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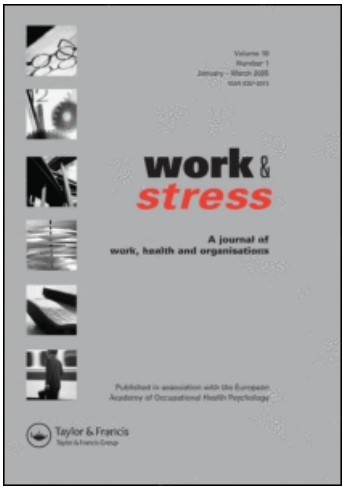

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Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research

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This study is an overview of published empirical research on the impact of leaders and leadership styles on employee stress and affective well-being. A computerized search and systematic review of nearly 30 years of empirical research was conducted. Forty-nine papers fulfilled the inclusion criteria, which include the requirements for papers to report empirical studies and to be published during the period 1980 to 2009 in English-language peer-reviewed journals. The studies were mostly cross-sectional (43/49 papers) and examined the impact of leaders' stress (4 papers), leaders' behaviours (e.g. support, consideration and empowerment) (30 papers) and specific leadership styles (20 papers) on employees' stress and affective well-being. Three research questions were addressed. The review found some support for leader stress and affective well-being being associated with employee stress and affective well-being. Leader behaviours, the relationship between leaders and their employees and specific leadership styles were all associated with employee stress and affective well-being. It is recommended that future studies include more qualitative data, use standardize questionnaires and examine the processes linking leaders with employee stress. This may lead to effective interventions.

Keywords: systematic review; leaders; leader–employee interaction; leadership style; well-being; stress

Introduction

Work-related stress is estimated to be the second largest problem related to the working environment in the European Union; every fourth wage earner in the EU will, at some point, suffer from work-related stress in their working life (ETUC, UNICE, UEAPME, & CEEP, 2004). Studies suggest that in Europe between 50% and 60% of all lost working days have some link with work-related stress (European Agency for Safety and Health at Work, 2005). This represents a huge cost in terms of both human distress and impaired economic performance. In 2002, the European Commission reported that the yearly cost of work-related stress in the European Union was EUR 20,000 million each year (Levi & Levi, 2002). A wide variety of

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research has established a link between working conditions and employee stress and affective well-being (e.g. Cox, Griffiths, & Rial-González, 2000; De Jonge, Bosma, Peter, & Siegrist, 2000; De Lange, Taris, Kompier, Houtman, & Bongers, 2004; Grawitch, Gottschalk, & Munz, 2007). Leaders play an important role in defining an environment in which employees can thrive and experience well-being (Nielsen, Yarker, Brenner, Randall, & Borg, 2008; Rasulzada, Dackert, & Johansson, 2003). Leadership has been studied from many different angles. Frequently, leadership is referred to as something extraordinary, which requires special tools and capabilities. Alvesson and Sveningsson (2003) suggested a rethinking of leadership, taking seriously the mundane, almost trivial, aspects of what managers and leaders actually do. A particular behaviour from the leader, or a part of a particular leadership style can inherently be either stressful or positive for employees, and as a result influence their levels of stress and affective well-being.

Although this seems intuitively plausible, findings on this issue are still scattered. Therefore, the aim of this study is to provide a systematic review of the research on the relationship between leaders, their behaviours and more specific leadership styles on one hand,and employee stress and affective well-being on the other. Using the information that we obtained, we address three main research questions, which are described in the following sections.

Leaders' stress and its link with employee stress and affective well-being

It could be argued that stress involves a crossover contagion process, where leaders' mood is seen as being "contagious." Research in this area has focused on studying the effects of leaders' mood on individuals and the affective tone of groups (Johnson, 2008; Sy, Cole, & Saavedre, 2005), in much the same way as parental stress can spill over to children (Zlotnik, 2001). Sutherland and Davidson's (1989) qualitative study of stress among construction site managers in the United Kingdom showed that job dissatisfaction among managers was mostly related to employee relation issues. It is possible that leaders' stress levels and affective well-being have an impact on the stress and affective well-being of employees. Thus, we formulated our first research question:

> *Research Question 1:* Are the stress levels and affective well-being of leaders associated with the stress and affective well-being of their employees?

Specifically, we propose that leaders who suffer from stress and have low affective well-being are more likely to have employees who also report stress and low well-being.

Leaders' behaviours and employee stress and affective well-being

Leader behaviours such as support, empowerment and a high-quality relationship between leaders and their employees might prevent both stress, and improve employees' stress coping and affective well-being (Schaufeli & Enzmann, 1998). Stress among leaders and employees may be influenced by relationships at work, with colleagues, employees and leaders. Selye (1974) suggested that good relationships between members of a group are a key determinant of individual and organizational health. Research into work relationships has concluded that many

stress-related symptoms and illnesses arise when a relationship between an employee and a leader is perceived as psychologically unhealthy (Cooper & Payne, 1991). Studies have shown that the leader–employee relationship is one of the most common sources of stress in organizations (Landeweerd & Boumans, 1994; Tepper, 2000). Thus, leader support and empowering leader behaviours, and a good relationship between leaders and their employees, are mentioned as leader behaviours that may reduce stress and improve well-being among employees (Bass, 1990; Yukl, 1994). Conversely, abusive leader behaviours may be related to high levels of stress and low well-being among employees. The Leader-Member Exchange (LMX) Theory focuses on the relationships between leaders and their employees. It posits that leaders develop different forms of exchange relationships with their subordinates, and that employees who maintain good exchange relationships receive benefits that others who maintain suboptimal relationships do not (Graen & Uhl-Bien, 1995). Our second research question is therefore:

> *Research Question 2:* What is the association between leaders' behaviours (including the relationship between leaders and employees) and employee stress and affective well-being?

Leadership styles and employee stress and affective well-being

In recent years, there has been an explosion in interest in leadership styles (Bass & Riggio, 2006). Leadership styles refer to sets of behaviours that leaders employ to influence the behaviours of subordinates (Antonakis, Cianciolo, & Sternberg, 2004; Bass & Riggio, 2006). One of the dominant theories in this field is the transformational leadership theory (Bass, 1999a; Bass, 1999b; Bass & Riggio, 2006). This theory focuses on three leadership styles: transformational leadership, transactional leadership and laissez-faire leadership.

Four elements characterize *transformational leadership*: Idealized influence – the leader acts as a role model; inspirational motivation – the leader provides meaning and challenge to subordinates' work; intellectual stimulation – the leader encourages subordinates to be creative and approach problems in news ways; and finally, individualized consideration – the leader pays attention to the individual subordinate's needs and provides coaching and mentoring (Bass & Riggio, 2006). *Transactional leadership* consists of two elements. The first is contingent reward, in which the leader obtains subordinates' agreement on what needs to be done in exchange for the promised reward. The second is management-by-exception, either actively, by monitoring deviances from standards and taking action to correct these, or passively, by pointing out mistakes when they have already occurred (Bass & Riggio, 2006). Finally, *laissez-faire leaders* do not lead: They avoid making decisions, delay actions and ignore leader responsibilities (Bass & Riggio, 2006).

There is a growing body of research that has found that these various leadership styles are associated with employee behaviours and perceptions (Bass, 1999a). Another prominent leadership style theory is that of *situational leadership,* where the leader adjusts his or her leadership style according to the employee's needs for structure and socio-emotional support (Hersey, Blanchard, & Johnson, 1996). In doing so, he or she either adopts a telling style (high structure and support); a selling style (low structure, high support); a participating style (low task and high

relationship); or a delegating style (low structure and low relationship) (Hersey et al., 1996). This leads to our third research question:

Research Question 3: Are specific leadership styles related to employee stress and affective well-being?

