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Managerial strategies to make incentives meaningful and motivating

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Abstract

**Purpose** – Policy makers are applying market-inspired competition and financial incentives to drive efficiency in healthcare. However, a lack of knowledge exists about the process whereby incentives are filtered through organizations to influence staff motivation, and the key role of managers is often overlooked. The purpose of this paper is to explore the strategies managers use as intermediaries between financial incentives and the individual motivation of staff. The authors use empirical data from a local case in Swedish specialized care.

**Design/methodology/approach** – The authors conducted an exploratory qualitative case study of a patient-choice reform, including financial incentives, in specialized orthopedics in Sweden. In total, 17 interviews were conducted with professionals in managerial positions, representing six healthcare providers. A hypo-deductive, thematic approach was used to analyze the data.

**Findings** – The results show that managers applied alignment strategies to make the incentive model motivating for staff. The managers’ strategies are characterized by attempts to align external rewards with professional values based on their contextual and practical knowledge. Managers occasionally overruled the financial logic of the model to safeguard patient needs and expressed an interest in having a closer dialogue with policy makers about improvements.

**Originality/value** – Externally imposed incentives do not automatically motivate healthcare staff. Managers in healthcare play key roles as intermediaries by aligning external rewards with professional values. Managers’ multiple perspectives on healthcare practices and professional culture can also be utilized to improve policy and as a source of knowledge in partnership with policy makers.

**Keywords** Motivation, Professionalism, Health policy, Financial incentives, Patient-choice reform

**Paper type** Research paper

**Background**

Healthcare systems worldwide face the challenges of increasing demands and limited resources. To drive efficiency, policy makers are introducing financial incentives and provider competition based on their presumed motivational effect. However, evaluation studies show inconclusive results (Potaki *et al.*, 2008; Flodgren *et al.*, 2011), leaving both...
researchers and practitioners puzzled regarding how to improve policy. One part of this problem is the lack of conceptual models and empirical data that describe the process whereby the financial incentives are filtered through organizations to influence staff motivation. Although we can expect managers to play a key role in the translation and integration of incentives, their role has seldom been considered in previous research on incentives. The aim of the present study is to explore the strategies managers use as intermediaries between policy reform and staff motivation. We conducted an exploratory qualitative study of a local Swedish case that illustrates the general application of financial incentives and competition in healthcare markets. The study includes professionals in managing positions at healthcare providers involved in a patient choice reform in specialized orthopedics.

**Current trends in health policy**

The policy application of market logics in healthcare is no longer predominantly a US phenomenon but is now widely applied in publically funded European healthcare systems as well (Roland and Rosen, 2011). This is certainly the case in Sweden, where this study is set (Anell, 2015; Harrison and Calltorp, 2000). Inspired by classic economic theory, competition between providers is encouraged by allowing patients to choose (Appleby and Dixon, 2004). Furthermore, financial-incentive models are developed to increase provider performance (Saltman, 2002). However, the empirical evidence is mixed and fragmented. Increased patient choice has been associated with increased provider performance in competitive markets (Cooper et al., 2011), yet literature reviews provide limited support for stating that choice in itself improves efficiency or quality of care (Pollock et al., 2011; Fotaki et al., 2008). Similarly, review studies evaluating the impact of various financial-incentive models in healthcare conclude that the support for their effectiveness is limited (Flodgren et al., 2011; Chaix-Couturier et al., 2000). Incentives linked to specific provider behaviors, such as pay-for-performance-models, have shown to increase, e.g., productivity and cost efficiency (Eijkenaar et al., 2013). However, concurrent reports of unintended consequences for patients (Chaix-Couturier et al., 2000; Eijkenaar et al., 2013) and healthcare professionals (Campbell et al., 2007, 2008; Swarna Nantha, 2013; McDonald et al., 2007) show negative side effects. Quality-based reimbursement (Conrad and Perry, 2009) and bundled reimbursement (Mechanic, 2011) have been proposed to avoid the pitfalls of narrowly defined performance targets. This aims to empower clinicians to drive quality improvement, but evaluations show both opportunities and challenges when it is implemented in practice (Mechanic, 2011). Overall, it is difficult to draw conclusions concerning the general effects of financial incentives due to methodological weaknesses of evaluation studies (Eijkenaar et al., 2013; Flodgren et al., 2011; Chaix-Couturier et al., 2000).

In summary, whereas research exists regarding how the application of incentive models can be improved (Porter and Lee, 2013; Conrad and Perry, 2009), organizational characteristics, such as management structure, leadership and culture, are seldom considered (Frolich et al., 2007). Indeed, there is a need for conceptual development and empirical data clarifying how externally imposed incentives are filtered through organizations and translated into motivation and behavioral changes at the individual level. In particular, a need exists for theory-based models that explore the hybrid role of managers in bridging the macro and micro levels of healthcare systems who align multiple, potentially conflicting sources of staff motivation. In the following section, we will draw on theories from the fields of psychology, sociology, behavioral economics and management to discuss the literature on individual motivation and the role of managers.

**Internal and external sources of motivation**

Motivation is a multidimensional phenomenon defined as the energy and intention behind an action (Ryan and Deci, 2000). In contrast to classic economic theory underlying modern
policy applications, motivation theories from different domains all take a broader approach to incentives. Both internal and external sources of motivation are acknowledged, and the interplay and potential conflicts between them are highlighted (Ryan and Deci, 2000; Swick, 2000; Ellingsen and Johannesson, 2007, 2008). Moreover, there is an agreement across fields that internal sources of motivation (that is, doing work for work’s sake) have a greater impact on behavior over time compared to external rewards (Deci et al., 1999; Gneezy et al., 2011; Ellingsen and Johannesson, 2007, 2008). There is also a convergence of motivational theories in that they often include basic human needs in terms of autonomy, expertise and pro-social behavior. In psychology, this is described in self-determination theory (Deci and Ryan, 2000). In sociology, theories of professionalism describe similar motivational forces that are highly applicable to healthcare. Professionals (an occupational group characterized by certain preferences) are described as being motivated by a high level of expertise (Freidson, 2001) and acting autonomously based on that expertise (Bøgh-Andersen and Holm-Pedersen, 2012). In addition, pro-social behaviors are also seen as a main component, as professionals are internally motivated to safeguard patient needs and social justice (Swick, 2000). Similar assumptions about motivational sources are reported in behavioral economics (Ellingsen and Johannesson, 2007).

The interrelationship between multiple sources of motivation

Researchers from several fields have proposed that the coexistence of multiple sources of motivation can have a negative impact on overall motivation. The introduction of monetary rewards might harm or “crowd out” internal motivation and reduce overall performance (Ryan and Deci, 2000). Similarly, pro-social behavior has been shown to decrease in response to monetary rewards (Gneezy et al., 2011; Benabou and Tirole, 2003). Some have argued that the risk of crowding-out effects is higher in public service such as healthcare due to the pro-social preference of staff (Frey et al., 2013). There is empirical evidence to support the existence of a special kind of public service motivation (Bright, 2008) characterized by a stronger preference for internal reward, as compared to the private sector (Crewson, 1997; Georgellis et al., 2011).

In contrast, there is also empirical evidence that external rewards can be highly motivating and “crowd in” overall motivation (Frey, 1994; Frey and Jegen, 2001). According to self-determination theory, the motivational effect of external rewards is dependent upon the extent to which it is internalized and consistent with the individual’s values (Deci and Ryan, 2000). Studies evaluating different forms of rewards show that the best motivational strategy involved combining personal monetary rewards with managerial feedback (Stajkovic and Luthans, 2003). These findings suggest that managerial behavior can play an important role in creating coherence between external rewards and internal values.

To summarize, in contrast to policy applications inspired by classic economic theory, research on motivation suggests that external incentives may reduce healthcare professionals’ motivation. However, contradictory findings indicate that external incentives may mobilize motivation when aligned with individual values. The presence or absence of alignment hence seems to be a key issue. In the next section, we discuss the role of managers as intermediaries potentially linking policy to the motivational preferences of their staff.

The role of managers as intermediaries between external rewards and motivation

Management matters a great deal for organizational performance and staff motivation (Hales, 1999), including in healthcare settings (Lega et al., 2013). Similarly, studies of line managers show that they play a key role in the implementation of new care processes (Dopson and Fitzgerald, 2006). According to traditional conceptualizations, managers’ primary role is to control staff through the planning, organization and coordination of tasks (Hales, 1999). More contemporary models of managerial behavior emphasize the reciprocal
nature of management. In these models, managers are described as agents and facilitators between a network of stakeholders both inside and outside of the organization (Hales, 2002). The number of managers employed to bridge the gap between top management and professionals has increased in healthcare (Kühlmann and von Knorring, 2014). The rise of managerialism has conventionally been regarded as conflicting logic in professional organizations (Brommels, 2010), but research shows that hybrid managerial roles held by professionals is a common phenomenon (Kühlmann et al., 2013). Hybrid managers enable professional and managerial logic to be intertwined by facilitating interaction between multiple stakeholders in organizations (Postma et al., 2015). Such integration has been shown to improve both organizational performance and quality outcomes. Thus, the mere presence of management is insufficient, but management being informed by professional knowledge and values may have positive effects (Lega et al., 2013). However, more knowledge is necessary on the specific strategies that managers use to balance various stakeholder perspectives in healthcare (Kühlmann and von Knorring, 2014).

The central task of coordinating different stakeholder perspectives in healthcare has been described as articulation work (Strauss, 1988; Corbin and Strauss, 1993). Articulation work includes coordinating and fine tuning all tasks that emerge from the care process and comprises the communication and alignment of different stakeholder perspectives (Grant et al., 2015). Thus, it is not a separate management process but rather an integral component of healthcare management based on professional expertise and culture (Postma et al., 2015). Despite the centrality of articulation work in healthcare, its role in adapting to new policy is still largely unknown (Postma et al., 2015).

To summarize, one central managerial behavior is to align the needs of different stakeholders by capturing perspectives ranging from the macro to the micro level. Building on this, we propose that the role of managers is central to policy implementation, and their strategies merit further exploration and analysis.

**Toward a tentative conceptual model**

The literature on individual motivation and management from the fields of psychology, sociology and behavioral economics is summarized in Figure 1. The conceptual model in Figure 1 suggests that managers can be understood as key intermediaries who use strategies to align the interests and perspectives of different stakeholders (e.g. policy makers, the organization and staff). It focuses on the role of managers and does not cover other contextual aspects that may mediate the relationship between external rewards and the individual motivation of staff.

**Methods**

We conducted an explorative qualitative study of market-inspired patient-choice reform in specialized orthopedics based on interviews at six healthcare providers.

**Setting**

The study targets a patient-choice reform in specialized care for hip and knee replacement that was introduced in 2009 and is still active. The County Council of Stockholm, a politically elected regional authority with responsibility for healthcare provision (Anell, 2015) for approximately 2.2 million people, introduced the reform. Acknowledging that governance commonly refers to a broad concept of the regulatory functions of a healthcare system (Kühlmann and Burau, 2008), this reform includes a specific governance model built on specialization of care and provider competition. The reform includes a bundled reimbursement model that allows clinical freedom in designing the episode of care. The specific governance model of this reform will henceforth be referred to as “the model.”
The model applies to both hospitals and specialized private providers with no productivity limits. The main reasons behind the reform were to increase providers’ competition through patient choice and lower waiting times for surgery. Evaluations of the effects have shown increased productivity and access to care (Vårdanalys, 2014).

The model covers a well-defined episode of care in hip and knee replacements for low-risk patients only. The selection of low-risk patients is performed using the American Society of Anesthesiologists (ASA) classification guidelines. Low-risk patients (ASA 1 & 2) may be treated by their chosen provider. However, high-risk patients (ASA 3 & 4) are excluded from the model and only handled by hospitals. Providers are reimbursed with a bundled payment to cover costs for the entire episode of care, including the final assessment for surgery, brief post-operative care and follow-up. Providers are financially responsible for all complications within two years after surgery, such as reoperations and infections. However, if infections occur, care must be provided at a hospital. If a specialized provider performed the initial surgery, they will be held accountable for the cost of care the hospital provided.

**Procedures**

We invited all providers involved to participate in the study by contacting operation managers through e-mail and follow-up phone calls. In dialogue with operation managers at six volunteering providers, we used a purposive sampling approach to recruit respondents for interviews. In total, 17 interviews were held between June and November 2014, each lasting 45-60 minutes. In all, 16 interviews were conducted face-to-face and one over the phone.
All were recorded with a digital audio recorder. All respondents were informed about the study both orally and in writing. They were told that participation was voluntary, and they all gave their written informed consent. All respondents were informed that the focus of the study was their personal experience and were encouraged to share their personal reflections. A semi-structured interview guide was developed to address three main themes: the respondents’ understanding of the model, managerial strategies to manage the implementation of the model and the respondents’ understanding of their staff’s motivation. The semi-structured interview guide included open-ended questions; examples of questions are “In what way do you adapt your leadership in relation to the model?” and “Is there anything you do to motivate your staff to engage in activities required to make the model work in practice?” Respondents were encouraged to freely expand their reasoning, as the guide did not include pre-defined follow-up questions. The interview guide was piloted in the first two interviews of the study. Based on the respondents’ feedback, the interview guide was adjusted by making questions more specific and shortening the list of pre-defined questions, leaving more room for the respondents’ own reflections. The first author conducted all interviews. The local ethical committee authorized the study (ref. no. omitted for review).

Study population
We aimed to include different provider types in the study to obtain broad knowledge about how the same model works in different provider contexts. Two specialized providers and four hospitals volunteered to participate in the study. Two specialized providers declined to participate due to extensive internal reorganization. The participating specialized providers and one hospital are for-profit organizations. The county council owns and runs the remaining three hospitals. All participating hospitals also handled hip and knee replacements for high-risk patients under a separate provider contract. In dialogue with the operation managers, we recruited healthcare professionals in managerial positions handling the episode of care covered by the model. We aimed for a broad representation of professionals and reached out to both nurses and orthopedic surgeons in managerial positions. The operations managers were also asked to participate. In total, 18 people were asked to participate, and of these, 17 agreed to participate. The respondents’ respective roles were operations manager (six), clinical manager (five), manager of post-operative care (three), operations coordinator (one), quality manager (one) and research manager (one). All respondents had substantial clinical experience as nurses (five) and orthopedic surgeons (12), and all were clinically active.

Data analysis
All interviews were transcribed verbatim and analyzed in NVivo. Data familiarization occurred concurrent with interviewing. After completing the majority of the interviews (15), data saturation was reached. The final two respondents were recruited to control for additional themes, but no new themes were discovered. After the in-depth immersion of data, we applied a two-step data-analysis process using a hypo-deductive approach (Fereday and Muir-Cochrane, 2008). First, the first author made a deductive abstraction of a focused data set. Guided by general definitions of managerial behavior (Hales, 1999), data of interest were identified throughout the data corpus. To minimize the risk of bias, the last author validated the abstracted data through independent identification of relevant data in three sampled interviews. In total, 85 percent of the identified data overlapped perfectly; all remaining inconsistencies were discussed until a consensus was reached. The second step of the analysis focused on the data set addressing managerial behavior using a thematic analysis with an inductive approach (Braun and Clarke, 2006). The remaining data corpus served as background information and provided a deeper understanding of managerial behavior. First initial codes such as “avoid communicating cost” and “talk about
patient value” were generated. Thereafter, the codes were clustered to identify initial themes (e.g. “adapting,” “sense making”). Initial themes were reviewed and revised iteratively, eventually resulting in defining and naming final themes, i.e., the strategies of managers. The first author compiled the inductive thematic analysis, repeatedly discussing it with colleagues. The second and last authors validated the final themes through independent reading of three interview transcripts. The accuracy and completeness of the final themes in relation to the data were examined, and all comments were discussed until a consensus was reached.

Findings
The analysis confirmed that the managers considered themselves intermediaries between the governance model and their staff. The respondents described four major alignment strategies they applied in their roles as managers. The aim of these strategies was to reconcile the requirements of the model and their staff preferences. One additional strategy, which involved overruling the model, was used more rarely in situations in which staff motivation was at risk of being reduced. One proposed but unrealized strategy was to improve the system through a dialogue with policy makers. The six strategies are described below, preceded by a description of the contextual knowledge possessed by the managers – knowledge that was a key prerequisite for their efforts to contribute to alignment (see Figure 2).

Contextual knowledge
The respondents’ managerial strategies were based on knowledge obtained in their hybrid roles as both managers and professionals. This knowledge was a key precondition for their ability to formulate successful alignment strategies in this specific organizational context. The managers expressed a broad, experienced-based knowledge of the model’s consequences and had a clear picture of what kind of changes the model required to maintain a financially viable organization. In general, the model put pressure on providers to work more efficiently: the reimbursement levels were lower, and they were held financially accountable for any complications to provide an incentive for high-quality care. The managers also had an understanding of how the model and the changes it required affected the organization of care, the working conditions of the staff and the experiences and outcomes of the patients at their clinic. This in-depth understanding of the practical implications of the model guided managers in identifying appropriate opportunities for change and helped them formulate reasonable and realistic ambitions.

When devising strategies to achieve these ambitions, the managers’ understanding about what was needed to engage and motivate staff was key. Expressions such as “we” and “us” were used repeatedly when describing the motivational preferences of their team, indicating that staff and managers had largely the same preferences: concern for patient needs and ambition to provide high-quality care and the sensible use of resources. Professional pride in one’s expertise was also perceived as being central to staff, as was a sustainable work environment.

Managerial alignment strategies
Explaining the logic of the model. The respondents tried to increase staff members’ awareness and understanding of the model by explaining its background and implications and framing it from a provider perspective and in relation to the healthcare system as a whole. They attempted to provide a rationale for the changes needed by explaining the reason for the model from a policy perspective. The respondents also tried to increase understanding of the model by framing it in relation to the role and mission of their own
organization, contrasting it to other providers in the healthcare system. This was perceived as being more complicated for hospital providers, compared to private providers, due to the multiple provider contracts in operation at hospitals. They attempted to explain the limitations and opportunities the regulations implied, e.g., the selection criteria and reimbursement logics that the regulations entailed. The respondents described the need to continuously repeat and communicate the regulations to maintain awareness among staff:

It became sort of, okay so what’s the difference? It was not obvious, not at all. And then we had to go through the patient-choice model and see what was included, what was expected and what kinds of visits? Simply a learning process [...]. What’s still problematic is that the physicians haven’t grasped this [...]. They don’t know the conditions and can promise patients things that aren’t included (Interview, Clinical manager, Hospital).

The respondents experienced challenges associated with explaining the model to their staff. The regulations were difficult to apprehend and communicate in an effective and understandable manner. They also expressed the challenges in communicating about a
model that in itself evoke mild or no interest in sharp contrast to staff members’ engagement in care provision:

I think economics in health care is really hard to comprehend [...]. And then, you might not be as interested in it. If you were, you’d have chosen to become an economist [...]. In contrast, you’ve chosen to become a doctor because you’re interested in helping and caring for others and such things (Interview, Clinical manager, Hospital).

Translating the model. To engage staff, the respondents applied a strategy of translating the economic logic of the model into goals and targets perceived to be in line with staffs’ motivational preference. This included a focus on patient value and outcomes. Thus, for example, initiatives to optimize the care flow were communicated as improvement initiatives:

I think you get engaged by that, if you present arguments about how value is created for patients. And how you can see this in your daily work; if you change something, then the patient can get out of bed one day earlier and recover, and can wear their own clothes two days after surgery, and look like a healthy person rather than one suffering from illness, that’s worth a lot. Things that are concrete, that you’re doing good and getting results. If you present such arguments and work to achieve such goals, then in my experience it’s easy to get things through. It’s harder if you give arguments like we have to cut down on resources and make restrictions (Interview, Operations manager, Specialized provider).

Although the managers felt that patient-centeredness and high-quality care were the main motivational focus among the staff, staff members were not indifferent to resource use and costs. Particularly, the sensible and fair use of public resources was described as important. Talking about making a profit by dealing more efficiently with patients could, on the other hand, easily be perceived as provocative and a violation of professional ethics, which would increase resistance to change. The economic figures were also perceived as too loosely linked to staff control and therefore not functional as a motivational tool. The respondent often avoided using explicit economic figures in their communications with staff:

I have not said that now we have to do this because we get 10,000 SEK less per patient. I would never ever communicate in that way [...]. That would never work as a carrot. If you want people to grow and contribute to change, then you’ll have to do it in a way that allows you to really maintain quality (Interview, Clinical manager, Hospital).

When they discussed economic conditions, they felt it necessary to concurrently assure the staff that patients and quality come first. This was also of central importance to the managers themselves:

I think the challenge has been, on the one hand, to make staff and physicians aware of costs and to understand that we control this. But also, to clearly communicate that we put patient safety and quality first (Interview, Operations manager, Specialized provider).

Operationalizing the model. The respondents described a strategy of operationalizing the logic of the model by breaking it down into well-defined, concrete and feasible work tasks. This was particularly important in creating opportunities for feedback, which the respondents experienced as an essential motivational tool that they used frequently to follow-up operationalized tasks. The respondents emphasized the importance of monitoring daily work, as this enabled them to give specific and credible feedback. Feedback was described as having a twofold positive effect on motivation: providing information about task and goal achievement, which was rewarding in itself given staff members’ desire to master their work and meet patient needs, and as an opportunity to show managerial support and praise.

The managers described using different sorts of data to provide feedback on operationalized tasks. Measures of patient outcomes and patient satisfaction were thought to have the strongest motivational impact on staff, whereas process measures were valued because they were easily linked to their contribution and performance. Information was
captured in the daily work and dialogue with patients but also through regular follow-ups on outcome measures from the national quality registries. The respondents reported that professional pride associated with being a high-quality provider was motivating to staff and that benchmarking with other providers was important to inspiring future improvement work:

What would you say your team and staff are interested in when it comes to feedback and measures?

How the patients are doing and their experience. Some general sense of how much value we have provided for them (Interview, Operations manager, Hospital).

**Personalizing rewards.** Across provider types, the respondents described a strategy of personalizing rewards to make them relevant at the individual level. They believed that rewards had to be suited to personal preferences and gave examples of how financial incentives could be rewarding for some individuals, whereas opportunities for research and competence development were more motivating for others.

There was no direct link between incentive logic at the provider level and the individual payment of staff, but one private provider attempted to personalize economic rewards by introducing a team-based quality bonus for all staff members (for reducing complications costs). The respondents, across provider types, emphasized that non-monetary personal rewards could also be highly motivating – if the individual valued them. In the experience of the managers at public providers, assigning time off for staff to engage in research and competence development had proven to be an appreciated reward. The respondents at private providers who had limited involvement in research expressed the importance of giving private-sector staff opportunities for competence and skill development to support their long-term career development:

So, there is a certain group of physicians who are more interested than others in making money and less interested in professional competence development. Sometimes you see both, but there are differences for sure. Here, we have traditionally applied a fixed monthly pay, and in my experience, my colleagues are more interested in getting a reputation as skilled physicians and gaining the respect of others as well as in caring for the patient’s wellbeing. To have that as a driving force (Interview, Operations manager, Specialized provider).

**Overruling the model.** The respondents reported occasionally finding themselves forced to overrule the model by diverging from its economic logic and performing actions that did not maximize their provider organization’s financial gain. This occurred in situations where a patient needed actions that were not covered by the reimbursement. To avoid the risk of harming patients and thereby also weakening staff motivation, the managers decided to act at the provider’s own expense. Examples of overruling the system were described across provider types. According to the respondents, this was most commonly caused by flaws in the inclusion assessment procedure (ASA), which does not consider psychiatric status or age as risk factors. This procedure results in patients being classified as low risk, despite requiring more extensive post-surgery care. The provider organization then financed longer rehabilitation.

The respondents gave several reasons for overruling the system. They referred to their own ethical convictions as a health professional that hindered them from leaving patients to suffer. They also used this strategy to protect staff well-being and motivation because they were aware of staff members’ professional values and concern for patients:

Yes, I believe this is important. I think it’s important since we work so close to people all the time, and if we were to let compliance with the system become more important than the patients, then I think that you wear your staff down, then you lose your energy. We can’t stand that […] I think it’s a self-preservation strategy for the health care community, that we stay united (Interview, Clinical manager, Hospital).
Some respondents expressed concern about becoming trapped in a conflict between their professional and managerial roles by representing a rigid model that they did not fully support. They described the lack of opportunities to change the model as a source of frustration, potentially putting their own work motivation at risk. Other respondents described feeling partly disillusioned, as they had stopped believing that dialogue and change were possible.

Improving the model at the policy level. The respondents described wanting but not having a strategy to improve the model design through dialogue with policy makers, the aim being to better align the model with patient needs and professional motivation. They wanted to engage in dialogue with policy makers to share their insights into the practical implications of the model for staff and patients and discuss potential improvements. They called for a formalized forum for feedback between policy makers and professional representatives from local providers instead of the current system of only using a national expert reference group. The respondents described occasional contact between providers and regional decision makers, but these conversations were focused on the management of specific patients rather than on the overall model design:

Yes, there’s an ongoing dialogue with the county council administration and continuous revision of the rules and regulations […] Unfortunately I’m not involved; instead there’s a bunch of national experts in orthopedics who are represented there and that I find unreasonable. And I have expressed my opinion on that; why aren’t those of us working with this model part of that? We know how it works, what doesn’t work and what could be improved (Interview, Operations manager, Specialized provider).

The respondents also thought a closer dialogue with policy makers could enable the proactive co-creation of better governance models in the future. They said that components that appealed to professionals could be used more actively, e.g., incentives closely linked to quality and earmarked reimbursement for education and research activities. The respondents also suggested that increasing the model’s flexibility based on trust in professionals would improve the system for both professionals and patients.

Discussion
The present study shows that the managers indeed play an intermediary role in connecting the policy and staff levels of healthcare systems and that they use several alignment strategies to make the governance model studied more motivating to staff. The strategies they employ are based on their knowledge of the practical consequences of the governance model at the provider level, but the strategies are also formulated in relation to the perceived motivational preferences of the staff.

The literature on motivation suggests that although external rewards, such as financial incentives, may crowd out staff motivation (Benabou and Tirole, 2003; Gneezy et al., 2011), they may also “crowd in” motivation if they are aligned with the underlying values of the individual (Frey and Jegen, 2001). The results presented here confirm the role of managers in linking and aligning internal and external sources of motivation (Deci and Ryan, 2000), as outlined in the tentative conceptual model we provide (Figure 1). The empirical data adds to this by showing how managers use different alignment strategies to make this happen (see Figure 2). The strategy of personalizing rewards refers to managers’ efforts to complement the model with additional rewards adjusted to the motivational preferences of each individual. This strategy highlights an awareness of the variability of individual preferences and managers’ intuitive understanding of the important role of intrinsic motivators, such as enabling competence development, to maintain a satisfactory level of motivation over time. The strategy of explaining the model refers to the rhetorical work managers perform to make sense of the model and create awareness among staff concerning its practical implications.
Beyond that, the managers translate the model into motives and arguments related to patients, thus supporting staff members’ assumed internal, pro-social motivation. The strategy of operationalizing the model and using feedback may also be regarded as a way of supporting the internalization of staff. By giving feedback on how the staff contributes to value creation and overall goal of the organization, the managers align external rewards to staff members’ internal motivation of competence and expertise. Together, the strategies are used to align the model with professional values, which relates closely to the internalization process presented in self-determination theory. It is also in agreement with the literature on professionalism and public service motivation. The strategy of overruling the model to prevent economic reward from becoming too dominant and weakening staff members’ internal motivation is particularly noteworthy in this regard – managers are willing to take financial risks to minimize the risk of the crowding-out effect.

In summary, our findings demonstrate that externally imposed financial rewards are not motivating on their own and that managers play a vital role in articulating the ways in which incentives align the motivation of healthcare staff. The empirical data show how managers transform the inbuilt orientation toward cost-effectiveness of financial reforms into new meanings that appeal to healthcare professionals.

By explaining the model to staff and calling for a dialogue with policy makers, the managers in this study bridge the gap between the micro and macro levels of healthcare. This extends previous research on articulation work in healthcare provision (Corbin and Strauss, 1993) by explicating strategies used in the policy articulation process. Whereas many of the managerial strategies identified here involve articulation work focused on staff, the improvement strategy goes in the opposite direction, targeting policy makers to change the model to indirectly affect staff motivation. The different directions of the strategies raise questions concerning managers’ choice of strategy and how different stakeholder perspectives are prioritized and judged – questions that merit further exploration. In particular, the alignment strategies employed by non-medically educated managers would be relevant to study.

Implications for practice
The present study has practical implications for both healthcare provision and health policy. First, healthcare providers may in different ways support managers in applying alignment strategies. In addition to time and knowledge, administrative systems with access to high-quality data on patient outcomes and resource use could increase their opportunities to give meaningful and thus motivating feedback. Providers could also maintain a dialogue with decision makers at a policy level, thus increasing opportunities for the improvement of policies. The present results further support the benefits of hybrid roles in healthcare management (Kuhlmann and von Knorring, 2014), which could guide provider organizations in their recruitment and development of management.

Second, our findings suggest that the way health policies and governance models are designed may influence managers’ abilities to form alignment strategies. Policies that support high quality of care will be easier for managers to align with staff motivation and more likely affect staff behavior and provider performance. Policy makers could also inform about new policies and governance models in a timely fashion and provide argument for the reform referring to patient and staff benefits, not only efficiency.

Our study also provides perspectives on how the process of designing policies and governance models can be improved. Healthcare is typically described as a complex adaptive system involving interaction between multiple agents and resulting in low predictability. Deviations from standardized procedures are everyday occurrences, and flexible control systems have been recommended (Sturmburg et al., 2012). It may be naïve to assume that anyone, policy makers included, can foresee all potential consequences and design optimal models. As Casalino (Casalino, 1999) noted, the inbuilt incompleteness of
measures to define and control healthcare processes makes unintended consequences inevitable. The present results suggest that the introduction of new policies and governance models should be regarded as a continuous process of change rather than episodic, which requires constant adaptation to a complex environment (Weick and Quinn, 1999). In complex settings, the co-production of services involving several stakeholders sharing a common goal has been shown to be essential. This approach is increasingly applied in healthcare services, e.g., in patient-centeredness and self-management (Batalden et al., 2015).

We propose that policy makers and professional managers form partnerships to co-produce policies, aligning stakeholder perspectives and enabling continuous improvement over time. To summarize, this requires a shift from efforts to design the best model to efforts to design the best process to improve the model through co-production.

Methodological considerations
The present study has limitations that require consideration. The study was conducted in specialized orthopedics, in which managers handled this specific governance model. The managerial strategies identified in this study needs to be further explored in in other healthcare settings and systems, including more complex diagnoses, different market compositions, provider structures and different incentive models. Furthermore, the body of literature guiding the focus of this study mainly takes an individual perspective on motivation and management. Particularly, system dynamics at the micro, meso or macro level needs to be investigated in future studies.

Nevertheless, our findings show similarities across groups of respondents from different provider types (private and public) who have different professional backgrounds (physicians and nurses) and roles (operations manager, clinical manager, etc.). This supports the relevance of the identified managerial strategies. To uncover the generalizability of strategies across e.g., provider types and professional groups is beyond the scope of this study but merits further exploration. In light of the expressed need for comprehensive theoretical models in health policy research (Frolich et al., 2007), we hope the tentative conceptual model presented here will be found helpful in this regard.

Regarding the validity of our results, the fact that we rely on data that only managers have provided should be considered. We have not interviewed staff or policy makers, and thus, our results reflect the views of managers rather than an objective “truth.” We have not made observations to assess managerial behaviors and thus have a limited knowledge of when and to what extent the described strategies are used. More research is needed to include complementary perspectives and additional data sources illustrating the relationships between managerial strategies and their impact on motivation.

Two operations managers from specialized providers declined to participate, and our sample includes a slightly lower proportion of respondents from specialized providers. There is a risk that our findings are colored by a selection bias in our sample of volunteering respondents. We have not been able to control to what extent our respondents have had formal training or varying skills in implementing policy reforms of this kind. There is also a risk that our respondents are more favorable or critical to policy compared to managers in general, which could affect their strategies. In summary, our empirical result highlights the need to further address the interaction between stakeholders at the policy and provider levels.

Conclusion
The present study aimed to explore managers’ strategies as intermediaries between policy reform and staff motivation using empirical data from a local case study. The main conclusion is that managers have a central role to play in making policy motivational in practice and potentially buffering negative consequences at the staff level. Their knowledge and awareness of multiple perspectives on healthcare provision and professional culture
could also be used in the co-production of future health policies. Managerial and professional logic should be integrated with the demands and logic of health policy. Such a partnership could realize the creation of policies that support high-quality care and efficient resource use, which has been found to motivate healthcare professionals.

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References


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Can hospital dashboards provide visibility of information from bedside to board?  
A case study approach

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Abstract

Purpose – The purpose of this paper is to analyse hospital dashboards’ visibility of information at different management levels to improve quality and performance in an acute general hospital.

Design/methodology/approach – Data were generated via 21 semi-structured interviews across different management levels.

Findings – All management levels had greater visibility of information, could make informed decisions, and registered performance improvement. Specifically, waiting time improved, however since introduction of hospital dashboards was work-in-progress at time of study, managers could not record improvement in terms of cost reductions, clinical effectiveness, patient safety and patient satisfaction. Different managerial levels had different visibility with top management having the greatest.

Research limitations/implications – In single case studies, where only one context is used, the findings cannot be reproduced in different contexts; even though most of the results could be matched with the current literature.

Practical implications – The need to have balanced key performance indicators that take into account other facets of improvements, apart from time, has been emphasised. Furthermore, if middle and departmental managers have greater visibility, this would allow them to work towards a strategic fit between the departments that they manage with the rest of the hospital.

Originality/value – There is scant literature regarding performance dashboards’ enhancement of visibility of information at different management levels. Furthermore, according to the authors’ knowledge, no other paper has tried to identify and discuss the different levels of information, which should be visible from bedside to board namely to management, clinicians and public.

Keywords Healthcare, Key performance indicators, Dashboards, Visibility of information

Paper type Research paper

Introduction

Amongst the challenges, which hospitals in Europe are currently facing, are the phenomena of aging populations and the related rise in chronic non-communicable diseases. These are leading to an increase in demand for traditional and developing medical services. At the same time, patients want to experience better quality of healthcare delivery. This increase in patients’ needs together with higher expectations is causing financial strains on European healthcare systems that need to achieve optimal performance so as to ensure long-term resilience and sustainability (von Eiff, 2012).

Apart from overcoming obstacles, in particular increased costs, hospital decision-makers have an important role in keeping pace with dynamic healthcare environments. Fluctuations in patients’ volume, changes in supply costs, strict government regulations, resource allocation and shortage of staff all impact the healthcare environment (Infosys, 2009).
In order to better govern the healthcare sector, in the past 20 years, there has been an increased interest in performance management. This approach aims at enhancing the performance of an organisation by optimising its processes and outcomes (Walburg, 2006). Tools used in performance management include performance dashboards (von Eiff, 2012).

Few (2006, p. 34) defined dashboards as:

A visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance.

In 2012, Yigitbasioglu and Velcu (2012) reported that there is no standard definition of dashboards in the available literature. The authors defined dashboards as:

A graphical user interface that contains measures of business performance to enable managerial decision-making (p. 44).

These definitions emphasise the visual summary of decision-making related information displayed in a single view and the extensive use of graphical information displays, such as graphs and charts (Dolan et al., 2013). They also mention the contents of the tool, which are performance data measured against metrics (Dowding et al., 2015). Furthermore, these definitions also highlighted the purpose of dashboards, which is to assist managers in decision-making. They structure the information, highlight factors that merit consideration while making data easier to evaluate and so help users to process and analyse information (Dolan et al., 2013).

Research widely supports the design and implementation of performance dashboards in healthcare settings, including acute general hospitals, as they yield several benefits, mainly improved performance (Stone-Griffith et al., 2012; Veillard et al., 2005; Wadsworth et al., 2009) and quality of care (Dowding et al., 2015; Healthcare Information and Management Systems Society (HIMSS), 2009, 2010). This tool has been advocated by different institutions including the National Health System (NHS) (2008, 2014) in the UK and the HIMSS (2009, 2010) in the USA.

Despite the availability of extant literature regarding benefits, design and implementation of performance dashboards, little is known about the extent to which these can enhance the visibility of information to different users and across managerial levels. In addition, most of the literature is fragmented as it reports the use of different types of dashboards, namely strategic, tactical and operational, as separate tools. This case study contributes to knowledge on hospital dashboards by emphasising the comprehensive use of different dashboards within an acute tertiary level hospital. Furthermore, according to the authors’ knowledge, no other paper has tried to identify and discuss the different levels of information, which may and should be visible from bedside to board (namely to management, clinicians and public).

