Ageing Int (2018) 43:366–389
https://doi.org/10.1007/s12126-017-9304-8

CrossMark

How Does Leadership Influence Quality of Care? Towards a Model of Leadership and the Organization of Work in Nursing Homes

Anders Kvale Havig[1,2] **· Brooke Hollister**[3]

Published online: 15 November 2017
© Springer Science+Business Media, LLC 2017

Abstract Research has shown that certain styles of leadership and the use of work groups are related to higher nursing home quality, but few studies have described *how* these factors influence quality of care. This study examines how, or through which processes or mechanisms, the: (1) use of work groups, and (2) active leadership are associated with high quality of care in Norwegian nursing home wards. In addition, with our findings, we propose a Model of Leadership and the Organization of Work in Nursing Homes. Qualitative data from field observations and interviews were used to answer the research questions. The analysis was conducted by comparing two groups of nursing home wards. Group 1 consists of the eight (20%) highest quality wards and group 2 of the eight (20%) lowest quality wards out of a sample of 40 wards. In the analysis, we listed similarities *within* each group and differences *between* the two groups in order to isolate characteristic, or mediator variables, that distinguish the high from the low quality wards. The analysis suggests that work groups influenced three, and leadership four, mediators, which in turn may influence nursing home quality. These seven mediators could help explain how work groups and leadership effect quality of care. We found that the use of work groups seemed to foster the development of psychological ownership, perceived insider status and shared mental models among care workers, while active leadership seemed to foster the development of a strong work ethic, positive work environment, professionalism, and an organizational vision. A Model of Leadership and the Organization of Work in Nursing Homes may be useful

✉ Anders Kvale Havig
havig@sunnsoft.no

Brooke Hollister
brooke.hollister@ucsf.edu

[1] Centre for Care Research, Gjøvik University College, Teknologiveien 22, N-2815 Gjøvik, Norway

[2] Norway & Social and Behavioral Sciences, UCSF School of Nursing, San Francisco, CA, USA

[3] Institute for Health Aging, UCSF School of Nursing, San Francisco, CA, USA

for nursing home owners, administrators, ward leaders, and policy makers interested in improving the quality of care in nursing homes. With knowledge of how the use of work groups and leadership influence quality of care, such processes can be cultivated and facilitated to achieve higher nursing home quality. Our findings imply that policies that encourage smaller work groups, enhance leadership skills of ward leaders, and minimize ward leader's administrative tasks may lead to higher quality of care in nursing homes.

Keywords Leadership · Quality of care · Nursing homes · Leadership model · Teams

Introduction

In previous articles, using quantitative methods, we have shown that active leadership, represented by task- and relationship-oriented leadership styles, and the use of teams or workgroups, are related to higher quality of care in nursing homes (Havig et al. 2011; Havig et al. 2013). These two factors have also shown to be positively related to quality of care in other studies in nursing homes (Anderson et al. 2003; Arling et al. 2007; Paulsen et al. 2004; Rantz et al. 2004; Wong et al. 2013). In this article we aim to find out how - or through which mediators - leadership and work groups are related to higher quality of care by using *a qualitative analysis* of field observations and interview data in high and low quality nursing home wards. By mediators we mean the processes or mechanisms through which work groups or leadership may influence quality of care. This concept is similar to that of mediator variables in quantitative research methods (Baron and Kenny 1986), though in a qualitative approach, our aim is not to determine causality, but rather better understand what these processes or mechanisms are and how they work. Based on the findings from this study, we also propose a Model of Leadership and the Organization of Work in Nursing Homes.

Qualitative research and the use of mixed methods may bring new and important insight to research fields mostly explored using quantitative methods (Eisenhardt 1989; Mintzberg 1979). In the nursing home sector, the need for a qualitative approach is underlined by Wong and Cummings in their literature about nursing leadership and patient outcome, "…qualitative approaches to the examination of leadership and patient outcomes must be encouraged and if possible, used to complement quantitative approaches to develop richer contextual descriptions of nursing leadership and the connections to outcomes. Qualitative findings may help to elucidate the mediators by which effective leadership influences the responses and behaviors of nurses in relation to their care of patients" (Wong and Cummings 2007).

Background

In the following, we will give a brief summary of theories of the organization of work and general leadership theory, followed by a background on quality of care in nursing homes.

Organizational Structure in Nursing Homes

Organizational structure may be defined as "the ways in which a nursing home ward divides and coordinates its care workers into distinct tasks" (Mintzberg 1979). Thus, the organizational structure of nursing homes provides the frames through which individuals see their workplace (Jacobides 2007). Organizational structure affects a nursing homes' actions through two distinct channels: (1) it provides the templates on which the daily work tasks and routines rest, and (2) it determines which care workers participate in particular decision-making processes, and to what extent their views shape the nursing home wards' actions (Jacobides 2007).

Care workers, which in Norway include registered nurses, auxiliary nurses, and in some cases, unlicensed workers; are often organized into work groups (Temkin-Greener et al. 2010; Yeatts and Cready 2007; Yeatts et al. 2008), as are many other types of workers (Hackman 2002; Yukl 2010). A work group, or team, may be defined as a: "…group that is made up of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the task they perform as members of a group, who are embedded in one or more larger social system (organization) and who perform tasks that affect others (such as customers or co-workers)" (Guzzo and Dickson 1996, p. 308). Of interest in this definition, is the emphasis placed on the interdependency among work group members, that the group is seen as a social entity, and that the work group operates as a real team (Havig et al. 2013). Research has shown that work groups are positively related to performance outcomes in nursing homes (Castle 2011; Havig et al. 2013; Rantz et al. 2004; Temkin-Greener et al. 2010; Yeatts and Cready 2007) as they are in other sectors (Gully et al. 2002; Guzzo and Dickson 1996; Tannenbaum et al. 1996; Yukl 2010).

Work groups may not influence organizational performance directly, but through mediators that influence performance (Baron and Kenny 1986). Previous research has identified several potential mediators that may evolve through work groups. Among the most influential mediators are: (1) a *common commitment* among the team members (Guzzo and Dickson 1996; Katzenbach and Smith 1993); (2) *psychological ownership* over the organizations target, a phenomenon in which a an employee develops possessive feelings for the target of the organizations (Avey et al. 2009; Brown et al. 2014; Pierce et al. 2001; Van Dyne and Pierce 2004); (3) *perceived insider status*, i.e., the degree to which an employee perceives him/herself as an organizational insider and feels that his or hers contribution is important for the organization's performance (Chen and Aryee 2007; Knapp et al. 2014); and (4) *shared mental models* among the members, i.e., a common understanding about the purpose of the team, its characteristics, the collective actions, the various team members' roles and the process by which the team coordinates (Cannon-Bowers et al. 1993; Edwards et al. 2006; Lim and Klein 2006; Tannenbaum et al. 1996).

Leadership Theory

Within the health care sector, Pointer has defined leadership as, "a process through which an individual attempts to influence the performance of a collective task in order to accomplish a goal" (Pointer 2006)(p. 128). This implies that leadership involves a common goal, and that an individual, i.e. the leader, is responsible for accomplishing

this goal on behalf of a work group. In nursing home wards, the unit under study, the main goal is to produce the highest quality of care possible with the available resources, and the leader is responsible for accomplishing this by enabling the care workers to carry out their work tasks in the most efficient way.

Through the history of leadership research, two different approaches dominate the discourse: the trait approach and the behavior approach (Glynn and DeJody 2010). *The trait approach* is based on the assumption that leadership is founded upon special attributes of leaders, like personality, motives, skills and values (Antonakis et al. 2004; Northouse 2009). According to this approach, these attributes are relatively stable, and predict how people act in different situations. Consequently, the approach advocates that some people are natural leaders or "born leaders," who have skills to lead in almost any situation or in any organization. Among the traits found to be important are *drive* (a broad concept that includes achievement, motivation, ambition, energy, tenacity and initiative), *leadership motivation* (the desire to lead but not to seek power as an end in itself), *honesty and integrity*, *self-confidence, stress tolerance* and *emotional stability* (Antonakis et al. 2004; Northouse 2009).