Definition of stress and affective well-being outcomes

Although the definition of stress has been debated (Ganster & Schaubroeck, 1991), most researchers would generally agree that stress is an unpleasant emotional experience associated with elements of fear, dread, anxiety, irritation, annoyance, anger, sadness, grief and depression (Larazus & Folkman, 1992; Motowidlo, Packard, & Manning, 1986). We used the operational definition of affective well-being suggested by Van Horn, Taris, Schaufeli, and Schreurs (2004). This includes emotional exhaustion (the most often measured aspect of burnout, Kristensen, Borritz, Villadsen, & Christensen, 2005) covering the enthusiasm-depression continuum; job satisfaction, which covers the pleasure–displeasure dimension; and well-being, which covers the tiredness–vigour dimension. However, we should mention that many papers examining well-being did not specify the content of the well-being measures.

Method

Our review focused on papers that were published in scientific journals in the area of psychological-, organizational-, leadership-, management-, and occupational health literature during the last three decades (January 1980 to July 2009). Relevant studies were identified by searching 15 electronic databases and manual searches of current English-language journals, primarily from Europe and the United States. These databases were OSH-ROM, HSELINE, NIOSHTIC2, RILOSH, the Stress database at the National Institute of Public Health, PsycInfo, PubMed, Copenhagen Business School Library, Netpunkt, Google Scholar, ScienceDirect, Web of Science, Arbline, Bizigate and the DIALOG database "Business & Management Practices." Three sets of key words were used. The first set included Leader*/manager* -stress, -coping, -well-being. The second set included Employee*/subordinate* -stress, -coping, -job satisfaction, -well-being, -burnout, -health. Finally, the third set included Empirical studies. Relevant studies mentioned at least one key word from each set of key words.

The citations retrieved in electronic searches were scrutinized by reading the titles and abstracts. To be included in this review, a paper had to fulfil five criteria: (1) The study reported the results of empirical data analyses. (2) The study reported on the impact of the leaders' stress, leader behaviours or style on employees' stress or affective well-being. (3) The study was published between January 1980 and July 2009. (4) The study was published in an English-language peer-reviewed journal. (5) It reported on field research, that is, laboratory studies were excluded, as in such studies the connection with and application to real-life situations may not be warranted (Robson, 1994).

The methods for the review were partly adapted from the QUOROM Group Statement and the Overview Quality Assessment Questionnaire (Moher et al., 1999; Oxman & Guyatt, 1991). The included papers were divided into three main

Table 1. Theoretical propositions of associations between leaders and employee stress and affective well-being (49 studies).

No.	Authors, year	Review of theories
1	Arnold et al. (2007)	Transformational leadership is related to employee well-being as such leaders mentor their employees. This link may be partly explained by the degree to which employees experience their work as meaningful, as transformational leaders activate higher-level needs (Maslow's need pyramid).
2	Bono et al. (2007)	Supervisors may influence employees' moods, as employees may be anxious about their performance appraisals. Transformational leadership may moderate the relationship between emotional regulation, stress and job satisfaction.
3	Brouer et al. (2007)	The relationship between leaders and employees (LMX exchange) influences employees' tension levels, as a high quality relationship will be characterised by trust, good communication and emotional support from supervisors. However, this relationship is moderated by affectivity.
4	Chen et al. (2005)	The degree to which situational leadership (i.e. the degree to which the leader matches his or her behaviours in terms of telling, selling, delegating and participating, with the needs of the employee) is related to job satisfaction, leadership effectiveness, turnover intention and job stress depends on the willingness and abilities of employees.
5	Densten (2005)	Visioning leadership behaviours are negatively related to burnout as they create an awareness of valued outcomes.
6	Dobreva-Martinova (2002)	Stress arises from role ambiguity and leads to job dissatisfaction etc. Individual coping skills, workplace leadership and social support moderate occupational stress.
7	Duxbury et al. (1984)	The leader can moderate the effect of a demanding work environment by a leadership style that is supportive of the need of employees, as a first line support. The leader should balance between task and relation focus.
8	Epitropaki et al. (2005)	The relationship between the quality of the relationship between leader and employee (LMX) and well-being and job satisfaction depends on the employees' expectancies (implicit leadership theory).
9	Gilbreath & Benson (2004)	There is a positive relationship between supervisors' supportive behaviours and employee well-being, and an inverse relationship between supervisor supportive behaviours and employee tension and health complaints.
10	Glasø et al. (2005)	When leaders and employees interact they experience emotions, and the intensity and quality of these emotions are related to employees' job and life satisfaction.
11	Harris et al. (2006)	The association between the quality of the relationship between leaders and employees and stress is curvilinear, as having too close a relationship with your leader may result in difficulties saying no to tasks.

Table 1 (*Continued*)

No.	Authors, year	Review of theories
12	Harvey et al. (2007)	Abusive leadership is related to tension and emotional exhaustion, but this relationship is moderated by positive affectivity and ingratiation in that employees view the leader in a more positive light and attempt to minimize the abuse by flattering and doing favours for the leader.
13	Hetland et al. (2007)	Transformational and transactional leadership are both positively related to employee burnout, as transformational leaders support their employees and transactional leaders clarify goals and provide feedback.
14	Hooper et al. (2007)	The degree to which members of a team agree on the quality of the relationship between themselves and their manager is related to job satisfaction and well-being as team members will experience more conflict and frustration and anger with colleagues.
15	Kanste et al. (2007)	Transformational leadership, transactional leadership and laissez-faire leadership are associated with burnout, as transformational leaders are considerate and transactional leaders, through contingent reward, may enhance their employees' feelings of personal accomplishment.
16	Laschinger et al. (1999)	Facilitative leadership, where employees are empowered to make decisions based on their expert judgement and to act without seeking unnecessary permission from higher authorities, are considered important in change processes (work redesign). Kanter's empowerment model and Conger and Kanungo's empowerment process model included as theoretical background.
17	McGee (1987)	Supervisory support influence on job stress. Limited theoretical considerations on leader–employee interaction. Meta-level reflections concerning job characteristics and co-worker relations are included.
18	Mardanov et al. (2008)	LMX is positively associated with job satisfaction and so is satisfaction with supervision. This is because a high quality relationship means that leaders and employees work towards shared goals.
19	Mazur & Lynch (1989)	Leadership style including support relates to (low degree of) employee burnout and laissez-faire leadership is positively related to burnout.
20	Medley (1995)	Leadership style is related to employee job satisfaction. Transformational leaders are able to motivate employees to accomplish change.
21	Morrison et al. (1997)	Transformational leadership shapes employees' self-efficacy. Empowerment is an important part of transformational leadership, regarding influence on employees.
22	Moyle (1998)	Leader support is particularly strongly linked to low stress levels and job satisfaction among employees due to the influence of leaders. Over time support strengthens the employee's ability to engage in interpersonal relationships.