**Background**

Similar to other European hospitals, Malta’s acute general hospital is currently facing many challenges, such as changes in demographics where the population is living longer and making use of more medical services. This has led to a rise in demand for healthcare services, and the average cost of illness is significantly increasing per capita in older age categories. Furthermore, patients’ expectations for better quality of service delivery are continuously on the rise (Pricewaterhousecoopers, 2012).

The challenges of meeting the increase in demand and patients’ expectations without making any compromises on quality have resulted in greater operational costs, where there has been a consistent upward trend (National Statistics Office, 2014). Because of this substantial increase in costs and challenges, in 2011, a team from John Hopkins Hospital, USA was commissioned to review operations within the acute general hospital under...
study and tasked to make specific recommendations. One of their suggestions was to introduce a framework of processes and structures for evaluating performance based on key performance management tools.

Following these recommendations and in an effort to overcome these challenges, management started introducing dashboards in key areas. The first one, which was installed three months prior to this study, was located in the Accident and Emergency (A&E) department. This was known as the C-track as it tracked patients from the time they registered at A&E, known as “A&E registration”, until they were “A&E discharge”. “A&E discharge” means that the patient is either ready to be discharged home or else ready to be transferred to a ward or to another facility. The patient’s status during A&E admission, such as “patient waiting for radiology”, together with the name of the physician and nurse in charge of the patient, were visible on screens. These were installed in various areas so that all clinicians within the Emergency Unit could look at them. A target of less than 95 per cent of patients, who visited emergency, had to be “A&E discharge” in less than four hours. Top management has set this target. Different colours have also been used on the screens to indicate whether patients were within the target, almost met the target and when exceeded the target. It was the nurses’ and doctors’ duty to update the patients’ status. Data regarding the departmental performance, such as what percentage of patients was within target, were then extracted from the C-track. However at the time of the study, data were still being extracted manually since the system was still fairly new and there was not yet a 100 per cent error free automatic extraction. Top management were planning to extend user specific dashboards into pathology, radiology, bed management unit and medical records.

The other dashboards, which were also recently implemented, emerge from the Clinical Patient Administration System (CPAS) dashboard; some developed using Business Intelligence (BI) tools. However, these still needed a lot of verification and were only visible to top management. These dashboards relayed information regarding the “overall hospital performance”, for example, real-time admission and discharge rates.

A few months following the design and implementation of these dashboards, we acknowledged the growing interest of hospital management towards dashboards and this motivated us to embark on this study.

Theoretical framework

In the same way that a pilot uses the display of indicators in the cockpit to monitor and navigate a plane, dashboards provide relevant information to users to steer an organisation (Joint Commission Resources, 2008). Performance dashboards summarise the wealth of strategic information that many organisations possess in a meaningful and intuitive manner utilising data to allocate scarce resources and steer organisational change towards the organisation’s strategies and objectives (Wadsworth et al., 2009).

Dashboards give its users greater visibility and integration of information regarding the performance of the organisation, by collecting relevant data in a timely fashion. Furthermore, because of the ease of access and simplification of information, it is made more readily available (Tan et al., 2013; HIMSS, 2009, 2010).

HIMSS (2010) outlined that many organisations have pertinent data in their various information systems, however, this information is often kept in silos. The “disparate and disjointed data silos” across various hospital departments constitute the biggest “decision-making bottleneck” (Infosys, 2009, p. 1). They hinder the aggregation of real-time, actionable information about the organisation’s performance with regard to clinical, operational and financial key performance indicators (KPIs). Dashboards gather data on KPIs from varied sources, which are then converged and presented in a comprehensive manner. With such an aggregation of data collection, users can take a proactive decision (Infosys, 2009).
Furthermore, divisional and departmental silos of data can be mitigated through the use of performance dashboards as information is spread more effectively across an organisation both vertically and horizontally (HIMSS, 2010).

In addition, dashboards facilitate the analysis of interdependency between different types of performance metrics, such as operations and financial KPIs. Wadsworth et al. (2009) gave the example of nursing costs and the number of nurses working overtime. Following the implementation of the dashboard, it transpired that high nursing costs were due to unnecessary overtime as managers were approving it to accommodate requests rather than using strategic human resources principles.

According to Person (2013), there are three types of dashboards: strategic, operational and tactical. Organisations utilise one or more of the various types of dashboards according to their needs.

Strategic dashboards
Top management uses strategic dashboards to monitor the execution of strategic objectives and emphasise management, rather than monitoring and analysis. Strategic dashboards are usually shared on every level of an organisation to ensure that the strategic goals of the organisation are apparent to everyone. Many performance dashboards are designed to support executive meetings that review strategies and operations (Eckerson, 2011).

Tactical dashboards
Tactical dashboards, which would be on a departmental level, track processes and emphasise analysis. The analysis application enables users to investigate data across many dimensions to ascertain the cause of a highlighted situation. It also enables users to monitor performance and chart progress against budget and other goals (HIMSS, 2009). Tactical dashboards are usually updated periodically, normally on a daily or weekly basis (Karami et al., 2013).

Operational dashboards
Operational dashboards enable users to monitor the performance of core operational processes in real-time. Monitoring delivers critical information at a glance using relevant and timely data, usually with graphical presentations (Eckerson, 2011).

Several authors claim that all the different types of dashboards enhance data visibility and integration (HIMSS, 2010; Eckerson, 2011; Tan et al., 2013). However, there are different schools of thought regarding accessibility of information between different managerial levels. HIMSS (2010) state that ideally all levels of users should be given access to data so that silos are mitigated. On the other hand, Karami et al. (2013) report that different dashboard views should be designed for employees based on the role of their organisation.

A gap in the literature has been identified with regard to information availability. If information is visible to everyone, then it will give a holistic view of the situation (HIMSS, 2010). In contrast, one of the main functions of performance dashboards is that at a glance it displays all the salient information needed for decision-making (Dolan et al., 2013). If all information is present, the dashboards may lose their function, as it would add to the complexity of the visual display and so would no longer facilitate decision-making. This study seeks to shed some light into this gap.

Based on the literature, as well as on the purpose of the study, we propose that: different types of hospital dashboards enhance data visibility and integration across managerial levels from bedside to board.
Method
For the purpose of the study, we will mainly adopt the definitions by Few (2006), and Yigitbasioglu and Velcu’s (2012) on dashboards. However, these definitions seem to imply management as sole users of dashboards. We propose that dashboards should also be utilised by clinicians to assist in their decision-making by providing relevant and timely information necessary to ensure optimal quality of patient care (Dowding et al., 2015).

Research design
A case study approach was adopted for this research and it covered a period of approximately one year, starting from July 2014 up to September 2015.

The case study methodology was chosen for this study as it involved the need to explore in-depth and develop a good understanding of an event, as in this case the implementation and use of dashboards. Furthermore, the research was conducted in its natural context that is within Malta’s acute general hospital (Crowe et al., 2011).

In addition, Yin (2009) advocates the use of the case study approach in order to understand and explain causal links and pathways resulting from a new policy initiative or service development, as in this case the implementation of dashboards.

Research setting
This case study was conducted within Malta’s acute general hospital. Malta’s acute general hospital had 928 inpatient beds, around 100 day care beds and 3,800 staff, including clinical staff and support staff, at the time of the research. It covers all medical specialties including ophthalmology, medicine, surgery, orthopaedics, cardiac services, dentistry, paediatrics, neuroscience and obstetrics and gynaecology (Department of Health).

Data collection
The data collection involved participants within different managerial levels, who were recruited on a voluntary basis. The sample was chosen using a purposive sample, as participants were chosen based on the author’s judgment. The sample was deemed as the most appropriate to enable understanding and to gain insight into the researched phenomenon (Saunders, 2012).

This study adopted a person data triangulation (Stake, 1995; Mays and Pope, 2000; Barbour, 2001), as the author collected data from more than one managerial level (Figure 1). In this case study, vertical and horizontal triangulation were also used, as data were collected vertically from different levels of management and horizontally from across the same category (Buttigieg et al., 2013).

As shown in Figure 1, the groups were divided according to the managerial grade and the level of visibility of performance data. Top management and middle management had visibility of the whole hospital. The latter also had visibility of the whole hospital as the functions of their respective departments are spread across the hospital, for example, infection control and bed management unit. While departmental managers had visibility restricted to their own department, for example, A&E.

Figure 1 refers to the codes, which were given to each group to ensure anonymity and confidentiality.

Data were collected from 21 semi-structured interviews. The sample size was guided by Morse’s (1994) and Saunders’ (2012) suggestions, which recommend that saturation of information is the key to excellent qualitative work.

A pilot study was undertaken prior to conducting the actual semi-structured interviews. Furthermore, the interview guide (see Appendix) was discussed with an independent
researcher so that ambiguities were clarified and certain questions modified in order to keep the questions focussed on the scope of the research (Buttigieg et al., 2013).

The duration of the interviews was approximately 20 to 30 minutes. Following a written consent, all interviews were recorded to ensure a full description of the participants’ experience and to enable the author to systematically probe the meaning of the texts (Gerber, 2001). Written field notes were also taken during the course of the interview to aid the interpretation of the recorded text (Poland, 1995).

A fundamental component of rigor in qualitative study is the trustworthiness of the transcripts. To preserve the original text used by participants, the audiotapes of the interviews were fully transcribed *ad verbatim*. The following steps were taken in order to limit inaccuracies: good audio recording equipment was used, the interviews were transcribed within 48 hours, the interview tapes were played back a number of times and participant validation was sought (Cutcliffe and McKenna, 1999). Participant validation was attained by e-mailing back the transcripts to the interviewees so that they could provide feedback on its accuracy.

**Analyses of data**
Thematic analysis was used to analyse, interpret and report patterns of the data (themes), as it goes beyond organising and describing data in rich detail. It also interprets various aspects of the themes (Boyatzis, 1998). Thematic analysis was guided by the framework of Braun and Clarke (2006).

In the analysis and interpretation of the collected data, themes were not necessarily dependent on prevalence but rather whether the information captured something important in relation to the research objectives. Themes were identified in an inductive approach as the generated themes were strongly linked to the data, and therefore were not correlated with pre-existing coding frames (Braun and Clarke, 2006).

QDA miner, a computer assisted qualitative analysis software, was used to organise the vast volume of data under the initial codes, to search and to review the themes.

**Ethical issues**
The study did not require ethical clearance from an ethics committee, as it did not involve vulnerable groups. Nor did it discuss subjects, which are sensitive in nature or collected
personal sensitive data. Furthermore, participants were interviewed in their professional capacity, and questions only referred to publicly available matters (FEMA Research Ethics Committee, 2015).

Findings
The data collected in this study were organised into three main themes, which were then further subdivided into categories:

Theme 1: levels of information visible on dashboards:
- individual performance;
- operational processes;
- departmental performance; and
- overall hospital performance.

Theme 2: visibility of information from board to bedside:
- top management;
- middle management; and
- clinicians.

Theme 3: visibility of information outside hospital:
- public;
- policy makers; and
- other hospitals.

A framework, which is illustrated in Figure 2, was developed in order to depict the relationship between the three themes. Each of these themes will now be discussed in view of the excerpts, which were obtained during the interviews.

**Figure 2.**
A framework showing the relationship between the emerging themes
Theme 1: levels of information visible on dashboards

This theme reveals the level and content of information, which are made more visible by the dashboards that are available within this acute hospital. Dashboards enhance visibility of performance data within all the different managerial levels. This is highlighted by the following quotes:

At a glance you are seeing these variables as they are (D1).

While dashboards and BI actually push information to the user (M4).

With these tools now everything is available with the click of a button (T1).

As these quotes suggest, dashboards do enhance visibility of the information that they capture and analyse. This theme was further subdivided into categories representing the type and level of information, which is currently being measured by the dashboards within this acute hospital.

Individual performance. Dashboards measure individual performance. For example, the A&E dashboard highlights the doctor’s and nurse’s names that have registered and are responsible for the patient. This dashboard was also extended to the laboratories, medical records and radiology. This was done to improve “individual performance”:

In every area there is a screen that shows the individual doctor that their patient is still blue or it is turning yellow. So yes, visually it will help you work at better rate (DI2).

The scientist who is working and performing the test knows that I am monitoring him and knows he is the bottleneck so […] the fact that you know that you are being monitored you will self-adjust yourself (D5).

If you have your name and the patient’s name on the same line in highlighter red you want to get rid of it (M5).

Operational processes. Some of the dashboards measure metrics related to time or volume of “operational processes”. For example in A&E, the system known as C-track measures the patient’s pathway through time. In the laboratory, time is the metric, which is being used to measure the turnaround time for samples, while inventory levels are measured using volume:

We are monitoring the care pathway of A&E patients so first registration, time between registration and triage, from triage to first doctor contact, etc. (M3).

So this is, sort of, capturing the process of the patient’s pathway through the department (DI1).

Well we measured how many orders do we have out there? How much stock are we carrying? (T1).

Departmental performance. “Departmental performance” is another level of information, which is captured by the dashboards. For example, from the A&E C-track, managers are able to manually extract whether or not the department has met the four hours target from “A&E registration” to “A&E discharge”:

Every single day I get the figures of the day before. And how many people were within target and how many people were just outside the target. So that I can see whether I am achieving KPI, which is 4 hours (DI1).

As the word implies a dashboard is quasi a pictorial demonstration of the performance of a department (M3).

We are trying (laughing) to put in place a dashboard for the emergency department, which would allow us to see the percentage of patients, which are being processed in less than 4 hours (T3).
Overall hospital performance. Apart from the A&E C-track, there is another dashboard regarding the “overall hospital performance”, which is only available to top management:

So you want a general overlook of what is going on, for example the CEO would like to know how much time is being spent with empty beds just waiting for someone else to go in? (M5).

The most common one would be the one of emergency but we also use dashboards, which we give to the CEO, we give to directors, which are kept between us in administration (M5).

There are other areas, obviously like out-patients, theatres. Theatres, we are nearly there to have a dashboard of what is happening in theatres. And then there are out-patients. Obviously, one regarding hospital occupancy and real live measurements on discharges, admissions, ward availability, ward occupancy (T1).

Theme 2: visibility of information from board to bedside

The level of visibility of information at top management, middle management and clinicians will be discussed within this section.

Top management. From the data analysis, it was evident that top management had full visibility of three different levels of information, which is collected and analysed from the dashboard. Top management have visibility of the “overall hospital performance”, “departmental performance” and “operational processes”. From the interviews, it did not transpire that top management have visibility of “individual performance”. However, top management have full access to operational dashboards, such as the C-track from which “individual performance” is extracted.

Operational performance. Top management have full visibility of the “operational performance” of each department as they have full access to software used by each department to monitor the processes, such as the C-track:

The CEO is presently monitoring some kind of activity, at the moment is A&E, we started C-track over there so everyone is monitoring that project (M3).

From the information that we are collecting, we are tracking how long the patient has been on the shop floor and we have to reach the target that each patient that A&E admits does not stay longer than 4 hours (T4).

Departmental performance. Since “departmental performance” is extracted from software, top management have full visibility of “departmental performance”. Furthermore, top management can easily contact each departmental manager to provide an overview of the “departmental performance”:

So the CEO wouldn’t have to phone me each time for statistics. He can go himself or his delegate person on the system and view everything (I3).

We use dashboards to give information about the bed situation, when we send our daily report to the CEO and other senior management team (M6).

Thanks to the dashboards, we identified three main shop stoppers: pathology, radiology and bed management (T4).

Overall hospital performance. Top management also has visibility of the “overall hospital performance” through the CPAS dashboards; some developed using BI tools. However, these dashboards are still not fully functional:

So you want a general overlook of what is going on, for example the CEO would like to know bed management or how many beds are available? (M5).

There are other areas, obviously like out-patients, theatres. Theatres, we are nearly there to have a dashboard of what is happening in theatres etc. And then there are out-patients. Obviously, one
regarding hospital occupancy and real live measurements on discharges, admissions, ward availability, ward occupancy (T1).

Yes, we have another dashboard regarding hospital occupancy and real live measurements on discharges, admissions, ward availability, ward occupancy. Am I confident with the data being presented? No. This will be a long process (T2).

Middle management. Middle management, the next level of management within the organisation, has visibility of “departmental”, “operational” and “individual performance” but does not have visibility of the “overall hospital performance”.

Individual performance. Visibility of “individual performance” is mainly reserved to departmental managers. It was also highlighted by different managers that this information should be between the employee and the departmental manager:

It depends on your position in the department. So, if you are a chairperson you have to also measure the individual person of the doctors (D12).

The performance of our radiographers, like how many procedures they are doing per hour (D3).

I put the dashboards in the laboratories so the scientist who is working and performing the test knows that I am monitoring him (D5).

Operational processes. Middle management also has visibility of “operational processes”, such as the tracking of patients at A&E and the sample turnaround time. Some managers also have the facility to access this information out of their offices:

It is usable in my office where at any point in time I know what is happening in my department (D11).

In fact we are now trying to see how I can monitor this from home as well. Because I would want to know exactly what the turnaround time is, when patients are being served (D6).

Departmental performance. Departmental managers also have visibility of “departmental performance” that is whether the department is within the allocated targets or not:

I can see whether I am achieving KPI, which is 4 hours, and when it is not achieved I have the opportunity to look into the process of that patient and see where the stumbling block was (D11).

Hand hygiene, antibiotic related, infection rates after surgery, blood stream infection rates are KPIs, which we are using at the moment (M7).

This is data, which I plot to know the performance. Sometimes it is good, sometimes it is bad. These charts, then I share them between the chairperson of the emergency, chairperson of radiology, chairperson of pathology and with everyone. So that they know how things are doing and where we are at a standstill (T4).

Overall hospital performance. From the interviews it was highlighted that only top management have visibility of the “overall hospital performance”, while middle managers only have good visibility of their own “departmental performance”, as well as other departments:

Performance dashboards in hospitals are not very transparent to whoever is producing the data. So if I give the data to the performance manager and he processes it himself, I still do not have visibility of the results and the progress so it has to be a little more transparent (D4).

The most common one would be the one of emergency but we also use dashboards, which we give to the CEO, we give to directors, which are kept between us in administration (M5).

We don’t even know at the moment our admission rate; we don’t even know for example clinical parameters, correctness of treatment, mortality rates […]. We only give data to the important people, as if it is a secret (M7).
Even though middle managers do not have visibility of the “overall hospital performance”, top managers and middle managers have emphasised the need to have visibility at this level and make this accessible to everyone including clinicians:

I believe it will make them feel that, if there is a piece of data that they are contributing to then they can see the information derived from it, and you know when you’re aware of what can come out of the data you’re contributing it can make a difference (M2).

All managers should have access to some type of information about the hospital as a whole. That will eliminate the silo attitude that some people have, because it is always good to be reminded that you are part of a bigger organisation and that you are not alone (M6).

Each user, each manager, each director, everyone. Everyone should know what the hospital is achieving; areas where we can improve or areas where we need to invest more […] I believe that we need to make this data available to each employee (T2).

Clinicians. Clinicians have visibility of their own “individual performance” and of the “operational processes” pertaining to their department. They only have visibility of “departmental performance” at their manager’s discretion to share such information.

Individual performance. Dashboards have increased the visibility of “individual performance”; as, for example the C-track highlights patients in different colours according to how long the patient has been waiting. Next to each patient there is the doctor’s and the nurse’s name who are responsible for the patient. It has also helped to improve “individual performance” in other departments, such as radiology and pathology:

If the performance rate of the department where the employee is employed gives him visibility of the activity that it is related to his job, it also empowers him and motivates him so that people contribute more and better (D4).

It may help individuals look at their performance and that of their peers. This may sometimes be helpful in improving one’s own performance (M1).

This is the first dashboard that was made available to our staff to make them aware of their performance. This is a live dashboard and it was launched quite recently (T2).

Operational processes. Through dashboards, clinicians have greater visibility of the “operational processes” within their own department such as A&E, medical records, pathology and radiology:

In casualty it is visible to everybody. They use it to improve their work processes or to be made aware if there is a problem with a particular patient (D6).

The complication and access will vary […] Pathology needs to see the patients that are awaiting pathology result and, investigations because it will affect their performance (M3).

To all employees. Employees need to own the dashboard. It is more important that the employees see the dashboard as it makes them aware of what is happening on the floor (T3).

Departmental performance. From the interviews it transpired that clinicians do not have direct access to their own “departmental performance” for various reasons including license costs and server restrictions:

On a very limited scale, though. First of all is expensive because each access means one licence. And licence costs a lot of money (D3).

If users decide to search a query for a particular event throughout all the database of the s that will create a very heavy load on the server and obviously this is a critical system (M4).
However, most managers agree that clinicians should be aware of their “departmental performance” and so they disseminate this information through other means, such as fixing printed graphs on boards and holding daily meetings:

Most of the data is visible to staff. What they don’t see and the administrator sees is the overall performance of the day with the graphs. Having said that, I do print them and paste them on a notice board so that they can see their performance (D1).

I think it is should be used across at all levels. It should be published and marketed in public places within the organisation for everybody to know the results and the impact of what their job is (D4).

As you are going in the department (referring to bar charts and other graphs attached to a board) you know how many infections. It is there (M7).

Theme 3: visibility of information outside hospital

Public. When managers were asked to what extent performance data should be made visible to patients, there were three main groups of opinions. One group argued that it is at the discretion of the ministry. Another group was in favour but with reservations, while the third group was against having this information made public.

Discretion of the ministry:

I would say at the discretion of the ministry. Because all performance data of all government institutions are at the end of the day owned by the ministry (D1).

I think this data shouldn’t be government owned. It should be something the general public should be made aware of this data. But it is not something that the hospital can decide to make available (T2).

In favour of public having visibility of performance data. Most managers from different levels were in favour of the public having increased visibility of hospital performance as it creates greater awareness of problems within the hospital, such as bed occupancy. The reason behind this thinking was that by creating more awareness the general public would help, by, for example, reducing wastage of pharmaceuticals. Apart from creating greater awareness of the problems, managers were in favour of enhancing the visibility to the public as this would lead to greater transparency. Greater transparency enhances greater productivity especially with regard to elective operations’ waiting list, creates a choice for the patients between public and private healthcare and would also improve quality of care:

It was recently mentioned that the Caesarean section was going up on the Malta Today […] To a certain extent it is also education for the general public (D1).

If you inform the public about the bed occupancy in hospital. Yes, people might be more responsible about getting their relatives home faster when they are discharged (M6).

Yes, yes, yes you should be able to tell the patient that you are on the list. We do not expect that we will be able to operate you before 3 years. The patient can then decide if he wants to do it privately or otherwise wait (T3).

Even though many managers were in favour of increased visibility of data to the public, most stated that this should be done with caution since data can be easily misinterpreted. Furthermore, there needs to be consistency with the published information and once it is made public it cannot be withdrawn:

So you have the main hospital, which is issuing all this data, showing that people attending the emergency department are now taking less than 4 hours. The same public is also using the health centre. If they are not receiving this type of data from the health centre they can say, “Ok, so health centres are really not doing well”. It can work against you (D3).
Because once you publish information, you cannot retrieve it but once you hold the information, you can always give it out once the time is right (M6).

But I think we should start giving information to the public when we know that first of all, information is reliable and when we know that we have a more or less consistent operation (T3).

Not in favour of public having visibility of performance data. Two managers were against increasing the public’s visibility since this acute general hospital is the only public acute general hospital in Malta. Therefore, the hospital does not need to compete with other operators in the same field. Similarly, most patients making use of the hospital also lack the option to choose between different hospitals:

I’m not really in favour. The problem with Malta is that we only have one hospital so if we tell them “our performance is so and so”, the client has nowhere else to go for treatment and this might be very alarming (M2).

So obviously in America they have to advertise, it is in their interest to advertise that their operations for this type of operation is 2 hours and 2 days recovery instead of 3 or 4 days recovery. So it makes sense but in Malta is a government based institution, which is being used as a political ball, I think that data could be widely misinterpreted and used (M4).

Discussion
This discussion is divided into three different headings according to the objectives of the study.

To what extent can dashboards enhance the visibility of information at different management levels so as to assist them in achieving quality and performance improvement in an acute general hospital service delivery?

It was evident from the results that through the implementation of dashboards, management at all levels had greater visibility of information as dashboards were providing real-time, summarised and actionable information at a glance or at a push of a button. This finding is in line with already available literature (Dolan et al., 2013; HIMSS, 2010; Wyatt, 2004). By having greater visibility of information, management could make informed decisions whilst also received feedback on whether their decisions were good or otherwise. In this case study, dashboards were assisting management to improve performance in terms of time, for example the time spent by patients at the A&E department.

This enhanced visibility of real-time, summarised and actionable information has helped managers to make informed decisions, thus improving the performance of different departments including A&E, radiology and pathology. This improvement was in line with existing studies as the timelessness of the information presented on the dashboard enabled users to closely monitor performance and evaluate the effectiveness of interventions (Veillard et al., 2005; Wadsworth et al., 2009). Stone-Griffith et al. (2012) showed similar results as the implementation of a dashboard resulted in better turnaround of patients at A&E since the time spent from “A&E registration” to “A&E discharge” was substantially decreased.

Despite the improvement in performance of different departments, this was only in terms of time patients spent within a department or waiting for a procedure, such as a radiograph. This could be explained as top management set targets, which were only related to time. For example, the target for A&E was that 95 per cent of visits had to spend less than four hours from “A&E registration” to “A&E discharge”. However, the dashboards did not measure any other quality indicators.

In a similar exercise, in 2005, the English government set a target of 98 per cent of patients’ A&E visits to be of four hours or less with no quality or resource assessment
accompanying this objective (Weber et al., 2012). A study carried out by Mason et al. (2012) has shown that the introduction of this target has led to improvements in the percentage of patients managed within this timeframe but did not necessarily result in an improvement in the quality of care. The English Department of Health (2011) replaced the four hour waiting time standard for A&E with more clinically relevant indicators. Subsequently, A&E clinical quality indicators have been designed to illustrate a complete view of the care delivered by A&E departments. These clinical indicators were divided into effectiveness of care, patient experience and patient safety.

To determine the different levels of information which are currently visible from board to bedside

From the results it transpired that there were four different levels of information, which were visible on the dashboards: “individual performance”, “operational processes”, “departmental and overall hospital performance”. The different levels of information were visible to the different grades, meaning from board to bedside, consisting of: top management, middle management and clinicians.

Top management had the most visibility as they had access to all the four different levels of information. They were mainly concerned with the “overall hospital performance”, “departmental performance” and the “operational processes”. However, they could easily access “individual performance” by either viewing the dashboard from their office or else ask departmental managers about one of their subordinates.

From existing literature, several authors advocate that at this level, dashboards should consist of strategic dashboards (HIMSS, 2009; Eckerson, 2011). The use of this dashboard is to manage performance by measuring actual results against strategic objectives and goals (HIMSS, 2009).

From the interviews it was not clear whether the information used within the dashboard was compared to targets and objectives. However, it transpired that only top management had visibility of the strategic dashboard, which is mainly concerned with the execution of the strategy.

Furthermore, the strategy related to the dashboards was mainly concerned with improving quality by reducing the time that patients spend, for example in A&E or for a radiograph. The strategy of the hospital should be more balanced and take into account several facets of improvements, such as cost reduction, improvement in quality and patient satisfaction (Johnson and Capasso, 2012).

Middle management had less visibility than top management as they had access to “departmental performance”, “operational processes” and “individual performance”. Eckerson (2011) refers to this level of information as tactical. These dashboards help to monitor performance and optimise processes by displaying graphs for KPIs for specific departments within the hospital operations. Typically, this type of dashboard is tied to operational goals and is less strategic.

It transpired during the interviews that middle management did not have visibility of the strategic dashboards, which showed the “overall hospital performance”. Progress on the attainment of goals should be reviewed in monthly or quarterly meeting with departmental managers (Eckerson, 2011). These meetings are important to keep different departments of the hospital focussed on a common goal by monitoring execution and comparing the results to the specific goals and targets (HIMSS, 2009).

Clinicians had the least visibility as they only had access to “individual performance” and “operational processes”. Eckerson (2011) refers to this level of information as the operational dashboard. This level of information is used to control operational activity and ascertain that the processes are still within the limit. Normally, front-line personnel, such as nurses and doctors, use operational dashboards to monitor events in real-time.
Even though, clinicians did not have direct access to “departmental performance”, many middle and departmental managers found different ways how to illustrate this. Some printed graphs and attached it to boards, while others held daily meetings to give overviews regarding the “departmental performance”. This is crucially important as visibility of the department's and “individual performance” gives an appreciation of what the individual role is within the group and is more motivated when he/she sees his/her own contribution towards the attainment of the overall organisational goal (Dover, 2004).

To identify whether the public should have visibility of the overall hospital performance

When managers were asked to what extent performance data should be made visible to public, there were mixed views. One group argued that it is at the discretion of the Ministry. Another group was in favour but it has to be done with caution, whilst the third group was against having this information made public.

Two of the managers commented that the Ministry of Health owns these data, and therefore it is the Minister who has to decide on making these data publicly available. Henke et al. (2011) commented that in most countries transparency of data has not been implemented yet not because of data unavailability but rather because of political issues.

Most managers from different levels were in favour of the public having increased visibility of the hospital performance. Most managers were in favour of publishing data as it creates greater awareness of problems within the hospital, such as bed occupancy, increase in caesarean sections and wastage of pharmaceuticals. Apart from creating greater awareness, managers were in favour of enhancing the visibility of the public as this would lead to greater transparency. According to these managers, greater transparency enhances greater productivity, especially with regard to elective operations’ waiting lists, creates a choice for the patients between public and private healthcare and also improves quality of care, such as reducing MRSA infections.

These advantages of transparency are in line with different research works and have been adopted by different countries. For example, in the USA, federal and state governments, health plans and others have launched a plethora of quality and cost transparency initiatives. Transparency in costs and quality performance has been incentivised since this stimulates quality improvement as providers benchmark their performance against other providers (Veillard et al., 2005; Groene et al., 2008; von Eiff, 2012, 2015; Tu and Lauer, 2009).

After these initiatives have started in the USA, many other Western countries have started to publicly report performance data of healthcare facilities (Faber et al., 2009). In the UK, transparency is a tool, which is being used for public service reform (Henke et al., 2011). For example, in 2014, the English Department of Health has launched a website, My NHS with the objective of offering a place where health organisations and the public can compare the performance of services over different measures, at both local as well as national level (Department of Health, 2015).

Even though many managers were in favour of increased visibility of data to the public, most stated that this should be done with caution, as it does not come without risks. One of the risks is that publication of large amount of anonymised data can lead to the identification of individual patients. However, modern techniques of “pseudonymization” make re-identification an impossible task. Furthermore, there are no known cases where re-identification has taken place (Henke et al., 2011).

Another major risk of transparency is the quality of the data being published. It is of extreme importance that when data are being published, these are supplemented with appropriate cautionary and explanatory notes that highlight the limits of the data (Henke et al., 2011).

Two managers from different groups were against increasing the public’s visibility with regard performance data since this is the only acute general hospital in Malta. Therefore,
it does not need to compete with other operators in the same field. In addition, most patients making use of the hospital lack the option to choose between different hospitals. Further studies need to be carried out in order to ascertain whether the publication of performance data within such a small island, where only one public hospital exists, may lead to improvement in quality of care or else may lead to alarming patients when performance is below standard.

Study limitations
Although the study has several strengths and various strategies were used to ensure rigour, nevertheless, this study has limitations.

In single case studies where only one context is used, which in this case were an acute general hospital, the findings cannot be reproduced in different contexts even though most of the results could be matched with the current literature (Buttigieg et al., 2013).

In addition, a purposeful sample was used as it has offered meaningful and in-depth insights into the phenomenon. Because of the small size, which is often used in qualitative research and because of the sampling technique, research findings cannot be generalised to the whole population (Morgan, 2008). Qualitative researchers do not argue against this statement as this reflects the belief that each individual is different (Nicholls, 2009).

The whole research project was described in detail so that readers can make their own judgment whether findings are transferable or not (Shenton, 2004).

Another limitation of this case study is that a restricted number of data sources where interviewed, namely, three levels of management. If data were also collected from clinicians together with the general public this might have augmented the interpretative analysis.

Implications and recommendations
The implications and recommendations of this study are geared towards enhancing the performance and quality of care of acute general hospital by designing and implementing performance dashboards. The first recommendation is that performance should not only be measured on the basis of time, metrics should be balanced and present a holistic view by including other aspects of quality of care, such as patient safety, patient experience and effectiveness of treatment (Mason, 2011; Mason et al., 2012; Weber et al., 2012).

The second implication is that monthly or quarterly meetings should be held to enhance visibility of departmental managers of the “overall hospital performance” (Eckerson, 2011). These meetings are important to keep different departments of the hospital focussed on a common goal by monitoring execution and comparing the results to the specific targets (HIMSS, 2009). Furthermore, it would also help them to have a holistic view of the organisation and not just of their department (Guha et al., 2013).

Another recommendation is that visibility of performance data within the external environment of the hospital, namely to the general public, should be enhanced as transparency yields several advantages, mainly improved quality of care (Henke et al., 2011). Despite the several advantages of increasing visibility, this should be done with caution since in Malta there is only one acute general hospital.

Further research should be conducted with regard to the advantages and disadvantages of enhancing transparency of an acute general hospital’s performance data to the public, especially in small countries such as Malta, where there is little or no choice for patients due to the limited number of hospitals. In addition, further research should be conducted regarding visibility of information where clinicians together with the general public are included in the study. Approaching the same matter from different perspectives will provide researchers with a more holistic view of the phenomenon.
References


Person, R. (2013), Balanced Scorecards and Operational Dashboards with Microsoft Excel, John Wiley & Sons, NJ.


Further reading


Appendix. Interview guide
1. How would you describe a performance dashboard in a few words?
2. What are your views on the application of performance dashboards in healthcare?
3. What are the qualities of a good performance dashboard in acute hospitals?
4. Do you have any types of dashboards in place in this hospital? If yes, what are the benefits?
5. If a dashboard is in place: what are the major criteria that are included in the dashboard?
   What other criteria would you include?
   If a dashboard is not in place: what are the major criteria that would you include in the dashboard?
6. Are these criteria easily measurable?
7. How are these criteria related to the overall goals of the organisation?
8. Do dashboards enhance better data integration and communication across different departments? If yes, how?
9. Who should use performance dashboards in an acute general hospital? Why?
10. Should dashboards be visible only to management or should they be visible to all the employees working in a particular area? Why?
11. Currently information is only available to the public through Parliamentary Questions. To what extent should performance data be made available to the patients and general public?

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Abstract

Purpose – Despite the importance of evidence-based practice, the translation of knowledge into quality healthcare continues to be stymied by an array of micro, meso and macro factors. The purpose of this paper is to suggest a need to consider different – if not unconventional approaches – like the role of positive emotion, and how it might be used to promote and sustain knowledge translation (KT).

Design/methodology/approach – By reviewing and coalescing two distinct theories – the broaden-and-build theory of positive emotions and the organisational knowledge creation theory – this paper presents a case for the role of positive emotion in KT.

Findings – Theories pertaining to positive emotion and organisational knowledge creation have much to offer KT in healthcare. Three conceptual “entry points” might be particularly helpful to integrate the two domains – namely, understanding the relationship between knowledge and positive emotions; positive emotions related to Nonaka’s concept of knowledge creation; and the mutual enrichment contained in the parallel “upward spiralling” of both theories.

Research limitations/implications – This is a conceptual paper and as such is limited in its applicability and scope. Future work should empirically explore these conceptual findings, delving into positive emotion and KT.

Originality/value – This is the first paper to bring together two seemingly disparate theories to address an intractable issue – the translation of knowledge into quality healthcare. This represents an important point of departure from current KT discourse, much of which continues to superimpose artefacts like clinical practice guidelines onto complex healthcare context.

Keywords Health services, Knowledge sharing

Paper type Conceptual paper

Introduction

The creation and sharing of knowledge – or knowledge translation (KT) – is considered important in the development and delivery of timely and innovative products and services (Orlikowski, 2002). Nowhere is this perhaps most pivotal than in healthcare, where evidence – typically derived from empirical research – helps to optimise the efficient use of limited resources and relatedly, professional accountability (Greenhalgh et al., 2004). Accordingly, the concept of evidence-based practice – what it is, how it is formed, and how it can be promoted – has attracted considerable scholarship to date (Øvretveit et al., 2014; Oborn et al., 2013; Laihonen, 2012; Hasson et al., 2011; Best et al., 2009; Valkenburg et al., 2003).