The *behavior approach* (Judge et al. 2004; Piccolo et al. 2012; Stogdill 1974) gained support in the 1950s and is concerned with what the leaders actually do, not what traits they display. Within this approach several different theories of leadership behavior have evolved: task-oriented, relationship-oriented, transformational, transactional and laissez-faire being among the most widely investigated. The first identified leadership styles were task- and relationship-oriented leadership, revealed in the well known Ohio and Michigan studies in the 1950s and 1960s. *Task-oriented leadership style* is primarily concerned with accomplishing the organizations' tasks in the most efficient and appropriate way (Bass and Bass 2008; Judge et al. 2004; Piccolo et al. 2012; Stogdill 1974). Consequently, the focus of task-oriented leadership is on actions required to make sure that the work processes are optimal and capable of fulfilling the organizations' goals and that the care workers have the right skills, work ethic and professionalism. On the other hand, *relationship-oriented leadership style* is concerned with enhancing the relationship between the leader and the staff and enhancing the interpersonal relationships within the work group, thereby optimizing the work environment. Leaders with a relationship-oriented leadership style are typically concerned with being friendly with, respectful to, supportive of, and concerned about staff (Bass and Bass 2008; Fleischman and Harris 1962; Judge et al. 2004; Piccolo et al. 2012; Stogdill 1974). *Transformational leadership* is a significantly newer leadership theory, and has gained relatively strong support among many researchers in the last decades. The transformational leadership style appeals to moral and ethical issues among the followers or workers, and aims to reform organizations (Avolio et al. 1999; Bass and Bass 2008; Yukl 1999; Yukl 2010). It has been seen as an enhanced form of leadership aiming to connect the follower's sense of identity to the organization's mission. The aim of transformational leadership is to create organizational vision, inspire and be a role model for their subordinates, thereby motivating them to higher levels of performance.

We consider leaders employing the three leadership styles above (task- and relationship-oriented leadership and transformational leadership) to be *active leaders*, in that they are actively involved in guiding their workers and the organization as a whole to a higher level of performance. In contrast to active leadership, *laissez faire*

leadership represents an absence, or lack of, leadership. Leaders that practice this kind of leadership abdicates responsibility, delay decisions, gives no feedback, and makes no effort to help followers satisfy their needs (Northouse 2009; Skogstad et al. 2007).

Numerous studies have shown a positive relationship between task-oriented, relationship-oriented and transformational leadership styles and various indicators of organizational performance (Bass and Bass 2008; Fisher and Edwards 1988; Judge et al. 2004; Piccolo et al. 2012; Yukl 2010). The associations between performance and relationship-oriented leadership are, however, somewhat weaker and less consistent than those with task-oriented leadership and transformational leadership (Judge et al. 2004), though there are some exceptions (Wong et al. 2013). Laissez faire leadership has shown a negative relationship with various outcome measures, and has even shown to be harmful to organizations as a whole (Skogstad et al. 2007; Yukl 2010).

The number of studies of leadership in nursing homes is, as described above, limited. However, there are a certain number of studies about nursing leadership in general. In a systematic review of the relationship between nursing leadership and patient outcomes, Wong et al. (2013) found that various types of relationship-oriented leadership were positively associated with various outcome measures. The authors underlined, however, that there were several limitations with the studies included in their analysis, and that definitions of leadership varied significantly. Additionally, a majority of the 20 studies included in their analysis were conducted in acute care settings, where the operating conditions are rather different from those in nursing homes.

Leadership may not influence organizational performance directly, but through mediators that influence performance. Previous research has identified several potential mediators that may evolve from active leadership in nursing homes. Among the most influential mediators are: (1) care worker's *work ethic* (Hjort 2002; Rantz et al. 2004); (2) positive *work environment* (Cummings et al. 2010); (3) *professionalism* of care workers (Baier et al. 2009); and (4) the existence and promotion of an *organizational vision* (Lipton 1996; Nanus 1992).

Quality of Care

Quality of care in nursing homes is considered a complex and multidimensional phenomenon (Kane et al. 2003; Nakrem et al. 2009; Rantz et al. 1999). As a consequence, there is no general consensus on how it should be defined or assessed. In his seminal work, Donabedian suggested three separate approaches to quality of care: structure, process and outcome (Donabedian 1980). This approach has gained strong support as a framework. Nursing home quality has further been divided into quality of care and quality of life (Kane et al. 2003). Within this division, *quality of care* encompasses clinical outcomes, such as the prevalence of pressure ulcers, weight loss, catheters, PEG feeding tubes, certain types of medication and restraints, and focuses on the quality and safety of care (Hjaltadóttir et al. 2012); while *quality of life* encompasses residents' well-being and their opportunities for choice, autonomy, privacy and meaningful social and physical activities (Kane et al. 2003).

In Norway, nursing home quality is defined by "The National Regulation of Quality of Care in Health and Social Services" (HOD 2003), which has been shown to be well suited for measuring quality of care in nursing homes (Romøren 2005) and has been

used to develop quality of care items and questionnaires in this, and several previous, studies (Kirkevold and Engedal 2006; Paulsen et al. 2004; Romøren 2005). The regulation defines quality of care as a multidimensional phenomenon that encompasses both quality of care and quality of life dimensions (Nakrem et al. 2009); focusing not only on the presence of deficiencies and lack of adequate care, but also on the presence of positive outcomes for the resident.

Norway has no national register like the Minimum Data Set (MDS) in the United States, nor a registry of complaints or deficiencies that is suitable for research purposes. Additionally, the external health inspections of nursing homes in Norway are conducted infrequently and not suitable for comparing quality of care between different nursing home wards. Consequently, data about quality of care in Norway's nursing homes are limited and researchers interested in nursing home quality must collect primary data to address their research questions. For this study, we used a subsample of nursing homes where quality had previously been determined based on care worker and relative rankings of quality and field observations.

Aims

The aims of this study are to reveal how - or through which mediators (processes or mechanisms) - the (1) presence of, or lack of, work groups; and (2) leadership, or lack of leadership, influence quality of care. Finally, based on both the quantitative (Havig et al. 2011; Havig et al. 2013) and qualitative findings from this study, we propose a Model of Leadership and the Organization of Work in Nursing Homes. With knowledge of how work groups and leadership influence quality of care, such mediators can be cultivated and facilitated to achieve higher quality of care in nursing homes. A Model of Leadership and the Organization of Work in Nursing Homes can be useful for nursing home owners, administrators, ward leaders, and policy makers interested in improving the quality of care.

Methods

Study Design

In contrast to the majority of other studies about leadership and quality of care (Wong et al. 2013), the nursing home ward, rather than the facility, was used as the unit of analysis. Research at the facility level not only excludes the ward leader as a predictor, but also ignores the fact that the organization of work and quality of care may differ substantially from one ward to another within a nursing home (de Jonge et al. 1999; Snijders and Bosker 1999).

Previous analyses led to a ranking of participating wards related to overall quality of care, as measured by quantitative data from three independent sources: surveys of relatives, surveys of care workers, and rankings by the field observer (Havig et al. 2011). Details about how quality of care was assessed are provided in Havig et al. (2011, 2013). In order to answer the research questions, two groups were selected for qualitative analysis. Group 1 consisted of the eight (20%) highest quality wards and group 2 of the eight (20%) lowest quality wards.

Sample

Forty wards located in 22 nursing homes participated in the study, with a maximum of four wards in each nursing home. The nursing homes were located in towns in 11 medium population (6000–20,000) and large population (> 20,000) municipalities in seven Norwegian counties (Finnmark, Nord-Trøndelag, Hordaland, Hedmark, Oslo, Akershus and Aust-Agder). These seven counties were selected to achieve geographical spread across Norway. Special care units for severe dementia, short-term units, rehabilitation units and hospice units were excluded as such wards often have a different structure and relatively more staff than ordinary long-term care units. All nursing homes were public and nonprofit in nature, and were owned and run by local municipalities. The nursing homes ranged in size from 20 to 152 beds, with a mean of 63; the wards ranged in size from 7 to 34 beds, with a mean of 18. The eight high quality wards had a mean of 17.5 beds, while the eight low quality wards had a mean of 23.1 beds. The staffing levels in the high quality wards was 0.81 full time equivalent (FTE) per residents and in the low quality wards 0.77, and the ratio of Registered Nurses (RN) to other staff was 0.28 in the high quality wards and 0.25 in the low quality wards.

