by which leaders' experience of peer support moderates the transformational leadership and follower burnout relationship.

In line with COR theory, our findings imply that leaders need certain levels of resources in order to act transformationally. The challenge is then to identify at what level of resources this shift occurs. Nevertheless, these results may help to explain inconsistent findings in previous research and confirm the importance of moderating variables in general and leader-related resources as moderators in particular in order for transformational leadership behaviours to reduce follower burnout.

Practical implications

In addition to supporting previous findings that leadership (i.e. what the leader does) influences follower burnout, the findings also show that what the leader has (i.e. resources) has implications too. Whereas the importance of leadership has rightly been in focus in both practice and research, these findings firmly emphasise that leadership does not happen in a vacuum. The leader's pre-requisites matter. This implies that in order to unleash the benefits that good leadership can have for followers' well-being, more focus need to be put on leaders' context. Efforts that increase leader's experience of vigour and peer support thus may have an indirect effect on followers' burnout, in addition to the potential positive impact vigour and peer support may have on the leader. Thus,

interventions aiming to improve leader's access to social support and experience of vigour may be used as an occupational health intervention (Kelloway & Barling, 2010). Interventions targeting employees that have been shown to increase social support or either improve vigour or decrease burnout can serve as an inspiration (e.g. Egan et al., 2007; Montano, Hoven, & Siegrist, 2014). The interventions can focus on increasing resources with an internal locus, including leader well-being and vigour, as well as increasing resources with an external locus such as social support for example by changing the way work is organised, designed and managed. Thus, individual as well as organisational level intervention may be appropriate. There are also is also a recent study showing substantial reduction in stress-related symptoms and burnout and increased job satisfaction following an internet-based stress management and positive management intervention targeting distressed leaders (Persson Asplund et al., 2018). In addition, participating in a more general leadership intervention may indirectly improve social support.

Directions for future research

First, whereas this study provides support for focusing more on the leaders' contexts to maximise the impact of transformational leadership, more research is needed to test if interventions aiming at improving leader's resources are effective both in terms of increasing transformational leadership and subsequently employee outcomes. Second, whereas peer support and vigour were influential moderators of the transformational leadership and burnout relationship, other potential moderators need to be investigated too. In particular, there is a need for studies that incorporate leader-rated factors so that the current focus on employee-rated trust in their leader is expanded. For example, research on resources that are more stable than vigour and social support, such as *objects and conditions* (e.g. social networks) and *constructive resources* (e.g. personality traits) as defined by Ten Brummelhuis and Bakker (2012), may shed additional light on the circumstances under which transformational leadership predicts burnout and other outcomes. To this end, studies that include both employee health and well-being outcomes and organisational outcomes would be warranted.

Limitations and strengths

A key limitation in the present study is the reliance on self-reports, which makes our findings vulnerable to common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the use of multiple raters (both leaders and employees) and the temporal separation of the independent (transformational leadership) and dependent (burnout) variables reduce this threat. In addition, common method bias is unlikely to influence interactions (Aiken & West, 1991). Another limitation is the relatively small number of leaders, which reduces statistical power. Sample size recommendations for multilevel models vary greatly in the literature and researchers suggestions range from a minimum of 20 clusters (Snijders & Bosker, 2012) to at least 30 clusters with 30 individuals in each (Kreft, 1996) to 50 clusters or even 100 clusters (Hox, Moerbeek, & van de Schoot, 2017), depending on the main parameter(s) of interest (McNeish & Stapleton, 2016). That we were able to detect statistically significant cross-level interactions despite having low power is an important finding and calls for further research on this topic. Finally, our

research is limited in its generalizability to other types of organisations and countries, as all data stemmed from one sample from one municipality. Hence, replications of our study in other contexts and other countries would reinforce our confidence in the generalizability of the results.

The limitations of the present study are counterbalanced by a number of methodological and conceptual strengths. From a methodological perspective, we use data including multiple time points, levels and raters, which strengthens our conclusions. From a conceptual point of view, we use COR theory (Hobfoll, 1989, 2001) to examine boundary conditions of transformational leadership that have not been examined before: the role of leaders' own resources.