Despite this attention, evidence-based practice in healthcare is yet to be fully realised, as clinicians do not consistently use the evidence available to them (Bryant et al., 2014; Runciman et al., 2012). For micro, meso and macro reasons, the bridge between evidence (sensu lato) and practice might be difficult to establish, let alone maintain (Dadich and Hosseinzadeh, 2013). Reasons at the micro level include the complexity of evidence-based practices, perceived or otherwise (Kitson et al., 1998); the practicability of take-home-messages within the research for clinicians (Lenfant, 2003); the perceived urgency of the patient problem (Gorman and Helfand, 1995); clinician knowledge and skills (Lehman et al., 2004); the professional and personal experiences of both the clinicians and patients (Freeman and Sweeney, 2001); clinician belief that relevant information on evidence-based practice is available (Gorman and Helfand, 1995); clinician and patient opinion about the evidence (Tomlin et al., 1999); as well as clinician reluctance to risk the patient relationship (Veldhuis et al., 1998). Barriers at the meso level include...
the availability of resources and ancillary services (Freeman and Sweeney, 2001; Mckenna et al., 2004); professional identities (Asadoorian et al., 2010); poor leadership (Marchionni and Ritchie, 2008); as well as organisational philosophy (Asadoorian et al., 2010). And those at the macro level include the availability of adequate funding; well-governed funding streams; accountable mechanisms that optimise fidelity (Lehman et al., 2004); and system inertia – that is, the tendency for a system to continue to do the same thing irrespective of changed circumstance (Coiera, 2011).

As a seemingly complex and intractable issue, KT is likely to require a different approach – theoretically and relatedly, methodologically. After all, “Habits (be they the individual’s or the organisation’s) do not change easily, despite our best intentions” (Glasziou and Haynes, 2005, pp. A-9). This follows the view of Greenhalgh and Wieringa (2011) who argued the need for a broader research agenda. They called for research that: investigates how clinicians “balance the generic recommendation of a guideline or protocol against the particularities of a case in the here-and-now” (p. 508); examines the “development and activity of communities of practice” to unpack the complex and wealth of knowledge that clinicians draw from – this includes knowledge that is “explicit and tacit, general and specific, acquired over a lifetime of learning, reading and experience”; draws from critical management studies to reveal the power dynamics that influence understandings of knowledge, as well as its construction, acceptance and use; explores ways to facilitate interaction between multiple forms and sources of knowledge – that is, knowledge intermediation (Davies et al., 2008); and considers “the cycle of developing, implementing and revising clinical guidelines in a way that recognises and captures practical wisdom and case knowledge” (Greenhalgh and Wieringa, 2011, p. 508).

Understanding the role of positive emotion in this phenomenon might assist with the translation of knowledge into practice. Emotions provide powerful stimuli for action (Haidt, 2001; Sebrant, 2014) – yet there has been limited scholarship on its role in the creation and exchange of knowledge. This is despite evidence that positive emotion can promote creative problem-solving, memory retention and attentiveness (Isen et al., 1987; Parke et al., 2015; Rego et al., 2014; Lam et al., 2014). Fredrickson’s (2001) broaden-and-build theory suggests positive emotions like interest, joy and pride, not only facilitate continued action, but can also broaden momentary thought-action repertoires, building enduring personal and intellectual resources. This is in contrast to negative emotions, which narrow action tendencies and impel abrupt decisive actions. By broadening the scope for attention and thinking, positive emotion might be a valuable asset to inform and ultimately promote KT.

To advance KT research, this conceptual paper connects the organisational knowledge creation theory and the broaden-and-build theory of positive emotions (Nonaka et al., 2006; Nonaka, 1994; Fredrickson, 2001; Hodgins and Dadich, 2015; Nonaka and Takeuchi, 1995). More specifically, it argues that these theories might be integrated via three lines of inquiry – namely: by clarifying the relationship between positive emotions and knowledge objects, which are “human constructions like other artefacts, except they are immaterial and […] serve to […] explain […] and predict” (Bereiter, 2005, p. 58); by elucidating the metaphorical “upward spiral”, which is shared by both theories; and by expounding the role of positive emotions in Nonaka et al. (2000) concept of the shared context in motion, which is deemed necessary for knowledge creation. This paper commences by establishing the relevance and usefulness of the two theoretical domains. Following an examination of their theoretical integration, the paper concludes by clarifying the potential value of the proposed integrative framework to develop KT theory, inform health policies and promote quality healthcare.

Organisational knowledge creation theory

The organisational knowledge creation theory considers how formal, codified knowledge is made tacit and is disseminated through observation and discussion to become meaningful
and relevant to practice (Wieringa and Greenhalgh, 2015). It has largely been used to identify the conditions that enable knowledge creation to improve innovation and organisational learning (Nonaka, 1994; Nonaka and Takeuchi, 1995; von Krogh et al., 2000). The theory defines knowledge as “justified true belief” (Nonaka and von Krogh, 2009, p. 21). It is understood as: context-specific; created within social interaction; and enacted through problem definition and solution. Knowledge is said to exist on a continuum, fluctuating in form between explicit and tacit. Explicit knowledge involves cognitive processes that are flexible, controlled and intentional – it is externalised in organisational contexts via guidelines and other artefacts and is thereby justified in relation to those involved with the organisation. Conversely, tacit knowledge is embodied, tied to physiology, the senses and motor functioning, as well as to the relative history of physical movement in the world (Varela, 1992) – it is automatic, non-directed, and non-intentional, and it cannot be represented accurately via language models or artefacts (Reber, 1993). Knowledge oscillates or “spirals” between these two forms via knowledge conversion, a process that ensures explicit and tacit knowledge are mutually enhancing to create new knowledge (Nonaka and von Krogh, 2009). The creation and use of knowledge occurs simultaneously and cannot be separated; furthermore, it is socially dynamic as interactions lead to new knowledge (Osono, 2006).

Nonaka et al. (2014) referred to the “upward spiral” to convey the process, driven by phronesis, or practical wisdom that integrates and synthesises tacit and explicit knowledge and leads to innovation. Drawing from the concept originally developed by Aristotle in Nicomachean Ethics, translated as prudence or practical wisdom (Bartlett and Collins, 2011), Nonaka describes phronesis as “practical understanding that accompanies goals, values and actions” (p. 139). Phronesis promotes the spiralling process involved in explicit and tacit knowledge conversion by incorporating value judgements into the knowledge creation process.

According to Nonaka et al. (2000), four processes enable explicit and tacit knowledge to be mutually enhancing to create new knowledge – namely, socialisation, externalisation, combination and internalisation (SECI). First, the expression of knowledge through socialisation involves experimenting with concepts, words and linguistic relationships to promote sense-making and convey meaning to others (Nonaka and von Krogh, 2009). Second, tacit knowledge is transformed and enriched when it gradually assumes an explicit form or is externalised. Third, explicit knowledge can be combined and/or converted to more complex forms to aid its dissemination – this might occur, for example, in the collection and collation of multiple forms of data to create a financial report. Fourth, explicit knowledge loses its “explicitness” when it is internalised and acted on – for example, when translating clinical guidelines into patient care. Collectively, these four processes help to create organisational knowledge and form a theoretical base to account for much of the complexity and dynamism involved.

To facilitate organisational knowledge creation, Nonaka et al. (2000) suggested that a shared context in motion is required – or “ba”. This necessity draws attention to the importance of interaction – not only among individuals, but also non-human actors that mediate interaction (Law, 1992). Akin to a community of practice, where a group of individuals share knowledge, learn together, and create common practices (Wenger et al., 2002), “ba” serves to develop a shared language, clarify prior knowledge, and form a frame of reference. However, “ba” differs from a community of practice as it represents where new knowledge is created, rather than the interaction with knowledge embedded in the community. As such, the “ba” of knowledge creation is the time and place in which relevant processes occur.

Although Nonaka et al. (2000) conceptualise knowledge as justified true belief, it is helpful to consider other alternative definitions of knowledge and how they might fit within a theoretical framework including emotion. Orlikowski’s (2002) knowing-in-practice
research, informed by the sociological work of Giddens (1984) and the anthropological studies of Lave (1988), Hutchins (1991) and Suchman (1987), accounts for knowledge—or "knowing"—as situated actions of organisational members as they engage the world. Here "knowing" is an "ongoing social accomplishment, constituted and reconstituted as actors engage the world in practice" (p. 1). This perspective is compatible with Nonaka et al."'s view of knowledge as it also accounts for "justified true belief" as dynamic and specific to the ways actors engage in practice. Also drawing on Polanyi (1958) as well as Wittgenstein (1953), Sveiby (1997) defined knowledge as the capacity-to act, be it consciously or unconsciously. Like the knowing-in-practice research, this definition emphasises action, and as such, knowledge can only be displayed in knowledgeable action. This definition highlights the dynamic and personal nature of knowledge, diminishing emphasis on explicit forms of knowledge.

**Broaden-and-build theory**

Despite the value of the organisational knowledge creation theory, positive emotion is largely absent from related scholarship. Notwithstanding the observation that tacit knowledge is rooted in emotion (Nonaka and von Krogh, 2009), there has limited discussion on its role in knowledge conversion. Furthermore, when emotion has been discussed with reference to the theory, it has been historically positioned as epistemically subversive, encouraging dispassionate investigation and undermining the epistemic authority of emotional social groups (Jaggar, 1989). This myopic understanding of emotion might partly explain limited focus on its relationship with KT. This is despite growing research that repositions emotion—notably, positive emotion—as central to flexibility, creative problem-solving and innovation (Haidt, 2003; George, 1998; Isen et al., 1987; Parke et al., 2015; Rego et al., 2014; Lam et al., 2014).

Unlike affect, which is a consciously accessible feeling, like sensory pleasure and mood, which facilitate continued action (Fredrickson, 2004), emotions are short-lived experiences that produce coordinated changes in thoughts, actions and physiology (Fredrickson, 2001; Fredrickson and Branigan, 2005). These changes prompt the mind and body to coalesce to inform cognitive, behavioural and physiological responses (Frijda, 1986). For example, emotions like fear, anger and disgust are linked to the urge to escape, attack and expel, respectively.

Although negative emotions narrow the range of cognitive, behavioural and physiological responses to ensure an appropriate response and as such, survival (Tooby and Cosmides, 1990), the broaden-and-build theory posits that positive emotions broaden the range, enabling individuals and their collectives to flourish (Fredrickson, 2001; Fredrickson and Losada, 2005). They inspire imagination, resourcefulness, creativity and innovation. Consider for instance, how joy is linked with aimless activation and play, while interest is linked with exploration and attentiveness (Frijda, 1986).

According to the broaden-and-build theory, positive emotions can also promote learning (Fredrickson, 2001). As enduring emotional states that enable access to personal resources during different emotional states, positive emotions can helpfully shape what is observed, how it is appraised and evaluated, and how key messages are learnt (Forgas and Smith, 2007; Jaggar, 1989). Furthermore, mood-congruent material is often processed more deeply with greater associative elaboration and as such, learnt better, relative to material that is misaligned with mood (Forgas and Bower, 1987). This is suggested within recent change management literature—Steigenberger (2015, p. 432) for instance, proposed that emotions, like hope, can “shape (the) content and motivational strength of sensemaking accounts, influence the likelihood that a person will engage in sensegiving activities and will be willing to accept inter-personal sensemaking outcomes”.

Fredrickson (2001, 2003) work is reinforced by work that explores internal positive emotion as a driver for behaviour change. Boyatzis et al."'s (2006) intentional change theory
ICT presents a way to understand how both individuals and organisations achieve desired change, emphasising the necessity of “deep positive affect” (Van Oosten, 2006). The ICT is built on five “discoveries” or aspects of learning: the ideal self, the real self, a learning agenda, experimentation and practice, and developing supportive and trusting relationships that make change possible (very much related to the “ba” of the organisational knowledge creation theory). In this theory, Boyatzis et al. (2006) use the terms affect and emotion interchangeably, quoting Watson and Tellegen’s (1985) definition of positive affect, as “a state of high energy, full concentration, and pleasurable engagement”. Positive emotion is understood as the prime driver of the activation and articulation of an individual’s ideal self, which is linked to linked to self-regulation. Positive emotion from within impels the will to change and direct self-regulation. This is facilitated by positive emotion, creating an affective tone of the specific cognitive processes that take place in the formulation of the ideal self. The ICT describes the components necessary for desirable and sustainable change.

Beyond the individual, positive emotions also spiral upwards, reverberating within a collective (Fredrickson and Joiner, 2002; Garland et al., 2010). Fredrickson (2003) outlined the “compounding” effect of positive emotions using the metaphor of the “upward spiral” to represent the reciprocal influence of positive emotions and the broadened thinking they engender. Through observation and the subconscious processing of information, positive emotions resonate throughout a team and an organisation. Positive emotion improves the thoroughness, efficiency and flexibility of complex decision making and influences one’s sense of standards to evaluate progress against the standards set by organisations and peers (Van Oosten, 2006). George (1995) as well as Hatfield et al. (1994) explored this “reverberation” of positive emotion through organisations with Steigenberger (2015) recently noting that this reverberation has the potential to affect sense-making and sense-giving processes in organisational change. Aligning with the broaden-and-build theory, positive emotions thus broaden organisational modes of “thinking”, fostering creativity, empathy and constructive inter-personal engagement. For example, Haidt (2003) explored how the positive emotion of “elevation” among those who witnessed good deeds influenced creatively helpful acts in others. As such, elevation can foster an upward spiral of positive emotion for a group, rather than just an individual.

Positive emotion thus appears to assume an important role in how atypical experiences are perceived, interpreted, as well as incorporated with existing “justified true belief(s)” (Nonaka and von Krogh, 2009, p. 21). Hence, knowledge – be it explicit or tacit – that is perceived as emotionally positive is likely to be retained in memory by the individual and their organisation, enabling both to function at higher levels (Fredrickson and Joiner, 2002; Haidt, 2003; George, 1995; Hatfield et al., 1994). This relationship between positive emotion and KT is expounded in the following section.

Theoretical integration
The theoretical integration of the organisational knowledge creation and broaden-and-build theories becomes viable via (at least) three lines of inquiry (Nonaka et al., 2006; Fredrickson, 2001). The first involves clarifying the relationship between “knowledge objects” and the positive emotions they might elicit. The value of Bereiter’s (2005) concept of “knowledge objects” is twofold. First, it aligns with Nonaka and Takeuchi’s (1995) description of knowledge; and second, it treats understanding and mastery as opportunities to create and enhance knowledge objects – opportunities that are socially embedded within a dynamic context. As Bereiter:

Abstract knowledge objects, such as theories, numbers, and designs, should be accepted as real things outside the mind – as conceptual artifacts – with which people may develop relationships, much as they do with animate and inanimate material things. Understanding and mastery may then be treated as characteristics of such relationships, and the advancement of knowledge as the creating and improvement of conceptual artifacts (p. 179).
Similarly, positive emotions provide a vehicle for growth and social connectedness (Fredrickson, 2001). They can enhance cognitive ability, creativity and memory management, and they serve to strengthen social ties. When a knowledge object – be it an inanimate clinical guideline, or a spirited multidisciplinary team meeting – arouses positive emotion, the object is likely to be resilient; those involved are inclined to be receptive to the knowledge the object represents; and their cognitive and/or behavioural responses will probably be guided by this knowledge. These connections would suggest that knowledge conversion – where new knowledge is created through the mutual enhancement of explicit and tacit knowledge – might be bolstered by positive emotions.

The second line of inquiry involves elucidating the metaphorical “upward spiral”, which is shared by both theories. Nonaka et al. (2014) referred to the “upward spiral” to convey the process, driven by phronesis, that integrates and synthesises tacit and explicit knowledge and leads to innovation (see Figure 1). Correspondingly, the upward spiralling inherent to the broaden-and-build theory represents the reciprocal influence of positive emotions and the broadened thinking they engender (Fredrickson, 2004; Garland et al., 2010). The metaphor of the spiral in both instances implies constant, yet constrained movement within a particular space, with each revolution of the spiral representing increasing growth and achievement. With reference to the organisational knowledge creation theory, this is demonstrated by the continuous development of knowledge, which builds on previous cycles. And in the context of the broaden-and-build theory, this is represented by increased positive emotion, broadened thinking and optimised functioning – or flourishing. This common denominator suggests the theories can be conceptually integrated using the metaphor of the spiral – with positive emotions and broadened thinking enriching the tacit knowing, the explicit knowing and subsequent phronesis. In a critique of the organisational knowledge creation theory, Bereiter (2005) argued that, although new knowledge is always created within individual minds, the theory fails to explicate the production of original ideas and novel solutions. Integrating this theory with the broaden-and-build theory addresses this shortcoming, offering currently unexplored insight into the “big-bang type creativity” required for genuine innovation.

The third line of inquiry involves expounding the role of positive emotions in Nonaka et al’s (2000) concept of the shared context in motion. “Ba”, which roughly translates to place, encompasses the physical, historical, cultural and social spaces, where knowledge is...
shared, created, and utilised. Emotions are part of the “ba”, both in the sense they are shared “experiential knowledge assets” (Nonaka et al., 2000, p. 21) and they form a context for the socialisation process. Personal and collective emotions provide a frame of reference, ascribing meaning and value to knowledge objects within “ba”, both as inputs and outputs. Kaiser and Fordinal (2010) devised the term, “vocation ba”, to describe the specific space in which the positive emotion driven self-transcending knowledge is generated and converted to embodied knowledge. Self-transcending knowledge is concerned with a fulfilling life, work, and happiness and closely aligns with Boyatzis et al’s (2006) concept of the ideal self, driven by positive emotions. Kaiser and Fordinal state that the factors enabling a “vocation ba” are a trusting atmosphere, time for unstructured thinking processes, the use of metaphorical language, and coaching techniques such as systemic constellation work. These enabling factors contribute to the “vocation ba” that provides support for individuals to detect their substantial needs for a fulfilling life and work, and leads to self-transcending knowledge, which is “knowledge about the highest future possibility” (p. 931). Thus positive emotions can promote individual and organisational knowledge creation and learning. By spiralling upwards, they connect the individual with the collective, encouraging both to flourish (Fredrickson and Losada, 2005; George, 1995; Hatfield et al., 1994). This connotes goodness, generativity, growth and resilience – terms that represent a common denominator within the literature on the organisational knowledge creation and broaden-and-build theories (Garland et al., 2010; Nonaka and von Krogh, 2009).

Discussion
Heeding the call for innovative and nuanced theories and research on KT in healthcare (Greenhalgh and Wieringa, 2011), this paper presented a theoretical case to integrate the organisational knowledge creation theory with the broaden-and-build theory of positive emotions (Nonaka et al., 2006; Nonaka, 1994; Fredrickson, 2001; Nonaka and Takeuchi, 1995). Pursuing the three aforesaid lines of inquiry has the potential to theoretically account for (at least some of) the ways that different forms of knowledge coalesce in clinical practice – whether this “justified true belief” (Nonaka and von Krogh, 2009, p. 21) comes in the form of empirical research, clinical guidelines, government policies, clinician nous, managerial intuition or patient (and potentially carer) preferences, among other forms. This integrative framework can inform the development of health policies, encourage quality healthcare and ultimately promote patient well-being.

Positive emotion can propel action and broaden the scope for exploration, attentiveness and careful deliberation (Haidt, 2001; Sebrant, 2014; Fredrickson, 2001; Frijda, 1986). Although the ways that individuals interact with knowledge can be difficult, if not impossible to manage (Wieringa and Greenhalgh, 2015), lessons garnered from the broaden-and-build theory of positive emotions can guide these interactions. This theory offers insight into the way(s) individuals create and refine the frameworks through which they understand and make sense of the world. It also reinforces the “fluid, multiple […] uncontainable” (p. 8) and ultimately, humanist account of the dissemination of knowledge, thereby resisting the linear, cookie-cutter approach to KT theory and strategy.

The integrative framework presented in this paper can address (at least some of) the noted micro, meso and macro barriers that stymie KT. For instance, by enhancing – at a micro level – cognitive ability, memory management and creativity, positive emotion might be used as a lever to alter the perceived complexity and impracticability of evidence-based practices (Kitson et al., 1998), and foster creative problem-solving, thereby enabling clinicians and the multidisciplinary teams they are part of, to “balance the generic recommendation of a guideline or protocol against the particularities of a case in the here-and-now” (Greenhalgh and Wieringa, 2011, p. 508). At a meso level, the proposed framework might also facilitate an
“upward spiral”, enhancing the way knowledge is shared within, and recreated by a collective. This upward spiralling can reverberate throughout an organisation, affecting sense-making and sense-giving in response to organisational change (Steigenberger, 2015), like the introduction of revised clinical practices. At a macro level, the framework might moderate, if not avert system inertia (Coiera, 2011) by promoting creative and innovative practices. Future research should thus explore these (and other) propositions to better understand the relationship between positive emotion, knowledge and healthcare.

In terms of healthcare practice, focus should be awarded to the implementation of this framework in healthcare, as well as understanding and finding a place for positive emotion in the “ba” or communities of healthcare practice. Creating space for appreciative inquiry (AI) in communities of healthcare practice could also provide value in positive emotion in knowledge creation and sharing. AI is a methodological focus on the positive, which subsequently can create the conditions for generativity in organisational life (Bright and Miller, 2012). Studying the value of the ICT at the organisational level, Van Oosten (2006) noted the power of AI to create and sustain cultural transformation. This success arose due to the “resonant relationships” (p. 715) of the change framed in the positive, resulting in stronger communication and relationships. Imbuing communities of practice with a mandate to identify the positive in their practice would facilitate interconnected upward spirals of both knowledge creation and positive emotion. Although the organisational and resource requirements for such a focus might be challenging, the benefits to the effective creation and sharing of knowledge, framed by the positive, would be worth the investment.

To optimise its coherence and value, the lines of inquiry presented require conceptual refinement and empirical verification. Given the multiple forms, if not plurality of knowledge; the importance of social interaction in KT; and the protracted time needed to recognise connections between “evidence” and health outcomes (Wieringa and Greenhalgh, 2015; Slote Morris et al., 2011), this is likely to involve longitudinal, ethnographic and/or discursive methodologies that prize reflexivity (Iedema et al., 2013; Fredrickson, 2003; Hu and Kaplan, 2015). Framing the study in AI or, the more critically framed methodology positive organisational scholarship (Caza and Caza, 2008), would help to elicit the positive emotions in healthcare practice, thereby making them easier to connect to instances of knowledge creation and sharing. Capturing, reflecting on, and critiquing healthcare interactions and the associated emotions will help to unveil the relationship(s) between positive emotion, knowledge and health outcomes.

Despite the potential value of the thesis presented in this paper, two (related) cautions warrant mention. First, although the SECI model and Nonaka’s (1994) knowledge creation theory are well-respected by scholars, they have been criticised for both empirical and theoretical reasons (Andreeva and Ikhilchik, 2011). Empirically, Gourlay and Nurse (2005) found that, although the SECI model was informed by research on semantic information creation, it failed to demonstrate the conceptual link between semantic information and knowledge when tested. As such, they suggested the model is yet to be empirically verified. Theoretically, Gourlay and Nurse questioned whether – as per Nonaka and von Krogh (2009, p. 635) – knowledge can be “made […] available” and/or “amplify[ed]”. More specifically, they queried the “unjustified” (Gourlay and Nurse, 2005, p. 307) notion that tacit knowledge can be made explicit and thus more manageable. Gourlay and Nurse, along with others (Hildreth and Kimble, 2002), also identified a second caution. They refuted the definition of knowledge as “justified true belief” (Nonaka and von Krogh, 2009, p. 21), stating this more aptly refers to managers’ true belief. They concluded that it is impossible to definitively describe and define knowledge – a point subsequently implied by Nonaka and von Krogh who conceded that further research is required to explore the intersection between social practices and organisational knowledge creation.
Notwithstanding these cautions, the relationship between positive emotion and KT is worthy of scholarly attention, given the implications for healthcare and health outcomes. This paper has furthered KT research by building on what is currently known about knowledge and emotion, and presenting an integrative framework to clarify and explicate the influence of positive emotion on KT.

References


Bereiter, C. (2005), Education and Mind in the Knowledge Age, Lawrence Erlbaum Associates, Mahwah, NJ.


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Leadership quality: a factor important for social capital in healthcare organizations

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Abstract

Purpose – The purpose of this paper is to investigate the relation between leadership and social capital and what qualities of leadership are important for social capital among employees in hospital settings over time.

Design/methodology/approach – A cohort of employees in hospitals answered a questionnaire at three occasions. Five small (approx. 100-bed) or mid-sized (approx. 500-bed) hospitals were included. The response rate was 54 percent at baseline (n = 865), 59 percent at one-year follow-up (n = 908) and 67 percent at two-year follow-up (n = 632).

Findings – Repeated measures over time showed differences between groups in levels of social capital with respect to levels of leadership quality. Relation-oriented leadership had the strongest association with social capital. There was evidence that leadership was associated with social capital over time and that different kinds of leadership qualities were associated with social capital.

Research limitations/implications – This study conducted and analyzed quantitative data, and therefore, there is no knowledge of managers’ or employees’ own perceptions in this study. However, it would be interesting to compare managers’ decreased and increased leadership quality and how such differences affect social capital over time.

Practical implications – The findings feature the possibility for healthcare leaders to build high quality leadership as an important resource for social capital, by using different leadership orientations under different circumstances.

Originality/value – The paper showed that leadership was an important factor for building social capital and that different leadership qualities have different importance with respect to certain circumstances.

Keywords Leadership, Healthcare, Social capital, Cohort, Leadership quality

1. Introduction

The healthcare sector face major challenges in efficiently organizing care processes to maintain quality of care (Magnussen et al., 2009) and staff well-being (Jansson Von Vultée et al., 2007; Orvik and Axelsson, 2012) when effecting cost reductions. Having engaged healthcare
professionals is a key aspect when improving healthcare processes. Previous research has shown that social capital is an important resource, for example, when implementing organizational change (Rahbek Gjerdrum Pedersen and Huniche, 2011), because it influences a number of factors in the work environment of staff, such as job satisfaction, work engagement and clinical engagement in patient safety (Strømgren et al., 2016). Operationalized as perceived trust, reciprocity and recognition, social capital has in earlier research shown to be important for employees’ job satisfaction and healthcare staffs’ engagement in clinical improvements in patient safety and quality of care as well as for health and well-being (Oksanen et al., 2008; Strømgren et al., 2016). Social capital can thus be seen as an important resource in healthcare. There is, however, limited research on how to develop and increase levels of social capital in healthcare (Hofmeyer and Marck, 2008). Previous research has indicated that leadership may be important for social capital and that social capital should be viewed from an interpersonal perspective based on a relational model of leadership. There is, however, a deficiency of longitudinal prospective studies examining whether and how leadership is associated with social capital (Day, 2001; De Clercq et al., 2014; Kristensen, 2010).

2. Theoretical foundation
Social capital has been studied by various researchers from different disciplines (e.g. social sciences, economics, public health) as well as on different levels (individual, organizational and societal levels) over time, and there exists a variety of definitions of social capital (Adler and Kwon, 2002). In earlier research, trust, recognition and norms of reciprocity have been highlighted as key factors of social capital (Bourdieu, 1985; Coleman, 1988; Macinko and Starfield, 2001; Putnam, 2000). Social capital is an important aspect of relations (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998) and is a resource for individuals (Poortinga, 2006; Portes, 2000) and organizations (Kristensen et al., 2007) as well as for communities (Kawachi et al., 1997; Putnam et al., 1993). Studies of social capital requires a relational focus, as relationships are one of the core components of social capital (King, 2004). This study looks upon social capital as a relational resource, for example, the occurrence of networks, norms and trust, promoting coordination and collaboration for a common good (Olesen et al., 2008). Leadership plays an important role in this kind of social climate at workplaces (Luria, 2008; Wheelan, 2005; Gittell et al., 2013; Alimo-Metcalfe et al., 2008).

In this study leadership is viewed as a combination of two definitions. Northouse (2010) defined leadership as “a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3), and Yukl (2006) as “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives” (p. 8). These definitions make it possible to distinguish between three different approaches to leadership influence on employee outcomes, including possible impact on social capital. The first of these approaches can be described as relationships between leaders and followers to reach the common goal. The second approach focuses on the tasks to be accomplished (Cummings et al., 2010), and a third approach of leadership influence focuses on supporting employee development (Jacobs and Washington, 2003). Complementary to the more traditional perspective of leadership (formal managerial role influencing the employees), there are some other approaches to leadership. For example, the concepts of collective leadership and distributed leadership position leadership as a function of the group and an outcome of team processes (Day et al., 2004; Friedrich et al., 2009). According to these studies, leadership may alternate between different members of the team. However, in the present study leadership is viewed in a more traditional perspective, that is, as a leader influencing employees.

Factors to consider when studying leadership concern contextual changes; the manager’s level of experience and any problems within the group that may have an
influence on leadership. Previous research has shown negative consequences in the work environment related to changes in the context of the organization, for example, in hospitals redesigning care processes (Westgaard and Winkel, 2011). Managerial experience has shown to be associated with the success of engaging employees in, for example, redesign of care processes (Palm et al., 2015). Experienced managers are more successful in engaging employees than inexperienced ones. Further, studies of group development show that teams sometimes experience conflicts that may give rise to frustration toward both the leader and other members of the group. This type of problem, of group dynamic, often occurs at a specific stage of a group’s development (Wheelan, 2005).

Relation-focused leadership has been shown to motivate people to put more effort into their performance than they intended at the beginning (Bass and Avolio, 1994). Elementary factors used by relation-focused leaders to achieve these results are inspiration and motivation, intellectual stimulation, idealized leadership, and personal consideration (Avolio et al., 2009). In line with this, Uhl-Bien (2006) stated that leadership is a mutual process of influence manifested in social relations. The relation-oriented leadership approach connects well to social capital, as social capital involves a climate of relation-dependent characteristics such as trust, recognition, and reciprocity (Bourdieu, 1985; Putnam, 2000; Coleman, 1988; Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998; Macinko and Starfield, 2001).

The relation-oriented approach to leadership has also been shown to be especially important for outcomes in the healthcare sector, such as staffs’ job satisfaction, roles, and pay; staffs’ relationships with work and their health and well-being; work environment factors; productivity and effectiveness. A review by Cummings et al. (2010) showed that registered nurses who reported enhanced teamwork with physicians and collaboration within the work group were those who reported relation-focused leadership.

Results of previous research on task-oriented leadership have shown it to be associated more negatively than relation-oriented leadership with both organizational outcomes and employee health (Cummings et al., 2010). However, there are also some beneficial aspects of task-oriented leadership. Providing task-oriented structure such as role and goal clarity has, for example, shown to be important for organizational performance (Judge et al., 2004). Providing structure in the work environment can also positively influence employee behavior such as work attendance (Dellve et al., 2008). As well, under circumstances of workplace conflict and strain, structuring can be of importance for employees to get control in such a situation (Skakon et al., 2010). In summary, previous research has indicated that structure, for example, clarity of purpose, roles, goals, and assignments, provides beneficial conditions for building relations (Wheelan, 2005; Gittell, 2006), and aspects of task-oriented leadership may influence conditions for social capital.

Besides relation- and task-oriented leadership, development-oriented leadership has shown to be associated with employee competence, job satisfaction, and effectiveness (Rafferty and Griffin, 2006). Development-oriented leadership can be described as a process where employees are given opportunities to grow and become effective by developing knowledge and skills (Hudson, 1999). In practice, developmental leadership involves recognition to motivate employees (Gilley et al., 2011). It is known that employee development programs are associated with organizational performance and that managers have substantial power to either support or not support the employees’ professional development (Judge et al., 2004). Developmental leadership and employees’ identification with the organization through networks, coherence, and norms of reciprocity occur in relations between managers and employees as well as between employees (Zhang and Chen, 2013; Hudson, 1999). This can be compared to processes and factors associated with social capital. A development-oriented leadership might influence social capital through perceptions of recognition, reciprocity, and trust. In summary, all three described types of leadership orientations seem to be manifested in the relational level between humans.
managers-employees), just as social capital is a resource fostered within relations. Still, whether and how leadership influences social capital has rarely been described in previous research.

2.1 Previous research on leadership and social capital
A common presumption in previous research is that leadership depends on social networks and/or social capital (Day, 2001; Li, 2013; De Clercq et al., 2014; Day et al., 2004). Only a few previous studies have indicated that there are associations between leadership and social capital, between leadership quality and social capital (De Clercq et al., 2014; Day, 2001; Kristensen, 2010) and between leadership and dimensions of social capital, for example, recognition (Kent, 2006). Previous research has stressed that the quality of the relation between the formal leader and the group influences levels of social capital in the group. A good relationship between the formal leader and the group may have a positive impact on the social capital in the group in contrast to a worse relationship, which may have a negative impact on social capital (Oh et al., 2006). This suggests that leadership may influence social capital (King, 2004). We have only found one cross-sectional study, performed in Danish elementary schools, that suggests that leadership quality, including relational, developmental and task-oriented leadership approaches, is “of principal importance for developing high social capital” (Kristensen, 2010, p. 151).

One previous study in healthcare has shown that authentic leaders foster relational social capital by creating empowering work environments (Read and Laschinger, 2015). Another study, by De Clercq et al. (2014), investigated the relations between servant leadership and work engagement and how this relationship might be moderated by social capital. Their findings showed that servant leadership enhances work engagement, especially with a high level of social capital as a mediating factor operationalized as goal congruence and social interaction between leader and employee (De Clercq et al., 2014). The study by De Clercq et al. (2014) was, however, performed in the context of information technology companies and did not investigate the direct relations between leadership and social capital. Associations of such direction seem to be rarely described in previous research.

Attempts have been made to describe how social capital can be built in healthcare organizations; these highlight building trust, fostering cooperation and strengthening communication (Hofmeyer and Marck, 2008). Hofmeyer and Marck (2008) proposed a model of how to build social capital and stressed that leadership could be important in building social capital by stimulating the growth of trust, solidarity and resilience. However, their suggested model was not empirically tested. Research on leadership development programs aiming to promote social capital found contradictory results whereby the programs in different organizational contexts contributed to both increased and decreased social capital (Espedal et al., 2013). On the other hand, a case study by Galli and Müller-Stewens (2012) found that different leadership development practices may have the potential to develop social capital, though it does not show causality. Previous researchers of leadership have stressed the need for more studies with a longitudinal and prospective design with repeated measures to determine the causal mechanisms that link leadership to outcomes (Avolio et al., 2009; Cummings et al., 2010; Uhl-Bien, 2006; Dinh et al., 2014; Li, 2013; Gooty et al., 2010). A recent review (Li, 2013) of causal methods used when studying leadership and management with respect to social capital strongly recommended longitudinal designs with panel data. Currently, there is no existing unified theory of leadership, and because of the many and diverse theories, different outcomes are emphasized, from how leaders perform on a unit basis to how leaders are perceived (Dinh et al., 2014). The novel research on how leadership influences social capital and how different leadership orientations influence social capital needs to be extended.
This study considered the limitations in previous research, and therefore contributes to filling the gap of research in this field. Specifically, the objective of this study was to assess whether, and what, orientations of leadership have importance for social capital among employees over time.

3. Method

3.1 Sample and procedures

The study was performed within hospital settings and collected questionnaire data from employees working at these hospitals over three years. The hospitals were selected for their similarity of size (small to mid-sized), for their urban setting and for ongoing development of their care processes. In total, five (approx. 100- to 500-bed) hospitals were included. The number of employees at the different hospitals varied from 700 to 4,000. Different specialities of care units were selected to get a broader view of the questions asked in the study: intensive care, emergency, surgical and medical units. One of the hospitals did not consent to include a surgical unit due to ongoing engagement in other research development projects. The hospitals were invited to include employees working in the selected units, and because physicians work across different units, they were asked to include all physicians at the hospitals. A criterion for employees’ eligibility for this study was a minimum of six months’ employment at the specific workplace being investigated. All the hospitals approached agreed to participate (Figure 1), and the response rate was 54 percent (n = 865) at baseline, 59 percent (n = 908) at one-year follow-up and 67 percent (n = 632) at two-year follow-up. Participants who had answered either baseline or one-year follow-up were selected to be included for the two-year follow-up questionnaire. In total, 233 assistant nurses, 381 registered nurses and 224 physicians participated at baseline. Most participants were women (74 percent), and nearly half of the participants at baseline had worked in their professions for more than 14 years (Table I).

Questionnaires used to collect data were distributed by e-mail or through a sealed envelope (with a stamped reply envelope). Two reminders (e-mail or mail) were sent to participants who did not respond. On the first page of the questionnaire it was stated that by answering the questionnaire the respondent agreed to participate in the study. The study sites and subjects

Five hospitals invited to participate, all responded positively (intensive care units, emergency departments, surgical units, medical units)

<table>
<thead>
<tr>
<th>Hospital 1 (100 beds, 700 employees)</th>
<th>Hospital 2 (600 beds, 3,000 employees)</th>
<th>Hospital 3 (500 beds, 4,200 employees)</th>
<th>Hospital 4 (350 beds, 2,000 employees)</th>
<th>Hospital 5 (157 beds, 1,100 employees)</th>
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<td>Included:</td>
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<td>3 intensive care units</td>
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<td>1 acute-surgical unit</td>
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Baseline

The questionnaire was distributed to 1,602 employees; n = 865 individuals answered the questionnaire (54% response rate)

1-year

The questionnaire was distributed to 1,548 employees; n = 908 individuals answered the questionnaire (59% response rate)

2-years

The questionnaire was distributed to 947 employees; n = 632 individuals answered the questionnaire (67% response rate)

Figure 1. Schematic diagram showing the study sites and subjects
was approved according to Swedish legislation governing ethics in research. The respondents were informed that participation was voluntary and that they could at any time choose to discontinue their participation. Data collection at baseline took place from April to May 2012 for two of the hospitals and from October to November 2012 for three of the hospitals; the first follow-up took place from October to November 2013 for all five hospitals, and the second follow-up during October to November 2014 for all hospitals.