Data Collection

Qualitative data were collected through 20 to 30 h of field observations at each ward, and interviews with the ward leaders and the directors of the nursing home. Notes were taken during the field observations and the interviews, and a summary report was written immediately after visiting each nursing home.

Field Observations

Structured field observations of nursing home wards were conducted to address the broad research questions of the study, including: (1) how the presence of or lack of work groups influence quality of care, and (2) how leadership or lack of leadership influence quality of care. *Structured observations* are normally associated with research within natural science, and aims to provide measurable and quantifiable data that are valid and reliable (Mulhall 2003; Pretzlik 1994). In structured observations, the researcher should attempt to be as objective as possible and not contaminant the data with personal preconceptions (Jorgensen 1989; Mulhall 2003; Pretzlik 1994; Verd 2004). While this is ideal, it is often impractical in that research can also benefit from the expertise and experience of researchers (Madill et al. 2000). In order to balance the demand for objectivity with the need for expertise, researchers are expected to disclose and account for any experience that may influence their interpretations (Altheide and Johnson 1994; Mauthner and Doucet 2003). With such reflexivity, and in full disclosure, the first author and primary data collector has 6 years of experience working in nursing homes as an unlicensed care worker. While data was collected as objectively as possible, findings should be considered with this in mind. However, the perspective gained by the experience of working as an unlicensed care worker likely outweighs the limitations posed by any influence on objectivity.

Field observations examined how the wards were organized and how the leaders executed their leadership. This type of data is challenging to obtain through ordinary questionnaires and interviews. The first author conducted the field observations. Each of the 40 participating wards were visited and observed for 20 to 30 h (over three to 4 days), depending on its size. In total, 900 h of field observations were conducted. Both day and evening shifts were observed. A uniform was worn during field observations to allow the observer to blend into his environment. The observer also participated in daily activities and in conversations with the care workers and relatives, however he did not take part in care activities. Being an observer-participant adds to the richness of the data collected through field observations (Gold 1958).

Field observations were overt, in that the care workers were aware of the observer's presence, the aims of the research, and the role of the observer (Flick 2009). To avoid possible bias by a change in care worker behavior during the observations, all care workers were reassured of their anonymity as a participant in the study. Care workers were also informed that no data collected during the field observations would be made available to the administration of the nursing home or any other parties in a way that would identify wards, nursing homes, residents or individual care workers. Previous research in nursing homes indicates that care worker behavior is not significantly influenced by the presence of a field observer (Schnelle et al. 2006).

Field observation notes were continuously taken on a PDA (Pocket PC) during the field observations and after each shift. The notes included the following types of remarks: descriptions of actual events; verbatim dialogue between care workers, between the care workers and the ward leader, and between the care workers and the field observer; interpretation and analysis of behavior and situations; and various reflections (Eisenhardt 1989; Mulhall 2003; Tjora 2012). Some of the field notes were also reflection about the situations observed and how one specific case observed differed from other observed cases (Eisenhardt 1989). A field observation protocol instrument was created to guide the observer to areas of interest regarding the research questions, including: (1) the organization of the nursing home, (2) how the ward leader executed his/her leadership, (3) the organizational capacity of the nursing home, and (4) particular circumstances at the nursing home related to leadership and the organization of work.

Following data collection at each facility, a summary report was written. The standardized reports were between 4 and 10 pages (single spaced) and summarized the four themes from the instrument described above, any additional analytic comments or memos written by the observer on the nursing home and the leadership executed at the ward, and the raw field notes from the field observations.

Interviews with the Ward Leaders

Ward leaders were interviewed using a using a semi-structured interview protocol. The interviews took place in ward leaders' offices over the course of field observations, and were conducted by the first author. The semi-structured interview questions focused on themes about leadership and leadership challenges and organization of the nursing home and the ward. The respondents were asked specifically about what they thought was important in relation to leadership, how they communicated with their superior and subordinates, what they thought about the present organization at the nursing home,

and what kind of organization of work they preferred. Several questions were also general open-ended questions, encouraging the respondents to share their experiences with leadership and organization of work. Notes were taken during the interviews, with quotes captured verbatim where possible. A summary of the interview was written immediately following the interview.

Analysis

Qualitative data from field observations and interviews from two groups of nursing homes were included in the analysis. Group one consisted of the eight nursing home wards (20%) with the highest quality score and group two consisted of the eight wards (20%) with the lowest score.

Qualitative data analysis uses a general inductive thematic analytical approach, allowing research findings to emerge from the frequent, dominant or significant themes found in the data (Ezzy 2002). Content was examined for the following themes: how - or through which mediators - leadership and work groups, or lack of thereof, influenced quality of care. Themes were coded and compared *within* each group and *between* the two groups to reveal similarities and differences (Eisenhardt 1989). This comparative analysis was informed by qualitative comparative analytical approaches that seek to identify the mediators (processes or mechanisms) that have to be present across multiple cases to produce a particular outcome (e.g. quality of care)(Ragin 2014).

Based on the list of characteristics of the two groups and the overall impression from the field observations and the interview data (Eisenhardt 1989), tentative themes and relationships emerged, enabling us to: (1) isolate processes or mechanisms that worked as mediators between leadership and work groups and quality of care, and (2) propose a Model of Leadership and the Organization of Work in Nursing Homes. After constructing the model, we tied our model to existing literature in order to enhance its internal validity, generalizability, and its theoretical value (Eisenhardt 1989).

Ethical Considerations

This study was approved by the Norwegian Social Science Data Services (NSD), in addition to the local directors of long-term care in participating municipalities. Consent procedures for ward leaders and care workers included a description of the study, expectations of participation, procedures taken to ensure confidentiality, and the voluntary nature of the study. Ward leaders and care workers were provided this information in written format prior to discussing the study with the observer and giving verbal consent. Participants were informed that confidentiality was assured and that they had the right to withdraw from the study at any point. Care workers were also informed that no data collected during the field observations would be made available to the administration of the nursing home or any other parties in a way that would identify their nursing home, ward, or any individual care workers. Nursing homes, wards, and care workers were all assigned participant ID numbers to ensure confidentiality of data collected during participant observation, survey data collection, and interviews. The first author had no access to medical records and no data was collected on individual residents. Prior to field observations, the first author signed a non-disclosure agreement with each nursing home.

Results

Qualitative data analysis validates previous findings that *work groups* (Havig et al. 2013) and *active leadership* (Havig et al. 2011) are associated with high quality of care in nursing homes. Additionally, analysis revealed that use of work groups and active leadership seem to influence several mediators that, in turn, may influence nursing home quality (Fig. 1). These mediators were: *psychological ownership, perceived insider status, shared mental models, work ethic, work environment, professionalism* and *organizational vision.* In the following, we will present how active leadership and work groups could result in these seven mediators, and how they, in turn, might be associated with quality of care in the nursing homes.

Work Groups

In all eight high quality wards, care workers were divided into smaller work groups, or teams, that cared for the same residents every time they were on duty. These work groups typically consisted of 5 to 7 care workers (divided on day and evening shift, 2–4 care workers per day shift and 2–3 per evening shift), who were responsible for 7 to 12 residents. The work groups operated fairly independently and had their own meetings, reports, team administrator, and, occasionally their own office. In the low quality wards, only 2 out of the 8 wards were organized into stable work groups. Lack of workgroups implied that care workers worked with different colleagues and residents almost every time they were on duty, and that reports and meetings were held at a ward level with the entire work staff present.

Our analysis revealed that work groups fostered three mediators: (1) psychological ownership, (2) perceived insider status, and (3) shared mental models.

