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Original Article

A longitudinal study of working life among first-line managers in the care of older adults☆,☆☆,★,★★

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ABSTRACT

Aim: To study whether the number of subordinates plays a role in first-line managers' and subordinates' ratings of empowerment, stress symptoms, and leadership–management performance. The aim was also to study relationships between managers' empowerment and stress symptoms and leadership–management performance.
Methods: A longitudinal and correlational design was used. All first-line managers (n = 98) and their subordinates (n = 2085) working in the care of older adults in five municipalities were approached.
Results: With fewer (≤30) subordinates per manager, there were higher ratings of structural empowerment among managers and subordinates and lower stress symptoms among subordinates, than with ≥31 subordinates. Furthermore, structural empowerment was related to the managers' stress symptoms and leadership–management performance, mediated through psychological empowerment. Moreover, structural empowerment can control/adjust for large numbers of subordinates in relation to stress symptoms.
Conclusion: The higher FLMs rated their access to empowerment, the lower stress symptoms and higher leadership–management performance they rated over time.

1. Introduction

The work situation for managers and staff in healthcare settings has been reported as challenging, stressful (Kath, Stichler, & Ehrhart, 2012; Shirey, Ebright, & McDaniel, 2008; Shirey, McDaniel, Ebright, Fisher, & Doebbeling, 2010; Stranz, 2013) and emotionally exhausting (Stranz, 2013; Van Bogaert et al., 2014). In the care of older adults, many managers have themselves experienced pressure from high demands resulting in high stress and low work effectiveness (Berntson, Wallin, & Harenstam, 2012). The difficult work situation is compounded by large numbers of subordinates directly supervised by them (Wallin, Pousette, & Dellve, 2013). As leadership–management performance is central for organizational effectiveness, and systematic reviews have stated that leadership is important for creating a healthy working life for subordinates (Brady Germain & Cummings, 2010; Cummings et al., 2010), supporting systems for FLMs need to be in place. According to Kanter's theory of structural empowerment (1993), good structures create feelings of being in control at work, i.e. wellbeing and organizational effectiveness. For managers, Brown, Fraser, Wong, Muise, and Cummings (2013) report three complex categories influencing managers' working life; organizational (e.g. structural empowerment), role related (e.g. role expectations, support, number of subordinates, work–life balance) and personal (e.g. psychological empowerment, feeling valued, job satisfaction). While cross-sectional studies have provided growing evidence of the benefits of empowering work conditions for organizations and nurses in hospital settings (Knol & Van Linge, 2009; Laschinger, Leiter, Day, & Gilin, 2009), there have been few longitudinal studies investigating managers' (Brown et al., 2013) and subordinates' working life conditions in the care of older adults. In the present study, the focus is primarily on studying first-line managers' (FLMs) structural conditions, measured as structural empowerment and number of subordinates, and their link with FLMs' ratings of wellbeing, measured as stress symptoms, and organizational effectiveness measured as leadership–management performance. Furthermore, the aim is also to study whether this link is mediated by psychological empowerment. Therefore, by extending earlier research using a longitudinal design and combining the number of subordinates with empowerment; stress

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symptoms, and leadership–management performance; we hope to deepen our understanding of these relationships.

2. Theoretical framework

In the present study, Kanter's organizational theory (1993) of structural empowerment and Spreitzer's concept (1995) of psychological empowerment have been used to examine the link described above between empowerment and the outcomes; stress symptoms and leadership–management performance. Kanter's (1993) theory describes essential structures that promote the individual's working life and organizational effectiveness; in the present study measured as FLMs stress symptoms and leadership–management performance. Individuals are empowered by having access to; *opportunity* (learning and advancing in the organization), *information* (having knowledge about the work and the organization), *support* (obtaining guidance and feedback from superiors, colleagues and subordinates) and *resources* (having sufficient time, materials and money). Access to these structures is dependent upon the individual's access to *formal power* (having a visible job that is important to the organization) and *informal power* (having positive work-related alliances).

The psychological perspective, concerning the individual's reflections on his/her own work role, is defined by Spreitzer (1995). According to Spreitzer's concept of psychological empowerment, four cognitive dimensions must be fulfilled if the individual is to take an active approach to his/her work role, thus achieving some degree of role- and context-related influence (i.e. feeling psychologically empowered). These dimensions are; *meaning* (the value of the workplace's goals in relation to the individual's values and behaviours), *competence* (the individual's confidence in his/her ability to perform the job), *self-determination* (a sense of having autonomy and of controlling the work) and *impact* (a sense of being able to influence administrative, strategic and operating outcomes).