Table 1 (*Continued*)

No.	Authors, year	Review of theories
23	Nielsen, Randall et al. (2008)	Transformational leaders influence well-being through the creation of a working environment that is characterized by offering opportunities for development, a meaningful work and role clarity. They do this providing a clear vision and encouraging employees to seek challenges, and coaching and mentoring their employees.
24	Nielsen, Yarker et al. (2008)	Transformational leadership is related to job satisfaction and well-being through employees' perception of meaningful work, involvement and influence. The leaders do this by providing a clear vision and encourage employees to take responsibility for solving problems and finding innovative ways of doing the job.
25	Nielsen et al. (2009)	Transformational leadership is related to job satisfaction and well-being through how it makes employees perceive themselves and their team colleagues. Through encouraging employees to take independent decisions and coaching and mentoring employees, leaders make employees see themselves and their colleagues as being capable of coping with challenges at work (self- and team efficacy).
26	Offermann & Hellmann (1996)	Leaders underestimate their own behaviour in relation to employee stress in comparison with the employee perspective. Employee stress is associated with leaders offering little worker control and participation, low goal clarity and high performance pressure.
27	Parasuraman & Alutto (1984)	Supportive leadership practices are related to employees' (low degree of) perceived stress.
28	Price & Weiss (2000)	Interplay among coaches, athletes and burnout may be effectively explained within the coaching behaviours and leadership styles. A positive approach to coaching emphasises praise for desirable behaviours, reduces competitive anxiety and increases satisfaction and enjoyment. With inadequate amounts of positive or instructional feedback, athletes may develop negative attitude towards coaches, decreased motivation etc. Athletes' feeling of burnout is associated with pressure from coaches. Burned out coaches who are emotionally and physically exhausted feel withdrawn from or negative towards athletes, and experience feelings of inadequacy, may provide less training and instructions, positive feedback and social support and lean towards a decision making style that is easier to implement and more impersonal. Chelladurai's (1978) model of leadership and behaviour (instruction, social support, positive feedback) form the theoretical basis.
29	Prottas (2008)	Employees who perceive their leaders to behave with integrity have better job and life satisfaction, less stress, better health and less absence. This is because equity theory predicts that unfairness in the distribution of rewards is related to negative outcomes.

Table 1 (*Continued*)

No.	Authors, year	Review of theories
30	Schaubroeck et al. (2007)	Leaders who have destructive traits will be associated with somatic complaints, depression, anxiety, job dissatisfaction, low commitment and turnover intentions in employees when employees have jobs with little scope (enrichment), as the negative impact of the leader will be more prominent.
31	Schulz (1995)	Leadership processes influence the work environment. Social support from leaders is significantly associated with employee burnout.
32	Sellgren et al. (2008)	Through supportive leadership behaviours leaders create meaningful, stimulating work with a sense of coherence. This creates a good work climate and job satisfaction.
33	Seltzer & Numerof (1988)	Burnout is induced by immediate leader style (consideration). Employees are more prone to stress and burnout than leaders, partly due to lack of administrative support from leaders and frontline experiences.
34	Seltzer et al. (1989)	Transformational leadership, including leaders rated low on consideration and low in initiation of structure, are most likely associated with lower symptoms of burnout and achieve high levels of employee performance and satisfaction.
35	Shieh et al. (2001)	Transactional leaders clarifying the roles and requirements for employees, and have a positive impact on employee job satisfaction.
36	Skogstad et al. (2008)	Laissez-faire leadership is related to psychological distress as it creates a climate for poor relations among employees.
37	Sosik & Godschalk (2000)	Mentoring is a form of social support, which may alleviate employees' job related stress. Leadership behaviours such as supporting, motivating, inspiring and developing employees, are involved in mentoring and also defines transformational leadership style. This leadership style may decrease employee stress.
38	Sorrentino et al. (1992)	Leader support is a moderator of the relationship between leader direction and employee satisfaction. Leader behaviour is motivational when it makes satisfaction of the subordinates' needs conditional on effective performance, and complements the environment of the subordinates by providing coaching, guidance, support and rewards.
39	Steinhardt et al. (2003)	Leader support relates to lower job stress and higher job satisfaction and plays a role as a coping resource, assisting employees in coping with work-related stress.
40	Stordeur et al. (2001)	Transformational leadership encompasses supportive behaviours, and should therefore buffer negative effects of stress factors on emotional exhaustion.

Table 1 (*Continued*)

No.	Authors, year	Review of theories
41	Studenski & Barzcyk (1987)	Inadequacy of immediate leadership is an occupational stressor for employees.
42	Theorell et al. (2001)	Pronounced decrease in decision latitude is associated with an elevated risk of developing physical and psychological symptoms; thus is it possible to increase decision authority for employees via leader training.
43	Tourigny et al. (2005)	If employees are emotionally exhausted and receive little support from their leader they will experience higher levels of depersonalization.
44	van Dierendonck (2004)	The leader-employee relationship is one of the most common sources of stress in organizations. Leader behaviour characterized by trust, confidence, recognition and feed-back enhances wellbeing among employees. Leaders who have a controlling, less supporting style, who fail to clarify responsibilities and provide supportive feedback, and who exert undue pressure may be expected to have employees who report lower levels of well-being. Relationship is bidirectional, meaning that employees' wellbeing will influence leader behaviour.
45	Vealey et al. (1998)	The interactional nature of burnout is a result of complex relationships between intrapersonal (cognitive, personality dispositions) and environmental (nature of task, support and resources) factors. Cognitive appraisal and physiological responses to stress influence the development of burnout in individuals. Chelladurai's (1978) model of leadership and behaviour (e.g. instruction, social support, positive feedback) is used.
46	Wilcoxon (1989)	Leadership behaviours such as willingness to develop structure in expectation and routine and consideration for employee morale are critical elements in administrative support for employees in high stress environments.
47	Wolfram et al. (2009)	If managers and employees are similar in their perception of having meaningful work, self-efficacy and emotional irritation there is a positive relationship between transformational leadership and job satisfaction.
48	Wu et al. (2009)	If employees experience little co-worker support and are susceptible to emotional contagion they are more likely to experience emotional exhaustion if their supervisor is abusive.
49	Yagil (2006)	If employees experience their supervisors to be abusive they will experience higher levels of depersonalisation and exhaustion and lower levels of personal accomplishment. If their supervisor is perceived to be supportive these relationships will be the opposite.

categories, representing the three research questions. As such, the aspects of leadership differed, while the employee outcomes (stress and affective well-being) remained the same. One category looked at the association between leaders' stress and employee stress and affective well-being, another category looked at the impact of leadership behaviours, and the relationship between leaders and employees on employee stress and affective well-being and finally, the third category looked at the relationship between specific leadership styles and employee stress and affective well-being.

Results

Out of more than 10,000 citations, 378 potentially relevant references, published between January 1980 and July 2009 (criterion 3), were identified by a first screening and subsequently catalogued. Further examinations revealed that 156 of these 378 papers were based on empirical research (criterion 1). Of these 156 studies, 105 did not adequately relate to the topic (criterion 2), nor did they match inclusion criteria concerning field research (criterion 5), leaving 49 papers. Finally, it was ensured that the papers were peer-reviewed (criterion 4). This was the case for all 49 papers, which provides the basis for the current review.

Theoretical bases of the studies

Most papers included in the review stated in their introductions that only a few published studies examined specific leader behaviours and the links with employees' sense of, for example, stress and affective well-being. Table 1 presents the reviewed papers' theoretical propositions regarding the association between leader stress and employee stress and affective well-being.

Overview of the papers surveyed

The 49 papers reported quantitative empirical survey studies of which one employed an Experience Sampling Method design (Bono, Foldes, & Muros, 2007), five used a longitudinal study design (Epitropaki & Martin, 2005; Moyle, 1998; Nielsen, Randall, Yarker, & Brenner, 2008; van Dierendonck, Haynes, Borrill, & Stride, 2004), one of which was an intervention study (Theorell, Emdad, Arnetz, & Weingarten, 2001), and the remainder were cross-sectional studies.

As the topic of each paper varied, the findings related to this review were often only a selection of the many possible topics addressed in these studies. Four papers examined the relationship between leader stress and well-being and employee stress and well-being. Thirty papers examined the relationships between leader behaviours and employee stress and well-being. Finally, 20 papers examined the relationship between specific leadership styles and employee stress and well-being. Some papers covered more than one research question and are therefore included more than once. Table 2, 3 and 4 present the findings related to the three research questions, and provide the specific research question, the empirical findings and a condensation of the study results related to those questions.