### 3.2 Measures

The Copenhagen Psychosocial Questionnaire (COPSOQ II) (Pejtersen et al., 2010) and the Modern Worklife Questionnaire (MWQ) (Oxenstierna et al., 2008), two validated and reliable tools, were used to collect data: COPSOQ II provides a reliable tool with different scales and indexes of psychosocial factors used to study work environments. The different scales have in previous research been tested by psychometric analyses. All the Cronbach’s α values presented associate with the measures from the present study.

#### 3.2.1 Quality of leadership

Quality of leadership was assessed using an index from COPSOQ II consisting of eight items (Cronbach’s α 0.94), with the introductory statement “To what extent would you say that your immediate superior […]” (a) appreciates the staff and shows consideration for the individual? (b) makes sure that the individual member of staff has good development opportunities? (c) gives high priority to further training and personnel planning? (d) gives high priority to job satisfaction? (e) is good at work planning? (f) is good at allocating the work? (g) is good at solving conflicts? (h) is good at communicating with the staff? The response scale used to assess quality of leadership was the same as the five-grade scale in COPSOQ II: to a very large extent, to a large extent, somewhat, to a small extent, to a very small extent. These scores were then recalculated to 0-100 points.

#### 3.2.2 Social capital

Social capital consisted of the sum of reciprocity, trust regarding management, mutual trust between employees and recognition (Cronbach’s α 0.73). Reciprocity was measured using an index from the MWQ (Oxenstierna et al., 2008). The indexes trust regarding management, mutual trust between employees and recognition

---

### Table I. Characteristics of the study group

<table>
<thead>
<tr>
<th>Characteristics of the study group</th>
<th>n</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>644</td>
<td>74</td>
</tr>
<tr>
<td>Men</td>
<td>208</td>
<td>24</td>
</tr>
<tr>
<td>Missing*</td>
<td>13</td>
<td>1.5</td>
</tr>
<tr>
<td>Professions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>224</td>
<td>26</td>
</tr>
<tr>
<td>Registered nurses</td>
<td>381</td>
<td>44</td>
</tr>
<tr>
<td>Assistant nurses</td>
<td>233</td>
<td>27</td>
</tr>
<tr>
<td>Administrative (HCW)</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Missing*</td>
<td>11</td>
<td>1.3</td>
</tr>
<tr>
<td>Years in profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2</td>
<td>60</td>
<td>7</td>
</tr>
<tr>
<td>2-7</td>
<td>202</td>
<td>23</td>
</tr>
<tr>
<td>8-14</td>
<td>199</td>
<td>23</td>
</tr>
<tr>
<td>&gt;14</td>
<td>403</td>
<td>47</td>
</tr>
<tr>
<td>Missing*</td>
<td>1</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

Notes: HCW, healthcare worker. *Internal missing of asked question
were from COPSOQ II. All items were rated on a five-grade scale: to a very large extent, to a large extent, somewhat, to a small extent, to a very small extent. These were then recalculated to 0-100 points.

3.3 Data analyses
First, descriptive statistics of independent (quality of leadership) and dependent (social capital) variables were conducted. Second, we tested the correlation between the two variables, quality of leadership and social capital. Third, quality of leadership was divided into three groups: high, medium and low levels of quality of leadership, according to quantiles. Fourth, mixed models repeated measurements were performed. These analyses were performed with different models, and the explaining variables for the different models were levels of quality of leadership and time (baseline, and one-year and two-year follow-up). The outcome variable was social capital, within groups over time as well as between groups over time. The variables were presumed to be continuous variables, and data for assessment were assumed to be normally distributed. Fifth, to assess how different types of leadership qualities were associated with social capital, the index was divided into three categories. This meant that, based on previous research and the character of the single items, the categories relation-oriented leadership (Avolio et al., 1999), development-oriented leadership (Jacobs and Washington, 2003) and task-oriented leadership (Judge et al., 2004) were formed. Relation-oriented type included the single items (a) appreciates the staff and shows consideration for the individual, (d) gives high priority to job satisfaction, (g) is good at solving conflicts and (h) is good at communicating with the staff (Cronbach’s α 0.91). Development-oriented type included the single items (b) makes sure that the individual member of staff has good development opportunities and (c) gives high priority to further training and personnel planning (Cronbach’s α 0.85). The task-oriented type contained the single items (e) is good at work planning and (f) is good at allocating the work (Cronbach’s α 0.93). Because of multicollinearity between the types of leadership, we were only able to test them separately in relation to social capital. Finally, to investigate the explanatory variance of relational, developmental and task-oriented leadership qualities for increased social capital, linear regression was performed. In all analyses, a p-value of <0.05 was considered statistically significant. Analyses were controlled for contextual conditions such as organizational redesign of care processes, managerial conditions such as managerial experience and group conditions such as group dynamic problems. The control variables were dichotomized. According to Altman (1990), the correlation was evaluated as very strong (r = 0.81-1.00), strong (r = 0.61-0.80), moderate (r = 0.41-0.60), fair (r = 0.21-0.40) or weak (r ≤ 0.20). All statistical calculations were performed using JMP version 10.0.2 (SAS Institute, Cary, NC, USA).

Different conditions, such as the organization working with redesign of care processes (contextual), how experienced the managers are (managerial) and conditions related to the group of employees (group), have the potential to influence leadership quality and social capital (Palm et al., 2015; Westgaard and Winkel, 2011; Wheelan, 2005). Due to these possible influencing factors we tested whether these different conditions influenced leadership orientations with respect to social capital.

4. Results
4.1 Social capital and leadership quality among employees
Reciprocity was the dimension of social capital that showed the highest levels, followed by mutual trust between employees (Table II); the dimension trust regarding management scored lowest. The single item that scored highest amongst those of quality of leadership was appreciates the staff and shows consideration for the individual; the lowest scored
single item was “is good at solving conflicts” (Table II). These results were manifested at baseline, one-year follow-up and two-year follow-up.

### 4.2 Associations between quality of leadership and social capital

There was moderate correlation between employees’ perceived quality of leadership and employees’ perceived social capital ($r = 0.58$, $p$-value $< 0.001$). The strongest association was found between quality of leadership and the item appreciates the staff and shows consideration for the individual and social capital, whilst the quality of leadership item gave high priority to further training, and the item personnel planning showed the weakest association (Table III).

### 4.3 Different levels of leadership quality associated with social capital over time

Results showed that there were differences in levels of social capital between the different groups reporting low, medium and high levels in quality of leadership (Table IV). The group with high levels of quality of leadership scored significantly higher social

---

#### Table II.

Variables of social capital and quality of leadership

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline ($n = 865$)</th>
<th>One-year follow-up ($n = 908$)</th>
<th>Two-year follow-up ($n = 632$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>Range</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Social capital</td>
<td>68 (13)</td>
<td>22-100</td>
<td>69 (14)</td>
</tr>
<tr>
<td>Reciprocity</td>
<td>74 (16)</td>
<td>8-100</td>
<td>75 (17)</td>
</tr>
<tr>
<td>Trust regarding management</td>
<td>61 (19)</td>
<td>0-100</td>
<td>63 (19)</td>
</tr>
<tr>
<td>Mutual trust between employees</td>
<td>70 (14)</td>
<td>12.5-100</td>
<td>70 (15)</td>
</tr>
<tr>
<td>Recognition</td>
<td>67 (18)</td>
<td>0-100</td>
<td>69 (19)</td>
</tr>
<tr>
<td>Quality of leadership</td>
<td>56 (21)</td>
<td>0-100</td>
<td>57 (20)</td>
</tr>
<tr>
<td>Appreciates the staff and shows consideration for the individual</td>
<td>62 (24)</td>
<td>0-100</td>
<td>63 (23)</td>
</tr>
<tr>
<td>Makes sure that the individual member of staff has good development opportunities</td>
<td>57 (22)</td>
<td>0-100</td>
<td>58 (22)</td>
</tr>
<tr>
<td>Gives high priority to further training and personnel planning</td>
<td>55 (25)</td>
<td>0-100</td>
<td>55 (25)</td>
</tr>
<tr>
<td>Is good at work planning</td>
<td>60 (25)</td>
<td>0-100</td>
<td>60 (24)</td>
</tr>
<tr>
<td>Is good at allocating the work</td>
<td>59 (23)</td>
<td>0-100</td>
<td>60 (23)</td>
</tr>
<tr>
<td>Is good at solving conflicts</td>
<td>58 (23)</td>
<td>0-100</td>
<td>59 (22)</td>
</tr>
<tr>
<td>Is good at communicating with the staff</td>
<td>49 (27)</td>
<td>0-100</td>
<td>50 (26)</td>
</tr>
</tbody>
</table>

**Note:** Range of scale of social capital and quality of leadership was 0-100

#### Table III.

Association between quality of leadership and social capital and between the single items in the quality of leadership index and social capital

<table>
<thead>
<tr>
<th>Item</th>
<th>β</th>
<th>(p-value)</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of leadership</td>
<td>0.358</td>
<td>(&lt;0.001)</td>
<td>0.58</td>
</tr>
<tr>
<td>Appreciates the staff and shows consideration for the individual</td>
<td>0.280</td>
<td>(&lt;0.001)</td>
<td>0.54</td>
</tr>
<tr>
<td>Makes sure that the individual member of staff has good development opportunities</td>
<td>0.258</td>
<td>(&lt;0.001)</td>
<td>0.45</td>
</tr>
<tr>
<td>Gives high priority to further training and personnel planning</td>
<td>0.208</td>
<td>(&lt;0.001)</td>
<td>0.42</td>
</tr>
<tr>
<td>Gives high priority to job satisfaction</td>
<td>0.262</td>
<td>(&lt;0.001)</td>
<td>0.51</td>
</tr>
<tr>
<td>Is good at work planning</td>
<td>0.237</td>
<td>(&lt;0.001)</td>
<td>0.44</td>
</tr>
<tr>
<td>Is good at allocating the work</td>
<td>0.270</td>
<td>(&lt;0.001)</td>
<td>0.49</td>
</tr>
<tr>
<td>Is good at solving conflicts</td>
<td>0.238</td>
<td>(&lt;0.001)</td>
<td>0.51</td>
</tr>
<tr>
<td>Is good at communicating with the staff</td>
<td>0.237</td>
<td>(&lt;0.001)</td>
<td>0.49</td>
</tr>
</tbody>
</table>
### Table IV.

Mixed models repeated measures over time of social capital related to different levels of leadership quality.

<table>
<thead>
<tr>
<th></th>
<th>Baseline vs T1</th>
<th>T1 vs T2</th>
<th>Baseline vs T2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between groups</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High vs medium</td>
<td>LSM diff&lt;sup&gt;a&lt;/sup&gt; 2.80</td>
<td>SE diff&lt;sup&gt;b&lt;/sup&gt; 0.16</td>
<td>CI 0.016</td>
</tr>
<tr>
<td>Medium vs low</td>
<td>LSM diff&lt;sup&gt;a&lt;/sup&gt; 2.18</td>
<td>SE diff&lt;sup&gt;b&lt;/sup&gt; 0.19</td>
<td>CI 0.136</td>
</tr>
<tr>
<td>High vs low</td>
<td>LSM diff&lt;sup&gt;a&lt;/sup&gt; 1.74</td>
<td>SE diff&lt;sup&gt;b&lt;/sup&gt; 1.11</td>
<td>CI 2.59</td>
</tr>
</tbody>
</table>

**Notes:**
- Least square mean difference (LSM Diff); standard error difference (SE Diff); a p-value of < 0.05 was considered statistically significant.
capital in comparison with the groups that reported medium and low levels of quality of leadership. The differences between the groups over time were maintained after two years (Figure 2).

4.4 Associations between different leadership qualities and social capital
All the different types of leadership qualities were associated with social capital (Table V). Developmental and task-oriented types of leadership were moderately ($r = 0.47$ and $r = 0.48$, respectively) associated, and relation-oriented type was relatively strongly ($r = 0.58$) associated.

4.5 Leadership quality as explanatory condition for increased social capital
The analyses were performed stepwise with respect to each one of the different leadership qualities. The importance of relation-oriented type of leadership quality decreased under the contextual condition of redesigning care processes (Table VI). In contrast, the importance of task-oriented and developmental leadership quality for social capital decreased when not redesigning care processes. The results also showed that where there was a low degree of group dynamic problems the importance of development-oriented leadership quality for social capital increased. For all three types of leadership quality the importance for social capital decreased when there were group dynamic problems. Finally, the results showed that the importance of task-oriented leadership quality for social capital increased when managers were inexperienced in their roles as managers (Table VI).

![Figure 2. Change in social capital over time with respect to leadership quality (LQ).](image)

<table>
<thead>
<tr>
<th>Types of leadership qualities</th>
<th>$\beta$</th>
<th>$p$-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation oriented</td>
<td>0.32</td>
<td>&lt; 0.0001</td>
<td>0.34</td>
</tr>
<tr>
<td>Development oriented</td>
<td>0.26</td>
<td>&lt; 0.0001</td>
<td>0.22</td>
</tr>
<tr>
<td>Task oriented</td>
<td>0.27</td>
<td>&lt; 0.0001</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Table V. Association between types of leadership qualities and social capital.
<table>
<thead>
<tr>
<th>Leadership quality</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$p$-value</th>
<th>Leadership quality</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$p$-value</th>
<th>Leadership quality</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation-oriented type</td>
<td>0.25</td>
<td>0.18$^{d}$</td>
<td>&lt; 0.0001</td>
<td>Development-oriented type</td>
<td>0.23</td>
<td>0.13$^{d}$</td>
<td>&lt; 0.0001</td>
<td>Task-oriented type</td>
<td>0.22</td>
<td>0.14$^{d}$</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>aContextual condition</td>
<td></td>
<td></td>
<td></td>
<td>Redesign of care processes</td>
<td>0.20</td>
<td>0.13$^{e}$</td>
<td>&lt; 0.0001</td>
<td>Redesign of care processes</td>
<td>0.20</td>
<td>0.14$^{e}$</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>No redesign of care processes</td>
<td>0.26</td>
<td>0.17$^{e}$</td>
<td>&lt; 0.0001</td>
<td>No redesign of care processes</td>
<td>0.22</td>
<td>0.10$^{e}$</td>
<td>&lt; 0.0001</td>
<td>No redesign of care processes</td>
<td>0.17</td>
<td>0.08$^{e}$</td>
<td>&lt; 0.0009</td>
</tr>
<tr>
<td>bManagerial condition</td>
<td></td>
<td></td>
<td></td>
<td>Experienced manager</td>
<td>0.24</td>
<td>0.17$^{e}$</td>
<td>&lt; 0.0001</td>
<td>Experienced manager</td>
<td>0.21</td>
<td>0.13$^{e}$</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>Inexperienced manager</td>
<td>0.26</td>
<td>0.19$^{e}$</td>
<td>&lt; 0.0001</td>
<td>Inexperienced manager</td>
<td>0.23</td>
<td>0.13$^{e}$</td>
<td>&lt; 0.0001</td>
<td>Inexperienced manager</td>
<td>0.28</td>
<td>0.22$^{e}$</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>cGroup condition</td>
<td></td>
<td></td>
<td></td>
<td>Group dynamic problems</td>
<td>0.21</td>
<td>0.14$^{e}$</td>
<td>&lt; 0.0001</td>
<td>Group dynamic problems</td>
<td>0.18</td>
<td>0.09$^{e}$</td>
<td>&lt; 0.0001</td>
</tr>
<tr>
<td>No group dynamic problems</td>
<td>0.25</td>
<td>0.17$^{e}$</td>
<td>&lt; 0.0001</td>
<td>No group dynamic problems</td>
<td>0.24</td>
<td>0.17$^{e}$</td>
<td>&lt; 0.0001</td>
<td>No group dynamic problems</td>
<td>0.20</td>
<td>0.13$^{e}$</td>
<td>&lt; 0.0001</td>
</tr>
</tbody>
</table>

Notes: aLeadership quality + contextual condition; bleadership quality + managerial condition; cleadership quality + group condition; dcrued; eadjusted
5. Discussion

Our study found that leadership has an impact on social capital, which differs from previous research showing that social capital has an impact on leadership (Day, 2001; De Clercq et al., 2014; Li, 2013). The results in this study are in line with the limited previous research (Kristensen, 2010) showing an association between quality of leadership and social capital. These results can be important knowledge for managers to consider when practising leadership, as social capital has shown to be an important factor for job satisfaction, work engagement and engagement in organizational development work involving, for instance, patient safety and quality of care (Strömgren et al., 2016). Translated into the context of healthcare, this could therefore have an impact not only for engagement in specific care issues but also on employees’ well-being.

Analyses of different levels of leadership quality with respect to different levels of social capital suggest stability of social capital over time. Differences between groups of different levels of leadership quality persisted over time, regarding their associations with levels of social capital. Furthermore, high levels of leadership quality seem to predict a stable level of high-social capital, whilst low levels of leadership quality show the same, but with low levels of social capital. This implies that if leaders succeed in performing well in their leadership, their employees are most likely to have higher levels of social capital. Therefore, in the organizations, leadership development should include fostering interpersonal skills and be considered as an investment in social capital (Day, 2001).

It has been suggested that relational leadership in healthcare organizations is superior to task-oriented leadership with respect to organizational outcomes and employee health (Cummings et al., 2010). In this study we categorized leadership quality by three different factors, relational, developmental and task-oriented factors. All three had associations with social capital, and relational leadership had the highest explanatory value for social capital (Table V). This does not imply that developmental and task-oriented leadership are unimportant skills. For example, task orientation has shown to be important for relationally focused leaders by initiating structure during conditions of pressure (Skakon et al., 2010), and development-oriented leadership, for example, has been shown to support employees in their engagement in development programs (Judge et al., 2004). This suggests that there may be different contextual preconditions for all three leadership orientations studied, which influence the magnitude of their importance for social capital. Further analyses showed that different types of leadership orientations had different importance for social capital with respect to contextual, managerial or group factors. Previous research (Wheelan, 2005; Westgaard and Winkel, 2011; Palm et al., 2015) has suggested that such factors are important with respect to leadership, and therefore, we considered such influence. The results indicate that, for inexperienced managers, practising task-oriented leadership was important for social capital. Furthermore, a developmental leadership orientation was shown to have lower importance for social capital if there were group dynamic problems. In the absence of organizational redesign relational-oriented leadership had importance for social capital. On the other hand, relation-oriented leadership indicated a lower importance for social capital during organizational redesign. However, both task- and development-oriented leadership were important during organizational redesign. This suggests that the connection between leadership and social capital interplays with factors on organizational, group and individual levels, such as ongoing organizational development, group maturity and one’s own experience of being a manager. In practice, specific knowledge of these conditions as well as of how the employees perceive the leadership quality could be helpful as guidance for healthcare managers to adjust their leadership in order to build and increase social capital at their workplaces.
In sum, social capital in previous research has been viewed as an important aspect of trusting relationships (Nahapiet and Ghoshal, 1998), which manifests both between employees (Woolcock, 1998) and between manager and employees (Szreter and Woolcock, 2004). In line with this, leadership has also been viewed in the relational dimension between manager and employees (Cummins et al., 2010). Together with our results, this suggests that the relational dimension of leadership compared with developmental and task-oriented dimensions is superior when it comes to increasing levels of social capital.

5.1 Limitations and future research
It has been stressed in earlier research that longitudinal designs with panel data contribute to making causal claims and can almost be compared with results from experimental designs (Li, 2013; Lalonde, 1986). When conducting questionnaire follow-up studies, the assessed changes may be a result of regression to the mean, but we could not see such movements. In this study we did not perform multilevel analyses; however, the associations we investigated between leadership and social capital have rarely been described in previous research. The study was conducted in a hospital context, and this may reduce the generalizability of the results to other contexts. On the other hand, previous research done on both leadership and social capital has also been performed in different settings and contexts. The present study was conducted during the implementation of redesign of care processes. With respect to such conditions in the organizational context, we controlled for such possible confounders. But there could be other contextual aspects that influence leaders, for example, logics of how to manage healthcare (Wikström and Dellve, 2009). Also, when employees are asked to assess their managers’ leadership skills, that is, leadership quality, the assessments can be confounded by their stage of development as a group. Studies of group development argue that during some stages of development groups struggle with interpersonal conflicts, role conflicts and frustrations raised against the manager. Characteristic of such a state are the group dynamic problems that occur in a specific stage as the team develops (Wheelan, 2005). Therefore, we did control for group dynamic problems. Further, the manager’s experience of being a manager has been shown to be important for succeeding in engaging employees in organizational development (Palm et al., 2015), for example, redesign of care processes. Managerial experience was therefore controlled for and, with respect to the design and the analyses, reduced the risk of insufficient conclusions.

For future research it would be of interest to compare managers’ decreased and increased leadership quality and how such differences affect social capital over time.

6. Conclusions
This study has shown that leadership is an important factor for building social capital and that different leadership qualities have different importance with respect to certain circumstances. The results underline that employees who report high levels of leadership quality reported higher social capital over time than employees reporting medium or low levels of leadership quality. Different types of leadership qualities – relational, developmental and task-oriented – explained increased social capital. Implications of the present study suggest that leaders should be flexible in leadership practice with respect to different conditions (contextual, managerial and group factors). The novelty in knowledge of leadership impact on social capital has been further investigated and amplifies the theoretical foundation of such interplay. Practical implications of the study feature the possibility to build high-quality leadership as an important resource for social capital by using different leadership orientations under different circumstances.
References


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Size does matter – span of control in hospitals

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Abstract

Purpose – Centralization, mergers and cost reductions have generally led to increasing levels of span of control (SOC), and thus potentially to lower leadership capacity. The purpose of this paper is to explore how a large SOC impacts hospital staff and their leaders.

Design/methodology/approach – The study is based on a qualitative explorative case study of three large inpatient wards.

Findings – The study finds that the nursing staff and their frontline leaders experience challenges in regard to visibility and role of the leader, e.g., in creating overview, coordination, setting-up clear goals, following up and being in touch. However, large wards also provide flexibility and development possibilities.

Practical implications – The authors discuss the implications of these findings for decision makers in deciding future SOC and for future SOC research.

Originality/value – Only few studies have qualitatively explored the consequences of large SOC in hospitals.

Keywords Organization, Leadership, Size, Nurses, Nurse leader, Span of control

Paper type Case study

Introduction

It has been stated that high-quality leadership increases performance (Bellé, 2014), management matters in the quality of patient care (West, 2001; Wong et al., 2015), leadership is positively and significantly associated with satisfaction, retention and performance (Gilmartin and D’Aunno, 2007), and span of control (SOC) matters (Cathcart et al., 2004). SOC has become a hot topic in nursing leadership. The reason for this, it is often stated, is that growing pressures on fiscal resources has led to a reduction in the number of management positions, and accordingly to increases in SOC (Cathcart et al., 2004; Sovie and Abbas, 2001; Pabst, 1993; Ontario Hospital Association (OHA), 2011; Morash et al., 2005; Altaffer, 1998) leading to SOC that are generally wider in the health services than in other fields (Topp and Desjardin, 2011). A number of studies have now suggested that there is a limit to how wide an effective SOC can be (Doran et al., 2004; Cathcart et al., 2004; Lucas et al., 2008; Meyer et al., 2011). Inherent in this claim is the notion that leadership actually matters in nursing. To nurses the nearest supervisor is often the most important communication channel (Petersen, 2008). A wide SOC may in the nursing context thus reduce motivation, employee work engagement and employee satisfaction (Lucas et al., 2008; Doran et al., 2004; McCutcheon et al., 2009; Cummings et al., 2010; Cathcart et al., 2004; McGillis Hall et al., 2006), decrease staff empowerment (Lucas et al., 2008), increase negative perceptions of the work environment (McGillis Hall et al., 2006), increase staff turnover (Doran et al., 2004; Sellgren, 2007; Manion, 2004; McCutcheon et al., 2009; Altaffer, 1998), decrease staff perceptions of manager effectiveness (Altaffer, 1998), decrease patient satisfaction (Doran et al., 2004) and lead to reduced quality (Shortell et al., 1994; Lucas et al., 2008). On the other hand, American “magnet hospitals” researchers have argued for an SOC that is not too narrow in order to enhance
individual creativity, autonomy and productivity (Kramer and Schmalenberg, 1991). An important prerequisite for their conclusion is not only that nurses are well trained, competent and seek autonomy, but also that leadership is supportive.

Studies have shown that professional leadership is often downgraded when SOC is wide (Klausen and Michelsen, 2004; Sørensen, 2006). As for the frontline nurse leaders, it has been claimed that, as SOC tends to grow, there is a concomitant increase in workloads, tensions and role conflict (McConvile and Holden, 1999; Wikström and Dellve, 2009). In spite of a large number of management trainings in recent years, a general feature of public management reforms appears to be an increase in management workloads, a reduction in the formal supervision and support that frontline staff receives (Kirkpatricks, 2004).

According to prior SOC research, one of the main challenges with wide SOC is the inherent distance between leader and followers because it is not possible for leaders to uphold the same positive relationships with all their followers (Schyns et al., 2010). A wide SOC changes communication patterns in a way that negatively impacts manager and staff contact (Pabst, 1993; Gittell, 2001) and reduces the quality of communication (Berson et al., 2001; Shamir, 1995). Studies of SOC in the Canadian nursing context have also shown that transformational leadership suffers when a span becomes too wide (Doran et al., 2004; Lucas et al., 2008; Meyer et al., 2011) because even the best leadership style (e.g. transformation leadership) can only handle a large SOC effectively up to a certain point. Transformational leadership is positively correlated with job satisfaction (Brown et al., 2013) and negatively related to staff turnover (Wong et al., 2015) and studies suggest that transformational leaders are better at retaining experienced staff (Wong et al., 2015). Quality relationships between leader and employees are thus impaired by large spans (Laschinger et al., 2007).

In spite of profound changes in both tasks and contexts, the job satisfaction of nurse leaders has been relatively sparsely studied (Brown et al., 2013; Laschinger et al., 2007), but studies so far conclude that having a wide SOC increases job complexity, impedes job satisfaction (Wong et al., 2015; Lee and Cummings, 2008), increases manager stress (Shirey et al., 2010; Warshawsky and Havens, 2014), and workload (Brown et al., 2013) which again is highly correlated with intent to leave (Brown et al., 2013).

Though prior studies provide a basis for concluding that an SOC is highly relevant in the context of frontline nursing management, studies have predominantly been quantitative and more needs to be learned about how SOC affects leadership in large wards. The aim of this paper is to explore experiences of leadership in an organizational setting where SOC is considered wide: how is distance between leader and followers empirically experienced? How is the role of leadership perceived? What benefits and challenges is this organizational set-up seen to entail? The paper recognizes that not only does a wide SOC potentially affect followers’ perceptions of the leadership provided to them but having a wide SOC might accordingly affect nurse leaders’ perception of their own leadership.

The study is based on comprehensive qualitative data from three large Danish hospital wards with a SOC range of 50-70 employees to a frontline nurse leader (raw headcount). It concludes that nursing staff members and their leaders do experience a number of issues relating to distance and overload. The leaders spend their time on trivial matters rather than having an overview, setting a direction and being visible as leaders. Though tasks are delegated, they are not followed up. The legitimacy of the leader is accordingly impacted. Apart from distance to the leader, nursing staff members also experience challenges related to distance to other followers. Though working in large wards provides flexibility and development possibilities, it is also sometimes impersonal.

The paper is structured in four sections: first, we present a theoretical framework for understanding the concept of SOC and the notion of optimal SOC, outlining why differing SOC may impact the perception of efficient leadership. Second, we present the research
design, methods and data. Third, we report the empirical findings, including both a staff and a leader perspective. Finally, we discuss the results, their implications and the limitations of the study.

The SOC concept

SOC usually refers to the total number of employees being supervised by a manager (Altaffer, 1998; OHA, 2011; Doran et al., 2004; Cathcart et al., 2004) and has typically been related to examinations of how much supervisory manpower is required in relation to a given number of employees (Ouchi and Dowling, 1974), that is: how many employees can a leader effectively span? SOC was first introduced into organization studies as part of the scientific management wave. Since the early development of SOC theory (Fayol, 1951; Urwick, 1956), researchers have been concerned with the notion of an ideal or optimum span with regard to ensuring productivity.

Seen from a production perspective, a wide SOC is preferable because it allows more people to be part of the production process and not merely take part in the supervision and administration of those who produce. It has, however, been argued that this only applies up to a certain point, after which every increase in employees will decrease the productivity due to lack of supervision, coordination and management (Meier and Bohte, 2000). The relation can be seen as an inverted U, where the ideal situation is located at the top (Barrasa et al., 2007) meaning that, on one hand, groups may be too small to be effective. On the other hand, evidence suggests large groups are more dysfunctional than smaller groups (Barrasa et al., 2007). The most effective size therefore lies somewhere in the middle. Like Blau and Schoenherr (1971), who argue that economies of scale are partly, but not completely, devoured by the increased need for supervision and coordination, they claim that large groups suffer a loss with regard to coordination, motivation and communication (Barrasa et al., 2007). Gittell (2001) has a similar finding in her study of groups and SOC in aviation.

Conditions for optimum SOC

In the early days, estimated appropriate levels of SOC were generally more conservative than the levels seen in the health care sector today. Hence a span of 20-30 workers was considered to be wide and only to be appropriate if the work was not complex (Fayol, 1951). The notion of optimum SOC is complicated and seems to be influenced by many factors. One is the degree of complexity: both the complexity of the work (Mintzberg, 1979; Bell, 1967; Fayol, 1951; Woodward, 1965; Bohte and Meier, 2001; OHA, 2011; Wong et al., 2014) and the complexity of the context (Mintzberg, 1979; Merrill et al., 2013; Wong et al., 2014). The general rule is the more standardized the work, the less need for supervision, whereas unpredictable workflow and client cases would require more supervision. However, Bohte and Meier (2001) argue for a particularly narrow span when organizations address moderately difficult tasks. When tasks are very simple, leadership can more easily be replaced by rules and procedures, but when tasks are extremely complex and production technologies are unclear, leadership may provide no more help than “rearranging the deck chairs on the Titanic.” Therefore, they argue, the highest potential impact of leadership is when some level of discretion is required (Bohte and Meier, 2001).

Tasks can be complex in a variety of ways and may require varying degrees of supervision. In frontline work such as nursing, patient profiles may be an important factor, including not only the type and seriousness of an illness but also patient characteristics, such as age and duration of care (Alidina and Funke-Furber, 1988) and potential co-morbidities that complicate the care process (Wong et al., 2014). Another dimension is the leader’s tasks. The leader may have a number of tasks other than supervision and personnel administration. It has therefore been argued that when the job complexity of the leader increases, the amount of time that can be allocated to staff decreases (Ouchi and Dowling, 1974). If the load of administrative tasks is
heavy, SOC should thus be adjusted accordingly (Topp and Desjardin, 2011). It has also been argued that when task interdependence increases, this will lead to less time for supervision (Aldina and Funke-Furber, 1988; Wong et al., 2014; OHA, 2011). This is because the leader will then spend more time on, for instance, coordinating with physicians, other departments, other sectors, and patients and their families. Department workload and hours of operation should also be taken into consideration while measuring the scope and span of nurse managers (Jones et al., 2015).

In addition to the standardization of work, skills can also be standardized. Therefore, optimal SOC can also be seen as related to the degree of formalization and professionalization of both leaders and employees (Mintzberg, 1979). The general rule is that the more professionalized employees are, the more they will have the trained skills to perform complex tasks in an autonomous manner. It has been claimed, though, that this only applies to a certain point, after which tasks become so complex that even highly professional and specialized employees will require a narrow span (Aldina and Funke-Furber, 1988). The mix of staff is also seen as important as the level of non-professionals or less trained professionals in the group will impact the need for supervision (Aldina and Funke-Furber, 1988). The level of experience of both leader and employees is also relevant (OHA, 2011; Mintzberg, 1979). The combination of people, skills and the variety of tasks that they perform should thus be a consideration for the ideal SOC (OHA, 2011).

As to the complexity of the context, this may also influence the scope of responsibility of the leader. Contextual factors such as level of stability in the surroundings of the organization (Mintzberg, 1979) may be central. For example, does the leader need to spend time on tackling instabilities? The number of units and/or sites a leader spans (OHA, 2011) also referred to as geographical contiguity (Aldina and Funke-Furber, 1988) or space (Meyer, 2010) is also central because it makes a difference whether the leader is geographically close to all of the employees and the tasks they perform. Not just because of time spent moving from one place to another and that distance may negatively impact the relations and communication between leader and staff (Stogdill and Bass, 1981 in Meyer, 2010) but because it makes a difference whether employees are physically in the same place (Aldina and Funke-Furber, 1988). In the alternative case, it can be argued, information will travel more slowly and is less easily shared. In addition, issues of equity (related to who has the closest proximity to the leader) and sub-cultures can more easily exist. Distance may thus not only be mental but also geographical in nature.

**Measuring SOC**

Usually heads are counted rather than the number of full-time equivalents, as the leadership tasks related to individual employees are often not linked to the exact number of hours for which they are employed. The head count is thus the simplest SOC measure. A more complex measure takes into account what other tasks managers have in the organization and adjusts for actual time spent on tasks other than direct supervision of or contact with subordinates (Ouchi and Dowling, 1974). In nursing, the SOC has been translated into a measure which includes: degree of manager and staff interaction, manager role breadth and complexity, the number and size of work groups under a manager’s authority, and the availability of other managerial supports (e.g. educators, clinical specialists, assistant managers), degree of material management, budget size, skill level of both manager and staff, and also similarity of employee roles, diversity of staff, complexity of the work, hours of operation, degree of risk and unpredictability, staffing stability, manager proximity to employees, and the extent of coordination and planning required for immediate and future organizational programs (Doran et al., 2004; McCutcheon et al., 2009; OHA, 2011; Meyer, 2008; Morash et al., 2005; Wong et al., 2015; Merrill et al., 2013).

Summing up, it can be expected that a wide SOC may impact leader-member distance, role complexity and quality of communication leading to reduced satisfaction. Also, there is
no universally valid ideal size of SOC. Rather, “it depends” how wide a span can be and still be effective (Davison, 2003). It depends on complexity of context and work being done, the available skills and the experience of the managers and employees, the number of units and geographical contiguity. However, on one hand, these factors are often not taken into account when deciding how wide a SOC should be in a given context. On the other hand, it is unknown which weight the different factors carry in relation to each other, and it is unknown which factors might be more important in some settings than in others. In this study, we used a simple count as we wished to explore the complexities of perceptions of leadership in large wards.

Study context
Growth in SOC has also been the trend in Danish hospitals. From 2002 to 2009, the number of Danish nursing leaders employed in hospitals dropped by 600, which is a reduction of one in five positions (Hagerup, 2010). Since 2007, the Danish hospital delivery system has been organized into five regions that are responsible for the organization of hospital work. All regions have experienced changes in unit sizes and management structures. To learn more about the effects of these changes, a corporate HR development unit in the Central Denmark Region launched a research project to study the workings of the new types of large hospital wards. Wards are inpatient units in which frontline staff members are employed – typically registered nurses and registered practical nurses. Other employee groups such as doctors, physical therapists, cleaning staff, etc. may perform work at the ward but are employed at upper functional levels (doctors) or in other departments and then “lent out.” The research was carried out in the period 2009-2011 in cooperation with the Danish Institute for Health Services Research, DSI, now KORA, Danish Institute for Local and Regional Government Research.