The number of subordinates for each manager is an important structural factor that may affect the working life of both managers and subordinates. Large numbers of subordinates, the diversity of staff and the complexity of units are some factors that are negatively associated with managers' work control, job satisfaction (Wong et al., 2015), organizational commitment (Havaei, Dahinten, & MacPhee, 2015), and are positively associated with managers' role overload (Wong et al., 2015). When examining the number of subordinates and leadership style together, Lucas, Laschinger, and Wong (2008) report that with a large number of subordinates, the impact of managers' emotionally intelligent leadership is weaker on subordinates' sense of workplace empowerment within hospitals. However, no studies have been found investigating if the number of subordinates plays a role in FLMs' and subordinates' working life outcomes of empowerment, stress symptoms, and leadership–management performance in the care of older adults.

Several studies support Kanter's theory (1993) and Spreitzer's concept (1995) of empowerment in nursing. Positive relationships between structural and psychological empowerment have been reported in a systematic review of nurse's working life (Wagner et al., 2010). In addition, psychological empowerment has been shown to be a mediator between structural empowerment and different aspects of work and individual outcomes (e.g. Knol & Van Linge, 2009; Laschinger, Finegan, Shamian, & Wilk, 2001; Meng, Jin, & Guo, 2016). However, only two Canadian studies have been found using a longitudinal approach to link structural and psychological empowerment to nurses' job satisfaction (Laschinger, Finegan, Shamian, & Wilk, 2004) and burnout rates (Laschinger, Finegan, Shamian, & Wilk, 2003), and none in the care of older adults. Cross-sectional studies among nurses have found that structural and psychological empowerment was negatively associated with work stress (Li, Chen, & Kuo, 2008) and burnout (Meng et al., 2015, 2016). However, most studies investigate these relationships among nurses (Guo et al., 2015), rather than from the perspective of managers. For managers, previous research describes that structural and psychological empowerment has been associated with positive outcomes in leadership styles and increased self-confidence in the role (Macphee, Skelton-Green, Bouthillette, & Suryaprakash, 2012), and is linked to leadership–management performance (Abdelrazek et al., 2010). Furthermore, structural empowerment has been associated with perceptions of self-efficacy (Laschinger & Shamian, 1994), which is important for a sense of confidence in managerial leadership. In summation, studies investigating the link between empowerment and wellbeing and organizational effectiveness in the same study are few (e.g. Wong & Laschinger, 2013). Therefore, these relationships need further investigation with different healthcare professionals, in other settings than hospitals, in varied geographical locations, and preferably using a longitudinal design (Wagner et al., 2010).

3. Aim and hypothesis

One aim was to investigate whether the number of subordinates plays a role in first-line managers' and subordinates' ratings of their structural empowerment, psychological empowerment, stress symptoms, and leadership–management performance. The main aim was to study relationships between FLMs' self-rated structural empowerment and psychological empowerment with their outcomes; stress symptoms and leadership–management performance. Four hypothesized models were tested adjusting for number of subordinates; **H1** Higher ratings of structural empowerment are related to lower ratings of stress symptoms and the effect is mediated by psychological empowerment. **H2** Higher ratings of structural empowerment are related to higher ratings of leadership–management performance, and the effect is mediated by psychological empowerment. **H3** Changes in structural empowerment over time are related to changes in stress symptoms, and the effect is mediated by changes in psychological empowerment. **H4** Changes in structural empowerment over time are related to changes in leadership–management performance, and the effect is mediated by changes in psychological empowerment.

4. Methods

4.1. Participants and procedure

A longitudinal and correlational design was used. Data were collected twice with an interval of one-year. Time 1 (T1) September 2010 to June 2011 and Time 2 (T2) September 2011 to June 2012. All FLMs ($n = 98$) and their subordinates ($n = 2085$) (nursing assistants, nurses' aides, registered nurses, physiotherapists and occupational therapists) working in the care of older adults (nursing homes or home-help services) in five municipalities in Sweden were approached. To be included, the FLMs must have worked in their current positions for at least six months, and the subordinates must have worked more than one month during the previous three-month period. Participants received via post to their workplaces; written information about the study, a coded questionnaire and a stamped return envelope. Two reminders were sent to non-responders. Participants were assured confidentiality; participation was strictly voluntary and could be discontinued at any time without explanation. The Regional Ethical Review Board approved the study.

4.2. Measurements

Structural empowerment was measured using The Conditions of Work Effectiveness Questionnaire-II (CWEQ-II) (Laschinger et al., 2001), which was translated to Swedish (Engstrom, Skytt, & Nilsson, 2011). The CWEQ-II consists of six factors (19 items); access to opportunity, information, support, resources, formal power and informal power. The responses range from 1 (none) to 5 (a lot). Factor scores are averaged and the factors are summed to give a total score. A total score of 6–13 indicates low levels of empowerment, 14–22 moderate, and