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Power, trust and motivation in hospitals.

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Abstract

Purpose/aim: The purpose of this paper is to improve understanding of how different kinds of power influence trust and motivation in hospitals.

Design/Methodology/Approach: To analyse the links between power, trust and motivation a framework of social power is tested on measures of trust in managers and motivation. Quantitative data from 137 respondents were collected. Partial Least Square is used to evaluate the theoretical model.

Findings: Legitimate, referent and reward power has a positive influence on trust, while coercive power has a negative influence on trust. 41.8 % of the variation in trust in managers was explained by power. Trust, reward power and expert power explained 30.9 % of the variation in motivation.

Research/Practical implications: The research indicates that in knowledge organisations such as hospitals, leaders should be careful in using coercive power. Expert power seems to influence motivation but not trust, while legitimate power seems to influence trust directly and motivation only through trust. Referent power seems to have a weak influence on trust and no direct influence on motivation. Reward power has a very strong influence both on trust and motivation.

Originality /Value: It is important for leaders to consider how power can influence trust and motivation and the performance of a health organization. Although this study was conducted in Norway and Finland, the findings may have relevance on a broader scale.

Paper type: Research paper

Keywords: Power, Trust, Motivation, Leadership, Hospital, PLS.

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Introduction

Most countries have had soaring operating costs in hospitals during recent decades. Hospitals are complicated organizations to run and have many powerful stakeholders including governments, employers, patients, doctors and nurses. As a result of the increasing costs and the conflicts of interest among the stakeholders, the management and efficiency of public healthcare has come more and more into focus and this has resulted in many health reforms both in Scandinavia and elsewhere. The health reforms in Scandinavia can be categorized under the umbrella of NPM (New Public Management). NPM has focused more on market forces and competition, and changed the way care is delivered. Because of the increased focus on savings, efficiency, organizing and management there has been a steep increase in scientific papers and books discussing better and more efficient leadership in hospitals and the health sector. Another indication of the increased interest in health management is the growth of education and certification programmes in healthcare management.

According to many authors, addressing the need to provide better services with rising costs and stronger regulations requires strategic thinking. Mintzberg (1998) compared management of an orchestra with leadership in a hospital where qualified and skilled individuals act according to their competence and procedures developed by their profession and not from the perspective of leadership or management. Healthcare relies heavily on knowledge and sharing knowledge from successful and less successful experiences is an important means, amongst others, of reducing errors. Reinhardt et al. (2011) describes knowledge workers as employees whose main capital is knowledge; within healthcare, these include physicians, nurses, medical technicians and administrators. According to Mintzberg (1998), knowledge workers need little supervision and empowerment. If knowledge workers do not respond to the leader's authority or the leader does not accept the knowledge workers' expertise, a problem occurs - the leader's authority downwards is blocked and the workers' authority upwards is blocked. Therefore, trust and motivation is very important for managing a knowledge organizations such as a hospital. Even if much has been written on hospital management and leadership few publications cover the influence of power on trust and motivation. Four Norwegian hospitals managers attending a top-level course for health managers wrote a "thesis" in which they discussed the influence of power. Storrøsten et al. (2007) claims that power is a negatively loaded construct in management and leadership in Norwegian hospitals. Few managers like to admit they use power, but they might accept that

they use influence. Storrøsten et al. (2007) discuss examples from their own experience where power was involved in Norwegian hospitals and they report that expert power and reference power were most used, while reward power, coercive power and legitimate power were used to a lesser extent.

Theory/Conceptual model

Power

Even if use of power seems to be negatively loaded among managers in Scandinavian hospitals authors such as Mintzberg (1998), Storrøsten et al. (2007) and McClelland (1975) are convinced that use of power is important for managers, and essential to leadership. McClelland (1975) sees power as a feature of leadership and claims that power exists within all workplaces because people require power to reach their and the organization's goals. Use of power between a manager and an employee can be tricky but one should have in mind that power can be used to improve the wellbeing and satisfaction of the workforce. Handling power positively can motivate and inspire the employees to reach their goals in an efficient way. However, power can also be used to bring fear and anxiety into the workplace. Power in organizations often exists as a result of an individual's position in time and place, as well as his or her personal qualities. The most familiar form is power over someone, which is explicit or implicit dominance and many authors discuss aspects of power used by supervisory or management groups (Yukl, 2010; Mintzberg, 1998). Yukl (2010) views power as "the capacity of one party (the agent) to influence another party (the target). The target might be a single person, or multiple persons." A theoretical framework that has received much attention in studies of social power was proposed by French and Raven (1959). They identified five types of social power: reward, coercive, legitimate, expert, and referent and described these powers as relationships the successful leader effectively uses to influence employees. In research papers, the five power bases used by managers is related to subordinates' satisfaction, organizational commitment, motivation and trust (Hinkin and Schriesheim, 1989; Yukl, 2010). French and Raven's five different powers are described by Håvold (2009):

- *Reward power* "is the power of praise, pay raise, giving bonuses. Both tangible and intangible rewards can be given or withheld to mobilize this power" (p.36).