Design and methods
The study consisted of a qualitative explorative multilevel case study (Yin, 1989) of three large inpatient hospital wards in “Central Denmark.” On the basis of an initial quantitative study of the total population of hospital wards in the region, we selected three large hospital wards for in-depth observation studies and interviews using a logic of replication (Yin, 1989). The wards were, by our definition, large as an SOC that exceeds 35 had previously been defined as wide in the Danish hospital context (Andersen and Sonne, 2007). For variation in size we chose three types of large wards ranging from 50-70 staff members. This variation was reflected in the hierarchical structure as formalization of leadership support increased with size (see Table I). The degree of formalization of doctors as co-leaders was empirically insignificant as these arrangements mostly existed on paper. At the time of selection 12 percent of the wards in the region had 50 or more staff members. This is a conservative head count as many inpatient wards will also have a number of affiliated nursing staff members that do not have permanent positions. Ideally, it would also have been possible to include wards with a more restricted SOC in the study. To maximize

<table>
<thead>
<tr>
<th>Investigated hospital wards: SOC and hierarchical structure</th>
<th>Number of employees</th>
<th>Hierarchical structure</th>
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<tbody>
<tr>
<td>Pediatric cancer ward</td>
<td>50 (46 nurses, 4 practical nurses) (24 beds)</td>
<td>1 nurse leader, 3 associated doctors as co-leaders and 4 shifting nurse coordinators</td>
</tr>
<tr>
<td>Neurosurgery ward</td>
<td>60 (40 nurses, 20 practical nurses) (31 beds)</td>
<td>1 nurse leader, 1 doctor as co-leader and 2 nurse coordinators</td>
</tr>
<tr>
<td>Abdominal surgery ward</td>
<td>70 (47 nurses, 23 practical nurses) (37 beds)</td>
<td>1 nurse leader, 1 assisting and 1 deputy nurse leader</td>
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comparability the wards were similar as to level of staff experience, composition of staff (both nurses and practical nurses), 24 hour service, a mix of acute and planned services, and geographically situated in the same region in relatively large hospitals. Having a relatively high degree of experienced staff should in theory make the wards more resilient to a wide SOC. In this sense it is a “good case” scenario.

The limited number of cases does not allow statistical generalization but the case selection allowed us to investigate an underexplored phenomenon: leadership in large hospital wards. The aim of data production was to understand social processes – eliciting participants’ assumptions, implicit meanings and tacit rules (Charmaz, 2002) related to being employed in large wards with a wide SOC.

We conducted semi-structured interviews that were designed to be flexible enough to fit both our predefined topics (related to experiences with large size) and participants’ emerging themes (Charmaz, 2002). Employees were interviewed in groups (nurses, practical nurses and nurse coordinators/specialists) so as to explore their collective understandings of leadership and “employeeship” at the wards and the frontline nurse leaders were interviewed as individuals. In addition, senior doctors with co-leader roles and middle managers (the leaders of the frontline leaders) were interviewed to further explore role expectations. In total, 103 interviewees participated in 42 interviews. Interviews were sequential as they consisted in two rounds of interviews. The first 21 interviews took place in 2009 and the second round of 21 interviews took place in 2011. There was a clear overlap of participants of 55 percent. The design thus permitted independent checks over time (Charmaz, 2002) making the results more resilient with regard to random agendas of the participants and enhanced the building of trust. It allowed us to look for potential developments and patterns of repetition and to see working in a wide SOC ward as a “going concern” (Hughes, 1971). Semi-structured interview guides were deployed, one for each type of interview (nurses, leaders, etc.). A number of the questions were the same across function, professional group and geographical unit. Inspiration for the questions came from the literature research, the observation studies and in the National Research Centre for the Working Environment survey instrument on job satisfaction: COPSOC. In the subsequent interview phase, interview guides were revised. Apart from the original questions, additional questions were designed to further explore the challenges of delegation and focus that had come up in the initial interviews. Examples of central recurring questions were:

- What does your head ward nurse primarily spend her time doing?
- How do your experience the distance to your nearest leader (head ward nurse)?
- To what extent do you experience clear goals for your work in the ward?
- What needs do you conceive to have in a leader?
- To what extent do you experience that these needs are met?
- Do you experience recognition for your work? How do you experience the amount of demands and expectations you are met with?
- Do you experience that you have the competencies needed to do your job well?
- What do you consider to be advantages/disadvantages of different ward sizes?

Data were produced and analyzed in accordance with the constructionist approach to grounded theory (Charmaz, 2002). Interviews lasted from 60 to 120 minutes. All interviews were recorded and subsequently transcribed. A total of 2,500 pages of interview transcripts were produced. Based on a theme-based code list, interviews were then coded by two of the involved researchers. The code list evolved on the basis of an initial analysis of the data by the four researchers who had participated in the interviews moving back and forth between
theory, data and themes that had emerged during data production allowing space for a continuous interpretative process (Holstein and Gubrium, 2000). The initial coding was related to: satisfaction, leadership tasks, delegation, and reflections on size, and interview statements were systematically displayed in thematic overviews. Interview statements were then triangulated from employees and leaders with each other and with observation data. Data were analyzed both in relation to case and in relation to professional group, function and hierarchical level in order to elicit both common patterns and differences across cases. Central themes that emerged across the data included “disorganized leadership,” “no follow up,” “not being seen,” “role overload” and “greater flexibility.” The frontline nurse leaders’ perception of their leadership challenges were consistent with the experiences of their staff members.

Before interviewing, explorative observation took place shadowing both the frontline nurse leaders and nurse coordinators, to whom they had delegated leadership tasks, one day each (n = 6). The purpose of the observation was to investigate leadership in a large SOC social selves natural environment (Holstein and Gubrium, 2000). For example, what fills the days of large SOC nurse leaders and the key personnel to whom leadership tasks are delegated? How and where do they interact with their subordinates and management colleagues? On-the-spot informal conversations (De Vault and McCoy, 2002) where the participants were invited to share their reflections on their activities and their leadership were helpful. Observation notes of what was said and done, with whom it was said and done, and where it was said and done were taken in real time. The elaborated and computerized notes were rigorously discussed among the two members of the research group who had performed the observations and later discussed in the study group. Observations were carried out before interviewing so that insights from the observations could be used in the interviews. This strategy was useful in getting beyond stereotypical types of answers, and helped overcome the challenge of tacit knowledge of the workings of everyday organizational life in the inpatient units. Observation insights were subsequently used in the production of interview guides and later actively used in the process of coding and interpreting data.

Findings
We now turn to the empirical results. In line with the SOC literature, distance to the leader and the role of the leader were prominent themes in the experiences of working in large wards. The nurse leader was seen as a distant and disorganized character who was unable to provide a sense of direction and shared goals. The nursing staff felt they were not being seen and the leaders felt inadequate and frustrated. However, large size was also seen as providing both greater flexibility and development possibilities.

Distant leadership
Both employees and leaders perceived leadership as involving distance challenges. The leader was seen as a distant character who was never present or visible enough:

You actually have the feeling that the ward is huge, and you know that with all the meeting activity and other kinds of demands, management simply cannot be omnipresent (Interview with nurses).

The nursing staff did not see their leader as someone they would turn to with professional questions. The larger the ward, the more this was the case. Staff experienced that small and large things in the daily running were not spotted or adequately handled by their leader and that she was not sufficiently tapped in to what was going on. To the staff the perceived distance to their leader was enhanced by the fact that it was unclear to them how she spent her time. They had an idea that most of her time was spent on meetings, many of them away from the ward. The staff also felt it was unclear what was expected of them:

Sometimes I think the problem is that I don’t know what is required of me (Interview with nurses).
Not just expectations but goals were also unclear. The lack of clarity, according to the nursing staff, was related to professional discussions not being managed sufficiently well by their leaders:

You mind your own business and don’t discuss what good nursing is or develop a shared spirit or culture regarding how we do things here. It’s difficult to reach everyone, when it’s such a large unit, and difficult for everyone to hear the explanation for why we do things the way we do. If it doesn’t make sense right away, it’s easy to say: I’m not going to do that. And then people start complaining (Interview with nurses).

The lack of sense of direction and lack of role clarity were seen as a source of dissatisfaction by the staff.

In accordance, the leaders had a clear experience of never being able to do enough, and never being able to be present enough:

With a ward this size, I could work 100 hours a week and still not fulfil the task (Interview with frontline nurse leader).

Also they experienced that their effort was inadequate in relation to their ambition of getting their messages through to the entire staff group.

Communication. The problem of getting the message out was a reoccurring central theme in all of the interviews. It was difficult for the leader to reach everybody to ensure that the leader and employees were mutually well-informed and shared a sense of overview:

In a smaller group, you can easily get a message spread. And you can easily keep track of who didn’t get the point, and who doesn’t do exactly what I want them to do (Interview with middle manager).

The experience of both staff and leaders was that it tended to be difficult to implement changes that required diffusion of shared information as knowledge transferred slowly. The challenge of communication and being a visible leader was even greater when the unit was situated at different floors, and when the nurse leader was also the leader of another function (e.g. an outpatient clinic). Not only because the leader had multiple places to be but also because hallways and floors kept employees apart, and made the sense of cohesion even more difficult. It created an extra challenge for leaders to ensure that they gave the same information in different sites:

I actually have to go round three different places and communicate the exact same thing (Interview with frontline nurse leader).

Communicating the exact same thing was difficult and seen as a potential source of dissatisfaction in their geographically scattered groups if one group learned that another had received a different message.

Knowledge of staff and specialty areas. On one hand, according to the nursing staff and their leaders, the size of the ward contributed to flexibility and development possibilities as the specialty areas were broad. Large wards involve a wide variety of tasks and skills for individual staff members to learn. On the other hand, having a broad area of specialization (e.g. both backs, brains and jaws) meant individual staff members had to span various competencies (when staff were not divided into specialized teams). This created high demands, especially for new staff members. What over time became a positive factor, because of the development possibilities it provided, was in the beginning experienced as an overwhelming challenge. It also meant that individual skills were subject to a large degree of variation which was seen as a source of stress for the nursing staff. Knowledge of one’s colleagues and their skills was further seen as being impaired by having a large number of colleagues, and this knowledge was considered crucial, especially in acute situations.
The leaders experienced difficulties in keeping up-to-date with skill level of their employees, which made supervision difficult for them. An element that complicated their work especially for one of the nurse leaders (SOC 60) was the diversity in the assigned clinical area as the diversity was accompanied by a need for cooperation and coordination with many senior physicians. A similar subtheme was found in Wong et al. (2014).

*Not being seen.* Staff generally expressed they needed more appreciation and supervision from their leader than she was able to give. According to the interviewed nursing staff, it is more impersonal to work in a large ward. Not just because goals are not clear but also because it is easier to hide or be forgotten in the crowd. Employees suggested that it is easier to call in sick since you are not missed as much. On the other hand, the flexibility of large size was also seen as positive as it meant that each staff member has fewer evening, weekend and night shifts, making it easier to juggle their professional and private lives. Large wards were also seen as less vulnerable if, for example, a staff member needs to attend a course away from the ward. So there were both pros and cons to the greater distance not only to the leader but also to many of their colleagues. However, the lack of clear direction and clear community was seen to impact group cohesion. In this sense, it can be argued that there was sometimes a dysfunctional “follower-follower” distance and that organizational commitment was hampered by the notion of not being seen.

**Disorganized leadership**

The reality of leadership, as leaders and employees described it, could best be described as disorganized. That is, a state of inability to plan and follow up on activities. The perception was that ships were constantly sent to sea but nobody really knew what happened to them. The leaders experienced challenges in prioritizing the tasks, in planning the work and following up. Accordingly, they perceived one of their most significant challenges to be keeping focus.

**Delegation but no follow-up.** One method the frontline nurse leaders used to handle their large spans was by delegating a number of tasks. In this way, the leaders’ efforts were invested in a limited number of targeted subordinates as opposed to most or all subordinates (Liden et al., 2006 in Schyns et al., 2010). The leaders thus came typically to rely on clinical nurse specialists to whom they delegated leadership tasks, such as supervision. Delegation served two purposes: leader was relieved of some work, and a number of staff members were given possibilities for development and experienced the trust and recognition of being delegated special areas of responsibility. However, the clinical nurse specialists felt their leader failed to follow up on the delegated tasks, and they thus came to occupy very lonely roles. They were also frustrated because, as they were not supervised, they felt taking on responsibilities involved too much of a personal choice. If they did not fill out their responsibilities, it might not be noticed. They saw this as demotivating. Clinical nurse specialists also occupied a position between their leader and their staff colleagues, but with no formal competence or defined management role. This complicated the role and resulted in legitimacy problems. For instance, the problem arose when the nurse leaders were dependent on knowledge from the clinical nurse specialists regarding the skills of their colleagues when deciding promotions, etc. In the course of daily life, staff would also tell them things that they did not see as their responsibility to handle “I just thought you should know.” In this sense they filled in a void but on unclear terms. In the ward with formal deputy roles (SOC 70) they did not have these issues to the same degree.

**Role overload**

The leaders experienced a low degree of role clarity, and similar to the findings of Wong et al. (2015), a high degree of role overload. It was unclear to them how they
were supposed to fill their role and what was expected of them by their superiors. In line with their perceived traditional role, the leaders generally had more knowledge about personal than professional matters. They experienced the expectation that the frontline nurse leader is someone who is knowledgeable about the many challenges that staff encounter in their private lives, and that tend to affect their working lives, e.g., health problems, pregnancy, divorce, etc. According to the nurse leaders, when the staff group is large there are also, potentially, more people with personal problems and things that must be taken into account when planning the work schedule:

There is illness, there are people with back problems or on maternity leave – and stuff like that is also part of personnel management, but I cannot plan these things. And I cannot say that I don’t want to be part of it. If only, people never got sick or pregnant, everything would be much easier (Interview with frontline nurse leader).

The nurse leaders experienced a high degree of both workload and job complexity. The number of tasks and people to follow up on was, according to the nurse leaders, immense; the nurse leaders found this difficult to manage. Finding out who does what and when, in addition to keeping people informed, was an ongoing challenge as there were too many things to keep track of. The leaders expressed a need to determine how to work more strategically, and they felt an increasing part of their time was spent on meetings. Ironically, the leaders ended up doing a lot of trivial tasks.

Trivial tasks. Observation studies and the interviews with the leaders showed that the tasks of the frontline leader in the large wards were manifold and fragmented, ranging from making sure light bulbs were changed, participating in meetings with leaders from other wards, to orchestrating organizational change. They spent the bulk of their time engaged in staffing logistics, meeting activities, paper work and numerous short conversations on the phone, in the hallway or while on the move generally. The days spent shadowing the leaders also showed that they spent a great deal of time on trivial matters relating to personnel administration (e.g. paper work related to pay, vacations, courses, sickness absence, sick and maternity leave), and logistics of attendance (including planning ahead, managing sick calls and phoning replacement staff). As it has previously been identified, large numbers of direct reports spur many types of human resource issues that have to be managed (Wong et al., 2014). The patterns for the participating leaders were quite similar, and variations were to a large degree due to different ways of delegating tasks. Only one of the three leaders (SOC 60) had secretarial assistance (equaling one-third of a position). In one of the wards (SOC 70), staff complained their leader was sometimes micromanaging in a random and irrelevant manner.

It was clear that nurse leaders were confused as to how to fill out their new and more distant role. Also, the new role had not transferred into the formal work description of the frontline nurse leader, which still stated that the leader had to be abreast of current research, be able to identify areas for development, and to contribute to the development of clinical guidelines, instructions and procedures. The frontline nurse leaders thus found themselves in the crossfire between differing demands and expectations. Perhaps not surprisingly they dreamt of having a less wide SOC (under 40).

There were nuances of difference between the three wards but the end result was depicted as the same. The leader with the most restricted span (50) had responsibilities for both the ward and an outpatient unit. In spite of the outpatient unit being located in the same building as the ward, it was seen as distant from the ward by staff, and the unit staff and the ward staff did not mix. She was also the only leader who regularly engaged in direct patient care tasks. Another important difference was that the work was seen as more
emotional complexity – caring for children with cancer. Emotional complexity of tasks stemming from patient profiles and the coping tasks entails a factor that, to our knowledge, has previously not been researched. Registered nurses and practical nurses shared the same understandings of the benefits and disadvantages of working in large wards, the only difference being that the registered nurses additionally argued for disadvantages for the patients (lack of continuity) and were more nuanced in their depiction of organizational disadvantages.

Discussion
The study has shown that apart from proving flexibility and development possibilities, the large wards were challenged in regard to role and visibility of the leader. Both employees and leaders experienced challenges for the frontline nurse leaders in relation to creating overview, coordination, being in touch with employees, being visible, setting up visible targets and ensuring follow-up. Many of these points could perhaps be made for leaders with any size of SOC who have a poor leadership style but it can be argued that a wide SOC de facto tends to lead to results similar to those for a poor style. Leadership will be spread out too thinly when it is divided among many followers and tasks. Given there is a need for high quality leadership in hospital wards to enhance quality and patient outcomes, the association between leadership and structural conditions for leadership should perhaps attract more scientific and practical attention than it does today. That is not to say that it is structurally possible to fix the problem of leadership alone. Rather it is arguing that, in addition to a high quality leadership style, size also matters.

When the frontline nurse leader takes on the role of administrator and distances herself from clinical practice, this may lead to an isolated and less legitimate practice with less opportunity to be part of the professional community or development, which means that trustworthy and meaningful arguments for what constitutes good nursing may be impaired (Sørensen, 2006). There is thus a risk that the frontline leader becomes yet another level of distant “seagull management” (Cooke, 2006) where the complexities of hospital work are left up to the individual nurse to deal with. The development may also be seen as a reinterpretation of nursing leadership into “organizational professionalism” (Evetts, 2011) where social distance between leader and followers may be seen as desirable (Shamir, 1995) in the process of pulling nurse leaders closer to organizational and political agendas. If so, this places a double burden on the nurse leader who is attempting to span both the traditional role and expectations and the evolving role and expectations.

The study has shown that the size is not only about a wide SOC and the leader-follower distance it may entail. Working in large units may lead to increased job complexity for employees who span larger areas of specialization, and in the participating wards it led to “follower-follower” distance providing a sense of “not being seen” and not knowing many of ones colleagues. This is an area that should be studied in future hospital-based SOC studies.

Implications and recommendations for practice
The study suggests that being a frontline leader of 50-70 members of nursing staff creates challenges for the perceived leadership quality. This implies that as inpatient wards grow larger, it is probably necessary to find ways of compensating for the lack of sufficient leadership resources. In future, there will be a need to balance the expectations of frontline leadership both up and down the system and hence to address the questions of role, function and capacity of the frontline leader. Administrative support or co-managers (Jones et al., 2015) may also be considered.
Study limitations
The number of units studied was low and this therefore limits generalizability. This study was exploratory in nature and the results may not apply in other settings. In settings where staff members are primarily inexperienced, a wide SOC may have other or more severe effects. As the study focused on frontline supervision in large wards, employees and nurse leaders working in small units and with a narrow SOC were not included. This means that the study relies on the perceptions and actions of people who to a large degree have chosen to work in large units. Nursing personnel and leaders who prefer to work in smaller units may experience large wards differently. In the future, it may not be possible to actively choose according to individual preferences to the same extent, due to steady increases in SOC and centralization trends. This aspect of preferences could be a subject for future research.

References
Andersen, P.B. and Sonne, B. (2007), Ledelse I Store Afdelinger, Region Midt, Aarhus.


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Men’s health and communities of practice in Australia

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Abstract

Purpose – The purpose of this paper is to examine the social opportunities for Aboriginal and Torres Strait Islander men created through Men’s Groups/Sheds across urban, regional and remote areas of Australia. Men’s Sheds are a safe space, resembling a work-shop setting or backyard shed, where men are encouraged to socialise and participate in health promotion, informal learning and engage in meaningful tasks both individually and at the community level.

Design/methodology/approach – Explore five case study sites through Wenger’s (1998) active communities of practice (CoP). Qualitative methods are presented and analysed; methods comprise semi-structured interviews and yarning circles (focus groups). Five Indigenous leaders/coordinators participated in semi-structured interviews, as well as five yarning circles with a total of 61 Indigenous men. Findings – In a societal context in which Indigenous men in Australia experience a number of social and health issues, impeding their quality of life and future opportunities, the central finding of the paper is that the effective development of social relations and socially designed programs through Men’s Groups, operating as CoP, may contribute to overcoming many social and health well-being concerns.

Originality/value – Contributions will provide a better understanding of how Indigenous men are engaging with Men’s Sheds, and through those interactions, are learning new skills and contributing to social change.

Keywords Communities of practice, Learning, Indigenous, Men’s health, Men’s Sheds

Paper type Research paper

Introduction

Indigenous men are attending Men’s Groups/Sheds (hereinafter referred to as Men’s Sheds) in increasing numbers across urban, regional and remote areas of Australia (Cavanagh et al., 2013). The purpose of this study is to explore sustainable ways Men’s Sheds can address the societal factors having a negative impact on the lives of Indigenous men with those factors contributing to current outcomes including addictions and abuse (Gracey and King, 2009; Burgess et al., 2005; Hunter, 2007). The aim of the paper is to illuminate the critical nature of the Men’s Sheds in meeting the social needs of Indigenous men. The interest in men’s social well-being has grown markedly within Australia over the past decade, as scholars attempt to understand the health and well-being status of all Australian men (Smith, 2007). While the overall life expectancy and health of Australian men has improved over recent decades, the Australian Institute of Health and Welfare (AIHW, 2011) suggests men’s average life expectancy remains substantially lower than that of women. Within this context, the markedly poorer health outcomes of Aboriginal and Torres Strait Islander men are increasingly an issue of growing concern, at a societal, policy and individual level.
Hunter and Jordan (2010) argue that the very concept of social inclusion raises the question of what they (meaning “anyone”, in this case Indigenous men) should be included in. Our study will argue that Men’s Sheds provide a context and one opportunity to address social inclusion and issues of social connectedness, mental health and suicide prevention, to achieve better social and emotional health outcomes, which in turn may have positive impacts on the overall health and well-being outcomes of Aboriginal and Torres Strait Islander men.

This study explores the role of Men’s Sheds and the impact that they have on the social well-being and health of Indigenous men of all ages; and second, offers practical strategies, through social interventions within communities of practice (CoP) (Wenger, 1998), to enhance men’s participation in the sheds. These contributions will provide a better understanding of how Indigenous men are engaging with Men’s Sheds, and through those interactions, are learning new skills and contributing to social change. Brown (2008) challenges the notion that CoP and group learning has little consequence in the case of traditional learning organisations, such as schooling. Brown postulates that being a participative member learning new skills is not always constrained to a traditional teaching space such as a workplace (Jubas et al., 2016). Morgan and Nelligan (2015) explored CoP and through the narrative accounts of young working men argue that developing skills and creativity can happen in unique spaces such as community sheds and garages. Vickerstaff and Cox (2005) contend that older individuals post-work may feel disempowered but there are opportunities to develop networks and create their own experiences. Probyn (2004) encourages workplaces and community organisations to find innovative ways that garner interest and better understand Indigenous people to make positive changes to their lives. Following from the insights of this research, the current study is guided by the following research question:

**RQ1.** How do community-based Men’s Sheds improve the social experiences of Indigenous men and enhance their overall social and health well-being?

The organisation of this paper includes details of the background of the Men’s Sheds movement, issues for Indigenous men and their health and social well-being. Self-in-relation theoretical perspectives, drawing on Wenger’s (1998) theoretical framework of CoP, will be introduced. This will be followed by the methodology highlighting the research question and guiding questions, data collection and analysis methods. Finally, there will be a discussion and concluding comments.

**Background on the Men’s Shed movement**

Men’s Sheds have long been a part of Australian culture and society. With over 1,000 Men’s Sheds across Australia and in excess of 90,000 members (AMSA, 2013), this is one of the largest men’s community initiatives in the country (Cavanagh et al., 2013). Men’s Sheds typically resemble a backyard shed or work-shop type setting, located in various places such as community halls, disused furniture factories and garages providing the opportunity for regular hands-on activities or community programs and initiatives (Golding et al., 2007). Men’s Sheds include a place specifically for Indigenous men who can house a range of facilities and services including men’s clinical services, places for discussion, “cooling off” places, group meetings, and recreation, training and work activities (Arney and Westby, 2012) such as cultural arts and crafts that can be sold. Men’s Sheds are funded through a mix of private, local council, federal government and self-funded entrepreneurial ventures. Cavanagh et al. (2013) describe Men’s Sheds as a central location providing mostly retired men with the opportunity to socialise and participate in meaningful tasks, such as woodworking and repairing bikes, at the individual and at the community levels. Men’s Sheds also strive to provide a space where health information and services can be easily obtained.
There are no two sheds that operate the same, with some charging nominal annual fees and others with no participation fees. Furthermore, the management and facilitators within Men’s Sheds play a pivotal role in the health outcomes and effectiveness of the programs (Burgess et al., 2005). Men’s Sheds facilitate health interventions, “directly through organised health checks, the distribution of information and indirectly through members yarning together and ‘looking out’ for one another” (Flood and Blair, 2013). Research suggests the delivery of the programs in terms of content and style, combined with adapting programs in keeping with Indigenous values and beliefs, are contributing factors to its impact (Hayes and Williamson, 2007; Sergeant, 2009). Vallance and Golding (2008) argue the sheds provided an avenue for informal learning. Brown et al.’s (2008) research on 25 community group/sheds in Australia found that men learn more effectively where there was a lack of compulsion whereby “doing projects and development peer mentoring and relationships” were important (p. 14).

Social exclusion is multifaceted and can have an impact on an individual’s economic and social life (Collins, 2003). Instances of social exclusion can be found when there is a decline in an individual’s engagement and their social and health-related issues increase. Individuals, such as Indigenous men, may even negotiate, interrogate and construe distinct meanings from social suggestion which is likely to be, in part, a product of their cultural history and sense of self. Men, such as Indigenous men, may even reject praise for self-doubt. The concept of a self-fulfilling prophecy, as explored by Merton (1948), accounts for how many individuals consider themselves as unjustifiably not worthy. A sense of learned helplessness then takes over, where individuals accept socially inappropriate labels and struggle to achieve their potential (Peterson et al., 1993).

Decades of health-related research have indicated alarming rates of morbidity and mortality among Indigenous Australians (Gracey and King, 2009; Burgess et al., 2005; Hunter, 2007). According to the Australian Bureau of Statistics (2011b) there are approximately 548,370 Australian residents identified as being of Aboriginal and Torres Strait Islander origin representing 2.5 per cent of the census count. The life expectancy of Indigenous Australians has stagnated at 20 years less than the national average, and is significantly worse than comparable Indigenous populations internationally (Stephens et al., 2006). Data from the Northern Territory, a federal Australian territory with the capital city of Darwin, indicates that the Indigenous burden of disease is around 2.5 times that of non-Indigenous Territorians, the 35-54 years age group being 4.1 times higher, and 37 per cent of Indigenous Australian’s over 15 years of age having a disability or chronic health problem (Hunter, 2007). Linked to the history of colonisation and settlement in Australia, the implications of the many losses suffered by Indigenous Australians have resulted in much social unrest, and mental and spiritual sorrow. The difficulties associated with belonging and adjusting to different cultural contexts has led to mental health concerns for many Indigenous Australians, particularly adjusting to western ways of life (Brown, 2001; Tsey and Every, 2000). Brown (2001) contends high levels of stress and anxiety can be a consequence of trauma and grief, and these are inextricably linked to mental health disorders, with Brown’s research showing how such trauma and grief are experienced by Indigenous Australians.

Evidence indicates that Indigenous people experience important forms of social exclusion relative to the rest of the population. Data from the Survey of Education and Work (Australian Bureau of Statistics, 2013), for example, indicates that Indigenous people in general are less likely to hold a non-school qualification compared to the non-Indigenous population. Data published by the Australian Bureau of Statistics (2011a) indicates that 55.8 per cent of Indigenous people were engaged in full-time employment in 2011 compared to 76.4 per cent of non-Indigenous Australians. According to the Labour Force Survey 2011, approximately 207,600 Indigenous Australians, or 38 per cent of the Indigenous population,
were engaged in the labour force. Indigenous Men are more likely to be in employment compared to females (62 per cent compared to 49 per cent). Estimates indicate that approximately 33,800 Indigenous people aged 15 years and over were unemployed in 2011, with the highest rates of unemployment occurring in regional areas (Australian Bureau of Statistics, 2013). Government policy initiatives have been introduced, attempt to change the overall situation that Indigenous people experience but they have been relatively unsuccessful (Gunstone, 2008). However, within the context of the Men’s Sheds there is the potential to play at least some role in contributing to improved social and health outcomes for Indigenous men (Ang et al., 2015).

Social inclusion

There is no one accepted definition of social inclusion, but broadly it is representative of every individual’s access to rights and resources without exception (Oxoby, 2009). Moreover, it is the right of every individual to feel valued, respected and included in community life (Collins, 2003). Notions of social inclusion derived from various participatory contexts, such as a Men’s Shed, can be used to explain health and well-being (Wilson, 2006). For example, in Indigenous Men’s Groups men report better health outcomes because they have been encouraged to improve their social, cultural and emotional well-being (Southcombe et al., 2013). When individuals participate in a social setting they are more likely to generate a sense of social inclusion (Shortall, 2008). Based on the interconnectedness of identity development and relationships it is important to consider one’s self-definition within a social setting (Oxoby, 2009). Men make logical decisions about matters such as social justice whereas the feminine side seeks to care and protect. The way a man builds a sense of inclusion is drawn from the interactions with others, and their self-representations reflected within a CoP. That description may then influence an individual’s approach to social challenges and situations and an individual may be impeded or enhanced, depending on the role within which an individual is depicted. Turner (2001) argues that social relationships between two or more individuals (male or female) within any given context, such as a Men’s Shed, influence the social development of individuals. Social forces, such as community support, tend to have an ongoing effect on the development of a sense of who an individual is, such as an Indigenous man, how they know what they know, and importantly, the depth of their experiences. From this, it could be construed that men who are knowledgeable and capable of adapting within a particular social setting, such as a Men’s Sheds, can gain from the community support within such a social setting.

The words and actions of powerful others shape their individual thoughts, actions and reactions (Oxoby, 2009) and Indigenous men are particularly impacted by these environments (Cavanagh and Bartram, 2013). When the voice of powerful others, such as the leaders of Men’s Sheds, is positive then individuals, such as Indigenous men, are likely to have a strong sense of self and develop successful social relationships (Southcombe et al., 2013). In these circumstances men’s experiences are shaped by the guidance they receive from their interactions with others, and their broader social experiences. We argue that it is time to start thinking and defining social inclusion more from the perspective of how individuals are afforded pragmatic experiences and the ways in which engaging in social activities can possibly make a difference to their social and health well-being.

CoP

Men’s Sheds promote social inclusion and to explore men’s social relationships with these environments we apply a theoretical framework based on Wenger’s (1998) CoP as an intervention to provide practical strategies to enhance the effective management of socially driven programs in the Men’s Sheds. We argue that the key components of CoP, mutual engagement, joint enterprise and shared repertoire, comprise a series of social processes in
which social relations are a critical component. A CoP exists when people engage in a process of collective learning in a shared domain of human endeavour, learning how to do things more effectively as they interact on a regular basis (Wenger, 2007). Underpinning this perspective is the insight that learning is a situated social process that occurs through shared practices and interactions. In this regard, a CoP is a specific context within which the interactions between social relations and a sense of self as discussed in the previous section may emerge in particular ways.

Mutual engagement is the pattern and level of interaction among members of a community (Wenger, 2007). The need to provide socially supportive environments for men in the Australian community is an area of growing awareness. Scholars have identified Men’s Sheds as an initiative for delivering better social and emotional health outcomes for men and in some cases boys (Golding et al., 2007). According to Wenger’s (1998) model CoP, Men’s Sheds can function through mutual engagement, as members of the shed establish their level of interaction. In the context of this paper, this refers more specifically to Indigenous men and health workers/educators.

Ormsby et al.’s (2010) study of older men in community-based programs found participation in Men’s Sheds positively influenced the health and well-being of men. Mutual engagement allows for increased interactions and memberships within organisations such as the sheds that helps shape the group’s culture and its practices (Jubas et al., 2016). Smith (2007) suggests membership is more than being declared a member or being born with a characteristic; interaction is an important and imperative factor effecting mutual engagement. Hayes and Williamson (2007) suggest social benefits, such as talking about their individual issues, within the sheds can be promoted through participation in programs that help decrease isolation and enhance self-esteem.

Joint enterprise can be applied to Men’s Sheds as the common purpose that binds Indigenous men together, as they work towards the unifying goal of overcoming negative health conditions that hold many of these men back from leading a full and healthy life. For Indigenous men, the learning process that occurs in the Men’s Shed happens through the provision of a culturally safe space to develop social skills, engage with other learning opportunities and re-connect with their Aboriginal traditions and culture. In particular, Jubas et al. (2016) promotes culture, such as Indigenous culture, as a recognised pedagogy. Individuals learn and benefit from shared experiences (Collin, 2002, 2004) and this is demonstrated in the Men’s Sheds where men have the opportunities to share their stories. When the men learn new skills and gain qualifications they are better able to secure employment through employment opportunities within their communities. Because Indigenous men are bound by a joint enterprise of cultural understandings about their issues, interventions relative to their health conditions could be adopted in the sheds.

The management and facilitators within Men’s Sheds play a pivotal role in the effectiveness of programs and their health outcomes, hence strategies to create effectiveness amongst facilitators and management needs to be understood.

Shared repertoire relates to collective values, ideas and procedures of the community that bind people together and help facilitate relationships and trust. Kral and Folk’s (2004) study of an Indigenous community and literacy practices uses Wenger’s (1998) CoP framework to assist in the development of a healthcare service. Findings suggest that for sustainable policies to be achieved they must be integrated into the social and cultural framework of the community, and must include community goals and aspirations.

Shared history suggests that repertoire is built up and shaped over time by Indigenous men within sheds. Allowing them to be a part of the shared history gives them a sense of belonging. This creates acceptance of intervention strategies as they can feel a part of the decision-making process and structure of the programs. As a result the likelihood of creating a desire to change is enhanced, and assists with sustainability of programs and
The richness of shared repertoire provides a language for communicating meaning. This is particularly evident within Men’s Sheds as facilitators, Indigenous and non-Indigenous learn to deliver programs and speak in a manner that is conducive to Indigenous culture and in simple language. This is important both in terms of language and terminology, to ensure cultural offences are avoided and programs can be embraced (Russ, 2008).

The overall framework for this paper combines important insights from social psychology with more recent literature on CoP to argue that an individual’s sense of self is influenced by their societal context and the relationships they have developed. In turn, CoP provide a space in which that sense of self can be reimagined and reconsidered, through the creation of a space in which new relations are encountered and developed. It is these insights that will be explored in the remainder of this paper through a presentation and analysis of relevant data.

**Methodology**

The study employs a qualitative approach to address the meanings that individuals and groups assign to a social or human problem through an interpretive, naturalistic approach to the world (Creswell, 2007). That is, to capture context, personal interpretation and experience through understanding different realities. The study uses data derived from a study of five Indigenous Sheds conducted by a team of researchers. Semi-structured interviews were conducted with Indigenous leaders and shed coordinators and five yarning circles (focus groups) with a total of 61 men. A qualitative approach was used to seek the perspectives of Indigenous men on the community sheds, to further develop the researchers’ own understanding of the effectiveness of strategies used, gauge different perspectives and understand areas that require further attention. This was achieved through the triangulation of data using interviews with Indigenous leaders, yarning circles with Indigenous men and observations.

**Investigating Indigenous Men’s Groups/Sheds**

To protect the identity of communities and Indigenous men participants we do not identify any particular town, region or names of those involved and acknowledge that this is a limitation to the study. Data were gathered from Indigenous men in urban, regional and remote Australia in the form of interviews, yarning circles and observations. Open-ended questions were used to allow participants to answer in their own terms, and also enabled exploration into areas where the researchers have limited knowledge. However, this can be a time consuming technique as answers need to be coded (Bryman, 2012). Observations took place and Creswell (2013) argues they represent a key tool for collecting data in qualitative research, aiming to observe behaviour based on the research questions and purpose. Yarning circles, an Indigenous term, similar to focus groups are explicitly used for group interactions as part of the data collection method (Courtois and Turtle, 2008). This study carried out five yarning circles across five Men’s Sheds. Yarning circles encourage participants to talk to one another and comment on one another’s experiences and points of view (Kitzinger, 1995). Men as participants are given the opportunity to voice issues of importance to them, using a vocabulary they can understand and feel comfortable with (Rowley et al., 2000).

The research sites were selected with the guidance of an Indigenous representative and attempted to gain a cross-section of views from urban, regional and remote areas. Access to the sites was organised by the Indigenous representative, who was culturally aware and sensitive to the needs of the participants, and he accompanied the researchers and assisted in the interview and yarning circle procedures. In this regard, the researchers were cognisant of the history of “exploitative and harmful research practices”, in the context of
non-Indigenous researchers “working with Indigenous peoples and communities” (Guillemin et al., 2016). The researchers sought to work within the National Health and Medical Research Council (NHMRC) Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research (Canberra: NHMRC, 2003), which promotes values that include respect and equality (Guillemin et al., 2016).