Are leaders' stress and affective well-being associated with employees' stress and affective well-being?

As shown in Table 2, four papers concerned the relationship between leader stress and well-being and employee stress and well-being. Two of the papers addressed burnout, showing that leader burnout was associated with employee burnout. According to results from Vealey, Armstrong, Comar, and Greenleaf (1998), (a) coach burnout was significantly related to perceived coaching styles and behaviour, (b) perceived coaching styles and behaviour were predictive of athlete burnout and (c) athlete anxiety and athlete burnout were significantly related. Perceived coaching style and behaviour was not a significant predictor of athlete anxiety. In the study by Theorell et al. (2001), managers of the experimental department in a large insurance corporation underwent two-hour biweekly training sessions for one year for a total of 60 hours. The authors found that a psychosocial manager programme lasting for one year was beneficial for the employees with regards to lowered serum cortisol (indicating lower stress levels).

Price and Weiss (2000) found that coaches with a higher level of emotional exhaustion were perceived as making more democratic decisions, which was associated with lower levels of athlete burnout, but at the same time these coaches were seen as providing less training and instructions and providing less social support. The latter was associated with athletes reporting higher levels of anxiety and burnout, and lower levels of enjoyment and perceived competence. In a study by Glasø and Einarsen (2006) it was found that when interacting, leaders and employees would experience similar emotions. When positive emotions were described in the situation, these were shared by leaders and employees; however, when negative emotions were experienced these were more strongly experienced by employees than their leaders.

In conjunction, these studies show support for our first research question: Leaders' high levels of stress and poor affective well-being are associated with high stress levels and poor well-being among subordinates.

What is the association between leaders' behaviours and the quality of the leader–employee relationship and employee stress and affective well-being?

Thirty papers examined the relationship between leaders' behaviours and the quality of the relationship between leaders and employees on the one hand, and employee stress and affective well-being on the other (Table 3). Eleven of these studies found a relationship between supportive leaders and low employee stress levels (Gilbreath & Benson, 2004; Moyle, 1998; Offermann & Hellmann, 1996; Parasuraman & Alutto, 1984; Sorrentino, Nalli, & Schriesheim, 1992; Steinhardt, Dolbier, Gottlieb, & McCalister, 2003), less burnout (Mazur & Lunch, 1989; Price & Weiss, 2000; Tourigny, Baba, & Lituchy, 2005; Yagil, 2006), high job satisfaction (Moyle, 1998; Sellgren, Ekvall, & Tomson, 2008; Sorrentino et al., 1992) and positive affective well-being (Gilbreath & Benson, 2004). One of these studies found that the relationship between leader support on the one hand and stress and job satisfaction on the other was mediated by employees' perceptions of control and role ambiguity (Moyle, 1998). Five papers analyzed empowering leader behaviours in relation to low stress levels (Laschinger, Wong, McMahon, & Kaufmann, 1999; Schulz,

Table 2. Findings for research question 1: leader stress and affective well-being associations with employee stress and affective well-being (4 studies).

No.	Authors, year	Research Question	Findings[1]	Condensation of study results related to current review
1	Glasø et al. (2006)	What are the underlying emotional factors that leaders and employees experience when they interact and how are these related to the experience of the quality of the relationship and the level of job and life satisfaction?	When interacting, both leader and employees experience emotions. Some emotions were related to the quality of the relationship and job and life satisfaction but not all. Positive emotions were equally experienced by leaders and their employees but negative emotions were experienced more strongly by employees.	Leaders' emotions are related to employees' emotions and their life satisfaction.
2	Price & Weiss (2000)	What is the relationship among coach burnout, coaching behaviours and athletes' psychological responses?	Coaches higher in emotional exhaustion were perceived by their team as providing less training and instruction and social support and making fewer autocratic and greater democratic decisions.	Leader burnout is related to employee burnout. When leadership is less autocratic it does not correlate with employees' burnout and anxiety.
3	Theorell et al. (2001)	How will efforts to improve the psychosocial competence of managers change the work environment and health of the employees?	A moderately intensive psychosocial manager program (1 year) can be beneficial for both leaders and employees with regard to both lowered serum cortisol and improved authority over decisions.	Leader stress is associated with employee stress.
4	Vealey et al. (1998)	How does athletes' perception of their coach's behaviour and communication style relate to levels of burnout and anxiety experienced by athletes?	Coach burnout was significantly related to perceived coaching styles/ behaviour, perceived coaching styles/behaviour was predictive of athlete burnout, and athlete anxiety and athlete burnout were significantly related. Emotional exhaustion and depersonalisation in coaches was positively related to use of dispraise and an autocratic coaching style and negatively related to use of praise, empathy, and effective communication by coaches.	Leader burnout is associated with burnout through the exertion of coaching style.

[1]In most papers, leader stress was only one factor out of several measured. Therefore will the main findings from the paper often point to other aspects than the research questions of the current review.

Greenley, & Brown, 1995; Theorell et al., 2001), low burnout (Schulz et al., 1995; Vealey et al., 1998) and job satisfaction (Morrison, Jones, & Fuller, 1997; Schulz et al., 1995) and found support for these relationships. One study reported that if leaders acted with integrity this was positively related to job satisfaction and less stress among employees (Prottas, 2008) and another study showed that leaders' hostility and negative affectivity was related to job dissatisfaction and anxiety among employees in jobs with little decision latitude (Schaubroeck, Walumbwa, Ganster, & Kebes, 2007). Two studies found that employees who experienced their leaders as engaging in abusive behaviours reported higher levels of burnout (Wu & Hu, 2009; Yagil, 2006).

Four studies examined the relationship between considerate leader behaviours and employee outcomes. In one study considerate behaviours were linked to job satisfaction and low stress (Dobreva-Martinova, 2002) and another found a relationship with job satisfaction and low burnout (Duxbury, Armstrong, Drew, & Henly, 1984). Similarly, Wilcoxon (1989) and Seltzer and Numerof (1988) found a link between considerate behaviours and low burnout. Finally, six studies examined the impact of the quality of the relationship between employees and their leaders on employee stress and affective well-being: One study reported that a difficult relationship between the leader and the employees was related to high stress levels among employees (McGee, Goodson, & Cashman, 1987). Two studies found that the level of LMX was positively related to job satisfaction (Epitropaki & Martin, 2005; Mardanov, Heischmidt, & Henson, 2008) and one study found a positive association with affective well-being (Epitropaki & Martin, 2005). One study found that this relationship was moderated by the degree to which team colleagues also experienced the same quality in their relationships with the leader (Hooper & Martin, 2008). With regard to stress and tension, one study found the relationship between LMX and stress to be curvilinear (Harris & Kacmar, 2006) and another study found that employees who are high in negative affectivity experience high levels of tension even if they have a good relationship with their leader (Brouer & Harris, 2007). One study found that among lower-level managers the autocratic behaviours of their superior were related to stress (Studentski & Barczyk, 1987).

Basically, these studies show support for our second research question: Positive leader behaviours, including consideration and support, are positively related to employee affective well-being and low stress levels among employees, whereas the opposite is the case for negative leader behaviours. A good quality relationship was also associated with employee well-being and low stress levels.

What is the association between leadership style and employee stress and affective well-being?

In 20 papers the relationship between leadership style and employee outcomes was examined (Table 4). These studies mainly included the relationships between transactional and transformational leadership and employee stress, burnout and affective well-being. In most cases, both transformational and transactional leadership styles were associated with positive employee outcomes.