- *Legitimate power* "rests in the belief among employees that their manager has the right to give orders based on his or her position. This is the power which a leader has by virtue of his position" (p.36).
- *Referent power* "rests heavily on trust. It is an informal kind of power which comes from the personal characteristics of the leader, where the co-workers and subordinates like them, the respect them and stay loyal towards them" (p.35).
- *Expert power* "is based on one individual believing that another individual has so much expertise in an area that they believe everything that is being told to them" (p.35).
- *Coercive power* "is the power of punishing the subordinates; there are many different ways of doing this, ranging from verbal lashing to reduce pay or firing the individual" (p.36).

Yukl (2010) have differentiated how power is used in organizations; upward, when a subordinate influences a supervisor, downward when a supervisor influences a subordinate, and lateral when peers are influencing one another. Storrøsten et al. (2007) found nearly no systematic use of reward power as a tool to increase efficiency in Norwegian hospitals. Even though they found that the use of reward power seemed to be socially unacceptable in Nordic public administration, they argue and propose that reward power could be used much more actively to reach organizational goals and increase motivation in Norwegian hospitals. According to Storrøsten et al. (2007), Norwegian hospital managers appear reluctant to use legitimate power because they lack decisiveness, and are afraid to be criticized while practicing their legitimate power. On the other hand they claim that referent power is a power used by both managers and employees in Norwegian hospitals. According to Sørhaug (1996), referent power can be strong in knowledge organizations because it is important for individuals that management and colleagues recognize employees' competence and skills. Social credits and reputation are gained by being seen and endorsed by management and other skilled employees. Storrøsten et al. (2007) reports that expert power is stronger than legitimate power in Norwegian hospitals, and it seems important for hospital management to use this power to motivate employees towards the goals of the hospital. However, one of the main problems in hospital management is that strong expert power can hinder cooperation. Conflicts based on expert power dominate in hospitals, and if an expert uses both expert

power and referent power the manager might find themselves under severe pressure. Coercive power is not much used in Norwegian hospitals as doing so is problematic in this kind of knowledge organization since employees can take their knowledge and competence and leave. Reprimand or punishment will also obliterate initiatives to create, share and apply knowledge and influence future attempts to do so by other employees in organizations. How a manager exercises power can be the difference between a highly respected leader and a feared leader who creates negative feelings that might have a great influence on efficiency.

Trust

Journals such as *Academy of Management Journal*, *Academy of Management Review* and *Organization Science* have presented special issues on trust related themes and newer review papers like those by Paliszkiewicz (2011) and Mineo (2014) cover empirical research on organizational trust. Rousseau et al. (1998) define trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another" (p. 395). It seems as though trust is meaningful in situations where one party is vulnerable in relation to another party and thereby important in relationships between leaders and followers, who by definition have different roles and different levels of status and power. Research shows that trust is important for the well-being of employees, reducing risk and operating costs and increasing commitment and productivity in business environments. Trust also appears to be important in connection with successful implementation of organizational change, and it is associated with higher levels of job satisfaction, higher organizational commitment, and lower intention of quitting.

Both the trust that individuals have in their leaders and the trust leaders have in their followers is important in management. Building trust takes time and it can easily be damaged. Trust is included as an important element in transformational, leader–member exchange theory and charismatic leadership theories. Trust is also an important dimension of leader behavior, for effective leadership, for shaping employees' engagement and the willingness to share knowledge (Fleig-Palmer et al., 2018). When trust within the organization is low, any kind of change may be seen as suspicious and threatening. Employees in high-trust organizations have confidence in their leader's vision for the future and are more likely to develop positive exchange relationships and collaborate well across departments and hierarchies.

Andersen (2005), who performed a study of trust in managers in a Swedish manufacturing company, shows that the factor "Managerial actions" was significantly related to the degree of trust and alone explained 76% of the subordinates' trust in their managers. Another study within a hospital indicated that trust is formed in close relationships within the hospital ward, significantly influenced by the manager. The absence of trust undermined teamwork (McCabe and Sambrook, 2014).

Motivation

In an organisation, motivation can be defined as a behavioural, affective and cognitive process that influences the willingness of employees to do their work in order to achieve personal and organizational goals. Motivation can be looked at as both a process and a product of interpersonal and organisational processes in the work context influencing effectiveness at work, and can be understood by individuals as the desire to act or behave in certain ways (Yukl, 2010). Motivation is a broad field based on many different theories such as Maslow, Skinner, Aldfers, Herzberg, McGregor, Ouchi, McClelland and Vroom. Some of the theories are based on incentives and rewards, others focus on extrinsic and intrinsic motivation and yet others are need based. One thing seems certain, motivation is important for top performance. Many of the important motivation theories are rather old, “the golden age” of work motivation theories and research began in the 1960s (Steers et al. 2004), however, new articles reviewing employee motivation and organizational performance rely heavily on the “old masters” (Lee & Raschke, 2016 & Sekhar et al., 2013).