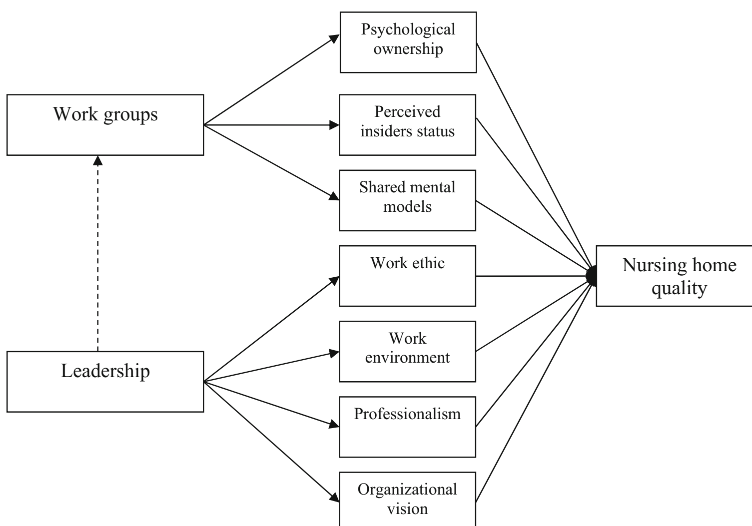

Fig. 1 Model of leadership and the organization of work in nursing homes

Psychological Ownership

In high quality wards, the stable environment that evolved from work groups seemed to lead to bonds between the care workers and between the care workers and the residents. These bonds tended to foster a feeling of *psychological ownership* among the care workers. This psychological ownership was not only directed towards the work tasks and the ward performance, but also to the residents and their well being. To exemplify this point, care workers at one of the high quality wards learned that one of the residents in their ward had received insufficient care by a new and inexperienced employee. Immediately after learning about this, the incident was discussed thoroughly among the care workers in the work group and the care workers took action to ensure that it did not happen again. By taking such immediate action to resolve inadequate care, the care workers showed that they would not tolerate inferior care on their ward. The care workers at this ward seemed to truly care about their resident's well being and to "suffer" personally when the resident was treated poorly.

Care workers who had developed psychological ownership also tended to do more than what was expected from them in order to give good care to "their" residents. For example, at one ward the care workers had redecorated parts of the ward in their spare time, without pay. At the vast majority of wards, this would have been inconceivable, but at this ward, the leader was particularly conscious about building strong and stable work groups in order to increase the level of ownership among the care workers – a goal at which she seemed to succeed.

In low quality wards, the instability evolving from rotation seemed to prevent the development of bonds, both between the care workers and between the care workers and the residents. The lack of these bonds tended to create a lower level of dedication to the daily operations of the ward and to a weaker identification with their residents and their well being. For example, did the care workers in low quality wards seldom used possessive terms like, "my" and "our," instead they tended to use the terms "they" and "them" when discussing residents. Furthermore, they did not show the same level of ownership when it came to a personal investment in resident's well being as the care workers did in the high quality wards. Also, care workers at lower quality wards did not tend to "go the extra mile" to meet the needs of the residents. Instead, their focus was more on getting the job done, not optimize the resident's well being. To exemplify the consequences of rotation, a care worker in one of the low quality wards stated, "Before the last reorganization, the ward was divided into smaller units and we did not rotate between different care workers and residents as we do today. The nursing home was operating way better with that model than the current model. Now many of the care workers don't seem to care that much anymore.".

Perceived Insider Status

In high quality wards, the bonds evolving from stable work groups also seemed to give the workers a feeling of identity and belongingness to the ward and a feeling that their contributions were important to the ward's performance. This phenomenon, often referred to as *perceived insider status,* did not seem to depend on the care worker's FTE, but more on the fact that they were part of

a stable work group where the workers knew each other and experienced stability in their interpersonal relations. The feeling of perceived insider status also tended to include other work groups at the nursing home, and other workers, including the cleaning personnel, and students working part time. Workers in these wards also tended to use the terms “we” and “us” when talking about their group, and they talked about the ward with pride. To exemplify the use of these terms, we can use a quote from a conversation with two care workers at one of the high quality wards "You will never smell pee at *our* ward. You might smell it at other wards, but not at *our* ward. *We* will not accept that here." The quote also demonstrates psychological ownership, as described above, in that the care workers show an investment in the outcomes of the nursing home and use possessive as well as inclusive language.

When present, perceived insider status had several positive effects, it: made the care workers more responsible towards the organization and its performance; enhanced their positive feelings towards the ward and the nursing home; and sometimes stimulated a feeling of positive competitive spirit between the work groups - as the above quote demonstrates.

In low quality wards, the lack of stability evolving from rotating staff seemed to create weaker bonds between co-workers, decrease their feeling of belongingness to the ward, and make them less responsible for their work place. The terms “we” and “us” were seldom used in these wards, with “I” instead representing the lack of an insider status. Weak perceived insider status among care workers seemed to result in more indifference toward the ward’s performance, and their co-worker and resident’s well being.

Shared Mental Models

In addition to creating a stronger feeling of *psychological ownership* and *perceived insider status*, work groups gave the care workers better knowledge about their co-worker’s way of operating, their strengths and weaknesses, and the assigned roles and collective actions required to accomplish the wards’ daily tasks. The presence of such knowledge between co-workers is often referred to as *shared mental models,* and implies that team members who are operating together share individual mental models. With shared mental models, care workers needed minimal communication and coordination to accomplish daily tasks, operated efficiently together, and were able avoid misunderstandings. Shared mental models were especially important during care activities that required high interdependency (e.g. morning care of residents, bed transfers, and execution of meals) or under situations that had barriers to verbal communication (tasks completed while residents were sleeping or when patient privacy was required).

In low quality wards, the rotation of staff resulted in care workers with less knowledge about their co-workers’ roles, routines, and work processes. This led to a need for more communication and coordination to accomplish simple, daily care tasks, and significantly more misunderstandings between the care workers. As a care worker in one of the low quality wards described, "all the rotation give me less knowledge about my co-workers and there is a lot of frustration and disorder at this ward." These inefficiencies tended to negatively impact the care worker’s ability to give high quality services.

Leadership

As shown in our previous study (Havig et al. 2011), leaders in high quality wards were significantly more likely to be considered active leaders by their employees than those in lower quality wards. Furthermore, in four of the low quality wards there was shared leadership and/or uncertainty about who was the actual leader, as exemplified by the following statements from care workers in these wards: "we do not know who the leader is," "I am not sure if it is [person A] or [person B] that is our leader," and "the shared leadership implies wing-clipped leaders with less authority." Additionally, three of the leaders in the low quality wards had their offices on another floor or in another part of the building, making them less available to the care workers.

The comparative data analyses revealed that active leadership influenced four mediators: (1) work ethic, (2) work environment, (3) professionalism, and (4) organizational vision.

Work Ethic

In high quality wards, leaders were concerned about the execution of daily work tasks, and monitoring the quality level. At the same time, they often included the workers in the decision-making process and, their work groups generally operated as relatively independent units with some oversight. In their communication with their subordinates, the leaders tended to be unambiguous, clear and frank. For example, if they were satisfied with their subordinates work, they praised the care workers and likewise, if they were dissatisfied, they were clear, but fair in their reprimand of them. The feedback, or supervision, was given in a constructive manner and it seemed like the subordinates respected and actually appreciated such clear and frank communication, even when they were reprimanded. Several care workers also expressed that such leadership made them feel more secure in their job. By monitoring the quality level and providing feedback to care workers, the leaders were clarifying and defining acceptable and unacceptable behavior at the ward and directing their care workers toward a desired course of action. Hence, they were enhancing the care worker's work ethic in the interest of the nursing home.

In low quality wards, the leaders were, in contrast, significantly less active and visible. Instead of focusing down toward the care workers, work processes, and quality outcomes, they tended to focus up toward facility management, paper work, administrative tasks, and meeting with their superiors. The leaders also gave less feedback to their subordinates, both positive and negative. To exemplify, in three of the low quality wards, during work hours, the care workers were allowed to stay in separate rooms talking about private, non-work related topics for long periods (up to 90 min) without any comment, interruption, or consequences from their leader. During these periods, the residents were not offered any kind of social or physical activities. An additional example is from the morning reports at one of the low quality wards. At this ward, the report started at 7:30 AM, and was over after 5 min, even if it was a relatively large ward. For the next 35 min, the care workers were sitting in the meeting room talking about private topics. This happened every morning during the visit, and the leader was not present at any of the reports, rather, working with paper work in her office. These

examples illustrate how unfavorable work ethic may develop when leaders are not active and permit bad work habits.

Work Environment

In high quality wards, leaders were concerned about supporting and developing care workers and building interpersonal relationships. They also took action to reduce and minimize conflicts between workers and tended to intervene before disagreements evolved into disruptive conflicts. By executing such active, relationship-oriented leadership, they were building positive and efficient *work environments* that fostered harmonious interpersonal relationships between the care workers and the care workers and the leaders and positive attitudes towards the organization and its goals. Positive end efficient work environments resulted in care workers who focused on their work tasks and the residents, rather than on interpersonal conflicts and disagreements.