Table 3. Findings for research question 2: leader behaviours and the quality of leader-employee relationships and their associations with employee stress and affective well-being (30 studies).

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
1	Brouer et al. (2007)	Is there a relationship between LMX exchange and employee tension – and how is this moderated by affectivity?	People who were high in negative affectivity did not benefit from high levels of LMX as they experience high levels of tension.	The relationship between LMX and tension depends on employee traits.
2	Dobreva-Martinova, (2002)	What is the association between occupational role stress and individual and organizational well-being in the Canadian forces?	Workplace leadership, in particular, consideration, was a significant independent predictor of job satisfaction. Perceived organizational support was a significant independent predictor of stress, job satisfaction, and affective commitment, even when occupational role stress was already taken into account. Negative association between occupational role stress and both individual (strain) and organizational (job satisfaction and organizational commitment) well-being. No moderating effects were found for coping strategies, workplace leadership, or perceived organizational support, although these factors had direct relationships with both individual and organizational well-being.	Considerate leader behaviours are associated with job satisfaction and low stress.
3	Duxbury et al. (1984)	What is the relationship between head nurse leadership style and staff nurse burnout and job satisfaction?	Head nurse consideration was clearly related to staff nurse satisfaction. Head nurse leadership style based on consideration and job structure was significantly associated with low burnout and satisfaction. High consideration protected against potential negative responses to job structure. Low consideration did not negatively influence staff nurse burnout or satisfaction if it was coupled with low job structure. Low consideration and high job structure differed significantly on satisfaction.	Leader consideration is associated with employee job satisfaction and low burnout, depending on the degree of job structure.

Table 3 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
4	Epitropaki & Martin (2005)	Is the relationship between LMX and job satisfaction, commitment and well-being mediated by Implicit Leadership Theories?	Implicit leadership assumptions predicted LMX,which in turn was related to well-being, job satisfaction and commitment.	High quality relationships between leaders and employees are related to job satisfaction and well-being.
5	Gilbreath & Benson (2004)	How does supervisor behaviour contribute to employee psychological well-being?	Positive supervisor behaviour was negatively correlated with employee's reported psychiatric disturbance. Supervisor behaviour makes a significant incremental contribution to the production of employee well-being.	Leader support is associated with employee well-being and low stress.
6	Harris & Kacmar (2006)	Is the relationship between LMX and employees' stress curvilinear?	The relationship between LMX and stress was curvilinear.	The relationship between LMX and stress is curvilinear.
7	Hooper & Martin (2008)	How are different perceptions of LMX in teams related to job satisfaction and well-being? Is this relationship mediated by team conflict?	LMX variability in a team is negatively related to job satisfaction and well-being. This relationship can partially be explained by team conflict	The level of agreement of LMX in a team is associated with job satisfaction and well-being.
8	Laschinger et al. (1999)	Do leaders' behaviours have an impact on the way employees experience empowerment in their work setting?	Leader empowering behaviour significantly influenced employees perceptions of formal and informal power and access to empowerment structures and was related to lower stress levels	Empowering leader behaviour predicts low employee stress
9	McGee et al. (1987)	Among employees experiencing a common high level of stress, what factors differentiate those who become dissatisfied with their jobs from those who do not?	Comparisons of the two groups indicated that highly stressed subordinates who remained satisfied perceived their jobs as more challenging and interesting, perceived organizational communication as more timely and useful, perceived fewer supervisory problems (as defined by difficulties in the relationship between the respondent and the leader), and worked with managers whom they perceived to be high in referent power	Difficulties in the relationship between employee and leader predict employee job satisfaction and stress

Table 3 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
10	Mardanov et al. (2008)	What is the relationship between LMX and satisfaction with supervision and job satisfaction?	LMX predicts job satisfaction as does satisfaction with supervision	LMX predicts job satisfaction as does satisfaction with supervision
11	Mazur & Lynch (1989)	To what extent are teacher personality characteristics, organizational structure, and the principal's behaviours determinants of teacher burnout?	Leadership supportive behaviours were not significant predictors of teacher burnout. Organizational stress factors such as work load, leader support and isolation were significant predictors of teacher burnout. Personality characteristics were significant predictors of teacher burnout	Leader supportive behaviour is associated with low employee burnout
12	Morrison et al. (1997)	What is the relation between leadership style and empowerment and its effect on job satisfaction among the nursing staff?	Empowerment was positively related to job satisfaction	Empowering leader behaviour predicts job satisfaction
13	Moyle (1998)	Is there a relationship between control and ambiguity, leader support and employee stress and job satisfaction?	Leader support both had a direct effect on low stress and job satisfaction cross-sectionally and longitudinally and this relationship was also found to be mediated by control and role ambiguity	Leader support is related to low stress and high job satisfaction. This was mediated by control and role ambiguity
14	Offermann & Hellmann (1996)	What is the relationship between leader behaviours and subordinate work stress from a multiple perspective, 360° view?	Leader behaviours did relate to stress experienced by staff; however, leaders' views of what related to subordinate stress did not always coincide with the factors that subordinates themselves associated with stress. The relationships of leader delegation and subordinate participation to lower subordinate reports of stress were particularly underestimated by leaders	Leader emotional support is related to low employee stress (while leader control correlates with high employee stress)

Table 3 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
15	Parasuraman & Alutto (1984)	What is the pattern of relationship among (different sets of variables) sources and outcomes of stressful organizational settings?	There was a relationship between perceived stress and externality, leadership behaviour, and organizational commitment. Supportive supervision had a negative effect on employee stress, due to lack of individual control	Leader support is negatively related to employee stress
16	Price & Weiss (2000)	What is the relationship among coach burnout, coaching behaviour and athletes' psychological responses?	Athletes' perceptions of greater leader training and instruction, social support, positive feedback, democratic decisions, and less autocratic style were related to more positive and less negative psychological outcomes	Leader social support predicts employee burnout
17	Prottas (2008)	Is there a relationship between employee perceptions of leaders' perceived behavioural integrity and employee life satisfaction, job satisfaction, stress, health and absence?	Leaders' integrity is related to job satisfaction, life satisfaction, stress, health and absenteeism	Leaders' behavioural integrity is related to employees' job satisfaction, stress and health
18	Schaubroeck et al. (2007)	Do leaders' hostility and negative affectivity interact with limited job scope to create anxiety, job dissatisfaction and turnover intentions?	Leaders' hostility and negative affectivity was found to interact with low job scope to impact on outcomes	Leaders' traits together with jobs with little enrichment are related to job satisfaction and anxiety
19	Schulz et al. (1995)	What are the associations between organization, management and client effects on staff burnout?	Organization structure, culture and management process were related to work environment and in turn to satisfaction and subsequently to burnout. Managers, through organization and management process, influenced the work environment and worker satisfaction to buffer feelings of burnout	Empowering leader behaviour is linked to low employee stress, little burnout and job satisfaction
20	Sellgren et al. (2008)	What is the relationship between supportive leader behaviours and work climate and job satisfaction?	Supportive leadership behaviours are correlated with creative work climate and job satisfaction	Leaders' support is related to job satisfaction