Atkinson (1964) found that lack of motivation affected productivity in a negative way and that a motivated employee was a loyal employee. Both intrinsic and extrinsic factors and the balance between them seem to be important for motivating hospital employees. (Hee and Kamaludin, 2016). Berdud et al. (2016) researched motivation in healthcare organizations and found that some external factors (incentives) might undermine intrinsic motivation while others might encourage intrinsic motivation. Franco et al. (2002) claim that the strength of motivation is influenced by how well individual health worker goals are in alignment with the goals of the employing organization, and that the motivation process is composed of both intrinsic and extrinsic factors.

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Research model and hypotheses

The previous sections propose that supervisors' social power bases are important when it comes to trust and motivation with subordinates. Based on the sparse research proposing a conceptual link between social power and trust and motivation, we hypothesize that expert, referent, reward and legitimate power will have a positive effect both on trust and motivation, and coercive power a negative effect. We believe there is sufficient theoretical rationale for describing a conceptual evaluation model (shown in figure 1) that can be tested through the eleven hypotheses outlined below.

(Figure 1 in approximately here)

Figure 1 Conceptual evaluation model

The influence of trust on motivation

Motivation is a multidimensional phenomenon and is affected by many factors in the world of care providers, some of the factors under and some of them beyond the care provider's control. Trustworthy leaders provide structure, set directions and provide relevant information and knowledge; they are fair and act in a way that is consistent with their values, integrity and accountability. Of importance for the link between trust and motivation is that trustworthy leaders develop goodwill through behaviour, knowledge and provide structure and direction for their subordinates (Xiong et al., 2016).

Research show that a positive work environment with a high degree of trust and good management motivates workers to enhanced responsiveness to patient care (Nguyen et al., 2015). The reverse is also found to be true; a manager without interest in the wellbeing of his/her workforce ends up with demotivated employees and low quality patient care. Njambi (2014) found a strong correlation between trust and motivation ($r = 0.558$) and motivation and performance ($r = 0.679$) among health workers in Kenya. According to Okello and Gilson (2015) does workplace trust relationships encourage social interactions and cooperation among health workers, have impact on the intrinsic motivation and have consequences for retention, performance and quality of care. Research and assessment of the levels of motivation and factors that encourage workplace trust relationships should include how trust and motivation interact and operate for retention, performance and quality of care.

H_1: Increased trust in management leads to more motivated employees

The influence of power on trust

Sørhaug (1996) says that power is like energy and trust can be like energy too. Power and trust can be described as floating concepts that in themselves are empty but when used in actual situations are filled with meaning. Both power and trust create conditions that mobilize people to action and collaboration. Trust is dependent on the goodwill of people when new issues are being addressed. Sørhaug (1996) claims that the two forces of power and trust threaten each other, and they presuppose each other. Power without trust destroys its own basis, and trust without power cannot survive. There is always a need for leaders who have the appropriate means of power (amongst them legitimate power), and who can restore trust through the trustworthy use of power. If a manager loses too many power struggles in an organization, trust and the manager's authority might be destroyed. However, if one has power it is possible to overrule the need for trust and force unwanted actions on others, but in the long run trust has to be part of the equation. Luhmann's (1979) 'Trust and Power', a classic work widely referred to in the literature on trust has influenced sociological contributions from many authors. Trust is about having the power to choose action. In a survey aimed to identify trust and mistrust in health promotion partnerships, Jones and Barry (2016) found power to be the only predictor of partnership trust while power, leadership, and efficiency were the most important factors influencing partnership mistrust. Altinkurt and Yilmaz (2012) concluded that expert power, referent power and reward power were important predictors of trust in an administrator. On the other hand, they found legitimate power and coercive power not significantly influential.

H_2: More use of reward power leads to more trust in manager

H_4: More use of referent power leads to more trust in manager

H_6: More use of legitimate power leads to more trust in manager

H_8: More use of expert power leads to more trust in manager

H_{10}: More use of coercive power leads to less trust in manager

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The influence of power on motivation

Managers have influence over subordinates but they do not have the power to force individuals to act even if they can give direct orders and can punish them if they do not follow the order. Managers have the power to provide various incentives to motivate their subordinates such as giving bonuses, praising the employee if a job is well done, improving working conditions or job enrichment / job enlargement. According to Barksdale (2008); there is a significant relationship between power and motivation, and Yılmaz and Altınkurt (2012) say "Power is the most important resource the managers use to lead their subordinates to attain the organizational goals by stimulating organizational dynamics" (p.387). McClelland and Burnham (2003) wrote an article titled 'Power is the Great Motivator' in Harvard Business Review. McClelland's original research (1976) in social motivation identified three major motives: *Achievement*; *Affiliation* and *Power*, while McClelland and Burnham (2003) concluded that effective leaders are primarily motivated by influence and influence relationships - what psychologists call the power motive. According to this view, power might have both a positive and negative influence on employees' motivation. Effective leaders have a need for power because they want power to help, empower and motivate subordinates; however, some leaders want power because they want to exercise control over others. Much research shows that empowering subordinates enhances employee motivation.