In low quality wards, leaders were less supportive of care workers, cared less about their work situation and their well being and did not intervene in ongoing conflicts, or potential conflicts, as in the high quality wards. They also spent less time at the ward and did not have the same knowledge about their employees work situation as the leaders in the high quality wards. The result of this lack of leadership was often poor work environments, with interpersonal conflicts, and frustration, which distracted the care workers and turned their focus away from their daily work duties and the residents.

Professionalism

Leaders in high quality wards were not only concerned about the work ethic of and work environment among their employees, they also actively encouraged, inspired, and facilitated the *professionalism* of their care workers. They encouraged their care workers to consider their work in a professional context that required knowledge, skills and collaboration with other professionals, such as: medical doctors, physical therapists and occupational therapist. These leaders also tended to encourage the care workers to discuss the resident's medical status, their care needs, and how they could improve the resident's care. Furthermore, they often encouraged the registered nurses on the ward to share their knowledge with, and help provide guidance to the care workers. New workers and students were also often given extra support and close supervision by the ward leader. Some ward leaders even made binders with information and guidelines for students and new employees.

In contrast, in low quality wards, the leader's focus tended to be on getting the work done, rather than on *how* it was done. Consequently, the leaders did not stimulate or demand the same level of professionalism as in the high quality wards. The result was often indifference towards the ward's level of professionalism, less focus on the medical aspects of the care, and a lack of individualized care. New care workers and students also tended to be poorly trained and supported by their colleagues and the ward leader.

Organizational Vision

Finally, leaders in high quality wards were proactive in their efforts to build and transfer their organizational vision of the ward to the care workers. By organizational vision we

mean thoroughly considered ideas and performance goals for the ward, the care workers' roles and the treatment of the residents. The organizational vision tended to be expressed with pride, both from the leader and the care workers, and it seemed to bolster a shared identity between the ward leader and their care workers. In addition, their organizational vision contributed to enthusiasm among the care workers, making them more motivated to provide high quality services. To exemplify, at one high quality ward, both the ward leader (during the interview) and the care workers (during field observation) described a vision of no pressure ulcers among their residents. As one care worker stated, "with good and adequate care, pressure ulcers are unnecessary. You will seldom or never find residents with pressure ulcers at our ward.".

In contrast, in low quality wards, most of the leaders either lacked an organizational vision or failed to convey their vision to their care workers. Instead, these leaders focused mainly on management issues and challenges related to the daily operation of the ward, acting more like reactive administrators, and less like proactive leaders focusing on an organizational vision and performance goals. Without a proactive approach within their ward, these leaders were unable to inspire and transfer their organizational vision to the employees. Consequently, the care workers in these wards tended to have less enthusiasm and to be more indifferent about the ward's performance than those operating in wards inspired by an organizational vision.

Discussions

The findings from this qualitative study confirm previous findings from our two previous quantitative articles in that the use of *work groups* and *active leadership* are vital factors for quality of care in nursing homes. The analysis further suggest that work groups and active leadership could influence several mediators, which in turn may influence nursing home quality. These mediators can help clarify the nature of the relationship between leadership and work groups and quality of care. We found that work groups may foster the development of care worker's *psychological ownership, perceived insider status* and *shared mental models,* while active leadership encompassing task- and relationship-oriented leadership styles and elements of transformational leadership, fostered the development of care worker's *work ethic,* a *positive work environment, professionalism,* and an *organizational vision.* Based on these findings, we propose a Model of Leadership and the Organization of Work in Nursing Homes (see Fig. 1). The model has several similarities with the organizational model for nursing homes developed by Rantz et al. (2004). However, our model focuses more on the processes or mechanisms that may act as mediators between work groups and active leadership and higher quality of care. In the following we will discuss our results, our proposed model, and what consequences they may have for the operation of nursing homes.

Work Groups

In our Model of Leadership and the Organization of Work in Nursing Homes, work groups influence nursing home quality through three mediators: psychological ownership, perceived insider status and shared mental models. *Psychological ownership* has

been shown to increase employees' sense of responsibility to contribute to the organization's functioning (Avey et al. 2009; Pierce et al. 2001). P*erceived insider status* has been shown to be related to organizational performance (Chen and Aryee 2007) and the employees' sense of responsibility to an organization (Stamper and Masterson 2002; Wang et al. 2005). Research has also shown that S*hared mental models* are related to various organizational performance indicators (Edwards et al. 2006; Lim and Klein 2006; Yukl 2010).

Our results show that care workers in high quality wards were considerably more likely to have both strong feelings of psychological ownership and perceived insider status than care workers in low quality wards, implying that these mediators combined may be especially important for nursing home quality. Consequently, our model highlights these two mediators as potential target areas for nursing home leaders to monitor as they establish small, stable work groups.

Pierce et al. (2001) present three "routes" or processes that stimulate the development of psychological ownership among employees: (1) the amount of control an employee has over a particular organizational factor, (2) the extent to which an employee intimately knows a particular organizational factor and (3) the extent, or amount, and employee invests himself or herself into an organization's target, or goals. With stable work groups, a care worker belongs to a defined and smaller group of colleagues that serve a relatively stable group of residents, rather than a variable and larger group of care workers serving different residents almost every day. Additionally, smaller work groups are often empowered with the responsibility of accomplishing certain tasks and delegating work to achieve certain goals (Conger and Kanungo 1988; Yeatts and Cready 2007). Thus, it is likely that care workers operating in smaller work groups have more control over their everyday work life and environment than those who are rotating among different colleagues and residents. Likewise, work groups allow care workers to establish more enhanced personal bonds with their residents, gaining more intimate knowledge about them (Bowers et al. 2000). Finally, the closer bond between care workers and their residents evolving from work groups will likely lead to a higher investment of the care worker in the resident's well-being (a "target," or goal, of nursing home organizations) (Eika 2006). Hence, smaller work groups are likely to foster all three processes of psychological ownership suggested by Pierce et al. (2001): controlling the target, coming to intimately know the target and investing the self into the target.

The presence of shared mental models have shown to be particularly effective under circumstances of high interdependency, high workload, time pressure and in situations that do not permit lengthy communication and strategizing among the team members (Lim and Klein 2006; Tannenbaum et al. 1996). In nursing homes, there are generally low staffing levels and heavy workloads, the work is typically labor intensive and a close collaboration between the care workers is necessary to accomplish the daily tasks (Clarke 2001; Gittell et al. 2008; Temkin-Greener et al. 2010). Consequently, we propose that nursing homes encourage the development of shared mental models and the use of smaller work groups.

However, work groups by themselves are not sufficient for high nursing home quality, (Hackman 2002; Havig et al. 2013) and they could have negative effects under some circumstances. For example, stable environments evolving from work groups could foster interpersonal conflicts (De Dreu and Weingart 2003; Wall and Callister

1995), a conformist climate and culture that limits innovation and new thinking may develop (Edmondson 2003; Katz 1982), and extremely high levels of psychological ownership that may have a counter-productive effect on quality (Van Dyne and Pierce 2004). For these reasons, work groups must be accompanied by active leadership (Burke et al. 2006; Hackman 2002; Yeatts and Cready 2007).

Leadership

Our comparative analysis showed that leadership influenced nursing home quality through four mediators: *work ethic* (Hjort 2002; Rantz et al. 2004), *work environment* (Cummings et al. 2010), *professionalism* (Baier et al. 2009), and *organizational vision* (Lipton 1996; Nanus 1992). Of particular interest, Rantz et al., in a similar study using a qualitative approach with field observation of 30 nursing homes, emphasized the importance of "getting the basic of care done" and developing an “active quality improvement program” in their organizational model (Rantz et al. 2004). While this supports our findings around active leadership, work ethic, and professionalism, we believe it also validates the importance of organizational vision.