Table 3 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
21	Seltzer & Numerof (1988)	How is supervisor behaviour, measured by consideration and initiating structure scales, related to reported subordinate burnout?	Subordinates who rated their supervisors high on consideration for their subordinates' welfare reported low burnout	Considerate leader behaviours are associated with low employee burnout
22	Sorrentino et al. (1992)	What is the effect of head nurse behaviours on nurse job satisfaction and performance?	Significant correlations between supportive leader behaviour and job satisfaction and performance	Leader support is associated with employee well-being and low stress
23	Steinhardt et al. (2003)	What is the relationship between hardiness, supervisor support, group cohesion and job stress as predictors of job satisfaction?	High hardiness, supervisor support and group cohesion were related to lower levels of job stress, which in turn was related to higher levels of job satisfaction	Leader emotional support is related to low employee stress (while leader control correlates with high employee stress)
24	Studenski & Barczyk (1987)	Investigating occupational stressors in mining to verify a proposed model of stress consequences.	Results indicate that stress is caused mainly by the health- and life-endangering job environment, hindrances at work, time pressure, shortages of materials and manpower, excessive work, autocratic management, responsibility for the results of the work and safety of others, and lack of clear criteria for the distribution of bonuses. For lower level managers autocratic behaviours were correlated with stress. Findings confirm that occupational stressors may cause sleep disorders and job dissatisfaction	Lower-level managers experience higher levels of stress if their superiors exert autocratic behaviours
25	Theorell et al. (2001)	How will efforts to improve the psychosocial competence of managers change the work environment and health of the employees?	A moderately intensive psychosocial manager program (1 year) can be beneficial for employees with regard to both lowered serum cortisol and improved authority over decisions	Leader behaviour is associated with low employee stress

Table 3 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
26	Tourigny et al. (2005)	Does supervisor support mediate the relationship between emotional exhaustion and depersonalisation?	The better the supervisory support among exhausted employees the lower levels of depersonalization	Leader support interacts with emotional exhaustion to minimize depersonalisation
27	Vealey et al. (1998)	How do athletes' perceptions of their coach's behaviour and communication style relate to levels of burnout and anxiety experienced by athletes?	Coach burnout was significantly related to perceived coaching styles/behaviour, perceived coaching styles/behaviour was predictive of athlete burnout, and athlete anxiety and athlete burnout were significantly related. Emotional exhaustion and depersonalisation in coaches was positively related to use of dispraise and an autocratic coaching style and negatively related to use of praise, empathy, and effective communication by coaches. Perceived coaching style/ behaviour was not a significant predictor of athlete anxiety	Leader burnout is associated with burnout through the exertion of coaching style
28	Wilcoxon (1989)	What are the relationship between therapist-perceived leader behaviour of administrators and burnout symptoms of therapists?	Agencies with administrators perceived to be high in initiation structure and consideration had fewer instances of therapist burnout	Leader considerate behaviour is negatively associated with burnout
29	Wu et al. (2009)	What is the relationship between abusive supervision and emotional exhaustion, and is this relationship moderated by susceptibility to emotional contagion and co-worker support?	Abusive supervision is related to emotional exhaustion. This relationship is stronger if employees experience high levels of co-worker support and if employees are susceptible to emotional contagion	Abusive supervision is related to emotional exhaustion
30	Yagil (2006)	How is abusive and supportive supervision related to aspects of burnout?	Employee depersonalisation and emotional exhaustion are positively related to abusive supervision, whereas supportive supervision and personal accomplishment are positively related.	Both abusive and supportive leader behaviours are related to burnout

Table 4. Findings for research question 3: associations between leadership style and employee stress and affective well-being (20 studies).

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
1	Arnold et al. (2007)	Is there a relationship between transformational leadership and well-being, and is this mediated by meaningful work?	The link between transformational leadership and employee well-being was explained through employees' experience of their work as meaningful.	Transformational leadership is related to well-being through employees' experience of having a meaningful job
2	Bono et al. (2007)	What is the relationship between transformational leadership, emotions and job satisfaction?	Transformational leadership buffers the negative effects of emotion regulation on job satisfaction and stress	Transformational leadership is associated with job satisfaction and stress.
3	Chen et al. (2005)	What is the relationship between situational leadership style, employee willingness and job satisfaction and stress?	The higher the leaders' situational leadership score and the higher an employee's willingness to perform a task the higher job satisfaction and the lower job stress	Situational leadership is only related to job satisfaction and well-being when employees are willing to engage
4	Densten (2005)	Is visionary leadership style related to burnout?	A visioning leadership style is negatively related to burnout	Visionary leadership behaviours are negatively related to burnout
5	Harvey et al. (2007)	Is the relationship between abusive leadership and tension, emotional exhaustion and turnover intentions moderated by positive affectivity and ingratiation?	For employees who were high in positive affectivity and ingratiation, abusive leadership did not influence their tension levels	Whether abusive leadership has an effect depends on employees' traits
6	Hetland et al. (2007)	Are transformational and transactional leadership related to burnout?	Transformational and passive avoidant leadership behaviours are, respectively, negatively and positively related to burnout	Transformational leadership is negatively related to burnout whereas passive avoidant leadership is positively related to burnout
7	Kanste et al. (2007)	How are transformational leadership, transactional leadership and laissez faire leadership related to burnout?	Rewarding transformational leadership and active management-by-exception are negatively related to aspects of burnout whereas laissez-faire leadership is positively related to emotional exhaustion and personal accomplishment	Transformational leadership, transactional leadership and laissez faire leadership are related to burnout

Table 4 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
8	Mazur & Lynch (1989)	To what extent are teacher personality characteristics, organizational structure, and the principal's leadership style determinants of teacher burnout?	Leadership style was not a significant predictor of teacher burnout. Organizational stress factors such as work load, support and isolation were significant predictors of teacher burnout. Personality characteristics were significant predictors of teacher burnout	Leadership (from autocratic to laissez faire) was not significantly associated with burnout
9	Medley & Larochelle (1995)	What is the relationship of head nurse leadership style and their staff nurses' job satisfaction?	A significant positive relationship between head nurses exhibiting a transformational leadership style and the job satisfaction of their staff nurses	Transformational leadership predicts employee well-being. No significant correlations between transactional leadership and employee well-being
10	Morrison et al. (1997)	What is the relation between leadership style and empowerment and its effect on job satisfaction among the nursing staff?	Both transformational and transactional leadership were positively related to job satisfaction	Transactional and transformational leadership styles are related to job satisfaction
11	Nielsen, Randall et al. (2008)	Can the relationship between transformational leadership and employee well-being be explained by the effect on employees' perceptions of the working environment?	Role clarity, meaningfulness and opportunities for development mediated the relationship between transformational leadership and employee well-being	Transformational leadership is linked to well-being through the impact on the working environment
12	Nielsen, Yarker et al. (2008)	Can the relationship between transformational leadership and employee well-being and job satisfaction be explained by the effect on employees' perceptions of the working environment?	Involvement, meaningfulness and influence mediated the relationship between transformational leadership and employee well-being and job satisfaction	Transformational leadership is linked to well-being and job satisfaction through the impact on the working environment

Table 4 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
13	Nielsen et al. (2009)	Is the relationship between transformational leadership and job satisfaction and employee well-being mediated through team and self-efficacy?	Self-efficacy was found to mediate the relationship between the relationship between transformational leadership and well-being whereas team efficacy was found to mediate between job satisfaction and well-being	The link between transformational leadership and job satisfaction and well-being can partly be explained by team and self-efficacy
14	Seltzer et al. (1989)	Is transformational leadership style by a superior more likely to lead to negative outcomes such as stress symptoms or burnout among subordinates?	Burnout and stress symptoms are inversely and significantly related to the transformational scales, suggesting that charismatic leadership, individual consideration, and intellectual stimulation may reduce burnout, and to a lesser extent, stress symptoms.A transformational style may help to reduce burnout in general and is positively associated with subordinates satisfaction with the leader, the leader's effectiveness and general willingness to make an extra effort	Transformational leadership is negatively associated with burnout and stress
15	Shieh et al. (2001)	What is the influence of nursing deans and nursing director' transformational and transactional leadership style on nursing faculty in baccalaureate and associate degree nursing programs?	Idealized influence, intellectual stimulation and contingent reward leadership styles significantly and positively predicted job satisfaction. Active management-by-exception significantly and negatively predicted job satisfaction.	Transformational leadership is related to job satisfaction as is contingent reward. Management-by-exception was negatively related to job satisfaction
16	Skogstad et al. (2008)	What is the relationship between destructive leadership (laissez faire) and psychological distress?	Laissez faire leadership is associated with psychological distress through conflict with co-workers, role conflict, role ambiguity and bullying	Laissez faire leadership is related to psychological distress through the impact on poor social relations