Richmond (1990) who researched the influence of power on motivation in the classroom shows that a leader's bases of social power can impact motivation. She found that it was important to use all power bases other than the coercive. The effect of coercive power was negative both in terms of causing dislike for the teacher and reducing both the cognitive and affective learning of the students. Elangovan and Xie (2000) studied graduate students enrolled in large public universities and proposed that perceived legitimate, reward, expert and referent power of a supervisor would be positively related to subordinates' work motivation, while perceived coercive power of the supervisor would be negatively related to subordinates' work motivation. Their research showed that perceived legitimate and reward power of the supervisor appeared to significantly predict subordinates' work motivation, while coercive, expert and referent powerbases were not significant predictors of their work motivation.

H_3: More use of management reward power leads to more motivated employees

H_5: More use of management referent power leads to more motivated employees

H_7: More use of management legitimate power leads to more motivated employees

H_9: More use of management expert power leads to more motivated employees

H_{11}: More use of management coercive power leads to less motivated employees

Material and Methods

Sampling and respondents

The data used in this paper were obtained from two hospitals, one in Norway and one in Finland. The choice of hospitals was based on convenience. Both hospitals are medium sized public hospitals. However, by checking the demographic data with the Human Resources departments we believe that the sample represents a true cross section of hospital employees from different occupations and the different departments present in the sample. Espinoza (1999) and Hsieh and Hiang (2004) point out that when studying the relationship among variables at the same time as facing limited resources, using convenience sampling is acceptable.

Instrument

Eight of the questions were nominal questions asking respondents for information on gender, education, how long they had worked in the health care sector, and their department and occupation. Seven scales and twenty-four items measured power, trust and motivation (see table 2 for scales and items). These were selected after reviewing previous research. Coercive-, Legitimate-, and Reference – power (Brown et al., 1995); Expert power (Gaski, 1986); Reward power (Comer, 1984); Trust in manager (Rich, 1997). The scale measuring motivation in this research builds on Buckingham and Coffman's (1999) work on motivation. Mládková et al. (2015) claim that: "The most conceptual work in the field of motivation of knowledge workers was done by Buckingham and Coffman (1999)" (p.770). Buckingham and Coffman's research lasted for over 25 years and focused on employees' performance and loyalty to their organizations. Reported Cronbach's alpha on the above scales was between .68 and .94.

Each item represented in the scales was rated on a 6-point Likert scale from strongly agree to strongly disagree. The average summation of the rating for items pertaining to a factor was treated as the score for the factors.

The hospitals in this sample used either Norwegian or Finnish/Swedish as the working languages. The questionnaire had three versions: English, Norwegian and Finnish. The original questionnaire was produced in English mainly because most of the items were originally published in English. In the process the questionnaire was translated into a Norwegian and Finnish equivalent. The questionnaire was then back translated to English for control and the meaning was validated by the authors. A pretest using students practicing at the hospitals was conducted in order to assess the appropriateness of the questionnaire. The participants in the pretest did not take part in the final study. Employees included in the survey had to answer regarding their immediate supervisor when asked about the leader, manager or supervisor. Copies were distributed to contact persons from the selected departments in the hospitals. The completed questionnaires were either collected by the second author or sent to us by mail.

The collection of data took place between December 2008 and February 2009. A total of 390 printed questionnaires were distributed in five different departments and 137 respondents from Finland and Norway completed the survey. Because of the sampling procedures the response rate was difficult to calculate accurately; however, from the size of the departments where the survey was carried out it was calculated by the authors to be to be around 35%.

Procedures

Structural equation modeling (SEM) is a method that runs multiple regressions between variables and latent variables. AMOS, LISREL and Mplus are the most used SEM software packages. Recently the use of another SEM method, PLS has increased (Hair et al. 2014). Partial Least Square (PLS) can simultaneously test the measurement model and the structural model. This study uses PLS to evaluate a proposed theoretical model, dealing with many constructs, indicators and relationships which makes the PLS application an ideal analytical technique in our study (Barclays et al., 1995).

PLS is variance-based not covariance-based like the other SEM methods mentioned above. Compared to covariance-based SEM, PLS offers several benefits with respect to type of

variables, sample size distribution requirements, and the complexity of the model to be tested. (Hair et al., 2014).

Ethical considerations

Permission to collect data was given from the two hospitals. Participants were informed about the aim of the study and that participation was voluntary. It was possible to withdraw from the study at any time. All registration of data was on a level where no individual could be identified.