In our model, active leadership should not be confused with authoritative leadership. In high quality wards, leaders included the care workers in the decision-making process and, their work groups tended to operate as relatively independent units with some oversight. Care workers also had the freedom to organize their own *work processes.* Hence, these leaders practiced the opposite of authoritative leadership by empowering their care workers. However, even if the leaders gave the workers freedom on how to organize their work processes, they actively controlled and gave feedback (both positive and negative) on the *outcomes of their work processes*. By doing so, they were ensuring that the care workers had a strong work ethic and professionalism, and that their ward was providing high quality services. The importance of controlling the outcome and giving constructive feedback is also emphasized by Rantz et al. in their organizational model for nursing homes: "An important feature in the model is the assessment of the basics of care and continual follow through by licensed nurses and the administrator to see that the basics of care are done and resident outcomes are achieved" (2004, p. 35).

It may be possible to argue that the need for assessing the outcome of the work processes is particularly important in nursing homes. A majority of nursing home residents have dementia (Selbæk et al. 2007), and consequently they will often have a limited understanding, or inferior information, about the quality of services they receive. These residents may also be unable to give adequate and satisfactory feedback to the nursing home leaders and owners about their quality of care, and deficiencies in care worker’s work ethic and professionalism (Eika 2006). Hence, to compensate for the lack of feedback from the impaired residents and to acquire accurate performance data, nursing home leaders may benefit from carefully monitoring the quality level and their care worker’s work ethic and professionalism (Nyland and Pettersen 2010). Such monitoring might be particularly important in countries without a national system for quality indicators, like Norway.

The importance in our model of active leadership building a strong work ethic, positive work environment, and professionalism, emphasizes the need for sufficient, embedded and present, and clearly distinguished leaders. These requirements have

several implications for nursing home owners and operators. First, the need for *sufficient* leaders implies that reducing the number of leaders, as several Norwegian nursing homes have done in recent years, might be a mistake. If there are too few leaders, their ability to build and enhance work ethic, work environment, and professionalism will be reduced. Second, the need for *embedded and present* leaders implies that leaders should be easily available for the care workers when necessary. Their office should be located at the ward, where the care activities are taking place, not on another floor or in another part of the building. Third, the need for role certainty implies that leaders should be *clearly distinguished* and there should be no uncertainty about who is the real leader. Role uncertainty might occur when leadership is shared between two persons or when specific leadership activities are delegated to others (Lindfors et al. 2009), and may result in decreased authority, less ability to execute leadership, and frustration among care workers.

The importance of active leadership further suggests that ward leaders should be protected from high amounts of unnecessary paperwork and other kinds of administrative work. In this regard, it is a paradox that nursing home leaders spend so much of their time on administrative work: a recent study found that Norwegian wards leaders spent an average of 25% of their time on reporting while directors of nursing homes spent an average of 32% (Gjertsen et al. 2012). While reporting is an important part of operating nursing homes, it might be more efficient if an assistant or other administrative personnel could relieve the leaders of some of their administrative work. It is the ward leader's responsibility to ensure that the nursing home meets its most important goal, providing high quality care and services; and it is the ward leader who has the authority to supervise and instruct the care workers to ensure that their strong work ethic, positive work environment, and professionalism help them achieve that goal.

Lastly, nursing home leaders have a high level of demand placed on them with 24/7 operation, high workloads, and low staffing levels (Harrington et al. 2012; Havig et al. 2011). In addition, nursing homes, at least in Norway, are operating in relatively static environments with limited competition and evaluation (Nyland and Pettersen 2010). Under such circumstances, a one-sided focus on daily operations, at the expense organizational vision, could easily occur. Consequently, important questions may be left unasked, such as: "What do we want to achieve at our nursing home?" “What is quality of care?” and "How can we give even better care to our residents?" As an integral component of our model, building an organizational vision by executing visionary leadership is essential even during a hectic workday and such activities should be stimulated.

Limitations

This study has several limitations. First, the use of multiple investigators would have been an asset. That would have enabled us to validate observations and interpretations of events and qualitative data. Second, when accomplishing field observations, there is always room for subjective interpretation of what is happening, and the field observer's background and experiences may influence the interpretations. However, as noted earlier, the perspective gained by the experience of working as an unlicensed care worker likely outweighs the limitations posed by any loss of objectivity. Third, a longitudinal design, where we followed the wards over time, could have strengthened

the conclusions of the study. Fourth, special care units for severe dementia, short-term units, rehabilitation units and hospice units were excluded. Thus, the model may not be as applicable to wards with such characteristics. Fifth, the wards under study were organized in rather different ways and the structural conditions in terms of building conditions, staffing levels, and staffing mix varied significantly. A more homogenous sample of nursing home wards might have strengthened our study. Lastly, the study was conducted solely in Norwegian nursing homes. Additional studies or testing of our Model of Leadership and the Organization of Work in Nursing Homes in international settings are needed.

Conclusions

In non-profit nursing home wards, the unit under study, the main goal is to produce the highest quality of care possible with the available resources, and the leader is responsible for accomplishing this by enabling the care workers to carry out their work tasks in the most efficient way. This study examines how - or through which mediators (processes or mechanisms) - active leadership and work groups, or lack thereof, may influence quality of care in nursing homes. In addition, based on the findings of this qualitative analysis and two previous quantitative articles about leadership in nursing homes, we propose a Model of Leadership and the Organization of Work in Nursing Homes. Such a model may be useful for nursing home owners, administrators, ward leaders, and policy makers interested in improving the quality of care in nursing homes. With knowledge of how work groups and active leadership may influence quality of care, such processes and mechanisms can be cultivated and facilitated to achieve better nursing home quality.

Our study and the proposed Model of Leadership and the Organization of Work in Nursing Homes have several implications. First, our results suggest that nursing homes wards should organize care workers into smaller work groups that care for the same residents every time they are on duty. By operating in smaller work groups, the care workers will be more likely to develop the mediators we believe are crucial to quality of care: psychological ownership over the ward and its targets, perceived insider status or belongingness to the organization, and shared mental models. Second, leaders in nursing home should execute active leadership aimed at building and enhancing their employees' work ethic, work environment, and professionalism. However, leaders should not disempower or micromanage care workers, instead they should monitor the overall quality level and facilitate and delegate in order to elicit the full potential of care workers. Furthermore, nursing home leaders should aim to build and promote an organizational vision of their ward and set goals for the nursing home, thereby inspiring and motivating care workers to higher levels of performance.

Finally, our findings emphasize the important role of the ward leader. It is the ward leader who determines the organization of work and it is the ward leader who is executing the daily leadership. Thus, it is vital for a nursing home to ensure there are both skilled and sufficient leaders, who are aware of what processes create higher quality of care and how to cultivate and facilitate those processes. Additionally, our results suggest that leaders should prioritize leadership activities and limit the amount of reporting and other administrative work. It is the leader who has the authority to

supervise and instruct care workers, who are the most vital factor for providing quality in nursing home. Hence, it is the administrative work, or parts of it, that should be delegated to others, not the execution of the daily leadership activities.

Acknowledgements The authors wish to express their gratitude to the nursing homes and their employees that participated in this study, and to the Research Council of Norway (Reference number: 187986/V50) for financing the study.

Compliance with Ethical Standards

Conflict of Interest Anders Kvale Havig and Brooke Hollister declare that they have no conflicts of interest.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Ethical Treatment of Experimental Subjects (Animal and Human) All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Abbreviations *MDS*, minimum data set; *FTE*, full time equivalent; *RN*, registered nurses

References

Altheide, D. L., & Johnson, J. M. (1994). Criteria for assessing interpretive validity in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 485-499). Thousand Oaks, CA: Sage Publications.

Anderson, R. A., Issel, L. M., & McDaniel, R. R. J. (2003). Nursing homes as complex adaptive systems: Relationship between management practice and resident outcomes. *Nursing Research, 52*(1), 12–21.

Antonakis, J., Cianciolo, A. T., & Sternberg, R. J. (2004). Leadership. Past, present, and future. In J. Antonakis, A. T. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (pp. 3–15). London: Sage Publications.

Arling, G., Kane, R. L., Mueller, C., Bershadsky, J., & Degenholtz, H. B. (2007). Nursing effort and quality of care for nursing home residents. *The Gerontologist, 47*(5), 672–682. https://doi.org/10.1093/geront/47.5.672.

Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior, 30*(2), 173–191. https://doi.org/10.1002/job.583.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership. *Journal of Occupational and Organizational Psychology, 72*(4), 441–462.