**Approach to data analysis**

Data analysis began using transcripts collected from interviews with Indigenous leaders, yarning circles with Indigenous men, and observations. The qualitative data were analysed using NVivo, following the steps of thematic content analysis outlined by Weber (1985). A coding framework was generated from the literature with independent coding by two researchers until data saturation to demonstrate the reliability of the coding framework (Carmines and Zeller, 1975). The reliability and validity procedures involved searching for the convergence of different sources of information to form themes from the research data and within research materials (Creswell and Miller, 2000). Categorical aggregation was used to determine themes in the data (Creswell, 2007) relative to the current role of programs delivered in the Men’s Sheds, such as health and nutrition classes that focus on foods to protect against chronic diseases such as type two diabetes, and develop practical strategies where improvements could be made through such an intervention. Wenger’s (1998) notion of a CoP offers practical strategies; mutual engagement and interactions of men when they are involved in social programs, the joint enterprise of the men who want to achieve goals and the mutual trust through shared repertoire. Responses were further narrowed into specific themes within categories to create more concise and issue-relevant data. As Indigenous men are a vulnerable group of participants, particularly at risk of exploitation, the research team applied for ethical clearance in accordance with policy and procedure. Ethical clearance was approved by the University Human Ethics Committee.

**Findings: themes in the data**

The study discovered three main themes in regards to the role of Men’s Sheds and the impact they have on the social well-being and health of Indigenous men. The first theme relates to the “Need for Shared Social Spaces”. The second theme relates to the “Sharing Stories of Trauma, Grief, Incarceration”. The third theme relates to the “Social Programs in the Sheds”.

*The need for shared social spaces*

Indigenous leaders and men in yarning circles told us about the ways the sheds have provided men with the opportunity to get in touch with their culture and have also provided a space where they can share their stories. Once Men’s Sheds were established men quickly learned of their existence through what one of the leaders described as “bush telegraph”. One of the leaders in an urban area told us the men “need yarning circles” because as one of the participants commented he had “no family […] no culture […] need support”. Another participant told us he used to sit around watching TV […]now in shed talking to the kids’. An elderly participant announced “the men’s shed has saved me” and each of the men in this yarning circle nodded in agreement.

Moreover, Men’s Sheds provide Indigenous men with a place to go, providing them with the opportunity to focus on the future rather than consuming their energy and concerns in finding an alternative place to seek refuge. Yarning circles highlighted the restrictions that Apprehended Violence Orders (AVO) present in terms of gaining access to their children. An AVO is an order made by a court against a person who makes another person fear for their safety, to seek to protect them from further violence.
Responses from men in a remote shed expressed the difficulty in this area when an AVO was forced upon them “when you a man you don’t have a home unless the woman say so” and “it’s hard to get somewhere to live”. Reference to the struggle experienced when attempting to find accommodation was regularly mentioned when the men told us “they don’t have anywhere to go”. Responses representative of the majority of participants suggest this is something impacting Indigenous men since “for us fellas it’s sharing stories”, “they need yarning circles […] they’ve got no support”, because for many Indigenous men “it’s just about surviving every day”. These concerns and stressors resulting from accommodation issues support the importance of Men’s Sheds as a safe environment for Indigenous men to seek refuge. Accommodation concerns impact on health, as Indigenous men experience increased stress and related mental and physical health issues as they worry about a safe place to sleep. While not a complete solution in themselves, the sheds provide at least a space for the men which otherwise would not be available.

Sharing stories of trauma, grief, incarceration
Yarning circles demonstrated that high levels of trauma and grief are prevalent amongst the Indigenous men who participated in the research, and contribute to mental health concerns. A leader of a rural shed explained “grief is one of the biggest issues” for many men and much of the grief is related to legal matters and the stolen generation. A common response in a yarning circle was “we all got the same fears” and “we share deep issues” and as a result “men suffer with depression”. For these participants, it also became evident that part of the significance of the sheds was that they provided a space in which men could discuss and work through these issues in a group or community context.

Often the social issues that men confront in their everyday lives including discrimination, racism, unemployment and violence can contribute to individual actions that result in AVOs and incarceration. Incarceration has been identified as an interactive process whereby some men with mental health issues end up in prison and being in prison attributes to ongoing mental health issues for Indigenous men (Hunter, 2007). Indigenous men indicate that the high levels of unemployment results in increased violence and/or substance abuse as they are not afforded the opportunity to participate in a meaningful sense in society. Men participants of a yarning circle in a remote area were despondent when they were told they could not be employed, commenting that “they [i.e. employers] say no you got a record”:

If we got criminal record and they do criminal checks we won’t get jobs.

Wonder why we messin up, we want a go […] we can prove we will be good at a job if only they would let us show them.

I’m feelin it’s not worth tryin […] all I want is to forget the past.

It was indicated by the men that AVO’s often resulted in prison sentences limiting future opportunities and creating further challenges. Court orders requiring men to attend Men’s Sheds instead provide a space of support and potential for engagement as expressed by leaders of two urban groups. Due to the fact the courts have issued such orders the dynamic of men’s participation has shifted from being forced to voluntarily attending:

Don’t send them to prison […] I go to the court and ask the magistrate if they can release a man to the shed.

Bail men to the shed […] his life will be at risk in prison […] the shed is safe.

We do circle work […] gives the security and safety for men […]
Responses further highlighted that certain prison sentences could be completed in this manner, where men can gain valuable skills through anger management and fathering programs. The men participants in the two urban groups shared their views:

- We want to lead with dignity to nurture our families […] make them proud.
- When our mob take ownership, then things will work […] prison don’t own us.
- Instead of sending a brother to prison […] send “em to training program out there”.
- Work in the shed to work off fines […] work gives us skills we can use.
- Men could do a program and then get a job […] this is a better alternative to going back to prison.

Responses highlight the restrictions that prison sentences impose on obtaining future education and employment opportunities, resulting in further forms of social exclusion, where social programs in Men’s Sheds could work towards overcoming these issues and contribute to social inclusion. The challenges associated with AVOS and the inability to gain qualifications as a result of these convictions further highlights the need to address the social issues that the men confront through Men’s Sheds.

**Social programs in the sheds**

The men’s responses highlighted what they would like to learn from programs in the sheds. This predominately involved men telling stories about their lives and focussing on some of the social determinants that impact on them. The men indicated that they want to yarn about the trauma that has happened throughout their lives and their consequent mental health and other issues. The men in a remote yarning circle requested:

- Teach us how to recognise when suicides might happen.
- Teach us the difference between mental health and physical health.
- We want to know how our fellas” mental health can be improved.
- […] the biggest challenge for an aboriginal man is to communicate with other aboriginal men, to share stories […].
- Why don’t we visit other groups […] and talk?
- We need relationship services […] we need safety […] stolen generations […] missed out […].

The motivations for other Indigenous men were to participate in programs based on receiving training where jobs could be applied for once the skills were obtained. The men in an urban shed said “no point in training people up unless there are jobs at the end of the line” and “if men are taught skills and don’t get a job it puts them back into depression”. These kinds of comments support the need for programs that incorporate content relevant to differences amongst various Indigenous communities.

A common theme in yarning circles was the need for men to talk about their social and other issues and improve their knowledge on how to eat nutritional meals and take better care of themselves. Points were made regarding the idea that food habits they now have were acquired and embedded from a young age, making the point that “we need nutritionists […] tell us how to eat proper […] how to cook” and “we need general talks on health”.

Through interview responses from Indigenous leaders and yarning circles with Indigenous men we heard about the underlying issues holding men back, including trauma and grief, incarceration, and identity and belonging. Yarning circles uncovered that trauma and grief can be attributed to mental health issues. Such issues were related to past experiences with ongoing impacts such as colonisation discussed in the yarning circles.
Moreover, the complications that AVOs create when Indigenous men attempt to obtain a job may be a contributor to increased violence and substance abuse.

Adult literacy and education is continuously an area of concern amongst Indigenous men, with employment, income and literacy levels acting as potential factors impacting on Indigenous health. Mixed responses suggest that education is viewed as unobtainable for the improvement of health and well-being amongst men. Men members in an urban shed expressed the view that learning is for those who demonstrate high intellectual ability “we don’t have an education […] got to be smart”. Others indicated past behaviours and records prevent them from brighter futures “education won’t change anything” and “we do it ourselves”. The men indicated there was little understanding in the broader society about Indigenous approaches, with one participant noting that we “can’t fix all communities the same way […] our needs vary”. This highlights the importance of Men’s Sheds to provide Indigenous men with the confidence to seek and embrace educational opportunities that reflect men’s abilities so not to provide them with the appetite to further their knowledge.

Some of the Indigenous men from a remote location expressed thoughts about looking towards programs to fill the gap of the knowledge they have not received growing up, in the hope of gaining the skills to seek and gain employment. Interview responses with Indigenous leaders and yarning circles with Indigenous men indicate the removal of stress and anxiety associated with housing and employment can allow for greater focus on what they need to learn:

Teach us how to survive in the city […] get the skills […] get a job […] we need to know how to manage money.

Men could do a program in the shed […] learn new skills and then get a job […] help the family […] takes the stress away.

I make boomerangs […] paint them[…] it’s hard to get materials […] how can we make this work?

The researchers spoke with a Senior Aboriginal Health Education Officer and Indigenous leader, who has been working in Indigenous Health in a remote region for many years. He reflected that, “When the men are in a group we can get them in contact with services and it’s not so much in their face”. He explained that it is sometimes difficult to get men involved because “they think you’re going to talk about gay stuff […] if you can get them there and they get started then they don’t want to leave […] they sit around and tell stories and then we talk […] where men do talk about health issues”.

Indigenous leaders across all the groups talked about the education programs that are most needed. Mental and physical health educational programs would “provide health prevention programs and advice about how to better connect to the health services for psychological and physical needs”. Social and emotional programs would “provide programs to help men build their social networks and their self-identity, sense of purpose, empowerment and self-esteem”. According to one Indigenous leader, “We want to run programs for them [the men] in the Shed” and “programs would need to take into consideration culture, respect and spirituality”. These comments support the need for more Men’s Sheds to incorporate cultural aspects into programs they deliver and strengthen the identity and belonging of Indigenous men. The efficacy of these social environments is dependent upon Indigenous men’s participation which has the potential to contribute to social and well-being outcomes.

Discussion
This study found that strengthening social networks within Men’s Sheds has a positive effect on the overall well-being of Indigenous men who participated in the study. The Men’s Sheds can facilitate social inclusion and opportunities for social activities by providing a
space in which men can come together. Hence, these environments have the potential to impact on other Indigenous men. Other opportunities can be offered by having nutritionists and healthcare workers attend the sheds and deliver programs. Comments such as “education […] got to be smart” lends weight to the argument that whilst education is needed, many Indigenous men believe it is something out of their reach. With the attitude “we do it ourselves” many men feel they do not have the support or opportunity to build the knowledge and skills they require for a brighter future. Moreover, past behaviours, sometimes resulting in AVOs and prison sentences, leave men with a criminal record that results in rejection from educational opportunities, “[…] they say, no you got a record”. The study found that this deflates Indigenous men’s confidence and appetite to make changes for the future. Some Indigenous men expressed feelings of “I’m feelin it’s not worth tryin […] all I want to do is forget the past”, as they are held back from their past behaviours. Golding et al. (2007) supports the ability to gain better education and increase the chance of employment through Men’s Sheds, which in turn can improve overall social and well-being outcomes.

Yarning circles highlighted men’s views on wanting and needing to work together in groups and gain knowledge in basic living skills “When you grow up it’s what you’ve eaten all your life”. This was further highlighted by interviews with Indigenous leaders who suggest “teach them how to survive in the city […] don’t know how to budget”. This would allow them to venture out of their communities, opening up more opportunities and options for employment. As Tsey and Every (2000) suggested, people are not born with this knowledge, and thus have to be taught skills explicitly. Tsey et al. (2002) advocate for a family well-being approach that sets out to teach skills of generic analytical and problem solving skills explicitly. The aim of this research was to engage men in ways to use their social networks and make lifestyle changes. Brown (2008, 2011) advocates for innovative ways to engage men in learning. This is something Indigenous men can achieve within Men’s Sheds, by learning basic living skills (Golding et al., 2007) and extending their learning to create experiences that create long lasting life changes (Brown, 2008, 2011).

Overall, yarning circle responses demonstrate that existing social issues and a sense of learned helplessness (Peterson et al., 1993) holds men back and that contributes to poorer health. Trauma and grief were identified by Indigenous leaders as “one of the biggest issues”. Men made the comment “we share deep issues” which many of the men explained has caused them to feel that they were once in a position where they were helpless, with no way of overcoming their issues. This indicates it is a common problem, and something they have gone through together. Brown (2001) agrees that high levels of stress and anxiety can be a consequence of trauma and grief, and are strongly linked to mental health disorders. Issues surrounding finding employment, accommodation, as well as trauma and grief, act as stressors that impede health and well-being (Morgan et al., 2007). There is a clear need for education programs that work towards improving the health status of Indigenous men. As Golding et al. (2007) have suggested, informal education programs need to be designed to encourage more men to participate and help build their knowledge and skills in a supportive environment. Men’s Sheds promote education and community support for men and youth by offering health and social programs.

Wenger’s (1998) CoP provides a framework for intervention strategies which allows men to participate in activities and interact with one another, “For us fellas it’s sharing stories”. Indigenous leaders suggested “they need yarning circles […] they’ve got no support”. This is supported by Sergeant (2009) who argues interaction can provide the critical support that can be more effectively achieved through the Men’s Sheds rather than if they are sent to prison. It must be noted that compulsory attendance at a shed would be the result of a decision handed down by a magistrate and an agreement with the shed co-ordinator. Yarning circles with Indigenous men revealed the thoughts of Indigenous men about the
sheds, and how law enforcers should “bail men to the shed” as Men’s Sheds could be used as a tool to mitigate some of the limitations that arise as a result of incarceration and AVO’s. Similarly comments were made suggesting, “instead of sending a brother to prison […] send ‘em to training program out there”. Indigenous men who participated in this research believe people with AVO’s resulting in prison sentences should have opportunities and support provided through the sheds. This is supported by Golding et al. (2007) who suggest that sending men to sheds will allow them to gain the support they require, while completing programs to ultimately seek employment. Indigenous men, who participated in this study, suggest they could “work in the Sheds to work off fines”. Similarly, Kral and Folk’s (2004) analysis would suggest that sending men to the Men’s Sheds rather than prison would allow them to complete their conviction whilst building the knowledge and skills they require to ultimately contribute to their capacity to take control of their own lives.

Mutual engagement
Wenger’s (1998) mutual engagement provides a framework for understanding the regular social interaction of men within Men’s Sheds to generate shared knowledge and build valuable skills (Cavanagh et al., 2013). Ormsby et al. (2010) suggest Men’s Sheds are a safe space for men to retreat where they can interact with others and participate in knowledge sharing and building new skills. For example, in cases where men have an AVO, they are able to talk about their family problems and discuss how they can work towards overcoming legal and family issues. Through Yarning circles men expressed “they don’t have anywhere […]” and “the Men’s Shed has saved me” as they are given the opportunity to learn valuable skills. Men’s Sheds act as a supportive environment where men are engaged through knowledge sharing (Ballinger et al., 2009). Indigenous men share stories about difficulties, including “hard to get somewhere to live” and “it’s just about surviving every day”, whereby they can relate to one another’s stressors hindering quality of life. Hayes (2002) would advocate that mutual engagement may increase the confidence and ability of Indigenous men to focus on the social aspects of their lives, as a sense they are not alone in their hardships is created through this interaction.

Joint enterprise
Joint enterprise is the common purpose that connects individuals, such as men in the sheds, as they work towards unifying goals (Wenger, 2007). Indigenous men need to clarify their own goals, purpose and enterprise and they argue there is “no point in training people up unless there are jobs at the end of the line”. Yarning circle responses suggest clear goals are needed to have something to work towards. Furthermore, Indigenous men believe “you got to get training from the start”. This is supported by Morgan et al. (2007) who contends that when training is initiated, in many cases, knowledge building happens and effective learning habits develop. An example would be a medicare programme (Australia’s universal health scheme) to provide Indigenous men with knowledge and access to medical services. Through a shared domain of interest, Indigenous men can build knowledge and empower themselves to take control of their own health (Sergeant, 2009).

CoP interventions may contribute to overcoming health concerns associated with substance abuse, education, literacy, incarceration as well as trauma and grief, which impact on issues of employment and mental health concerns (Morgan et al., 2007). In order to ensure programs are well received, they need to be delivered in a learning style that responds to, and compliments, each individual. For example, Sergeant (2009) found Indigenous men are more easily engaged through observing an experienced person rather than doing it themselves. Golding et al. (2007) confirm the preferences of older men for hands-on practical learning style are more similar to those found in adult and community centres.
Shared repertoire

Shared repertoire is the final element of Wenger’s (1998) CoP and relates to the shared values, ideas and procedures of Indigenous men in the Men’s Shed community. By engaging in complex tasks, such as helping to design and develop a health education intervention based on Indigenous foods, men build and enhance trust to accept, embrace and sustain educational healthcare programs (Reid and Trompf, 1992). The study found that shared repertoire assists with the overall sustainability of programs founded on men’s willingness to work together (Lave and Wenger, 1991). This was highlighted in an underlying comment made by one of the Indigenous men “can’t fix all communities the same way […] our needs vary”. Sergeant (2009) argues there is no “one model fits all” approach for Indigenous communities, where generalisations can allow prejudice.

Yarning circles highlight the importance of shared history, suggesting the purpose is to be built up and shaped over time by men within sheds (Wenger, 1998). This involves creating a sense of belonging and the importance to “engage with men”. This is supported by Russ (2008) who found engagement and communication throughout the change process could allow clarity to be assured, as the shock of changes being made could be eased.

Conclusion

Indigenous men’s social environment and how they are described and defined has an impact on their experiences and who they are. This study explored the social opportunities afforded Aboriginal and Torres Strait Islander men through Men’s Sheds. Although sheds may be considered basic in comparison to formal facilities of learning, they represent a community meeting place where the Indigenous men who participated in this research feel comfortable to attend. In each of the five sheds there was overwhelming support for the Men’s Shed as the catalyst to enhance social opportunities and bring men together in a safe place where they pursue positive changes to their lives. Wenger’s (1998) mutual engagement promotes the interaction of men within Men’s Sheds to build knowledge and valuable skills (Cavanagh et al., 2013) and represents one way to provide increased opportunities for informal learning, social interaction and health promotion (Brown et al., 2008; Golding et al., 2007). Indigenous men hope to gain basic living skills and knowledge building and sharing that could allow them to seek employment. Indigenous leaders discussed the concept of health, well-being and emotional programs where men can connect socially with one another strengthening their sense of identity, belonging and purpose.

Kral and Folk (2004) support the collaboration amongst Indigenous men to restore identity and social purpose. Indigenous men recognise the benefits of Men’s Sheds as a place they can engage in social interaction, providing them with “somewhere to go” and a place to build the knowledge and skills as opposed to being incarcerated. The sheds have the capacity to meet the needs of Indigenous men albeit in an informal way and through joint enterprise the men can work together and unify aspirations to improve their lives (Wenger, 2007). For these men, the social and informal environment helps to provide a culturally safe space to learn new skills, re-connect with their Aboriginal traditions and culture, and secure employment.

Shared repertoire can be built on community and cultural trust to encourage the men to embrace opportunities (Reid and Trompf, 1992) afforded by the sheds. Education opportunities need to be offered to build better individual and group understandings about health and importantly to create men’s desire to change (Gunstone, 2008). In order for any programs to be successfully implemented, policy makers need to consider the social requests and contributions of Indigenous men’s ideas, to ensure programs reflect individual needs and are adapted accordingly. Men’s Shed’s programs provide one means through which Indigenous men can develop the skills they require to seek employment, participate effectively within communities, while also gaining a sense of belonging. At the same time it
is important to recognise that Men’s Sheds do not operate in isolation. While they provide an important social space, as noted in the discussion above, they also need to be considered within the broader societal context of which they form a part. In a future study we will examine definitions, perceptions and challenges of Indigenous men’s masculinity. We propose to conduct research through yarning circles and link data to the identity of Indigenous men. Further research could also explore in more detail the relationship between what occurs in sheds and how it relates to activities outside of the shed, to further our understanding of how CoP operate in broader societal contexts.

References


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A network of networks
The governance of deliberative approaches to healthcare improvement and reform

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Abstract
Purpose – To further our insight into the role of networks in health system reform, the purpose of this paper is to investigate how one agency, the NSW Agency for Clinical Innovation (ACI), and the multiple networks and enabling resources that it encompasses, govern, manage and extend the potential of networks for healthcare practice improvement.

Design/methodology/approach – This is a case study investigation which took place over ten months through the first author’s participation in network activities and discussions with the agency’s staff about their main objectives, challenges and achievements, and with selected services around the state of New South Wales to understand the agency’s implementation and large system transformation activities.

Findings – The paper demonstrates that ACI accommodates multiple networks whose oversight structures, self-organisation and systems change approaches combined in dynamic ways, effectively yield a diversity of network governances. Further, ACI bears out a paradox of “centralised decentralisation”, co-locating agents of innovation with networks of implementation and evaluation expertise. This arrangement strengthens and legitimates the role of the strategic hybrid – the healthcare professional in pursuit of change and improvement, and enhances their influence and impact on the wider system.

Research limitations/implications – While focussing the case study on one agency only, this study is unique as it highlights inter-network connections. Contributing to the literature on network governance, this paper identifies ACI as a “network of networks” through which resources, expectations and stakeholder dynamics are dynamically and flexibly mediated and enhanced.

Practical implications – The co-location of and dynamic interaction among clinical networks may create synergies among networks, nurture “strategic hybrids”, and enhance the impact of network activities on health system reform.

Social implications – Network governance requires more from network members than participation in a single network, as it involves health service professionals and consumers in a multi-network dynamic. This dynamic requires deliberations and collaborations to be flexible, and it increasingly positions members as “strategic hybrids” – people who have moved on from singular taken-as-given stances and identities, towards hybrid positionings and flexible perspectives.

Originality/value – This paper is novel in that it identifies a critical feature of health service reform and large system transformation: network governance is empowered through the dynamic co-location of and collaboration among healthcare networks, particularly when complemented with “enabler” teams of people specialising in programme implementation and evaluation.

Keywords Clinical networks, Healthcare networks, Managed networks, Network governance, Researcher-in-residence ethnography

Paper type Research paper
Introduction

For at least a decade now, healthcare networks, or “networks” for short, have been promoted as an important resource for “making wicked problems governable” (Ferlie et al., 2013). Particularly in recent years, and fuelled by concerns about how to “tame” rising service, patient and treatment complexities, networks have been positioned as critical to accomplishing healthcare reform objectives that other initiatives have failed to meet (Goodwin, 2012; Randall, 2013). The broader context of this is that bureaucratic regulation which seeks to ordain predetermined principles and standards, and is directive in orientation, has resulted in what Degeling et al. (2003) described as a “danse macabre”: stakeholders (funders, managers, professionals, researchers, consumers) taking up and advocating for non-negotiable stances. By contrast, in principle, and put most generally, networks are about bringing stakeholders together to deliberate about their divergent priorities and interests, and to negotiate mutually agreeable outcomes.

This dynamic of funders, managers, professionals, researchers and consumers deliberating to negotiate differences, create common conceptual ground and reshape their practical futures has given rise to the notion of “network governance”. Referring not to governance of networks but to governance of the health system by networks, “network governance” summarises the ways in which important healthcare priorities and reforms are now publicly negotiated (Ferlie et al., 2013). This is not to claim that network governance transcends the pragmatic (resource) limitations that constrain healthcare, or that it will supersede factional interests and power politics. Nevertheless, networks are now regarded as uniquely capable of tackling “wicked problems […] which lie beyond the jurisdiction of any one agency” (Ferlie et al., 2013, p. 2).

To illuminate these issues, the present paper provides an empirical account of network governance in action. An overview of some of the larger healthcare networks operating across the world provides the background to an ethnographic description of a networks-based state government agency in New South Wales, Australia. The empirical section of the paper presents an overview of the agency’s brief and operations. The agency’s brief centres on innovating healthcare practice, and this is operationalised through the organisation and management of healthcare networks that facilitate multi-stakeholder discussions and convert their decisions into state-wide practice reforms. In addition to outlining the agency’s multiple functions and activities and describing its operational complexity, the paper’s account highlights the significance of cross-network relationships in the context of increasingly complex healthcare agendas, systems and services.

Background: networked healthcare

In its report titled “The way forward: strategic clinical networks”, the National Health Service UK (2012) claims “clinical networks have been responsible for some significant improvements”. The report is among a number of recent publications advocating for networks as the resource par excellence for tackling healthcare reform (Randall, 2013; Addicott and Ham, 2014). It is further evident that networks are seeing uptake across all levels of healthcare in many nations around the world (Ahgren and Axelsson, 2007; Willem and Gemmel, 2013). Networks are deployed to target specific disease domains (Macmillan Cancer Support, 2012) as well as entire service domains (Addicott and Ham, 2014).

Even if networks are unlikely to transcend conventional relationships and hierarchies, they nevertheless offer opportunities for people from different organisations and backgrounds to traverse time-honoured boundaries separating institutions, ideologies and positions to negotiate new plans for action and change (Bate et al., 2004). The growing uptake and general harnessing of networks to the cause of healthcare reform has raised questions about whether and to what extent networks are indeed able to convert their cross-sector relationships and boundary-spanning transactions into tangible change and
meaningful, sustainable outcomes (Vos et al., 2010; Brown et al., 2016). These questions about impact are becoming increasingly important now that some of the early profession-led and specialty-specific networks, such as the UK’s cancer and HIV-AIDS networks, have now been co-opted to play a prominent role in realising government reform initiatives. What is apparent here is that, alongside the increasingly prominent public profile of these networks, the harnessing of network activity to government agendas incurs stricter monitoring and more stringent audits of outcomes. The push from voluntary to managed networks is no doubt motivated by the expectation that network deliberations will convert into tangible and measurable results (Ferlie et al., 2013).

These questions about network impact have led to studies seeking to establish a causal link between network configuration or traits, network dynamics, and network effectiveness (Cunningham et al., 2012; Brown et al., 2016). With regard to configuration and traits, networks have been differentiated into those that are self-steered “bottom-up” initiatives; others that are partly government-supported and not immune to top-down influence, and a third type that is fully government-steered and held answerable to policy and performance imperatives (Provan and Kenis, 2008; Goodwin, 2012). An example of the latter, the Scottish Government-initiated Managed Clinical Networks (MCNs) are monitored through the Scottish MCN Audit System (The Scottish Government, 2009) involving “user-defined reports to support network clinical audit to track changes in the quality of care and patient outcomes (e.g. against agreed clinical quality standards and by recording adherence to MCN protocols)”[1]. For its part, the NHS announced its intention to strengthen both its support for “managed networks” in cardiovascular services, cancer care, maternity services and mental health[2]. Arguably, a performance managed network may be more likely than a self-steered network to constrain members’ deliberative freedom in order to produce timely results (Provan and Kenis, 2008). An important question here relates to how to balance network members’ enthusiasm to participate and contribute with the priority to produce measurable outcomes and tangible impact (McInnes et al., 2015).

To investigate these issues, studies have presented detailed analyses of specialty-specific networks, including their membership dynamics and practical achievements (Haines et al., 2012; McInnes et al., 2015). Ethnographic accounts have provided insight into networks’ local dynamics and political dilemmas (Ferlie et al., 2013). What is common across these studies is their focus on individual networks and the search for conditions for individual network effectiveness, as exemplified by questions such as “whether networks with an informal structure and governance yield the same results as networks with a more formal form of governance” (Brown et al., 2016, p. 2).

The present paper does not seek to add to this literature about individual networks. Instead, this paper attends to inter-network dynamics, paying attention to how networks build critical mass through linking their activities, and how (conglomerations of) networks interact with the wider healthcare system. The paper explores these dynamics by presenting an in-depth account of a government-funded agency that houses a mix of self-steering, government-resourced and government-steered networks which are co-located with “enabler teams” assisting those networks with programme implementation across the State’s health system, with health professional training and programme evaluation.

Methods
This paper adopts a descriptive case study method “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, [which is appropriate] especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2002). Given the agency in focus here is complex, multi-layered and constantly changing, the case study approach is an appropriate means for exploring its arrangements and dynamics. The case study approach involves providing details that may
sensitise the reader-observer to previously unnoticed phenomena or distinctions
(Greenhalgh et al., 2011, p. 545). Specification of the unique features of phenomena is
necessary to heighten our sensitivity to case-internal and cross-case differences and
similarities. It is for this reason that the case study plays a prominent role in “case law” and
in medicine (namely the “case report”), affording details and fine-grained distinctions
without which learning and the application of learning to other cases would fail.

Information for the present case study is drawn from documentary resources about the
agency, and from ten months of participant observations and discussions by the lead author
within the agency. The documentary resources were extracted from the agency’s and the
NSW Ministry of Health’s websites. The analysis of these resources consisted in
maintaining an ongoing investigative commentary that was stored as field notes. For their
part, observations and discussions were carried out between March and December 2014.
This included attending network meetings, agency-internal team meetings, training events
(for frontline clinicians and agency staff), and cross-network events bringing together
network leads and network managers with agency executive-level staff. These observations
were initially compiled in the form of field note commentaries which were subsequently
processed into more abstract and general themes (Hammersley and Atkinson, 1995).

Ethics approval for the study was obtained in 2014 from the Hunter New England Local
Health District (HNELHD) lead Human Research Ethics Committee. This HNELHD
approval was ratified by the Northern NSW Local Health District and the South East
Sydney Local Health District ethics committees, such that the research could be undertaken
in metropolitan Sydney, Lismore and Gosford health services.

Case study: the NSW ministry of health’s Agency for Clinical Innovation
(ACI)

ACI’s history, functions, and structure

Following a coronial investigation into young girl’s avoidable death after a head injury in
2007 (Milovanovich, 2008), a Special Commission of Inquiry was convened to conduct a
wide-ranging investigation into acute care services in NSW. Among other things, the
commission’s report recommended the bringing together of existing but dispersed
networks and taskforces to form a “new, more comprehensive agency […] tasked to
coordinate and drive constant innovation across the whole system […] and be responsible
for continuing reform and improvement of clinical models of care and practices”
(Garling, 2008, p. 4). The proposed agency was to consolidate and expand work done by
two already existing NSW networks: the Greater Metropolitan Transition Taskforce
(established 2001) and the Greater Metropolitan Clinical Taskforce (established 2004).
Institutionalising a novel forum of engagement among bureaucrats, managers, healthcare
professionals and service users, and thereby recasting the policy-practice relationship,
this new agency became known as the ACI.

One year after ACI’s formation in 2010 as statutory health organisation under the NSW
Health Services Act 1997, the 2011 NSW Health Director-General’s report, Future
governance arrangements for NSW Health, described ACI as the “primary agency for
engaging clinical service networks and designing and implementing new models of care”
(NSW Health, 2011). The guiding purpose of ACI was defined as involving clinicians and
consumers in the design and implementation of evidence-based healthcare improvements:
“ACI is established to promote innovation in health service delivery” (NSW Health, 2011).
ACI’s remit was to be the State of New South Wales where healthcare is provided by
15 geographically defined local health districts and the Justice and Forensic Mental Health
Network. They currently serve a population of approximately 7.3 million across a
geographic area more than three times the size of the UK (NSW is 809,444 km² compared to
the UK’s 243,610 km²).
At the time of writing ACI employed 111 full-time equivalent staff who coordinate and manage network activities, led by an executive team consisting of a chief executive, a part-time clinical lead staff specialist and six executive directors. Staff were grouped across three clinical portfolios to reflect their main area of work: acute care; surgery, anaesthesia and critical care; and primary care and chronic services. Together these portfolios serviced a total of 40 clinical networks connecting several thousand members from a variety of backgrounds (clinicians, academics, NGO representatives, service users). Three networks functioned as institutes which were subject to formal budgetary and managerial arrangements: the Emergency Care Institute, the Institute of Trauma and Injury Management, and the Intensive Care Coordination and Monitoring Unit. In addition, there were four Taskforces: Critical Care Taskforce, the Surgical Services Taskforce, the Acute Care Taskforce and the Unwarranted Clinical Variation Taskforce, each formally charged with specific reform objectives (see Figure 1).

Finally, ACI encompassed an extensive support or “enabler” portfolio, titled Clinical Program Design and Implementation (see Figure 1; fourth column from the left). This portfolio included teams assisting the other portfolios’ networks with the formalisation, implementation and evaluation of their consensus statements (minimum standards, key principles, guidelines and models of care). In what follows, the agency’s various functions are discussed in somewhat more detail.

**Network diversity: ACI’s networks and support portfolios**

ACI’s network diversity was evident from its range of networks referred to as Taskforces, Institutes and clinical networks, and the variable degrees of performance management that is implicit in these different descriptors. Figure 2 lists ACI’s networks. In the case of the Taskforces and institutes, a frontline clinician was appointed to a paid position of director supported by an ACI-funded manager. In the case of the clinical networks, one or two volunteer clinical leads (frontline professionals) collaborated with an ACI-funded network manager on projects for which financial, change management and evaluation support was sought from within ACI or from outside. This variety of network configurations diversified ACI’s network arrangements, in that its networks differed in their level of formality and intensity (the amount of work done on specific issues), their size (of membership), and their prominence in the agency’s overall agenda. Thus, the origin of the network’s leadership ranged from volunteer clinicians acting as network chairs to salaried directors answerable to performance indicators in the case of the institutes. Nevertheless, the clinical networks, Taskforces and Institutes all equally operated on the principles of public decision-making and open membership.

Another diversifying factor was that network members were drawn from the various clinical, patient, academic and non-government organisation communities across metropolitan, regional and rural areas. Members were regularly invited to attend network meetings and events in person or through video-conferencing. ACI-based network managers were central to building and maintaining their network’s dynamics and activities, and to achieving and coordinating network output and impact. At the same time, ACI had not made it a priority to standardise networks’ memberships, their deliberative dynamics, or their output. This attests of ACI’s tolerance towards variability and acknowledgement of the influence exerted by individual members’ personalities, contextual pressures and constraints, and unexpected opportunities and unpredictable challenges.

A third diversifying factor was that ACI’s clinical networks range from specialty-specific and medically defined ones (e.g. the “bone marrow transplant network”; the “renal network”) to system-oriented ones (e.g. the “chronic care network”; the “aged care network”). Concomitantly, some networks focussed on the innovation of specific medical-clinical procedures (e.g. thrombolysis), while others targeted the design and implementation of
Figure 1. ACI’s main portfolios (acute care, surgery, etc.) and associated networks, taskforces and institutes (in yellow)
entire service models (e.g. the ortho-geriatric hip fracture pathway). Further to this, ACI’s networks engaged in both network-internal and system-wide activities. Network-internal activities involved engaging network members in formulating practice innovations and cross-network agreements resulting in new guidelines, models of care, minimum standards, key principles, and the like. System-oriented activities included collaborating with ACI’s enabler teams on negotiating these innovations and agreements with the State’s wider system of health services, departments and specialties that may benefit from their implementation.

In addition to the volunteer clinicians who co-chaired each of ACI’s networks, more than 6,000 professionals and around 70 consumers regularly freed up time to attend the network meetings and other ACI events (Haines et al., 2012). People’s motivations for joining an ACI network tended to be based on their desire to make their views on healthcare practice count in a context that supports the formalisation of such views into models of care, key principles and minimum standards, and to join a fraternity of stakeholders that is committed to change. Overall, the interest among professionals and consumers in joining ACI’s networks and in setting up new networks was on the rise, and requests from practitioners and non-government organisations to ACI for support for new networks were frequent.

Working alongside ACI’s networks, its Clinical Program Development and Implementation portfolio encompassed four enabler teams: the Project Implementation (PI) team, the Patient Experience Assessment and Consumer Engagement (PEACE), the Health Economics and Evaluation Team (HEET), and the Centre for Healthcare Redesign (CHR). The PI team supplied the clinical networks with targeted project management and implementation support. The team worked alongside network managers on disseminating state-wide the minimum standards, key principles or models of care that were developed by the networks. This assistance consisted in designing and executing a change management
plan or “program logic”. Thus, after a plan of action (i.e. a model or care, key principles, or minimum standards) had been agreed by a network or group of networks, health services around NSW were invited to sign up to a schedule of implementation tasks. Critical programme logic activities included bringing services’ senior management on board with the proposed programme, arranging project launches and meetings with services’ clinical specialties and staff to draw attention to the initiative, collecting and analysing diagnostic data (e.g. “how many patients are routinely given a cognitive screening?”), designing practical solutions to address diagnosed shortcomings (e.g. “cognitive screening training for frontline staff”), involving staff in putting these solutions into practice, and measuring changes made to practice.

Contributing to the diagnostic scope of these initiatives, ACI’s PEACE team evaluated patients’ (and clinicians’) experiences of existing kinds of care, and of changes made to care. PEACE deployed a range of methods, including focus groups, interviews, and surveys. Interviews were videoed at times to engage those who provide care with the emotional dimensions of patients’ care experiences, and for disseminating the rationale for and impact of particular initiatives.