Findings and discussion

Descriptive statistics

Of the 137 respondents, 27% were aged between 20 and 30 years and 30.7 percent were over 51.Eighty three percent of the respondents were female. This seems to reinforce the suggestion that overall the health profession is female dominated. Twenty eight people were new to the health professions with 0 to 5 years' service which corresponds with the number of twenty to thirty years olds in the sample. Sixty four point two percent of the sample had worked in hospitals more than ten years. Twice as many Norwegians as Finns completed the survey (88 from Norway and 42 from Finland). Twenty three percent of the sample had managerial functions such as senior nurse, senior physician or head of department. Twelve percent of the respondents were physicians, 55% nurses and 33% technicians and administrators. Twenty percent worked in the surgery department, 23% in medicine /oncology, 20 pediatric / maternity, 18% psychiatry and 19% rehabilitation.

Gender effects

Eighty three percent of the respondents in this research were female, reinforcing the fact that the health profession is female dominated. Arnania-Kepuladze (2010) who researched the public health system in Georgia did not find any direct interrelation between the sex of a person and priorities in motivation for work activities. The differences that existed were not linked to "male" or "female" stereotype motivation. Rosak-Szyrocka (2014) who researched employee's motivation at hospitals in Poland reached the same conclusion.

However, this research indicates that for some of the powers there is a gender effect both on trust and on motivation, while for others there is not. Reward power has a strong positive influence on trust regardless of gender while legitimate power and coercive power have a strong influence on trust among female employees but no significant effect among male employees. Trust show a strong positive influence on motivation regardless of gender. Expert and reward power are significant influencers in motivation among female employees but have no effect on males.

Evaluation of measurement model

First the psychometric properties of the measures were assessed by performing an exploratory factor analysis using Varimax rotation. The Kaiser-Meyer-Olkin (KMO) measure showed 0.883 and Bartlett's test of Sphericity was significant at the 0.0001 level, indicating that the data supported use of factor analysis. Further analysis was performed by using SmartPLS (Ringle, Wende & Becker, 2014).

All constructs in the model were operationalized as reflective measures and the model was assessed for item reliability, internal consistency and discriminant validity. The rule of thumb of accepting items with loadings of 0.707 or more was used. Table 1 shows that all the indicators were above 0.707. Internal consistency was examined using Fornell and Larcker's (1981) composite reliability index. Table 1 also shows that in our model the composite reliability index for all constructs exceeded the acceptable value of 0.7 (Hair et al., 2006). Discriminant validity indicates the extent to which a given construct is different from other latent constructs. Fornell and Larcker suggest the use of Average Variance Extracted (AVE) such that a score of 0.5 for the AVE indicates an acceptable level. The average variance extracted (AVE) by our measures ranges from 0.564 to 0.723, all well above the acceptable score of 0.5. When comparing the square root of the AVE (diagonal values) with the correlations, Fornell and Larcker's criterion of discriminant validity is supported. The correlation between referent power and legitimate power is the highest (0.587). Assessment of collinearity statistics shows there was no problem with multicollinearity. The construct/factor loadings and cross loadings were examined. The inspection shows that all constructs were more strongly correlated with their own measures than with any other constructs suggesting good convergent and discriminant validity (Table 1).

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Table 1 In approximately here

Table 1 Discriminant validity coefficients and reliabilities

Cronbach's α is a measure of internal consistency, showing how closely related a set of items/questions are as a group. It is considered to be a good measure of scale reliability. The Cronbach's alpha score for each factor was calculated showing results from 0.615 to 0.828 indicating that most of the scales were satisfactorily reliable. However, two of the scales (motivation and referent power) were below Hair et al.'s recommended level of 0.7 but above Nunally and Berstein's recommended cutoff level of 0.6 and within an acceptable level for most researchers (Hair et al., 2006 and Nunally and Berstein, 1994).

Table 2 in approximately here

Table 2 Constructs/factors, Cronbach ***α,*** mean, SD, loadings and t-values

According to the two main criteria used for testing the reliability/internal consistency and validity of the measurement model, this model is above recommended levels. Figure 2 shows that the items of the constructs coercive power, expert power, legitimate power, referent power , reward power, trust in manager and motivation are all valid measures based on their loading values and statistical significance. All t-values are above 2.33, thus, significant at the level of 0.001.

Assessment of structural model

Figure 2 and Table 3 show the results from the bootstrapping process indicating that most relationships in the structural elements (endogenous and latent variables) of the measurement model are above the minimum levels specified. Table 3 shows the values of the t-tests for the seven constructs and their respective variables. Six of the cases are above 1.96 ($p \leq 0.05$), one is almost a borderline case (1.76) and four are clearly below 1.96; thus all of the relationships are significant leading to validation of the theoretical model.

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One of the main assessments of the structural model is an evaluation of the R^2 (coefficient of determination of the latent variables) presented in figure 2. Cohen (1988) indicates the following values for effect size of R^2 in social sciences: 2% =small; 13%= average and 26%=large.

Figure 2 in approximately here

Figure 2 Result of structural model (Adjusted with exclusions of not significant links)

Both coefficients of determination are, according to Cohen (1988), large effects - above 26 %. Forty-one point eight percent of trust in the manager can be explained by reward power, referent power, legitimate power and coercive power. Coercive power influences trust negatively, the other powers influence trust positively. Thirty point nine percent of motivation can be explained by expert power, reward power and trust. Reward power, referent power, legitimate power and coercive power influence motivation indirectly through trust in the manager. Total effects can be seen in Table 3.