Baier, R., Butterfield, K., Patry, G., Harris, Y., & Gravenstein, S. (2009). Identifying star performers: The relationship between ambitious targets and nursing home quality improvement. *Journal of the American Geriatrics Society, 57*(8), 1498–1503.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173.

Bass, B. M., & Bass, R. R. (2008). *The bass handbook of leadership: Theory, research, and managerial applications*. New York: Free Press.

Bowers, B. J., Esmond, S., & Jacobson, N. (2000). The relationship between staffing and quality in long-term care facilities: Exploring the views of nurse aides. *Journal of Nursing Care Quality, 14*(4), 55–64.

Brown, G., Pierce, J. L., & Crossley, C. (2014). Toward an understanding of the development of ownership feelings. *Journal of Organizational Behavior, 35*(3), 318–338.

Burke, C. S., Stagl, K. C., Klein, C., Goodwin, G. F., Salas, E., & Halpin, S. M. (2006). What type of leadership behaviors are functional in teams? A meta-analysis. *The Leadership Quarterly, 17*(3), 288–307. https://doi.org/10.1016/j.leaqua.2006.02.007.

Cannon-Bowers, J. A., Salas, E., & Converse, S. (1993). Shared mental models in expert team decision making. In N. J. Castellan (Ed.), *Individual and Group Decision Making* (pp. 221–246). Hillsdale: Lawrence Erlbaum Associates.

Castle, N. G. (2011). The influence of consistent assignment on nursing home deficiency citations. *Gerontologist, 51*(6), 750–760. https://doi.org/10.1093/geront/gnr068.

Chen, Z. X., & Aryee, S. (2007). Delegation and employee work outcomes: An examination of the cultural context of mediating processes in China. *Academy of Management Journal, 50*(1), 226–238.

Clarke, E. (2001). Role conflicts & coping strategies in caregiving. A symbolic interactionist view. *Journal of Psychosocial Nursing and Mental Health Services, 39*(1), 28–37.

Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13*(3), 471–482.

Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E.,. .. Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. International Journal of Nursing Studies, 47(3), 363–385. doi:https://doi.org/10.1016/j.ijnurstu.2009.08.006.

De Dreu, C. K. W., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology, 88*(4), 741–749. https://doi.org/10.1037/0021-9010.88.4.741.

de Jonge, J., van Breukelen, G. J. P., Landeweerd, J. A., & Nijhuis, F. J. N. (1999). Comparing group and individual level assessments of job characteristics in testing the job demand-control model: A multilevel approach. *Human Relations, 52*(1), 95–122.

Donabedian, A. (1980). *The definition of quality and approaches to its assessment*. Ann Arbor: Health Administration Press.

Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies, 40*(6), 1419–1452. https://doi.org/10.1111/1467-6486.00386.

Edwards, B. D., Day, E. A., Arthur Jr, W., & Bell, S. T. (2006). Relationships among team ability composition, team mental models, and team performance. *Journal of Applied Psychology, 91*(3), 727.

Eika, K. (2006). *The difficult quality Essays on human services with limited consumer sovereignty.* (Ph.D), University of Oslo, Oslo.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review, 14*(4), 532–550.

Ezzy, D. (2002). *Qualitative analysis: Practice and innovation*. Crows Nest: Allen & Unwin.

Fisher, B.M., & Edwards, J.E. (1988). *Consideration and initiation of structure and their relationship with leadership effectivness: A meta-analysis*. Paper presented at the Academy of Management, Anaheim.

Fleischman, E. A., & Harris, E. F. (1962). Patterns of leadership behavoiur related to employee grievances and turnover. *Personnel Psychology, 15*, 43–56.

Flick, U. (2009). *An introduction to qualitative research*. London: Sage.

Forskrift om kvalitet i pleie- og omsorgstjenestene for tjenesteyting etter lov av 19. november 1982 nr. 66 om helsetjenesten i kommunene og etter lov av 13. desember 1991 nr. 81 om sosiale tjenester m.v. (2003). Helse- og omsorgsdepartementet, Oslo.

Gittell, J. H., Weinberg, D., Pfefferle, S., & Bishop, C. (2008). Impact of relational coordination on job satisfaction and quality outcomes: A study of nursing homes. *Human Resource Management Journal, 18*(2), 154–170. https://doi.org/10.1111/j.1748-8583.2007.00063.x.

Gjertsen, H., Solvoll, G., Gjernes, T. (2012). Tidsbruk og byråkrati i pleie og omsorgstjenester. NFreport 12/2012. Nordland Research Institute.

Glynn, M. A., & DeJody, R. (2010). Leadership through an organization behavior lens: A look at the last half-century of research. In N. Nohria & R. Khurana (Eds.), *Handbook of leadership theory and practice* (pp. 119–181). Boston: Harvard Business Press.

Gold, R. L. (1958). Roles in sociological field observations. *Social Forces, 36*, 217–223.

Gully, S. M., Incalcaterra, K. A., Joshi, A., & Beaubien, J. M. (2002). A meta-analysis of team-efficacy, potency, and performance: Interdependence and level of analysis as moderators of observed relationships. *Journal of Applied Psychology, 87*(5), 819–832.

Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology, 47*(1), 307–338. https://doi.org/10.1146/annurev.psych.47.1.307.