For its part, ACI’s HEET evaluated both the economic and experiential dimensions of care processes. On the one hand, HEET formulated “cases for change” by calculating the likely effects of “business as usual” scenarios, and comparing these to the projected impact of system and practice changes. HEET also carried out evaluations of clinical networks’ initiatives with the aim of establishing to what extent the change improved behaviours, outcomes and experiences.

Finally, another branch focussed on training: ACI’s CHR. CHR offered service redesign and PI courses for frontline staff. This training was at once generic and specific, equipping frontline clinicians with skills that are essential for effective programme design and change execution: project initiation, diagnostics, solution design, implementation, and sustainability assessment. The training thus enabled clinical teams to formulate, undertake and evaluate projects that target issues, opportunities, challenges and problems affecting their local health services. CHR had already trained and graduated a large number of frontline personnel, resulting in numerous small-scale improvements across metropolitan, regional, rural and remote health services, as well as raising change management capacity.

**Networking beyond the network**

Most activity undertaken by the ACI centred on creating, nurturing and growing relationships among actors in the health system. To exemplify some of the complex activities that were at issue here, we will consider in more detail the networking and implementation processes that came into play with the ortho-geriatric hip fracture care minimum standards initiative (HIPS).

In 2013 ACI initiated an unwarranted clinical variation taskforce involving members of two of its larger networks, surgery, anaesthesia and critical care, and primary care and chronic services. The latter include the aged care network, the pain network, the musculoskeletal network and the rehabilitation network. Hip fracture care had been singled out as a clinical variation risk since the publication of a 2011 NSW Clinical Excellence Commission (CEC) report titled “Fractured hip surgery in the elderly”, which presented an analysis of 26 root cause analysis reports and a range of other surgery and anaesthetics reports into problems after surgery. This CEC report concluded that ortho-geriatric co-management, and an ortho-geriatric model of care that ensures patients are operated on within 48 hours, are critical for improving the management of hip fracture patients and for reducing 30-day mortality, care variation, and adverse events.

Another prominent source of information for the taskforce was the ACI’s own *Orthogeriatric Model of Care: Clinical Practice Guide*, a 2010 publication that provided a
practical guide to the management of frail, older orthopaedic patients. Further drawing on both the international science literature (Folbert et al., 2012) and other government publications (NSW Bureau of Health Information, 2013), the taskforce produced a summary consensus document titled “Minimum standards for the management of hip fracture in the older person” with the aim to minimise practice variation and to reduce incidents in hip fracture care (Figure 3).

In sum, the HIPS Minimum Standards was produced by people representing a variety of networks who convened to consider what needed to be done in response to the rising concern about incidents and sub-standard outcomes in hip fracture care. Even if not all members felt equally strong about the need to revisit existing advice and standards, ACI’s final HIPS document served to confirm that they were united in their views on how to proceed.

The general point that can be made about this is that the HIPS initiative acted as a forum for the articulation of top-down direction and local opinion. On the one hand, the taskforce was charged with a policy reform agenda that aimed to reduce clinical practice variation. On the other hand, its decision to target hip fracture care arose through open deliberation among taskforce members. Seen through the lens of network governance, the taskforce facilitated deliberations among clinicians, academics, bureaucrats and service users about where to direct its energies, and how to tackle the issue identified as needing attention, resulting in a reform agreement (the minimum standards) as the basis for a state-wide ortho-geriatric improvement initiative.

That said, network governance requires more than multi-stakeholder discussions and summary documents. The effectiveness of network governance depends also on the extent to which its reforms and innovations can be brought to bear on those not formally associated with the network, and on their practices. It is here that ACI’s enabler teams played a critical role, creating connections between the taskforce and those in health services not yet involved in or aware of its activities. The enabler teams worked alongside the network manager and network members on presenting the minimum standards to non-network clinicians and health services as a resource for strengthening their practices, and on evaluating existing and redesigned care practices. In all, the HIPS implementation process centred on ACI representatives involving orthopaedic surgeons, geriatricians, surgical nurses and allied health staff from services around New South Wales in discussions.

A network of networks

Figure 3. Minimum standards for the management of hip fracture in the older person (“HIPS”)
about how to diagnose and restructure their practices so hip fracture patients might receive better care.

In practice, these discussions could be challenging and complex. What played a role here was ACI’s limited mandate and finite resources for bringing a geographically dispersed and differentiated array of health services on board. Notwithstanding its status as statutory agency, and as referred to above, ACI had no mandate to command services and practitioners to collaborate and implement its initiatives. On the contrary, the relationship between ACI and the healthcare system consisted of non-binding, voluntary negotiations. In the case of HIPS, the surgery, anaesthesia and critical care clinical network manager collaborated closely with PI team staff on engaging services and clinicians from around the state. This involved much travelling to distant health services that had signalled interest in participating in the initiative.

While deliberation among established network members can be labour intensive and interpersonally challenging, gaining interest and participation from services and clinicians not formally associated with established networks can be even more demanding. But it is here, through in situ negotiations with the services and clinicians populating wider system about the practical feasibility of network-devised innovations, that network governance accomplished its full effect: the conversion of cross-network deliberations into service and practice change.

Discussion: “a network of networks”
The above case study sheds light from three different angles on ACI as a conglomeration of networks. The first relates to how ACI as government-funded “supra-network” housed various types of networks: clinical networks, institutes, and Taskforces, each harbouring different degrees and changing mixes of professional self-steerage, bureaucratic-political governance, and administrative-relational facilitation. The second relates to ACI’s inter-network relationships, and the way that cross-network associations multiplied through brokering among networks with common interests, projects, or tasks. The third pertains to how ACI extended the relevance and significance of network relationships and activities beyond the networks themselves to those parts of the State’s healthcare system not involved in the activities of existing networks. Each of these findings warrants being considered in greater detail.

First, as centralising and government-supported agency, ACI was seen to invest legitimacy in the principle of bringing clinicians and consumers together in networks, and granting them a stake in health reform. ACI was shown to accommodate considerable variety ranging from smaller self-steered networks, to more established and “indirectly steered” ones, to the fully performance managed Institutes, as well as more temporary cross-network initiatives such as the unwarranted clinical variation taskforce. This network variety was a function of ACI’s “hinge” position intermediate between network activities and government imperatives. This “hinge” position mitigated against the agency being obliged to impose a uniform network structure tied to a single mode of network governance. In effect, ACI’s position enabled it to embody and enact multiple network governances.

Second, ACI afforded cross-network dynamics and relationships through formal arrangements and ad hoc brokering among ACI-internal networks. As seen, the Hip Fracture Minimum Standards project brought together the aged care network, the pain network, the musculoskeletal network and the rehabilitation network with the Surgery and Critical Care Taskforce. Responding to the growing emphasis on integrated care for patients with co-morbidities, ACI’s networks increasingly capitalised on being co-located and being able to initiate cross-network initiatives in this way. Whether these cross-network initiatives were directed (as in the case of the unwarranted clinical variation Taskforce) or developed in more ad hoc ways, it is likely that cross-network collaboration and learning arose more easily than in the case of non-co-located networks.
Third, ACI’s enabler portfolio, including its PI team, the Health Economics and Evaluation Team, the Patient Experience and Consumer Engagement team, and the CHR, raised the impact – and thus the network governance effect – of clinical networks, through enabling them to negotiate system-wide change. As in the case of the HIPS initiative, the enabler portfolio supported networks’ dissemination of health service innovations. Thus, while the network focussed on formalising a specific guideline or set of key principles, the implementation process was dynamic and flexible, inviting services and frontline clinicians to engage with aspects of the innovation that made sense for them. Here, as throughout the agency itself, deliberation and negotiation undergirded relationships and were the default means for the propagation, adaptation and adoption of innovations.

As agency mediating among diverse stakeholders but lacking a formal mandate obliging services and professionals to participate, ACI’s principal resource then is the “deliberative forum” (Latour, 2004) that creates links within and across networks, between networks and the broader system, and among professionals, consumers, managers and policy makers. Deliberative fora harbour varying levels of interactive volatility and unpredictability (Iedema et al., 2006), and these need to be managed by ACI staff to convert the labour of networking into more effective and appropriate kinds of care for patients. The study showed that the credibility of this enterprise is leveraged not just from individual networks, but from their complex interactions. As seen, these interactions were often uncertain in nature and effect. That said, these interactions operated consistently at an interpersonal level through people networking beyond the boundaries of original networks. This deliberative approach ensured there was a safe psychological space (Edmondson, 1999) for those at the frontline to respond to and adapt the proposed innovations.

Framed thus, ACI enacts what we may term “centralised decentralisation” (Vickerstaff and Ainley, 1994) that is achieved through the co-location of dispersed and diverse stakeholders for the purpose of discussion, boundary spanning and innovation. Here, centralised decentralisation provides a means for connecting disparate stakeholders into networks, and into networks of networks. Paradoxically, no doubt thanks to the relative permeability of network boundaries and flexibility of network operations that is implicit in the networked-networks phenomenon, centralised decentralisation also creates opportunities for network members and staff to reach beyond network boundaries to affect non-network realms.

Finally, ACI supports the institutional legitimation of the “strategic hybrid” (Ferlie et al., 2013). The term “strategic hybrid” applies to those professionals who assume boundary-spanning roles because they are committed to both their patients and to clinical excellence, to improvement and to standards, and to policy making and practice reform. The strategic hybrid is at home in the clinical network where people are enabled to perform more complex identities than in their home organisations, and where they can safely articulate hybrid discourses without being challenged by those in the hierarchy of their home organisation. As ACI’s networks are networked themselves, network members’ strategic hybrid role is institutionally further ratified, and its boundary spanning activities are granted validity and practical impact. Table I summarises the effects resulting from the networking of networks and associated rationales.

The research agenda that is opened up by this study and its findings is as follows. Evidently, in future healthcare network effectiveness studies of individual networks’ activities need to be contextualised with the activities of neighbouring networks and cross-network relationships. The special dynamics and affordances that are generated through cross-network collaborations may be critical to not just a network’s effectiveness per se but also to healthcare system improvement generally. That is, investigating the relationship dynamics between healthcare networks and implementation expertise is likely to be critical for ascertaining the effectiveness of networks’ influence on the wider healthcare system, and for clarifying the role of healthcare network agility in tackling care complexity.
One of the limitations of this article is our single case study approach, where a comparative approach may have been more revealing. It is apparent however that ACI is quite unique as network-cum-implementation agency. Further, our participative approach may not have enabled us to mount a persuasive critique of ACI. We would argue however that the present research lives up to the collaborative and deliberative ideals that undergird the network principle itself, by adopting a participative orientation rather than an adversarial and objectifying one (Mertens, 2009). Moreover, the agency’s decision to appoint the first author as “researcher-in-residence” (Marshall et al., 2014) provides evidence of its desire to learn from the complexities experienced by those managing networks, straddling network boundaries, and participating in flexible cross-network arrangements.

Conclusion
This paper has explored the manifestation of healthcare networks in a specific local context. It has investigated how networks’ co-location leads to cross-network collaborations that transcend individual networks’ agendas and isolated reform priorities and challenges. The paper has further mapped the ways in which the integration of healthcare networks with implementation, training and evaluation units extends their capabilities and activities in ways that make possible, besides the articulation and publication of agreed principles for action, interventions into in situ ways of working, as well as evaluations of the effectiveness of these practices.

The paper concluded by labelling ACI as a “network of networks”. This phrase served to describe ACI as leveraging not merely the collaborative enthusiasm of stakeholders with specific clinical or scientific agendas, but also the energy that emerges from the co-location of and dynamic interaction among healthcare networks, enabling them to explore and capitalise on commonalities and shared concerns. Here, the uniqueness of ACI’s arrangement became fully apparent: through centralising the processes involved with decentralising control over the healthcare reform agenda, the agency articulates individual stakeholders’ and networks’ goals with those of other stakeholders and networks, as well as with State-wide system-level and science-driven reform agendas in the interest of nurturing alternative perspectives on care innovation and better outcomes and experiences for patients.

We concluded that the agency described here encompasses a multiplicity of network governances. This multiplicity counteracts traditionally hierarchical health service arrangements and dilutes conventional managerial preoccupations and professional

<table>
<thead>
<tr>
<th>Effects of co-locating networks</th>
<th>Rationales</th>
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<tbody>
<tr>
<td>1 Networks initiate cross-network relationships and projects</td>
<td>Creates an environment for both ad hoc brokering and formal cross-network initiatives by: enabling networks, network members, and non-members to learn from one another and experience more rapid uptake of the essentials of networking and stakeholder engagement lifting networks’ focus and impact from being specialty- or issue-specific to being cross-specialty, cross-institution, and potentially, whole-of-system</td>
</tr>
<tr>
<td>2 Networks have ready access to implementation and evaluation expertise</td>
<td>Introduces an implementation economy of scale within the agency</td>
</tr>
<tr>
<td>3 A variety of network governance modalities is tolerated</td>
<td>Serves to legitimate and multiply the range and novelty of responses to care improvement challenges</td>
</tr>
<tr>
<td>4 Decentralisation is centralised</td>
<td>Generates an environment where the roles and contributions of new professionals or “strategic hybrids” interested in healthcare innovation are concentrated, legitimated and supported</td>
</tr>
</tbody>
</table>

Table I. Effects of networking networks and rationales
priorities through articulating reform proposals with local people's views, interests and experiences. While this multiplicity no doubt incurs complexity in so far as reporting and accounting for achievements is concerned, it also serves to multiply the responses that can be articulated and mobilised to confront the emergent challenges facing contemporary services and the increasingly complex system that encompasses these services.

The most significant learning from this study however is that it is not the existence and functioning of individual healthcare networks per se that fully accounts for network governance. Indeed, the present study contributes to our understanding of network governance as essentially a function of networks' dynamic inter-connections and interactions on the one hand, and of networks' approach to engaging the non-networked realms of the health system on the other hand. These findings significantly extend the healthcare networks research agenda, as they refocus our attention from the activities, features and achievements of specific networks, to health reform and network governance as inter-dependent and constantly evolving deliberative and interventionist dynamic. This emerging research agenda encompasses both empirical and theoretical questions, ranging from whether learning may be normalised across the system through supporting networks' hybrid perspectives on healthcare innovation, to whether cross-network dynamics and flexible inter-network collaboration should be integral to how we tackle rising levels of healthcare complexity.

Notes
1. www.nsd.scot.nhs.uk/services/nmcn/mncas.html

References


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The impact of leadership coaching in an Australian healthcare setting

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Abstract

Purpose – There is limited empirical literature on the effectiveness of leadership coaching in healthcare settings. The purpose of this paper is to explore the efficacy of leadership coaching for individuals implementing strategic change in the Australian public health system.

Design/methodology/approach – Using a within-subjects (pre-post) design, participants (n=31) undertook six one-hour coaching sessions. Coaching was conducted by professional leadership coaches. Both quantitative and qualitative data were collected.

Findings – Participation was associated with significant improvements in goal attainment, solution-focused thinking, leadership self-efficacy, perspective-taking capacity, self-insight and resilience, and ambiguity tolerance. There were significant reductions in stress and anxiety. The benefits of coaching transferred from the workplace to the home. Many participants reported being able to use insights gained in coaching in their personal lives, and reported better work/life balance, less stress and better quality relationships at home.

Originality/value – Few studies have provided evaluation of leadership coaching in healthcare setting. Leadership coaching in the public health system may be an important methodology for facilitating goal attainment and fostering resilience in this vital social sector, benefiting workers in the health services, their families and ultimately their patients and the broader community.

Keywords Leadership, Healthcare, Coaching, Australian healthcare, Transfer of coaching

Paper type Research paper

In common with public health services in much of the Western world, the Australian public health system operates under considerable stress and pressure. Australian public health services are expected to deliver optimal performance whilst operating in a context of increasing budget pressure and escalating demand for services (AMA, 2016). In addition, public health services are subject to increasing government oversight and monitoring from the media and consumer groups who seek to identify mismanagement, ethical conflicts, clinical errors and anything less than optimal performance.

Not surprisingly, the continual change manifest in such contexts places significant stress and demands on both the system and the individuals that work in it. Leaders and health professionals need to be highly adaptive and need to work collaboratively with their peers, colleagues and reports in order to reach their organizational or work-related goals. This is not an easy task. Coaching has emerged as a key tool for leadership and management development and for helping high value and high potential staff to develop their capacity to...
deal with change, and to give them support in meeting the demands of their role (Theeboom et al., 2013).

This paper reports on the impact of coaching provided by the New South Wales (NSW) Health Coaching Panel, which is an initiative of the NSW Agency for Clinical Innovation (ACI), Ministry of Health and Health Education Training Institute. The aim of the panel is to provide high quality professional leadership coaches for the health services in order to build capability for service improvement, implementation and leadership. This paper outlines the rational for this study, describes the processes and measures used, and details outcomes and identifies opportunities for future research.

Overview of coaching in health settings
Coaching is widely and successfully used in the commercial sphere as a means of improving performance and as a methodology for developing managers, teams, leaders and executives, since at least the mid-1990s. Indeed, one would be hard pressed to find a commercial organization of significance that did not use coaching methodologies (Jones et al., 2016).

The use of coaching in healthcare settings differs considerably from its use in the commercial sector. It is of note that coaching in healthcare settings is typically used with patients to help improve their health outcomes (Palmer et al., 2003). Indeed, “health coaching” is now a well-established field of professional practice. Efficacious results have been reported in the peer-reviewed press in relation to a wide range of health-related areas including enhancing well-being in cancer survivors (Teixeira et al., 2009), diabetes (Thom et al., 2013) and other chronic diseases (Kivelä et al., 2014), as well as with patients in primary care (Mann et al., 2016).

However, the healthcare service system worldwide has been somewhat slower to embrace coaching as a primary leadership development tool for its staff (Risley and Cooper, 2011) and there is limited empirical literature on this issue (Throgmorton et al., 2016). This is despite repeated calls for the healthcare system to use coaching as a way of improving engagement, communication, performance (e.g. Hays, 2008; Henochowicz and Hetherington, 2006), role transition (e.g. Weinstock, 2011) and reducing burnout in medical settings (e.g. Gazelle et al., 2015).

Coaching in the USA and UK healthcare systems
In the US healthcare industry there have been reports of the use of coaching in healthcare settings since at least 2003 (McAlearney, 2010). There are a number of practice-based professional articles discussing the use of coaching as a developmental tool in US healthcare settings, but to date anecdotal reports far out weigh peer-reviewed quantitative empirical outcome studies (Schwellnus and Carnahan, 2014). There have been some changes in the area: The Institute of Coaching at Harvard University’s McLean Hospital has championed an evidence-based approach to the use of coaching as a leadership development methodology through their annual Coaching in Leadership and Healthcare Conference, which started in 2007, and this has given added impetus to the drive for more empirical outcome research in this area. However, there are still very few peer-reviewed quantitative outcome studies of leadership coaching in US healthcare settings (Throgmorton et al., 2016).

In the UK leadership coaching has been used in the British National Health Service (NHS) since the early 2000s (Driscoll and Cooper, 2005) for the development of nurse leadership (McNamara et al., 2014), general practitioners (Beecham et al., 2004), and ward managers (Bonner and McLaughlin, 2014) amongst others. In order to facilitate employees’ access to coaching services the NHS Leadership Academy maintains a national quality assured register of
professional executive coaches (www.leadershipacademy.nhs.uk/resources/coaching-register/) and actively promotes the use of coaching as a developmental tool throughout the NHS.

There is a developing UK literature on coaching in the NHS (van Nieuwerburgh, 2015) that covers a broad range of issues including clinical nurse leadership (Alleyne and Jumma, 2007), capacity for organizational change and better performance (Ali, 2013), and surgical leadership (Alfa-Wali, 2013). However, many of these reports are again anecdotal (e.g. Baah-Mensah, 2014) and much of the empirical outcome research has tended to use relatively small samples. For example, Fielden et al. (2009) reported on a longitudinal study about the effectiveness of coaching with 15 coachees, and Woodhead (2011) reported outcomes using a case study of team coaching.

Leadership coaching in the Australian healthcare system

In Australia there have been a number of reports in the literature as to how to utilize coaching within the healthcare industry. A 2002 inquiry commissioned by the Federal Government to investigate nursing education (Heath, 2002) made recommendations for the use of coaching methodologies for the development of future nurse leaders and managers. Oades et al. (2009) built upon these government recommendations, and described how coaching psychology, positive psychology and positive leadership can be used for both staff and patient development. More recently Oades and Anderson (2012) discussed how coaching should become the style of relationship required for service delivery with consumers and as a cultural value within the service organization. Anecdotal reports from practitioners indicate that coaching is increasingly being used in Australian healthcare settings but this practice has yet to make its way into the peer-reviewed literature.

There have been a few Australian outcome studies exploring the impact of coaching within the healthcare sector. For example, Yu et al. (2008) evaluated the effectiveness of a workplace coaching program aimed at enhancing the work behaviors and well-being of 17 managers in a large Australian teaching hospital. The coaching program consisted of coaching workshops designed to teach participants coaching skills, followed by six, 45-minute individual face-to-face coaching sessions over six months, with the coaching being conducted by a tertiary qualified coach with professional expertise. Group coaching and workplace group projects were also included in the coaching program. Participation in this within-subject study was associated with significantly enhanced proactivity, role self-efficacy, core performance, goal attainment, self-insight, motivation, positive affect, and autonomy.

Along similar lines, Grant et al. (2009), using a randomized controlled design, explored the impact of professional executive coaching with 41 executives and senior managers from the nursing sector of a major Australian public health service agency who took part in a leadership development program as part of their professional development. Participants received 360-degree feedback and took part in one half-day leadership training workshop followed by four one-hour individual executive coaching sessions. Compared to the control group, coaching enhanced goal attainment, increased resilience and workplace well-being and reduced depression and stress. Qualitative responses indicated that coaching helped participants increase their self-confidence and personal insight, build management skills and deal with organizational change.

Overview of the present coaching program

The present study sought to build on and extend past research in this area. The aim of the program was to develop the leadership capability of executives, senior managers and leading healthcare professionals in the NSW public health system. The NSW public health system operates more than 230 public hospitals, as well as providing community health and other public health services, for the NSW community through a network of local health districts, specialty networks and non-government affiliated health organizations.
The agency covers a geographical region of approximately 800,000 square kilometers with over 100,000 employees. The 2016 budget is in the region of AU$22 billion.

The coaching in the program was clearly distinguished from counseling, training and consulting, and was aimed at helping the person being coached (the “coachee”) set and attain work-relevant goals, gain insights about themselves, their environment and others, and deliver results in terms of learning, development and goal attainment. Coaching services were provided by a panel of 11 professional leadership coaches, external to the NSW public health system, selected through a competitive tender process.

This research was conducted in conjunction with ACI, a board-governed statutory health corporation responsible for reviewing clinical variation and supporting clinical networks toward standardized clinical approaches, based on best evidence, as well as building system capability and capacity for service improvement.

Method

Recruitment of participants

Formal coaching offers were made to a range of individuals from the Centre for Healthcare Redesign Diploma Program, staff implementing high priority models of care and allied healthcare areas. Participants were selected based on their development potential and their key leadership roles in implementing such projects and participation was voluntarily.

Participants

Participants were drawn from a wide range of backgrounds with varying levels of responsibility in their substantive roles, i.e. senior leaders in nursing, medical and allied health areas; program managers and department directors. There were 31 participants (21 females and 10 males; average age 42.5 years).

Design and procedure

This study used a within subjects (pre-post) design with measures at Time 1 (before the first coaching session) and at Time 2 (following the sixth and final coaching session). All participants received detailed information about the coaching program, and selected a coach from a panel of 11 professional coaches. The NSW Health Coaching Panel website gave details of each coach and the logistics and associated protocols. In order to expedite the coach-coachee matching processes, participants had an initial telephone conversation with their selected coach prior to the initial coaching session.

The 11 coaches (six male, five female) were all professionally trained, each with over five years professional coaching experience, and held a range of coaching qualifications, including PhDs, Masters Degrees in Coaching Psychology and Master Coach Certifications from the International Coach Federation. Coaching was conducted in accordance with the Australian National Standards for Organizational Coaching (Standards Australia, 2011), and included written coaching agreements on confidentiality, ethical practice and process management.

The coaching sessions

The coaching sessions were grounded in a solution-focused, cognitive-behavioral framework (SFCB). From this perspective coaching focuses on facilitating goal attainment by helping the coachee understand the reciprocal relationships between one’s thoughts, feelings, behavior and the environment, and purposefully structuring or changing these to better facilitate goal attainment (Grant, 2003).

This approach to coaching helps individuals achieve their goals by: identifying desired outcomes; delineating specific goals; enhancing motivation by identifying personal
strengths and building self-efficacy; identifying resources and formulating action plans; monitoring and evaluation progress; and modifying action steps (based on evaluation of progress). These monitor-evaluate-modify steps form a cycle of self-regulated change (Carver and Scheier, 1998). After initial goal setting, the coach’s role is to help coachees move through the self-regulation cycle; by helping them develop action plans, and monitor and evaluate their progress between each coaching session (Grant et al., 2009).

In line with the above theoretical framework each coachee selected one or two specific goals to focus on. The broad foci of these goals included; collaborating more effectively with others in order to implement change; developing stronger relationships with sponsors in order to deliver successful outcomes; leading teams effectively in order to create and/or sustain change; developing one’s ability to work more collaboratively across the organization; and meeting the challenges inherent in a period of substantial organizational change. Each coaching session finished with a set of specific actions to be completed by the coachee.

All participants undertook six coaching sessions. The sessions were conducted over a six-month period. There was a mixture of face-to-face and telephone coaching where distance necessitated. Sessions were approximately an hour long. All participants had at least one face-to-face coaching session.

Measures
Both quantitative and qualitative measures were used.

Quantitative measures
Goal attainment scaling (GAS). Participants selected one or two goals that best met their specific needs. They responded to the question “up to today, how successful have you been in achieving this goal,” and rated their goal attainment on a scale from 0 percent (no attainment) to 100 percent (complete attainment). Goal attainment scores were calculated from the difference between GAS ratings on Time 1 and ratings at Time 2. Such goal attainment scales have been used in prior coaching outcome studies (for an in-depth discussion on GAS see Spence, 2007).

Solution-focused thinking. Changes in solution-focused thinking were important in at least two respects. First, leadership in complex systems such as health services requires an ability to focus on finding solutions. Second, the coaching methodologies used were inherently solution-focused, and thus genuine participation in the coaching relationship should result in the coachee having an increased level of solution-focused thinking over the course of the six coaching sessions. Solution-focused thinking was assessed using the solution-focused inventory (SFI) (Grant, 2011). The SFI is a 12-item scale with three sub-scales, problem disengagement, goal orientation, and resource activation, which collectively measure an individual’s engagement in solution-focused thinking. Grant et al. (2012) report test-retest reliability over 16 weeks of 0.84 and Cronbach’s α of 0.84. The SFI has also been shown to be useful in assessing changes in solution-focused thinking following coaching.

Depression, anxiety and stress. Health services worldwide tend to be high stress environments (Morse et al., 2012), so it was deemed important to assess participants’ prior levels of depression, anxiety and stress and examine the impact of coaching on these variables. The depression anxiety and stress scale (DASS-21: Lovibond and Lovibond, 1995) was used as a measure of psychopathology. The DASS-21 is comprised of three sub-scales measuring depression, anxiety and stress and uses a dimensional rather than categorical approach to the assessment of mental illness. Because the DASS-21 is designed for use with both clinical and non-clinical populations, it is a useful assessment tool for coaching populations.
Internal consistency (Cronbach’s $\alpha = 0.88-0.96$) and test-retest reliability ($r = 0.71-0.81$; Brown et al., 1997).

**Leadership self-efficacy.** Because self-efficacy is a key variable in behavioral change (Bandura, 1982), leadership self-efficacy was measured using four items: how confident are you that you can exercise leadership successfully by setting a clear direction for teamwork in order to reach organizational goals? How confident are you that you can exercise leadership successfully by collaboratively working with others to gain their commitment and cooperation in order to reach organizational goals? How confident are you that you can exercise leadership successfully by ensuring that organizational projects are completed on time and within budget? How confident are you that you can exercise leadership successfully by setting clear goals and timeframes to achieve outcomes? How confident are you that you can exercise leadership successfully by building team capability in change? Participants rated themselves on a scale of 0-100 percent confident.

**Leader’s trust in subordinates (LTS).** A LTS is important for the efficient delegation of tasks and for the inter-personal trust that underpins effective leadership. LTS was measured by four items; “My subordinates will always act responsibly to solve problems occurring in their job,” “My subordinates would always take responsibility if I were not able to attend to a situation,” “If I were absent for a period of time, I would not hesitate to leave the responsibility to some of my subordinates,” and “I often entrust tasks to my subordinates without involving myself.” The LTS scale has a reported Cronbach $\alpha$ of 0.89, and has been used in previous studies (Ladegard and Gjerde, 2014).

**Perspective taking.** The ability to take a range of different perspectives is a vital component of effective leadership and is particularly crucial when working in multi-disciplinary contexts. Perspective taking was assessed using the perspective taking scale which is a seven-item subscale of The Interpersonal Reactivity Index (Davis, 1980), a multi-dimensional approach to the measure of empathy. Example items from this scale include: “I believe that there are two sides to every question and try look at them both” and “I sometimes find it difficult to see things from the ‘other guy’s’ point of view” (reverse scored). Davis (1980) reports $\alpha$ coefficients between 0.75 and 0.78, and a test-retest reliability of 0.62.

**Tolerance of ambiguity.** Ambiguity is an inherent feature of complex organizational systems such as health services. Leadership tolerance for ambiguity is positively related to performance in such environments (Furnham and Marks, 2013). A significant part of the coaching process involves encouraging coachees to explore and reflect on challenging and ambiguous situations. Tolerance of ambiguity was measured with the tolerance for ambiguity scale (Herman et al., 2010). This eight-item scale includes items such as “Many of my most important decisions are based upon insufficient information” and has a reported Cronbach $\alpha$ of 0.73 (Herman et al., 2010).

**Resilience.** Resilience is the ability to properly adapt in the face of stress, adversity and trauma, and is clearly an essential component of adaptive leadership. Resilience was assessed with a ten-item version of the cognitive hardiness scale (Nowack, 1990). This scale, based on Kobasa’s (1979) work, assesses the individual’s sense of personal control, their propensity to rise to meet challenges, and their commitment to action – key facets of the resilience construct. This scale has been used in a number of coaching studies and has shown good concurrent validity, with its use in previous randomized controlled coaching studies indicating a sensitivity to human change (Grant, 2014; Grant et al., 2009). The measure is scored on a five-point Likert-type scale. Nowack (1990) reports an internal consistency of 0.83.

**Self-insight.** Self-insight is vital for purposeful goal-directed change. Without insight into one’s thoughts, feelings and behavior it is difficult, if not impossible to systematically work toward attaining specific goals. The coaching process itself aims to increase participant’s self-insight. Participant’s levels of self-insight were measured using the insight sub-scale of
the self-reflection and insight scale (Grant et al., 2002). This scale measures individuals’ levels of insight into their thoughts, feelings and behaviors. Items include “I usually know why I feel the way that I do” and “My behavior often puzzles me” (reverse scored). The scale has a reported Cronbach’s α of 0.81 and a test-retest reliability of 0.78.

**Qualitative measures**

Participants also responded to two open-ended questions. Participants read the following statement: “We are also interested in your subjective experience of the coaching program. Please take a few minutes to write about how (if at all) you benefited from taking part in the coaching program. All your comments are confidential.” They then had the opportunity to respond to the two following statements:

(1) if taking part in the coaching program impacted on your experience at work, please describe how; and

(2) if taking part in the coaching program impacted on your personal life, please describe how.

Two researchers independently read the qualitative responses in order to identify specific patterns in the data and identify the key intrinsic themes. During this process of examining, breaking down, comparing, and categorizing the data (Strauss and Corbin, 1990) a range of broad categories were identified. After the initial coding was completed the researchers met to discuss the preliminary results and resolve any differing views (Neuendorf, 2002). Once a broad agreement had been reached, the data were further examined by both researchers in order to test the validity of the categories. The validity of these proposed categories were then further tested by asking the questions recommended by Spector (1984): do the categories fit and work? Are they clearly indicated by the data? Reliability was established by looking for inconsistencies in the responses and ensuring there was minimal overlap between the various designated categories.

**Results**

**Quantitative data**

Quantitative data were analyzed using paired t-tests. A significance level of 0.05 was set for all tests (see Table I). Paired t-tests comparing pre- with post-program means revealed that participation in the coaching program was associated with significant increases in goal attainment, $t(1,30) = 9.15, p < 0.001$.

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>SD</th>
<th>Post</th>
<th>SD</th>
<th>$t(1,30)$</th>
<th>$p$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal attainment</td>
<td>36.61</td>
<td>19.12</td>
<td>73.87</td>
<td>15.84</td>
<td>9.15</td>
<td>&lt; 0.001</td>
<td>1.65</td>
</tr>
<tr>
<td>SF thinking</td>
<td>50.22</td>
<td>8.55</td>
<td>54.67</td>
<td>5.57</td>
<td>3.74</td>
<td>&lt; 0.01</td>
<td>0.67</td>
</tr>
<tr>
<td>Depression</td>
<td>4.38</td>
<td>5.64</td>
<td>3.29</td>
<td>5.92</td>
<td>1.18</td>
<td>ns</td>
<td>0.21</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2.96</td>
<td>4.02</td>
<td>1.74</td>
<td>3.13</td>
<td>2.31</td>
<td>&lt; 0.05</td>
<td>0.40</td>
</tr>
<tr>
<td>Stress</td>
<td>9.35</td>
<td>7.88</td>
<td>6.70</td>
<td>7.22</td>
<td>2.59</td>
<td>&lt; 0.05</td>
<td>0.46</td>
</tr>
<tr>
<td>Leadership self-efficacy</td>
<td>304.50</td>
<td>76.83</td>
<td>336.73</td>
<td>52.02</td>
<td>6.56</td>
<td>&lt; 0.001</td>
<td>1.19</td>
</tr>
<tr>
<td>Leader’s trust</td>
<td>16.83</td>
<td>3.85</td>
<td>18.40</td>
<td>3.95</td>
<td>1.70</td>
<td>ns</td>
<td>0.31</td>
</tr>
<tr>
<td>Perspective taking</td>
<td>32.29</td>
<td>4.25</td>
<td>34.00</td>
<td>3.23</td>
<td>2.48</td>
<td>&lt; 0.05</td>
<td>0.44</td>
</tr>
<tr>
<td>Tolerance of ambiguity</td>
<td>30.58</td>
<td>10.20</td>
<td>34.83</td>
<td>3.56</td>
<td>2.29</td>
<td>&lt; 0.05</td>
<td>0.41</td>
</tr>
<tr>
<td>Self-insight</td>
<td>30.50</td>
<td>8.18</td>
<td>33.73</td>
<td>5.38</td>
<td>2.53</td>
<td>&lt; 0.05</td>
<td>0.46</td>
</tr>
<tr>
<td>Resilience</td>
<td>42.90</td>
<td>7.60</td>
<td>44.87</td>
<td>6.89</td>
<td>2.50</td>
<td>&lt; 0.05</td>
<td>0.44</td>
</tr>
</tbody>
</table>

**Notes:** SF thinking, solution-focused thinking style; $d$, Cohen’s $d$

**Table I.**

Mean pre- and post-coaching program scores
Participation was also associated with significant increases in solution-focused thinking, \( t(1, 30) = 3.74, p < 0.001 \); leadership self-efficacy, \( t(1, 30) = 6.56, p < 0.001 \); perspective taking, \( t(1, 30) = 2.48, p < 0.05 \); tolerance of ambiguity, \( t(1, 30) = 2.29, p < 0.05 \); self-insight, \( t(1, 30) = 2.53, p < 0.01 \); and resilience, \( t(1, 30) = 2.50, p < 0.05 \).

As regards to stress, participants had lower levels of stress following coaching, \( t(1, 29) = -2.16, p < 0.05 \); and lower levels of anxiety, \( t(1, 30) = -2.31, p < 0.05 \). However, there was no significant difference between pre-coaching and post-coaching scores for depression or LTS.

Qualitative data from the coaching program

Participants’ responses to the two questions: “If taking part in the coaching program impacted on your experience at work, please describe how” and “If taking part in the coaching program impacted on your personal life, please describe how,” were systematically classified and grouped according to content. In total, 24 participants gave written responses to the work-related question and 19 participants gave written responses to the personal life question.

Responses differed in length from one or two-point-form sentences to a number of paragraphs. The following categories emerged and are ordered below in terms of the frequency with which they were mentioned by the participants: (note: some participants made more than one response).