Table 3. in approximately here
Table 3. Path coefficients (direct + indirect= total effects) and hypothesis testing

According to Bohmer (2012), managers in hospitals lack the positional power of managers in most other types of organizations; however, managers and doctors have more authority than they think and can be powerful motivators by using non-financial incentives such as praising and recognition. Leaders in healthcare have to take into consideration that they are leading other professionals who are themselves experts. This research indicates that reward power is the power influencing both trust and motivation most. The scale measuring reward power in this research is from Comer (1984) and has the following three items: “My leader gives me credit where credit is due”, “My leader recognizes achievements” “My leader rewards good work”. The three items seem to balance being praised for good work (the strongest item of the three was “My leader recognizes achievements”) and rewards in the long run such as money and advancement.

Altincourt and Yilmaz (2012) explored the relationship between school administrators' power sources and teachers' trust in Turkey. Both our study and theirs indicate that referent power and reward power are important predictors of trust. Our research indicates that legitimate power and coercive power influences trust significantly, while their research indicates that expert power influences trust significantly. Elangovan and Xie (2000) examined the relationship between supervisors' power and subordinates' motivation in Canada using a sample of part time university graduate students (with on average eight years work experience). Both our study and Elangovan and Xie's study found that reward power was an important influencer on motivation, and that referent power had no significant direct influence on motivation. Our research indicated that expert power significantly influenced motivation, and their research that legitimate power influenced motivation. There can be many reasons why the results of our research and those of Altincourt and Yilmaz (2012) and Elangovan and Xie (2000) differs. The questionnaires are not identical, the surveys have not been conducted at the same time, focus is on different types of organizations with different organizational cultures and different national cultures.

Practical implications, limitations and future research

Health sector reform is a complex combination of factors which has individual, organizational, and societal components. Each country's experience will be different as its politics, culture, organizations, and reform environment are different. Taking all this into account, the results seems to be surprisingly similar.

To achieve the purpose of the current study, the structural /conceptual model (Figure 1) is based on constructs of power trust and motivation in a Nordic context. This study contributes to the theory of social power by examining the relationships of social powers on trust in management and motivation. Managers need to be aware that some power bases work for them and some work against them.

An interesting observation is that in a knowledge based context such as a hospital, expert power only has a direct effect on motivation and no direct effect on trust. This study confirms that threat and punishment do not work in a knowledge based context such as a hospital. The effect on trust is negative and the research indicates that there are no significant direct effects on motivation only indirect effects through trust. Our findings on referent power did not correspond what Storrøsten et al. (2007) and Sørhaug's (1996) proposal, that referent power

could be strong in knowledge organizations. High referent power might promote a pleasant relationship between the supervisor and the subordinate but our research showed no direct influence on the subordinate's motivation and medium influence on trust in manager. Reward power showed the largest potential for influencing both trust and motivation, confirming Sørrøsten et al.'s (2007), Bohmer's (2012), Altincourt and Yilmaz (2012) and Elangovan and Xie's (2000) findings.

The most important implication of the above results is that power, trust and motivation are among antecedents for organizational efficiency, behaviour, and culture (Colquitt et al., 2007 and Galford and Seipold Drapeau, 2002). This paper implies the need to expand research into the impact power, trust and motivation has on organizational culture, behaviour and efficiency. When employees are rewarded employers see more of the behaviour they reward. Thus, when employees surpass their targets or exceed standards they should be rewarded immediately as a way of motivating them. By doing this, employees directly connect the reward to the behaviour and higher performance they have attained. Effective reward systems should always focus on positive reinforcement. Positive reinforcement encourages the desired behaviour in a hospital. This encourages employees to take positive actions leading to rewards. Reward programs should be properly designed in the organization so as to reinforce positive behaviour which leads to performance (Torrington, Hall and Stephen, 2008).

It is also necessary to explore if and how a culture of trust impacts the efficiency of change processes in organizations. The employee-manager relationship is the primary component in a strong organizational structure, culture and performance. One important element of a successful employee-manager relationship is trust. A high trust culture is also essential for adapting to continuous change and continuous improvement (Colquitt, 2007; Galford and Seipold Drapeau, 2002).

Organizations with high levels of trust tend to produce high quality products and services at less cost because they can recruit and retain highly motivated employees. These employees are more likely to enjoy their work, take the time to do their jobs correctly; make their own decisions; take appropriate risks; innovate and embrace the organization's vision, mission, and values (Colquitt et al., 2007 Galford et al. 2002). A strong sense of trust in an employee-manager relationship encourages loyalty on both sides. When employees no longer trust management, it can create a situation with high employee turnover.