Table 4 (*Continued*)

No.	Authors, year	Research question	Findings	Condensation of study results related to current review
17	Sosik & Godshalk (2000)	Does transformational leadership have a more favourable effect on job-related stress, as compared to other leadership styles (laissez faire and transactional contingent reward)?	Mentor transformational behaviour was more positively related to mentoring functions received than transactional contingent reward behaviour, while mentor laissez-faire behaviour was negatively related to mentoring functions received. Both mentor transformational behaviour and mentoring functions received were negatively related to protégé job-related stress. Development-oriented leadership (i.e. transformational) coupled with social support (i.e. mentoring functions received) can reduce stress experienced by protégés.	Transformational leadership is associated with less employee stress. Transactional- and laissez-faire leadership styles are not associated with employee stress
18	Stordeur, D'hoore & Vandenberghe (2001)	What is the effect of work stressors and head nurses' transactional and transformational leadership on the levels of emotional exhaustion experienced among their staff?	Leadership dimensions explained 9% of the variance in emotional exhaustion. Active management-by-exception leadership was significantly associated with emotional exhaustion. Transformational and contingent reward leadership did not influence emotional exhaustion	Aspects of transactional leadership predict burnout
19	Van Dierendonck et al. (2004)	What is the nature of the relation between leader behaviour and the wellbeing of subordinates and what is the timeframe of this behaviour?	Both leadership behaviour and well-being were relatively stable across time. Well-being positively influenced leadership behaviour	Transformational leadership* predicts less employee stress. Empowering leader behaviour is correlated with less employee stress
20	Wolfram et al. (2009)	Do similarity, self-efficacy and emotional irritability moderate the relationship between transformational leadership and job satisfaction?	Similarity, occupational self-efficacy and emotional irritability were not found to moderate the relationship between transformational leadership and job satisfaction	A direct link was found between transformational leadership and job satisfaction

* The measurement of leader behaviour described in the paper was translated by the current authors to transformational leadership.
LMX = leader-member exchange.

Transformational leadership. Twelve papers reported that a transformational leadership style was positively related to job satisfaction (Bono et al., 2007; Nielsen, Yarker, Randall, & Munir, 2009; Nielsen, Yarker et al., 2008; Wolfram & Mohr, 2009), less stress (Bono et al., 2007; Seltzer, Numerof, & Bass, 1989; Sosik & Godshalk, 2000), less burnout (Hetland, Sandal, & Johnsen, 2007; Kanste, Kyngäs, & Nikkilä, 2007; Seltzet et al., 1989) and affective well-being (Arnold, Turner, Barling, Kelloway, & Mckee, 2007; Nielsen et al., 2009; Nielsen, Randall et al., 2008; Nielsen, Yarker et al., 2008; van Dierendonck et al., 2004). Visionary leadership – which forms part of transformational leadership – was negatively related to burnout (Densten, 2005). Only one study found no association between transformational leadership and burnout (Stordeur, D'hoore, & Vandenberghe, 2001). Two studies found that the relationship between transformational leadership and job satisfaction could be partly explained by team and self-efficacy (Nielsen et al., 2009) and having good working conditions (Nielsen, Yarker et al., 2008). Also, in four papers, the relationship between transformational leadership and affective well-being could be explained by good working conditions (Arnold et al., 2007; Nielsen, Randall et al., 2008; Nielsen, Yarker et al., 2008) and self-efficacy (Nielsen et al., 2009).

Transactional leadership. With regard to transactional leadership the results were mixed. Two studies found no significant relationship between transactional leadership and stress (Sosik & Godshalk, 2000) or employee well-being (Medley & Larochelle, 1995). Two studies found that transactional leadership was related to lower levels of burnout (Kanste et al., 2007) and job satisfaction (Morrison et al., 1997). Shieh, Mills, and Waltz, (2001) found management-by-exception to be associated with job dissatisfaction and Stordeur et al. (2001) found that active management-by-exception was related to burnout. Hetland et al. (2007) found passive avoidant leadership to be associated with higher levels of burnout.

Laissez-faire leadership. The relationships between laissez-faire leadership style and stress and affective well-being, examined in three papers, were also not clear. Sosik and Godschalk (2000) and Mazur and Lynch (1989) found no relationship between laissez-faire leadership and stress and burnout. Skogstad, Einarsen, Torsheim, Aasland, and Hetland (2007) found the relationship between laissez-faire leadership and distress to be partly explained by conflicts with co-workers, bullying, role conflict and ambiguity.

Abusive leadership. Harvey, Stoner, Hochwarter, and Kacmar (2007) found that abusive leadership was related to employee tension levels. Finally, situational leadership was only found to be related to job satisfaction and affective well-being in employees who were engaged in their job (Chen & Silverthorne, 2005).

Taken together, we may conclude from these studies that the third research question received mixed support: While the transformational leadership style was associated with low stress levels and high well-being among subordinates, some studies found an association between transactional leadership and laissez-faire leadership and employee stress while others failed to show a relationship.

Discussion

To summarize, in relation to our three research questions, the evidence discussed above shows the following. Research question (1): Leader stress and affective well-being are associated with employee stress and affective well-being. Most of the studies build upon the assumption that leader stress spills over to employees, but it is unclear how precisely this happens, as the authors offered few theoretical explanations. Research question (2): Positive leader behaviours (support, empowerment and consideration) are associated with a low degree of employee stress and with high employee affective well-being. Conversely, abusive behaviours are found to be associated with negative employee outcomes. Research question (3): Transformational leadership style was found to be strongly associated with positive employee outcomes, whereas transactional leadership and laissez-faire leadership styles are less consistently related to employee outcomes. While we found support for the association between leader stress, specific leadership styles and leader support and employee stress and affective well-being, it was impossible to establish evidence for causal relationships, as most studies were cross-sectional in nature.

The relationship between leaders' stress and well-being and employee stress and well-being

With regard to research question one that stated that leader stress and well-being would be related to employees' levels of stress and well-being, the research mostly measured stress from an *intra*personal perspective and as related to the individual's perception of stressors or the individual's stress reactions (Ben Porath & Tellegen, 1990). Current research pays little attention to *inter*personal stress relationships within organizations, and it can be concluded that a lack of knowledge still exists concerning the understanding of stress dynamics, that is, how leader stress and affective well-being may influence employee stress and affective well-being. Furthermore, two of these studies focused on sports settings, which may not be easily transferable to other settings where the relationships may be of a different nature.

The relationship between leader behaviours and quality of the relationship between leaders and employees, and employee stress and well-being

Research question 2 examined whether leader behaviours and the quality of the relationships between employees and leaders, are associated with employee stress and well-being. The research provided support for the notion that positive leader behaviours such as support, feedback, trust, confidence and integrity are associated with both employee affective well-being and less stress, and helps employees in coping with stress. From the stress literature it appears that only a few of these behaviours are present in stressed people (Lazarus & Folkman, 1992; Netterstrøm, 2002) and we believe that this includes leaders. The research represented in our review also emphasizes that negative leader behaviours such as control, low support and abuse are associated with stress and poor well-being among subordinates. In addition, these behaviours are mentioned as possible reactions to stress in the literature (Lazarus & Folkman, 1992), and might be displayed by stressed leaders.