Hackman, J. R. (2002). *Leading teams: Setting the stage for great performances*. Brighton: Harvard Business Press.
Harrington, C., Choiniere, J., Goldmann, M., Jacobsen, F. F., Lloyd, L., McGregor, M., et al. (2012). Nursing home staffing standards and staffing levels in six countries. *Journal of Nursing Scholarship, 44*(1), 88–98. https://doi.org/10.1111/j.1547-5069.2011.01430.x.
Havig, A. K., Skogstad, A., Kjekshus, L. E., & Romøren, T. I. (2011). Leadership, staffing and quality of care in nursing homes. *BMC Health Services Research, 11*(1), 327.
Havig, A. K., Skogstad, A., Veenstra, M., & Romoren, T. I. (2013). Real teams and their effect on the quality of care in nursing homes. *BMC Health Services Research, 13*, 499. https://doi.org/10.1186/1472-6963-13-499.
Hjaltadóttir, I., Ekwall, A. K., Nyberg, P., & Hallberg, I. R. (2012). Quality of care in Icelandic nursing homes measured with minimum data set quality indicators: Retrospective analysis of nursing home data over 7 years. *International Journal of Nursing Studies, 49*(11), 1342–1353.
Hjort, P. (2002). Kommentar og debatt-Kronikk-Legens ansvar for kulturen i sykehjemmet. *Tidsskrift for den Norske Lægeforening, 122*(16), 1586–1588.
Jacobides, M. G. (2007). The inherent limits of organizational structure and the unfulfilled role of hierarchy: Lessons from a near-war. *Organization Science, 18*(3), 455–477.
Jorgensen, D. L. (1989). *Participant observation*. Hoboken: Wiley Online Library.
Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology, 89*(1), 36–51. https://doi.org/10.1037/0021-9010.89.1.36.
Kane, R. A., Kling, K. C., Bershadsky, B., Kane, R. L., Giles, K., Degenholtz, H. B.,. .. Cutler, L. J. (2003). Quality of life measures for nursing home residents. The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*,* 58(3), M240-M248. doi:https://doi.org/10.1093/gerona/58.3.M240.
Katz, R. (1982). The effects of group longevity on project communication and performance. *Administrative Science Quarterly, 27*(1), 81–104. https://doi.org/10.2307/2392547.
Katzenbach, J., & Smith, D. (1993). The discipline of teams. *Harvard Business Review, 71*, 111.
Kirkevold, Ø., & Engedal, K. (2006). The quality of care in Norwegian nursing homes. *Scandinavian Journal of Caring Sciences, 20*(2), 177–183. https://doi.org/10.1111/j.1471-6712.2006.00396.x.
Knapp, M., Comas-Herrera, A., Wittenberg, R., Hu, B., King, D., Rehill, A., & Adelaja, B. (2014). Scenarios of dementia care: What are the impacts on cost and quality of life? *Personal Social Services Research Unit, London School of Economics and Political Science*.
Lim, B.-C., & Klein, K. J. (2006). Team mental models and team performance: A field study of the effects of team mental model similarity and accuracy. *Journal of Organizational Behavior, 27*(4), 403–418. https://doi.org/10.1002/job.387.
Lindfors, S., Eintrei, C., & Alexanderson, K. (2009). Stress factors affecting academic physicians at a university hospital. *Work, 34*(3), 305.
Lipton, M. (1996). Demystifying the development of an organizational vision. *Sloan Management Review, 37*, 83–92.
Madill, A., Jordan, A., & Shirley, C. (2000). Objectivity and reliability in qualitative analysis: Realist, contextualist and radical constructionist epistemologies. *British Journal of Psychology, 91*(1), 1–20.
Mauthner, N. S., & Doucet, A. (2003). Reflexive accounts and accounts of reflexivity in qualitative data analysis. *Sociology, 37*(3), 413–431.
Mintzberg, H. (1979). An emerging strategy of" direct" research. *Administrative Science Quarterly, 24*(4), 582–589.
Mulhall, A. (2003). In the field: notes on observation in qualitative research. *Journal of Advanced Nursing, 41*(3), 306–313.
Nakrem, S., Vinsnes, A. G., Harkless, G. E., Paulsen, B., & Seim, A. (2009). Nursing sensitive quality indicators for nursing home care: International review of literature, policy and practice. *International Journal of Nursing Studies, 46*(6), 848–857.
Nanus, B. (1992). Visionary Leadership: Creating a Compelling Sense of Direction for Your Organization. Jossey-Bass Inc., 350 Sansome Street, San Francisco, CA.
Northouse, P. G. (2009). *Leadership: Theory and practice* (5nd ed.). Los Angeles: Sage.
Nyland, K. & Pettersen, I. J. (2010). Økonomistyring i staten - likhet eller mangfold?, *Magma, 13* (4). Retrieved from https://www.magma.no/oekonomistyring-i-statenlikhet-eller-mangfold.
Paulsen, B., Harsvik T., Halvorsen T. & Nygard L. (2004). Bemanning og tjenestetilbud i sykehjem. SINTEF report 10/2004. SINTEF Health.
Piccolo, R. F., Bono, J. E., Heinitz, K., Rowold, J., Duehr, E., & Judge, T. A. (2012). The relative impact of complementary leader behaviors: Which matter most? *The Leadership Quarterly, 23*(3), 567–581.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *The Academy of Management Review, 26*(2), 298–310.
Pointer, D. (2006). Leadership: A framework for thinking and acting. In S. Shortell & A. Kalusny (Eds.), *Health care management* (pp. 125–147). New York: Delmar.
Pretzlik, U. (1994). Observational methods and strategies. *Nurse Researcher, 2*(2), 13–21.
Ragin, C. C. (2014). *The comparative method: Moving beyond qualitative and quantitative strategies*. Berkeley: Univ of California Press.
Rantz, M. J., Zwygart-Stauffacher, M., Popejoy, L., Grando, V. T., Mehr, D. R., Hicks, L. L., et al. (1999). Nursing home care quality: A multidimensional theoretical model integrating the views of consumers and providers. *Journal of Nursing Care Quality, 14*(1), 16–37.
Rantz, M. J., Hicks, L., Grando, V., Petroski, G. F., Madsen, R. W., Mehr, D. R.,. .. Maas, M. (2004). Nursing home quality, cost, staffing, and staff mix. The Gerontologist, 44(1), 24–38. doi:https://doi.org/10.1093/geront/44.1.24.
Romøren, T. I. (2005). Kvalitet i sykehjem sett fra tre kanter. *Tid skrift for Velferdsforskning, 8*(4), 226–233.
Schnelle, J. F., Ouslander, J. G., & Simmons, S. F. (2006). Direct observations of nursing home care quality: Does care change when observed? *Journal of the American Medical Directors Association, 7*(9), 541–544. https://doi.org/10.1016/j.jamda.2006.03.009.
Selbæk, G., Kirkevold, Ø., & Engedal, K. (2007). The prevalence of psychiatric symptoms and behavioural disturbances and the use of psychotropic drugs in Norwegian nursing homes. *International Journal of Geriatric Psychiatry, 22*(9), 843–849.
Skogstad, A., Einarsen, S., Torsheim, T., Aasland, M. S., & Hetland, H. (2007). The destructiveness of laissez-faire leadership behavior. *Journal of Occupational Health Psychology, 12*(1), 80–92.
Snijders, T. A. B., & Bosker, R. J. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. London: Sage.
Stamper, C. L., & Masterson, S. S. (2002). Insider or outsider? How employee perceptions of insider status affect their work behavior. *Journal of Organizational Behavior, 23*(8), 875–894.
Stogdill, R. M. (1974). *Handbook of leadership: A survey of theory and research*. New York: Free Press.
Tannenbaum, S. I., Salas, E., & Cannon-Bowers, J. A. (1996). Promoting team effectiveness. In M. A. West (Ed.), *Handbook of work group psychology* (pp. 503–529). Chichester: Wiley.
Temkin-Greener, H., Zheng, N. T., Cai, S., Zhao, H., & Mukamel, D. B. (2010). Nursing home environment and organizational performance: Association with deficiency citations. *Medical Care, 48*(4), 357–364. https://doi.org/10.1097/MLR.0b013e3181ca3d70.
Tjora, A. (2012). *Kvalitative forskningsmetoder i praksis*. Oslo: Gyldendal akademisk.
Van Dyne, L., & Pierce, J. L. (2004). Psychological ownership and feelings of possession: Three field studies predicting employee attitudes and organizational citizenship behavior. *Journal of Organizational Behavior, 25*(4), 439–459.
Verd, J.M. (2004). Qualitative research methods.
Wall, J. A., & Callister, R. R. (1995). Conflict and its management. *Journal of Management, 21*(3), 515–558. https://doi.org/10.1177/014920639502100306.
Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of Management Journal, 48*(3), 420–432.
Wong, C. A., & Cummings, G. G. (2007). The relationship between nursing leadership and patient outcomes: A systematic review. *Journal of Nursing Management, 15*(5), 508–521. https://doi.org/10.1111/j.1365-2834.2007.00723.x.
Wong, C. A., Cummings, G. G., & Ducharme, L. (2013). The relationship between nursing leadership and patient outcomes: A systematic review update. *Journal of Nursing Management, 21*(5), 709–724.
Yeatts, D. E., & Cready, C. M. (2007). Consequences of empowered CNA teams in nursing home settings: A longitudinal assessment. *Gerontologist, 47*(3), 323–339.
Yeatts, D. E., Cready, C. M., & Noelker, L. S. (2008). *Empowered work teams in long-term care : Strategies for improving outc omes for residents & staff*. Baltimore: Health Professions Press.
Yukl, G. (1999). An evaluative essay on current conceptions of effective leadership. *European Journal of Work and Organizational Psychology, 8*(1), 33–48. https://doi.org/10.1080/135943299398429.
Yukl, G. A. (2010). *Leadership in organizations* (7th ed.). Upper Saddle River: Pearson Education.

Anders Kval Havig , MSc, is a Researcher at Gjøvik University College (NTNU) in Norway. His research interests include quality of care in nursing homes, leadership theories, organization of work, and health economics. He has published several articles and reports on these topics. Mr. Havig's dissertation, *Leadership*

and Organization of Work in Nursing Homes, is currently under consideration at the University of Oslo Institute of Health and Society. Mr. Havig's interest in the field began when he worked as a nursing home assistant during his Masters studies at the Norwegian School of Economics. Mr. Havig served on the board of the Norwegian Gerontological Society from 2009 to 2012. Mr. Havig was a visiting research at the University of California, San Francisco from 2014 to 2016.

Brooke Hollister , PhD, is an Associate Professor and Principal Advisor for Policy and Dissemination in the Institute for Health & Aging at the University of California, San Francisco. Her teaching and research focus on aging health and social policy issues including: long term care, Social Security, Medicare, the Long Term Care Ombudsman Program, Alzheimer's disease supports and services, caregiving, and mental health. Dr. Hollister's research is funded by the National Institutes of Health, Administration for Community Living, The SCAN Foundation, and California Department of Public Health. Dr. Hollister is a co-editor of Health Policy: Crisis and Reform in the US Health Care Delivery System (6th Ed., 2012). She is currently a member of the Board of Directors of the American Society on Aging (ASA). Dr. Hollister received her PhD in Sociology from the University of California, San Francisco in 2008.