Motivation is known to be one of the most important factors determining organizational efficiency. Every leader must motivate subordinates to engage in the right types of behaviour. The performance of hospital employees is dependent on the ability embedded in motivation. Motivation increases the willingness of the workers to work, thus increasing the efficiency and effectiveness of the organization. All in all, it seems as though power, trust and motivation are important antecedents to high productivity, good morale, commitment and quality of patient care. The reform efforts in Scandinavian countries are trying to improve the efficiency and management of healthcare systems and this study shows that healthcare managers can improve efficiencies by understanding how to use power, motivation and trust in the workplace.

The evidence in this paper shows that there is limited empirical research both on powers' influence on trust and motivation, and trust influence on motivation in the health sector. The complex interaction between power and trust relationships, health workers intrinsic and extrinsic motivation, and their impact on retention, performance and delivery of quality patient care. Further empirical research to investigate the important aspects above is important. Further research to explore why referent power and legitimate power had no significant direct influence on motivation could also be interesting. We suggest also that the influence of power on trust and motivation in knowledge workers should be further studied by replications both in hospitals and in other settings such as universities, research institutes, and consultancy, finance and law firms.

A limitation of this study is that the sample is from only two hospitals, one in Norway and one in Finland. Conducting studies with a broader sample of hospitals with different organizational cultures, different organizational philosophies, and different national cultures among the hospital staff could be interesting.

Conflict of interest

The authors declare no conflict of interest.

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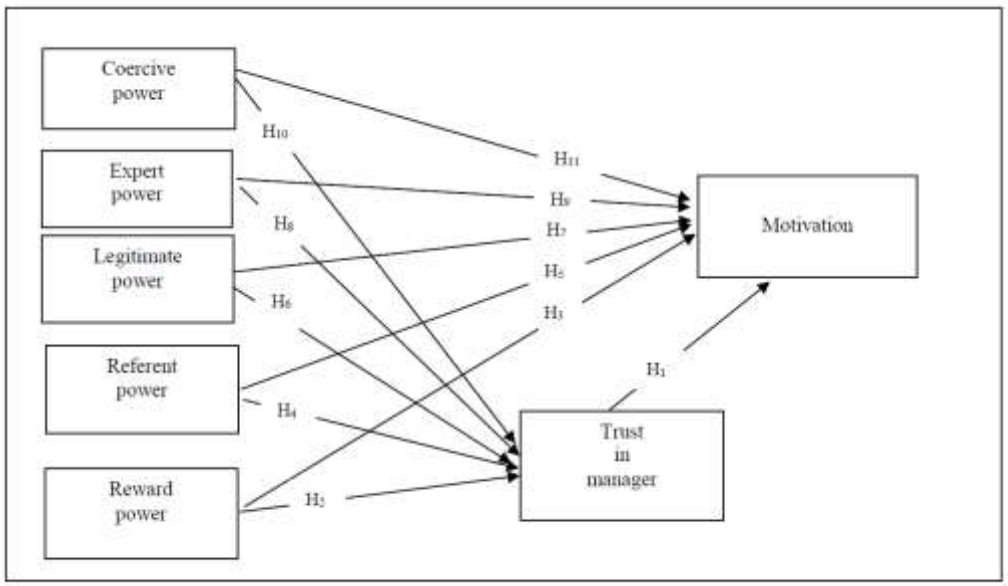

Figure 1 Conceptual evaluation model

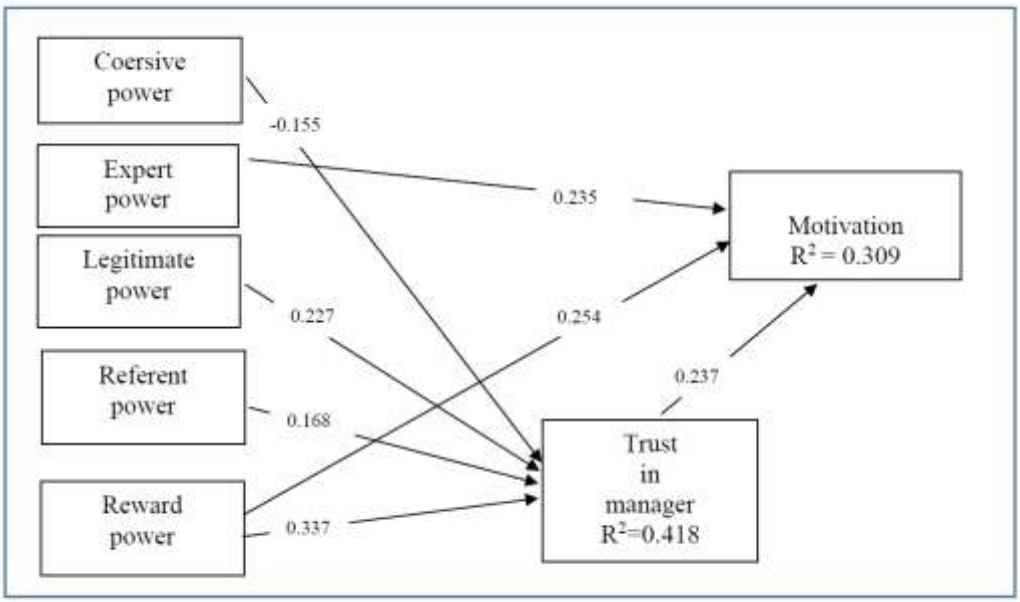

Figure 2 Result of structural model (Adjusted with exclusions of not significant links)