Based on our review, we propose that negative leader behaviours occur more often in situations with stressed leaders, which in turn may negatively affect the leader–employee relationship. Price and Weiss (2000) refer to this, explaining their results by burnt-out coaches who are emotionally and physically exhausted, feel withdrawn from or negative towards athletes and experience feelings of inadequacy. The coaches may provide less training and instructions, positive feedback and social support and lean towards a decision-making style that is more impersonal and easier to implement.

The relationship between specific leadership styles and employee stress and well-being

Regarding our third research question, transformational leadership was found to be associated with a low degree of employee stress and with positive employee affective well-being. The results for transactional leadership were mixed; while some found no significant relationships, others found a positive relationship between transformational leadership and employee affective well-being but the subcomponent of this style, management-by-exception, was related to poor well-being. With regards to laissez-faire leadership, results were also mixed. Some studies failed to find a significant relationship but others reported that laissez-faire leadership was related to stress and poor affective well-being. This corresponds partly with the literature, where transformational leadership as compared to transactional leadership and especially laissez-faire leadership, has been mentioned as a leadership style that may bring about positive outcomes (Bass, 1999a; Yukl, 1994). Abusive leadership styles were found to be related to high levels of employee burnout.

Strengths and limitations

We believe that this review adds knowledge to that on the role of leaders in ensuring employee stress and affective well-being, as it provides an overview of the current literature and also identifies the gaps where knowledge is still limited. However, several limitations with regard to both the review and the studies included should be considered. First, unpublished literature was not included in the review. On the one hand, this could be viewed as a limitation, as it leaves a possibility for important research to be overlooked. On the other hand, it can also be considered a strength: it may be assumed that peer-reviewed journals only publish important research and subject submissions to a rigorous quality control.

A second limitation concerns the relationship between our three research questions and the wide diversity of research questions in the 49 papers. As compared to a Cochrane review that is based on randomized controlled trials of which research questions and measures are directly comparable, the measures in our review varied depending on the original focus of each study. This complicated the comparison of studies.

Finally, several limitations of the studies reviewed carry over to the present review. First, we mainly found cross-sectional studies (43) and only five longitudinal studies and an Experience Sampling study. Therefore, conclusions regarding the directions of causality among variables cannot be drawn. Second, a limitation of several studies is that leader behaviour was reported through the perception of their employees. This perception can be influenced by factors relevant to the occasion and

the individual, as mentioned by van Dierendonck et al. (2004). Third, various professions as well as worksites were included, which might make it difficult to compare the results. Fourth, theoretical and operational definitions of leadership, stress, burnout, job satisfaction and affective well-being were often varied or vague, and the measurement tools diverse. Therefore, it may be difficult to compare results. The understanding and definition of "leadership" in the papers might depend on contextual factors such as national culture, trade, organizational culture, size of organization and so on. In conclusion, the ability to measure meaningful outcomes is often limited by the lack of precise definitions and sensitive specific measurement tools.

Implications for future research and practice

In spite of these limitations, our review offers both methodological and substantive implications and recommendations for future research and practice.

First, research methodology should be expanded. Previous research on stress has primarily used quantitative methodology, which restricts responses to preset categories relating to a particular hypothesis. Even though the extensive research that has been carried out points to there being associations between stress and psychosocial factors at work (Karasek & Theorell, 1990), few studies have analyzed how stress can be influenced by working relations. Stress and affective well-being have most often been treated as dependent variables, and research including contextual factors as well stress dynamics and possible feedback loops is limited. As a result, we know little about the way organizational and extra-organizational factors may mediate or moderate the relationship between leaders' stress, behaviour and style on the one hand and employees stress and affective well-being on the other. This may be explored further by taking a qualitative explanatory perspective about how relationships can develop and be experienced, and research examining and describing leaders' and employees' own accounts of stress, and how they understand the pathways between leaders' and employees' stress. In addition, research on leadership and employee health and well-being could be expanded by using direct observational and other "objective" data, longitudinal approaches with larger samples, method triangulations including qualitative methods. Such approaches could contribute to understanding the complexity of the relationships between leadership and employee stress and affective well-being.

Second, based on the large variety of questionnaires that appear in the studies included in this review, we recommend that researchers aim to use a standard set of measures to assess individuals' perception of stress and leadership, so as to enable comparison of findings across studies.

Third, a major recommendation is that research should be extended beyond merely examining the association between stress in leaders and employees, and begin to focus on the *processes* linking leader stress and employee stress. As we have seen, there has been only limited research focused on the widespread assumption that leader stress and affective well-being exerts an important influence on employee stress and affective well-being. Results indicate that leader stress, leader behaviours and leadership style impact on employee stress and affective well-being. However, it is still unclear how precisely this happens, and the possible relations between leader stress and leadership style and behaviour still need to be explored. Leadership

influences not only stress an affective well-being among employees, but also how the employees themselves feel and behave has influence on how they are treated by their leaders (Nielsen, Randall et al., 2008; van Dierendonck et al., 2004), which is in line with the LMX theory. Only two papers researched a bidirectional relationship (Nielsen, Randall et al., 2008; van Dierendonck et al., 2004), looking at whether employees' affective well-being influenced leader behaviour. They found that employees who felt better about themselves also reported that their leader had a more active and supportive (transformational) leadership style. This is partly explained by the possibility of the affective well-being of employees influencing leaders' affiliation behaviour, as people, including leaders, have a tendency to avoid depressed people (Joiner & Coyne, 1999) and prefer to interact with people who are feeling more positive as that is more pleasant (Schaufeli, Maslach, & Marek, 1993). The organizational context and work environment may also impact on the dynamics between leaders and employees, in addition to employees and leaders having an impact on their work environment and vice versa. As such, an important part of the psychosocial work environment can be described as an ongoing co-creation by the employees and leaders (Pearce & Cronen, 1980). Furthermore, an individuals' ability to cope with conditions and demands at work is of high importance (Lazarus & Folkman, 1992). Therefore, we need to take individual as well as situational and relational factors into account in future research.

Finally, increased knowledge about the transfer of stress between leader and employees may lead to a more appropriate development of interventions regarding stress reduction and management. Looking at the field of stress reduction and stress management, major practitioner and consultancy activity is emerging. However, this activity is hardly based on current research, and it has contributed only scarcely to the research field. The methods used are rarely tested, and the mutual enhancement of research and practice is a theoretical possibility rather than a fact in the field of organizational stressors (Kompier & Cooper, 2007; Semmer, 2006), although a small but growing body of literature supports the effectiveness of leadership development as a means of positively influencing health and safety relevant outcomes (Kelloway & Barling, in press).

Conclusion

In evaluating the evidence for our three research questions, we found limited support for the proposition that leader stress and well-being is associated with employee stress and well-being. Although no theoretical connection was suggested in the literature, this might be explained by the stressed leader's negative behaviour affecting employees, as we found that positive leader behaviour, leader support and transformational leadership were associated with high employee affective well-being and low degrees of employee stress.

Although the literature on both stress and leadership in general is comprehensive, empirical research on how leader stress is related to stress among employees and on the interactions between leaders and employees in relation to stress and affective well-being has to date been limited, and consists mostly of reported associations in cross-sectional studies. In this era of evidence-based practice, longitudinal research that adequately accounts for possible misinterpretation is urgently needed. Alignment of measurement tools would enable comparisons of studies, and mixed

methods design that included qualitative research could begin to entangle underlying causes. We suggest that areas for future research include more investigation of stress dynamics concerning leader–employee interaction, which would add to evidence-based interventions aimed at the management of stress and its reduction or prevention.

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