Conclusion

Taken together, the findings of the present research suggest that leaders own resources, including vigour and peer support, strengthen the impact of transformational leadership behaviours on follower burnout. This highlights the understanding that leading well is a matter of resources. Thus, making efforts to facilitate leader vigour and peer support may help unleash the benefits of transformational leadership. As our study points towards the importance of leaders' own well-being and working environment for the effectiveness of leadership behaviours, we suggest that future research should take this into account when investigating the effects of leadership on employee outcomes.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by Forskningsrådet om Hälsa, Arbetsliv och Välfärd [grant number 2014-073].

References

Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management*, *39*, 1490–1528.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Arnold, K. A., & Connelly, C. E. (2013). Transformational leadership and psychological well-being: Effects on followers and leaders. In H. S. Leonard, R. Lewis, A. M. Freeman, & J. Passmore (Eds.), *The Wiley- Blackwell handbook of the psychology of leadership, change, and organizational development* (pp. 175–194). Chichester, United Kingdom: Wiley-Blackwell.

Arnold, K. A., Connelly, C. E., Walsh, M. M., & Martin Ginis, K. A. (2015). Leadership styles, emotion regulation, and burnout. *Journal of Occupational Health Psychology*, *20*, 481–490.

Avolio, B., Bass, B., & Jung, D. I. (1995). *MLQ multifactor leadership questionnaire: Technical report*. Palo Alto, CA: Mind garden.

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, *60*, 421–449.

Barge-Schaapveld, D. Q., Nicolson, N. A., Berkhof, J., & deVries, M. W. (1999). Quality of life in depression: Daily life determinants and variability. *Psychiatry Research*, *88*, 173–189.
Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications* (3rd ed.). New York: Free Press.
Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Erlbaum.
Breevaart, K., Bakker, A. B., Hetland, J., & Hetland, H. (2014). The influence of constructive and destructive leadership behaviors on follower burnout. In M. P. Leiter, A. B. Bakker, & C. Maslach (Eds.), *Burnout at work: A psychological perspective* (pp. 102–121). New York, NY: Psychology Press.
Byrne, A., Dionisi, A. M., Barling, J., Akers, A., Robertson, J., Lys, R., … Dupré, K. (2014). The depleted leader: The influence of leaders' diminished psychological resources on leadership behaviors. *The Leadership Quarterly*, *25*, 344–357.
Carless, S. A., Wearing, A. J., & Mann, L. (2000). A short measure of transformational leadership. *Journal of Business and Psychology*, *14*, 389–405.
Chuang, A., Judge, T. A., & Liaw, Y. J. (2012). Transformational leadership and customer service: A moderated mediation model of negative affectivity and emotion regulation. *European Journal of Work and Organizational Psychology*, *21*, 28–56.
Clarke, H. M., Arnold, K. A., & Connelly, C. E. (2015). Improving follower well-being with transformational leadership. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life* (pp. 341–356). Hoboken, NJ: Wiley.
Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310–357.
Corrigan, P. W., Diwan, S., Campion, J., & Rashid, F. (2002). Transformational leadership and the mental health team. *Administration and Policy in Mental Health*, *30*, 97–108.
DeGroot, T., Kiker, D. S., & Cross, T. C. (2000). A meta-analysis to review organizational outcomes related to charismatic leadership. *Canadian Journal of Administrative Sciences*, *17*, 356–372.
De Hoogh, A. H., & Den Hartog, D. N. (2009). Neuroticism and locus of control as moderators of the relationships of charismatic and autocratic leadership with burnout. *Journal of Applied Psychology*, *94*, 1058–1067.
Dragoni, L., Park, H., Soltis, J., & Forte-Trammell, S. (2014). Show and tell: How supervisors facilitate leader development among transitioning leaders. *Journal of Applied Psychology*, *99*, 66–86.
Ducharme, L. J, & Martin, J. K. (2000). Unrewarding work, coworker support, and job satisfaction. *Work and Occupations*, *27*, 223–243.
Dumdum, U. R., Lowe, K. B., & Avolio, B. J. (2002). Meta-analysis of transformational and transactional leadership correlates of effective-ness and satisfaction: An update and extension. In B. J. Aviolio, & F. J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead* (pp. 35–65). New York: JAI Press.
Egan, M., Bambra, C., Thomas, S., Petticrew, M., Whitehead, M., & Thomson, H. (2007). The psychosocial and health effects of workplace reorganisation. 1. A systematic review of organisational-level interventions that aim to increase employee control. *Journal of Epidemiology & Community Health*, *61*, 945–954.
Fredrickson, B. L. (2003). Positive emotions and upward spirals in organization. In K. Cameron, J. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 163–175). San Francisco: Berrett- Koehler.
Fredrickson, B. L. (2013). Updated thinking on positivity ratios. *American Psychologist*, *68*, 814–822.
Fuller, J. B., Patterson, C. E. P., Rester, K., & Stringer, D. Y. (1996). A quantitative review of research on charismatic leadership. *Psychological Reports*, *78*, 271–287.
Halbesleben, J. R. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, *91*, 1134–1145.

Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management*, *30*, 859–879.
Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, *40*(5), 1334–1364.
Harms, P. D., Credé, M., Tynan, M., Leon, M., & Jeung, W. (2017). Leadership and stress: A meta-analytic review. *The Leadership Quarterly*, *28*, 178–194.
Heck, R. H., & Thomas, S. L. (2015). *An introduction to multilevel modeling techniques: MLM and SEM approaches using Mplus*. New York, NY: Routledge.
Hildenbrand, K., Sacramento, C. A., & Binnewies, C. (2018). Transformational leadership and burnout: The role of thriving and followers' openness to experience. *Journal of Occupational Health Psychology*, *23*(1), 31–43.
Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*, 513–524.
Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, *50*, 337–421.
Holmgreen, L., Tirone, V., Gerhart, J., & Hobfoll, S. E. (2017). Conservation of resources theory. Resource caravans and passageways in health contexts. In C. Cary, & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 443–457). Chichester: John Wiley and Sons, Ltd.
Hox, J. J., Moerbeek, M., & van de Schoot, R. (2017). *Multilevel analyses: Techniques and applications* (3rd ed.). New York, NY: Routledge.
Judge, T., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, *89*, 755–768.
Jung, D., Yammarino, F. J., & Lee, J. K. (2009). Moderating role of subordinates' attitudes on transformational leadership and effectiveness: A multi-cultural and multi-level perspective. *The Leadership Quarterly*, *20*, 586–603.
Kanste, O., Kyngäs, H., & Nikkilä, J. (2007). The relationship between multidimensional leadership and burnout among nursing staff. *Journal of Nursing Management*, *15*, 731–739.
Kelloway, E. K., & Barling, J. (2010). Leadership development as an intervention in occupational health psychology. *Work & Stress*, *24*, 260–279.
Kreft, I. G. G. (1996). *Are multilevel techniques necessary? An overview, including simulation studies*. Unpublished manuscript. Los Angeles, CA: California State University.
Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen burnout inventory: A new tool for the assessment of burnout. *Work & Stress*, *19*, 192–207.
LaHuis, D. M., & Ferguson, M. W. (2009). The accuracy of significance tests for slope variance components in multilevel random coefficient models. *Organizational Research Methods*, *12*, 418–435.
Leithwood, K., Menzies, T., Jantzi, D., & Leithwood, J. (1996). School restructuring, transformational leadership, and the amelioration of teacher burnout. *Anxiety, Stress, and Coping*, *9*, 199–215.
Liao, H., Joshi, A., & Chuang, A. (2004). Sticking out like a sore thumb: Employee dissimilarity and deviance at work. *Personnel Psychology*, *57*, 969–1000.
Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the mlq literature. *The Leadership Quarterly*, *7*, 385–425.
Maslach, C. (1982). *Burnout: The costs of caring*. Englewood Cliffs, NJ: Prentice Hall.
Mathieu, J. E., & Taylor, S. R. (2007). A framework for testing meso-mediational relationships in organizational behavior. *Journal of Organizational Behavior*, *28*, 141–172.
McDonald, R. P. (1999). *Test theory: A unified treatment*. Mahwah, NJ: Lawrence Erlbaum Associates.
McNeish, D. M., & Stapleton, L. M. (2016). The effect of small sample size on two-level model estimates: A review and illustration. *Educational Psychology Review*, *28*, 295–314.