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Table 1 Discriminant validity coefficients and reliabilities

	Coersive power	Expert power	Legitimate power	Motivation	Referent power	Reward power	Trust in manager
Coersive power	**0.843**						
Expert power	-0.247	**0.810**					
Legitimate power	-0.085	0.385	**0.850**				
Motivation	-0.055	0.404	0.267	**0.751**			
Referent power	-0.020	0.490	0.587	0.328	**0.748**		
Reward power	-0.107	0.380	0.250	0.450	0.432	**0.809**	
Trust in manager	-0.230	0.403	0.448	0.441	0.482	0.508	**0.813**
Mean	5.469	4.771	4.074	5.852	3.639	4.316	4.739
Standard deviation	0.617	0.761	0.928	1.045	0.8207	0.807	0.675
Composite reliability	0.880	0.851	0.887	0.795	0.792	0.850	0.886
AVE	0.711	0.656	0.723	0.564	0.559	0.654	0.661
Cronbach's Alpha	0.799	0.738	0.810	0.615	0.616	0.736	0.828

Bolded diagonals values are square root of AVEs, values below diagonal are correlations

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Table 2 Constructs/factors, Cronbach ***α,*** mean, SD, loadings and t-values

Indicators/variable	**Mean**	**SD**	**Loadings**	**T-value**
Coersive power (Cronbach α=.80)				
My leader would get back at me if I did not do as he/she asked	1.76	0.91	0.796	22.750***
My leader often hint that he would have taken action that would have reduced my pay if I did not go along with his requests	1.19	0.39	0.856	35.384***
If I did not agree with my leader, he/she can make life difficult for me	1.64	0.87	0.875	21.911***
Expert power (Cronbach α=.74)				
My leader is an expert in his field	4.66	1.02	0.762	53.556***
I respect the judgement of my leader	4.98	0.79	0.850	73.731***
I get good advice from my leader	4.68	1.02	0.815	53.620***
Legitimate power (Cronbach α=.81)				
I have an obligation to do what my leader want	4.11	1.11	0.842	43.312***
Since he/she is my leader, I accept his recommendation	4.28	0.98	0.852	50.923***
It is my duty to do what my leader request	3.82	1.18	0.857	37.672***
Reference power (Cronbach α=.62)				
I really admire the way my leader runs his "department", so I try to follow his lead	3.89	1.10	0.783	41.550***
I generally want to operate very similar to the way my leader would	3.57	1.07	0.714	39.059***
I am proud to be affiliated with my leader	3.50	1.09	0.744	36.968***
Reward power (Cronbach α=.74)				
My leader gives me credits where credits is due	4.18	1.08	0.833	45.027***
My leader recognizes achievements	4.63	0.89	0.826	60.338***
My leader rewards good work	4.15	0.99	0.766	48.394***
Trust in manager (Cronbach α=.83)				
I feel a strong loyalty to my manager	4.80	0.81	0.791	69.671***
I have complete faith in the integrity of my manager	4.67	0.90	0.849	60.708***
I feel quite confident that my manager will always treat me fairly	4.83	0.74	0.737	76.555***
I have a strong sense of loyalty towards my manager	4.66	0.86	0.868	63.028***
Motivation (Cronbach α=.62)				
My supervisor or someone at work seems to care about me as a person	4.76	1.10	0.724	50.874***
There is someone at work that encourages my development	4.21	1.14	0.743	43.228***
In the last six months, someone at work has talked to me about my progress	3.81	1.55	0.786	28.494***

(1-6 points) Strongly disagree, Disagree, Somewhat disagree, Somewhat agree, Agree, Strongly Agree
*** *Significant at p<0.001 (two tailed test)*

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Table 3. Path coefficients (direct + indirect= total effects) and hypothesis testing

Hyp	Relationship	Coeff	P values	T-value	Supported
H1	Trust in manager → Motivation	0.237	0.039	2.065	Yes
H2	Reward power → Trust in manager	0.337	0.000	4.185	Yes
H3	Reward power → Motivation	0.334	0.000	3.815	Yes
H4	Referent power → Trust in manager	0.168	0.076	1.778	Yes*
H5	Referent power → Motivation	0.013	0.899	0.127	No
H6	Legitimate power → Trust in manager	0.227	0.006	2.733	Yes
H7	Legitimate power → Motivation	0.083	0.413	0.819	No
H8	Expert power → Trust in manager	0.067	0.491	0.689	No
H9	Expert power → Motivation	0.251	0.039	2.067	Yes
H10	Coercive power → Trust in manager	-0.155	0.031	2.158	Yes
H11	Coercive power → Motivation	0.050	0.533	0.632	No

*On 10% level