Montano, D., Hoven, H., & Siegrist, J. (2014). Effects of organisational-level interventions at work on employees' health: A systematic review. *BMC Public Health*, *14*(135), 1–9.
Muthén, L. K., & Muthén, B. O. (1998–2015). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
Nielsen, K., & Cleal, B. (2011). Under which conditions do middle managers exhibit transformational leadership behaviors? — An experience sampling method study on the predictors of transformational leadership behaviors. *The Leadership Quarterly*, *22*, 344–352.
Nielsen, K., & Daniels, K. (2012). Does shared and differentiated transformational leadership predict followers' working conditions and well-being? *The Leadership Quarterly*, *23*, 383–397.
Parris, M. (2003). Work teams: Perceptions of a ready-made support system? *Employee Responsibilities and Rights Journal*, *15*, 71–83.
Pejtersen, J. H., Kristensen, T. S., Borg, V., & Bjorner, J. B. (2010). The second version of the Copenhagen Psychosocial Questionnaire. *Scandinavian Journal of Public Health*, *38*(3_suppl), 8–24.
Persson Asplund, R. P., Dagöö, J., Fjellström, I., Niemi, L., Hansson, K., Zeraati, F., … Andersson, G. (2018). Internet-based stress management for distressed managers: Results from a randomised controlled trial. *Occupational Environmental Medicine*, *75*(2), 105–113.
Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, *49*, 327–340.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879–903.
Preacher, K. J., Zhang, Z., & Zyphur, M. J. (2016). Multilevel structural equation models for assessing moderation within and across levels of analysis. *Psychological Methods*, *21*, 189–205.
Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, *66*, 701–716.
Seltzer, J., Numerof, R. E., & Bass, B. M. (1989). Transformational leadership: Is it a source of more burnout and stress? *Journal of Health and Human Resources Administration*, *12*, 174–185.
Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work & Stress*, *24*, 107–139.
Snijders, T. A. B., & Bosker, R. J. (2012). *Multilevel analysis: An introduction to basic and advanced multilevel modeling* (2nd ed.). London: Sage.
Stinglhamber, F., & Vandenberghe, C. (2003). Organizations and supervisors as sources of support and targets of commitment: A longitudinal study. *Journal of Organizational Behavior*, *24*, 251–270.
Stordeur, S., D'hoore, W., & Vandenberghe, C. (2001). Leadership, organizational stress, and emotional exhaustion among hospital nursing staff. *Journal of Advanced Nursing*, *35*, 533–542.
Tafvelin, S. (2017). Antecedents and consequences of transformational leadership on occupational health and safety. In K. Kelloway, K. Nielsen &, J. Dimoff (Eds.), *Leading to occupational health and safety: How leadership behaviours impact organizational safety and well-being* (pp. 69–82). Chichester, United Kingdom: Wiley-Blackwell.
Tafvelin, S., Hyvönen, U., & Westerberg, K. (2014). Transformational leadership in the social work context: The importance of leader continuity and co-worker support. *British Journal of Social Work*, *44*, 886–904.
Ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist*, *67*, 545–556.
Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement? *The Leadership Quarterly*, *22*, 121–131.
Vealey, R. S., Armstrong, L., Comar, W., & Greenleaf, C. A. (1998). Influence of perceived coaching behaviours on burnout and competitive anxiety in female college athletes. *Journal of Applied Sport Psychology*, *10*, 297–318.

Wang, G., Oh, I.-S., Courtright, S. H., & Colbert, A. E. (2011). Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group & Organization Management*, *36*, 223–270.

Wang, P. S., Beck, A. L., Berglund, P., McKenas, D. K., Pronk, N. P., Simon, G. E., & Kessler, R. C. (2014). Effects of major depression on moment-in-time work performance. *American Journal of Psychiatry*, *161*, 1885–1891.