**Impact on experience at work (n = 30)**

1. achieved my work-related goals/be more productive: nine responses;
2. greater self-confidence/more assertive: eight responses;
3. able to take better/different perspectives: seven responses;
4. better, more productive relationships with others: six responses;
5. coaching helped me deal with change: five responses;
6. reduced stress/increase well-being: three responses;
7. better self-insight/self-understanding: three responses; and
8. challenged my thinking: three responses.

**Impact on experience in personal life (n = 23)**

1. better work/life balance and/or better separation between work/home: 12 responses;
2. better insight into self and relationships: seven responses;
3. applied learnings from coaching in home life: six responses;
4. better communication with family/feel more present: four responses; and
5. less stressed at home/increased well-being: four responses.

Representative comments from the above categories are presented below. As can be seen, some comments fit into a number of different categories.

**Impact on experience at work**

Achieved work-related goals/be more productive: some participants gave detailed insight into how the coaching helped them become more productive:

The coaching program assisted me through what has been a period of rapid change within the organisation. Understanding my characteristic responses when under duress has helped me to be...
more aware of the shortfalls I am likely to demonstrate and how to respond differently. As a result I have been able to progress with my work-plans in the continuing absence of feedback/direction from my own manager. This has given me a sense of achievement and purpose at work and improved my motivation levels to persevere in challenging times.

Greater self-confidence and/or being more assertive: many found the coaching helped improve their self-confidence and workplace performance:

Significantly improved my confidence in high level meetings; improved my capacity to take on more work due to increased productivity. Given me tools to manage anxiety and stress.

Able to take better/different perspectives: the quantitative data indicated that participants’ ability to take different perspectives significantly increased over the course of the coaching program. This was reflected in a number of written responses:

Coaching provided an opportunity to view situations and challenges from a different perspective. It made me more mindful of others’ experiences in the workplace, and why they may be behaving in a particular way.

It has given me different ways to think about my relationships at work and the relationships between other staff members […] I will be able to be more strategic in my interactions.

Challenged my thinking: many found the coaching process challenged their thinking and gave them important impetus for change:

The coaching greatly benefited me. It came at a time when I was changing roles and dealing with highly challenging situations and people. My coach challenged rather than just supported me, which I valued.

Greater self-insight: the quantitative data indicated that self-insight significantly increased, and for many participants this had an important impact on their actual behavior:

I have become much more aware of my own behaviours and how it impacts on others. I am better able to manage my time […] I have a better understanding of my personality and why I behave the way that I do particularly under stress […] I can now choose better responses.

Broad appreciation for the positive impact of coaching: a recurring theme was a genuine appreciation for the coaching program:

Taking part in the coaching program has given me an opportunity to work on professional milestones. Through working with the coach, I was able to develop clear strategies to work towards specific goals. My work has changed as a result, and I am noticing a flow on effect to my productivity, relationships and outcomes.

The ability to discuss issues in a confidential fashion had great benefits for many:

Coaching provided me with a completely confidential mentor to talk about myself and develop perspective and constructive strategies. I continue to use the learnings from coaching to create my work environment to match my strengths. Where this is not possible I use the strategies to manage change and stress.

Impact on experience in personal life
The skills and insights developed in the coaching sessions appear to have generalized to other areas of the participants’ lives:

I was not expecting the coaching program to be such a personal journey. I now know that my personal and professional goals are so closely aligned as to be inseparable […] I am now more confident […] in short my confidence comes from a deep sense of what is right […] the effect of this is that I am now less worried […] and can switch off more readily after work. My job remains difficult, but more rewarding.
The coaching also seems to have real, tangible effects of a range of non-work relationships:

My ability to deal with stress and recognize when I am taking issues out on my family has improved. I can recognize what I am doing and stop destructive behaviour. When I am now at home, I am present and not worried or thinking about work. Love it! This clearly has impacted positively on my husband and family.

In short, these brief qualitative responses echo and support the quantitative data presented above.

Discussion
This research explored the hypothesis that participation in the coaching program would be associated with increased goal attainment, solution-focused thinking, leadership self-efficacy, LTS, perspective taking, tolerance of ambiguity, resilience and self-insight. It was further hypothesized that participation would be associated with decreases in depression, anxiety and stress. The results of this research provide broad support for these hypotheses, with a few exceptions: There were no significant changes in depression and LTS.

Participants set specific work-related goals that they wished to achieve over the course of the coaching program. Although there was individual variation, a number of key themes for these goals were evident. Some participants chose to focus on team leadership. For example, one participant chose the goal “Leading teams more effectively in order to sustain change and complete required project tasks within specified timeframe.” Others focused on developing their ability to work more collaboratively. For example, one participant chose the goal “Developing my ability to work more collaboratively across the organisation, getting buy-in from different teams where there are many conflicting views.” Another group of participants sought to increase their confidence. For example, “To gain confidence in taking on new tasks to best realize my potential in my new role.” Participation in the coaching program was associated with significantly increased goal attainment, indicating that coaching in health settings can indeed be successful and useful in helping participants attain organizational goals.

Coaching enhances thinking and self-insight
In addition to the observed increases in goal attainment, there was a significant impact on participants’ thinking styles (solution-focused thinking, perspective taking, tolerance of ambiguity, self-insight and resilience).

These findings make sense because as participants worked toward attaining their goals, there were, naturally, a number of barriers and problems to be overcome. These barriers could have included negative self-talk, self-defeating patterns of behavior, rumination and the like. Overcoming these kinds of difficulties requires the individual to be solution-focused, view the problem from different perspectives, and deal with the ambiguity and uncertainty that typically accompanies change processes.

All of these require a degree of self-insight – in order to engage in purposeful goal striving one needs to become more aware of one’s thoughts, feelings and behaviors – and both the quantitative and qualitative data indicate a significant increase in self-insight. Increases in self-insight were not just confined to the workplace. One participant wrote:

I am managing difficult relationships better […] with a sister much more effectively. I now realize that my behaviour has exacerbated the negative aspects of a difficult relationship.

Resilience and stress
Participants also become more resilient. This finding is in line with previous research with medical students (Taylor, 1997), high school students (Green et al., 2007), and executives
(Grant et al., 2009). The fact that personal resilience increased is important because the public health sector is known for high work-related demands and scarce availability of resources. The coaching appears to have helped participants better deal with the stress associated with such work contexts and helped them to become more resilient. It is noteworthy that the current research found that the coaching reduced participant’s stress by 28.34 percent and anxiety by 41.21 percent. This is clearly an important outcome for the health sector. Given that sick leave tends to increase in times of organizational stress (Hansson et al., 2008), it would be useful to know if the self-reported increases in resilience and the decreases in stress and anxiety translate into reduced sick leave or staff turnover and future research could explore this question more specifically.

**Leadership self-efficacy**

Of great significance was the finding that participants’ confidence in their leadership ability (leadership self-efficacy) increased by 27 percent. This is important because self-efficacy is a well-recognized and significant predictor of behavior change (Bandura, 1977). Leadership self-efficacy is a key cognitive variable that helps leaders to functioning better in dynamic, complex environments (McCormick, 2001). Not only does leadership self-efficacy give leaders the confidence to attempt new and stretching tasks, it is also associated with more positive appraisals from subordinates and peers (Paglis and Green, 2002).

For one participant this increase in confidence had a very real impact on his/her work performance:

My coach challenged me and gave me the confidence to work outside of my comfort zone. This encouraged me to strongly put my case forward to act in a more senior leadership role, for which I was successful.

**Transfer of learning**

The transfer of training from the learning context to the “real world” is a key issue with all coaching and training programs, with many programs being less than adequate in this respect (Blume et al., 2010). Past research has found some evidence for the transfer of training following coaching (Ladyshewsky and Flavell, 2012; Olivero et al., 1997), and so the current research is in line with previous findings.

A key finding from this research is that the benefits of coaching transferred from the workplace back to the home. Many participants reported being able to use the insights gained in coaching in their personal lives, and reported better work/life balance and better quality of relationships at home. The observations from two participants sum this up:

“The learnings are transferable to personal relationships – I even pass these on to my children”.

Another wrote: “I have applied the learnings (from the coaching) to have better conversations […] with my own family”.

In short this research strongly suggests that this kind of coaching has the ability to help people become more productive, resilient leaders, and produce significant benefits in many areas of participants’ lives.

**Depression and LTS**

There were no statistically significant changes in depression or in the leader’s trust in their subordinates. Floor and ceiling effects were probably responsible for this result: Participant’s levels of depression were in the mid to low normal range and so there was little room for improvement. Conversely, trust in subordinates was in the high range prior to the commencement of coaching (16.83 out of a possible 20), and although there was an increase (to 18.40) following coaching, this was not enough to be statistically significant.
Implications for coaching and consulting practice. First, this study reaffirms the general notion that leadership coaching is a beneficial development methodology. The accumulation of this kind of empirical evidence is important for coaches and consultants who are committed to an evidence-based approach to coaching.

Second, and more specifically, this study highlights the utility of a SFCB approach to leadership development in complex adaptive systems. The SFCB approach is a straightforward, highly goal-focused approach that has sometimes been criticized as being simplistic or superficial for leadership development (Ducharme, 2004). The present study, along with recent research reviews (Jones et al., 2016; Theeboom et al., 2013) suggests that SFCB can be highly impactful on a range of deeper cognitive processes central to high levels of leadership development and performance.

In the present study it was found that SFCB coaching had a positive impact on tolerance of ambiguity, self-insight, perspective taking capacity, leadership self-efficacy and solution-focused thinking. These are vital leadership facets in the organizational turbulence and rapid, unpredictable change that is now a ubiquitous feature of Western organizational contexts (Sablonnière et al., 2012). The findings in the present study thus support and extend the range of validated methodologies that can be used by coaches and consultants who work in such contexts.

Limitations of the present study. As in any research, there are a number of limitations that should be taken into account when interpreting these findings. First, the participants were senior employees of a public sector health service. This sector is acknowledged as being a particularly challenging work context (Miller and Xiao, 2007), and employees in this sector tend to receive less leadership development than in, say, professional services firms (Mikelson and Nightigale, 2004). Thus the coaching may have been effective simply because it was a new or novel development experience. Furthermore, this was a sample of convenience and there was no comparison or randomized control group in this study, and thus the changes may have occurred naturally. However, there have been past randomized controlled studies of leadership coaching in health settings that have found similar effects (Grant et al., 2009), lending weight to the argument that this program was indeed effective.

Summary
The research on leadership coaching for health professionals and practitioners in healthcare setting is somewhat anecdotal and incomplete (Weinstock, 2011) and a solid evidence-base has not yet been established (Gazelle et al., 2015). The present study contributes to the knowledge base, as it is one of very few that has examined the impact of leadership coaching in the Australia health sector. Both the quantitative and qualitative findings suggest that the coaching program was successful at fostering fresh perspectives and supporting positive change.

The public health sector worldwide operates under considerable demand. Well-functioning, resilient health services are vital for society’s well-being. Leadership coaching may prove to be an important methodology for facilitating goal attainment and fostering resilience in this vital social sector, benefiting those that work in the health services, their families and ultimately their patients and the broader community.

References


AMA (2016), Public Hospital Report Card, ACT: Australian Medical Association, Barton, MI.


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Gender bias in hospital leadership: a qualitative study on the experiences of women CEOs

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Abstract
Purpose – The purpose of this paper is to examine the experiences of gender bias among women hospital CEOs and explore to what these female leaders attribute their success within a male-dominated hospital executive leadership milieu.

Design/methodology/approach – This qualitative study involved 12 women hospital CEOs from across Ontario, Canada. Purposeful sampling techniques and in-depth qualitative interview methods were used to facilitate discussion around experiences of gender and leadership.

Findings – Responses fell into two groups: the first group represented the statement “Gender inequality is alive and well”. The second group reflected the statement “Gender inequity is not significant, did not happen to me, and things are better now”. This group contained a sub-group with no consciousness of systemic discrimination and that claimed having no gendered experiences in their leadership journey. The first group described gender issues in various contexts, from the individual to the systemic. The second group was ambivalent about gender as a factor impacting leadership trajectories.

Originality/value – Representations of women’s leadership have become detached from feminism, with major consequences for women. This study reveals how difficult it is for some women CEOs to identify gender bias. The subtle everyday norms and practices within the workplace make it difficult to name and explain gender bias explicitly and may explain the challenges in understanding how it might affect a woman’s career path.

Keywords Gender, Leadership, Feminism, Equality, Executives, Equal opportunities

Paper type Research paper

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Introduction

Although women make up approximately 78 per cent of the healthcare workforce, there remains a significant gender gap in senior management and executive leadership (Lantz, 2008). In hospital leadership, this disconnect endures despite the fact that women represent a fast-growing segment of the medical profession. For instance, in Canada, women outnumber men in enrolment in faculties of medicine (6,261 vs 4,592) (Association of Faculties of Medicine of Canada, 2011). In the USA, half of all medical students and residents and one-third of full-time faculty are women. This trend is also seen in business. In 2015, the proportional representation of women in full-time two-year MBA programmes reached 40 per cent (Bruggerman and Chan, 2016). Yet women continue to be under-represented in leadership (Joliff et al., 2012). In Canada, men are two to three times more likely than women to be in a senior management position (Conference Board of Canada, 2011). There is only one woman CEO of a company listed on the Toronto Stock Exchange (Catalyst, 2015a). In the USA, women hold 4 per cent of CEO positions at companies indexed on US stock markets (Catalyst, 2015b). Not only are women under-represented in executive leadership positions, but when they do hold these positions, they earn significantly lower salaries than men. When the salary gap is adjusted for education and work experience, men earned 17 per cent more in 1995, 19 per cent more in 2000 and 18 per cent more in 2006 (Lantz, 2008). Worldwide, women currently earn what men were earning ten years ago (World Economic Forum, 2015).

Many explanations have been postulated for the gender gap in leadership. One hypothesis is grounded in the gender bias perspective, which attributes women’s career inequality to enduring beliefs about “characteristics, attributes and behaviours” of gender groups (Hilton and von Hippel, 1996, p. 240). These gender stereotypes shape expectations of how women and men should behave (Heilman, 2012), and are manifest in two forms of prejudice that women experience in the workplace: descriptive prejudice refers to what women are like, and prescriptive prejudice refers to how women should behave (Diekman and Eagly, 2008). Both identify behavioural qualities attributed to women that diverge from the qualities expected of leaders. Despite a considerable increase in the number of women managers and changes in women’s and men’s roles in the workplace over the past four decades, stereotypes of good leaders have remained fundamentally the same (Powell et al., 2002). A study that compared current beliefs about what characterizes a good manager with beliefs of the past three decades found that people continue to ascribe stereotypically masculine traits, such as dominance, intuitiveness, and emotional stability to good managers (Schein et al., 1996). The authors concluded that “Think manager – think masculine” and “Think manager – think man” remain the dominant perspective among both men and women (Schein et al., 1996). These stereotypes also exist in hiring practices. A seminal study on gender bias in hiring processes demonstrated how impactful stereotypes can be during this process (Moss-Racusin et al., 2012). Researchers sent out false applications for a managerial position to over a 100 top research institutes in the USA. The applications were identical except that half were submitted under the name “John” and the other half under the name “Jennifer”. The applicant assessors were asked to determine the competence and “hirability” of each applicant. Women candidates were consistently rated as both less competent and less hireable than their identical male counterparts. In addition, male candidates were consistently offered more money than their identical female counterparts and were also deemed more worthy of mentorship and training. The researchers noted that even female applicant assessors rated the women candidates as less competent than their identical male counterparts (Moss-Racusin et al., 2012).

The fact that both men and women share the same stereotypes of “good” leaders, which are grounded in traditionally masculine traits, reflects a larger issue: denial of gender bias exists not only among those who may be responsible for this bias, but also by women who are most affected by it. The denial of gender bias by women is not altogether surprising. Rhode (1991) referred to the denial of gender inequality as the “no-problem problem”.
She stated that denial of gender bias can take two forms: acknowledging its existence but not identifying oneself as having been subject to it, or denying its existence in the particular setting (Rhode, 1991). In other words, if you are a woman, you are most likely disadvantaged because of your gender, but you are not likely to acknowledge this fact. If you do acknowledge it, then you most likely consider yourself one of the “lucky ones” because you (erroneously) believe that you have somehow managed to avoid gender bias, perhaps due to your work setting or other external factors.

Many scholars argue that we are living in a post-feminist era (Thompson, 2008; Genz, 2006; Arneil, 1999; Anderson, 2014). Post-feminism emerged as a reaction to the limitations of thinking about women as a collective in the first and second waves of feminism. The first wave of feminism focussed primarily on women’s rights to equal opportunities, such as access to education and healthcare, and the right to work, possess money, and own property. The second wave of feminism focussed on expanding these opportunities by problematizing gender, race, class, and sexual orientation. Both first and second waves of feminism valued the notion of women as a “collective”. In other words, women as a group can empower one another to make significant changes to better their lives much more effectively than if they worked as individuals. Post-feminism, by contrast, focussed on the unique needs of women as individuals (Shugart et al., 2001). McRobbie (2009) argues that post-feminism is organized around notions of choice, empowerment, and personal improvement – concepts that are deeply individualistic. Feminist values of solidarity and support are displaced by discourses of self-improvement that promote independence and condemn those who remain, for whatever reason, unable to help themselves.

From an organizational perspective, there is a notion that gender bias is embedded in taken-for-granted assumptions, values, policies, and practices that give power and privilege to certain groups of men at the expense of women and other men (Meyerson and Kolb, 2000). Meyerson and Kolb present a framework that outlines four approaches to understanding the “gender problem” in organizations and the implications of each for organizational change. The first approach frames gender as being synonymous with biological sex and considers gender difference to emerge through sex-role socialization. From this perspective, reducing gender bias requires minimizing the differences between women and men. The second approach acknowledges the differences between men and women, but does not see those differences as the real problem; rather, the problem is rooted in the structures of organizations. Examples of this can be found in hiring, evaluation, and promotion processes. From this perspective achieving gender equality requires eliminating these structural barriers. The third approach posits that gender equity will not be achieved by eliminating the “differences” between men and women, but rather, when there is a valuing of these differences. From this perspective, reducing gender bias requires demonstrating how “traditionally” feminine activities are actually beneficial to an organization. The fourth approach sees gender bias as being embedded in formal and informal policies, with notions of gender entrenched in an organization’s culture. From this perspective, gender bias would be reduced by addressing formal and informal work processes and critiquing the organization’s symbols and images that may appear to be “neutral”, but that actually affect men and women differently.

We were interested in exploring whether women who have “made it” to the position of hospital CEO identified barriers related to gender bias. Little information exists about women who occupy traditionally male-dominated executive leadership positions in hospital settings. Understanding why there are fewer women in these positions and how these women conceptualize their experiences requires a balanced approach that considers not only each woman’s individual responsibility to take action, but also the roles and responsibilities of hospital administration in fostering women leaders. The delivery of hospital care is undergoing an unprecedented transformation. It is widely believed that healthcare organizations are the most complex form of human organization we have ever attempted
Hospital leaders frequently face rapid changes, disparate and multiple stakeholders, funding cuts, government regulations, and high turnover and burnout among healthcare staff. Understanding the experiences of gender bias among women CEOs and to what they attribute their success in a largely male-dominated hospital executive leadership milieu will provide important insights into the interplay of gender bias within this complex organization. We examined the experiences of women CEOs as they advanced to this highest executive position because we believe they are ideally situated to provide insights on the subtle and complex issues that they faced while coming up through the ranks and that they continue to experience in the position of hospital CEO.

Methods
We conducted a qualitative research study using a constructivist grounded theory approach to data collection and analysis (Charmaz, 2006). This approach involves an interactive process whereby a shared reality is constructed between the researcher and the study participant (Charmaz, 2003). The research question was as follows:

**RQ. How do women CEOs experience gender bias within hospital leadership?**

We were interested in eliciting accounts of these experiences and views that detailed the specific factors that influenced women’s career trajectories into leadership and their perceptions of the impact of gender on their journey to becoming a hospital CEO. We were also interested in the current experiences of these women CEOs and their views of the future for women in hospital leadership.

Participants and recruitment
We interviewed 12 women hospital CEOs from across Ontario, Canada. The interviews were conducted between April 2015 and March 2016. Study participants included women CEOs in community hospitals, specialized hospitals (i.e. rehabilitation), and academic health science centres. The study involved purposeful sampling (Patton, 2005), the rationale of which is to select information-rich cases that will illuminate the research question under study. The participants demonstrated knowledge around the role of gender in leadership and all agreed that they occupied a world of men-dominated hospital CEO leadership. To identify the appropriate sample size, we used the five considerations associated with concept of information power identified by Malterud et al. (2016): study aim, sample specificity, theoretical background, quality of dialogue, and strategy for analysis. Our study aim was narrow; we had a specific study population; we used well-established theories to interpret the data; the interviews were focussed and deep; and our analysis strategy included an in-depth analysis of participants’ narratives. Guided by these considerations, it was determined that a purposive sample of six to ten participants would provide sufficient information power to capture the experiences of gender bias in leadership among women hospital CEOs. Potential participants were identified by various research team members. The first author (SS), who is not in an executive leadership position, sent an e-mail to potential participants to gauge their interest in the study. All individuals who were contacted agreed to participate. A co-author of this study was also an interviewee. To avoid a conflict of interest, the co-author/interviewee did not participate in recruitment, have access to any of the transcripts or interview data, or participate in the data analysis process.

Data collection
We used in-depth qualitative interviews to facilitate and support the discovery of new information on gender bias and leadership. We decided to conduct individual interviews to give participants the opportunity to confidentially share their personal stories, including
any difficulties in their current and past hospital leadership positions, and their interpretation of these difficulties. When the interviews were completed and the transcripts were made available, the first author looked for gaps and emerging ideas by studying the data and then returning to the field to conduct more interviews to fill any identified conceptual gaps (Holstein and Gubrium, 2003).

All interviews were conducted in person with the exception of one telephone interview. Comparing the telephone interview to the face-to-face interviews did not reveal any important differences in the content of the transcripts, as the interviewer maintained rapport and a strong level of engagement with all participants. The interviews were approximately 60-90 minutes in length. Each interview was recorded and professionally transcribed verbatim.

Data analysis
All transcripts were read by the first author (SS) and the fourth author (GF). We used a constructivist grounded theory approach that involved first immersing ourselves in the data by reading the transcripts several times. For the purpose of initial coding, four of the six authors read four of the 12 transcripts (SS, GF, AK, and CW). At an initial coding meeting, these authors described and explained their initial reactions to the transcripts and identified common themes emerging from all four transcripts, as well as individual themes within each transcript. The transcripts were also compared to the initial interview guide. After this initial meeting, two authors (SS and GF) independently coded these four transcripts and then met again to discuss their coding. The transcripts were coded and analyzed using a constant comparative approach (Gibbs, 2007). Through this process, a coding dictionary was developed and was used to code the remaining transcripts. Codes were added if new information emerged. We used Nvivo 10, a qualitative data analysis software, for coding and organizing the data.

When all the transcripts were coded, the four authors used categorization to group the codes at a more abstract level (Gibbs, 2007). Categories were generated using a constant comparative approach. These categories provided the means by which theory emerged and was subsequently integrated from the data (Strauss and Corbin, 1990). The results were read by all six authors. Three authors (SS, AK, and CW) met to discuss the results and to do further brainstorming on the analysis and discussion of these findings. Several steps were taken to ensure trustworthiness of the data analysis. All transcripts were read and reread by two authors, and a selected number of transcripts were provided to the research team with a summary of the main emerging themes. Diverse perspectives emerged, as a result of our being an interdisciplinary research team: a medical sociologist, an internist, a family medicine physician, a neurologist, an education co-ordinator, and a psychiatrist. These different perspectives provided a depth and breadth to the analysis and subsequent findings that would not have been possible without a team of researchers with differing backgrounds (Pope et al., 2000).

The Centre for Addiction and Mental Health Research Ethics Board reviewed and approved the study.

Findings
The responses of the 12 women CEOs interviewed about gender and hospital leadership fell into two groups: The first group reflected the statement “Yes, gender bias is alive and well” \( n = 3 \), and the second group reflected the statement “Gender bias is not significant, did not happen to me and things are better now” \( n = 7 \). The first group was able to describe and explain gender issues in a wide variety of contexts, from the individual to the systemic. The second group was ambivalent about gender as a factor that impacts the leadership trajectories of women. Participants in this group acknowledged that although
they experienced gender bias, that is just “the way it is”. A subset of participants within this group ($n = 2$) had no consciousness of systemic discrimination of women, and thus described having no gendered experiences in their leadership journey.

“Yes, gender bias in hospital leadership is alive and well”

The three participants whose experiences and beliefs are reflected in this statement described and explained gender bias in leadership in general, and at the hospitals in particular, as a systemic issue. They described this phenomenon at the level of leadership and the differences in gender bias between community general hospitals (academic) specialty hospitals, and large academic hospitals. From the perspective of these participants, the notion of physician leadership was often synonymous with male leadership in hospitals. They discussed how although medical school enrolment has been either equal or dominated by women for at least a couple of decades, this trend is not reflected in hospital executive leadership. These participants reached the CEO position after having been in other leadership roles, which were predominately occupied by men physicians. Participants also made parallels to the “type” of hospital and its role in women’s success in executive leadership. For example, with few exceptions, women were not CEOs of large academic hospitals. There were more women in leadership positions at community general hospitals or at (academic) specialty hospitals that participants labelled as “fringe”, “second-tiered”, or more “feminized” environments. Women leadership in “fringe” hospitals was attributed by most participants to female dominance within that medical community. The experience in bigger hospitals was different. Two participants identified hiring board practices in those hospitals as a barrier to women entering executive leadership positions. One participant explained:

> If you look at the big hospitals, there are a number of women CEOs in the environment, but we’re all CEOs of either the specialty hospitals or the smaller organizations like community hospitals. The big downtown academic health sciences centres are all men […] The search committees would be made up of a certain type of person that would have to be persuaded that somebody that doesn’t look like them could do a good job.

The second participant shared this perspective:

> Medicine, historically, has been male dominated, and I think medical schools have been at 50/50 or 60/40 toward women for a number of years now. But I do think academic medicine is pretty male-dominated still […]. We beget what we are. So when boards want to fill vacancies, historically, they turn to each other to determine who would be great [and] if each other is all the same [male and white], it’s self-perpetuating.

These two participants also believed that the difficulty with promoting women in hospital leadership is rooted in the “old boys’ club” system, where only men leaders were provided with opportunities to build career-enhancing relationships. As one participant stated:

> Often men will have a physician, a male physician, who will just make sure they’re on the right committee and they’re in the right place at the right time to advance their career. And women haven’t had that as much.

This perception of the “old boys’ club” continued at the CEO level:

> I hate to even say it, but the women who are CEOs tend not to be at the downtown hospitals typically […]. In that environment, absolutely, we sit around those tables and the women are looked at differently as CEOs than the men. And it’s even from monetary and payment. The salaries are very different and invitations to participate on panels and on committees to do things – very different treatment for the men and the women. Even though we sit at similar tables, it’s not seen the same way. We don’t partner the same way. And I’m trying to work with that […] but there is definitely an absolute I would say gender difference.
Recognizing that a gender bias does exist and being in a privileged CEO position provided women leaders with a unique opportunity to promote other aspiring women leaders, in particular, as a mechanism to “even the playing field”. One participant stated:

But our men colleagues who have men mentors would do those things [for other men] without blinking. It’s a non-issue. So it’s very important for a woman in my situation who has the capacity and who is generous to actually open their hearts and minds to their women colleagues and try to champion them, sponsor them, bring them forward, give them as much support as I have available to give.

Although participants acknowledged the importance of mentoring and promoting women who aspire to leadership, they also described the need for systemic and social change to make it possible for women to succeed. One participant described how things are still the same from generation to generation when it comes to childrearing responsibilities and family obligations:

I look around me at my kids and other kids, the same thing is moving through that next generation; it’s the guy who is usually out there in finance jobs and the women who decided, “Well, I’m going to stay home with the kids because I can afford to.” I think there’s a big cultural thing around women’s obligations to family first. Maybe it’s also their choice. And so what I’ve seen in my career more often is that the people who really perk to the top are women who have either had big careers, they decided to be physicians, to pursue careers that don’t quit and/or they don’t have kids.

Several participants believed a more profound change was necessary to ensure the success of women in leadership. They believed it was important to break the cycle of “the more things change the more they stay the same”. As this participant explained:

Which gets to the idea of honestly and truly if we want to make a difference in women in leadership, government, healthcare, whatever that is, there has to be a paradigm shift in the job and the job structure that doesn’t make it mutually exclusive, that you can really run up the career ladder and successfully run a family at the same time.

This paradigm shift included an understanding of the notion of equity vs equality in policy changes. As one participant noted:

If you want to create the next generation of leaders, if you look at the middle manager roles in hospitals, you got a lot of women there. A lot. A lot are married with kids. If we don’t create leadership roles for them that allow them to also be mothers and potentially caregivers for parents, they will never progress. And so it’s that concept of how do you create opportunities for leadership that meet the criteria of equitable vs. equal? I don’t think men who have gone through the ranks and ended up as CEOs have been the primary caregivers of children and parents and held a job, and, and, and. So they may not have the sensitivity or the awareness. I don’t think they would necessarily disregard it, but I just don’t think they’ve had the personal experience.

“Gender bias is not significant, did not happen to me and things are better now”

The majority of participants who reflected this statement agreed with the first group that historically, CEO leadership has been dominated by men with backgrounds in finance or business. Most participants posited because men generally dominated the fields of finance and accounting, women did not have access to CEO positions. As one participant shared:

In my time, what I’ve seen was almost always men, and in the old days they came to that job through accounting and chief finance careers, which women just weren’t as prevalent in in the early days.
Several participants believed that given the increase in female academic enrolment in medical and finance programmes, the near future will see more women hospital CEOs. As this participant stated:

I understand more than 50% of enrolment to medical school is now women and so it takes a while for them to progress in their careers to the point of being chiefs and have leadership roles. So I'm entirely confident that that in turn will happen if they choose to have leadership roles.

Participants in this group believed that it was only a matter of time before we start to see more women in leadership roles in hospitals:

So there's a whole generation of very much male-dominated leadership. And the female leaders had to wait their time in terms of […] not wait their time, but gain the experience with the passage of time before they could move into senior leadership roles.

Several participants perceived that despite an anachronistic belief in a lack of women studying medicine and finance, hospitals were more “leadership-friendly” environments for women, particularly because hospitals tend to be woman-dominant organizations. Two participants pointed to Catholic hospitals in Ontario as an example of a healthcare settings that are open to women leadership. Nuns were often the leaders in these hospitals and managed them as successful organizations. Other healthcare institutions were also believed by participants to offer women more opportunities to become involved in leadership. Several participants discussed how they received opportunities in settings such as homecare, specialized care (i.e. rehabilitation or pediatrics), and community hospitals. They explained how these hospitals did not have a reliance on medicine and so health professionals with backgrounds in nursing, social work, rehabilitation, long-term care, and community care – professions that are mainly dominated by women – provided opportunities to lead and eventually move into more senior roles. These hospitals were often characterized by participants as “kinder and gentler organizations” that were not as “competitive” as the larger academic hospitals. For example, these environments seemed to provide more opportunities for a reasonable work-life balance. As one participant described:

They [allied, home care, rehabilitation and community care hospitals] may not be as political and politically intensive, and they may be more manageable in terms of stress and life and work–life balance and all those other things.

When asked about whether some hospitals, such as the academic hospitals, were less “friendly” environments for women, given the “kinder and gentler” characteristics used to describe the community general or (academic) specialty hospitals, these participants, unlike those in the first group, did not believe that to be true. Some participants hesitated around “blaming our failure” of not attaining leadership positions on gender. There was a general belief by these participants that we live in a meritocratic society with equal opportunities, and that the best candidate is the one who should get the job, regardless of gender. As this participant explained:

Do I think it’s unfriendly? I haven’t found it to be unfriendly, I must admit. And I think as women, we can blame gender for the fact that we don’t advance, but we need to make sure that we’re well prepared to advance and I don’t want to get a leadership role because I’m a woman. I will always want to get my leadership role because I was the best candidate. And that was my drive to be the best candidate. It was never a choice between a woman and not the best candidate. I never went for a position thinking “I should get this because I’m a woman.” I always wanted to make sure that I was the best they could find.

Along the same vein, this participant described not feeling overlooked for promotion into hospital leadership positions. She attributed her ascent to hospital leadership partly to her
personality, good fortune/luck, and her ability to recognize opportunities that were presented. As this participant explains, she did not feel gender bias existed at all throughout her leadership journey:

I haven’t been overlooked [...]. I’ve heard people say that men are often under-qualified for the jobs they take and women are overqualified because they needed to know that they could do the whole job [...]. I don’t think that’s my circumstance. I really feel in my career that I had the confidence or chutzpah or the good luck to take opportunities that really scared me to death [...]. And I feel like I’ve been heard at tables. I’ve never felt not listened to because I was a women. Sometimes I wasn’t listened to because I didn’t really know what I was talking about or I can remember being very junior at very senior tables. I sat alongside CEOs and I tend to be a reflective person or a quiet person as I learn, but I think that’s my style, not my gender.

One participant did describe her disengagement with issues of gender and focussed on how being overlooked or underestimated also worked to her advantage:

My feeling was that I was perceived as maybe irrelevant or underestimated and I would say that was really hard on the confidence and the emotion. I’m very perceptive and so I don’t think I was wrong. And was that because I’m female? I hate to use those kinds of excuses, so I tend not to go there. I think that probably that’s true. Particularly I think in a couple of cases where in one case where my board was a lot of old guys and they wanted a certain person. Honestly, anyone who wasn’t a bravado male, they were disregarded, so that was difficult to overcome. I would say that it probably created an opportunity for me in a couple of scenarios where because I was maybe dismissed or underestimated, I was able to go about my business very strategically and sort of do things right under their noses because they just didn’t suspect that I might be able to gobble them up and snatch something out of their way.

There was hesitation among these participants to attribute gender bias as a barrier to becoming a successful hospital CEO. These participants recognized the gender divisions of labour in the home, for example, but have come to the conclusion that this is “the way it is” in our current society, and that as women, we need to adapt and not dwell on things that are not going to change:

Many people and men in particular, they have somebody very supportive at home behind them that can do all that other stuff. But I think even for women, even if they have a supportive spouse, they still do a lot more. They still do three jobs and they have to be better and smarter and more facile and I gave up being frustrated about that. It is the way it is.

Although there was a general sense of “this is the way it is”, several participants believed, unlike the first group, that changing societal expectations of women and policy changes that respond to this will improve women’s ability to become the next generation of hospital leaders. A few participants described how changes in attitude from one generation to the next will make significant differences for women who aspire to leadership roles. For example, one participant described the generational difference between herself and her daughter:

I do think my daughter’s generation will be far better at [supporting women]. I see them as much more supporting of their female friends and their ambitions and where they’re going and promoting it and excited about it versus the generation I grew up in which tended to be a little bit more competitive.

A few participants also described how the next generation of leaders is more interested in maintaining a better work-life balance and this includes an increased desire and social acceptability for men to contribute more to family life by taking parental leaves. One participant playfully described the changing landscape of parental leave as “an epidemic of our male leaders taking paternity leave”. Another participant described how the societal
shift that supports men in taking a more active role in childrearing will help women, in general:

What I’m finding interesting is that men are now more likely to be taking their own paternity leaves and it’s just fascinating to me to see that evolution happening. And I actually think it’s probably going to be the most significant thing for women’s leadership – more men wanting to be taking that more active role in parenting of their very young children.

With regard to mentoring or promoting aspiring women leaders, these participants, unlike those in the first group, did not feel a sense of responsibility for mentoring the next generation of women, in particular. When asked “Do you feel that sense of responsibility for helping mentor the next generation of women leaders?” one participant replied:

I actually feel it for anybody who asks me. I mentor men and women. I cannot remember a time anyone’s ever contacted me and wanted to meet with me and I said no. And I think we have a responsibility for the next generation of people around us.

Discussion
We conducted 12 interviews with current women CEOs of hospitals across Ontario, Canada, to understand how they experienced gender bias in their leadership trajectories. The results of these interviews demonstrated that only a small number of women at this very senior level described direct gender bias towards them as they progressed through the ranks up to the CEO position. The majority of participants stated that they did not believe that they had ever been discriminated against because of their gender. A number of women within this majority stated that other women may have experienced gender bias and that it may still exist, but they described themselves as “gender-neutral”, meaning that they neither experienced nor interacted with others in a “gendered” manner. An even smaller subset of women believed that in North America today, gender does not play a role in achieving leadership positions. This subset of leaders would often start their sentences with “It’s not gender; it is professional dominance, age, medical specialty, etc.”

The women in our study who did not feel that gender played a significant role in their careers were more accepting of the status quo. This included the belief that, in time, women will be provided with more leadership opportunities. For example, they believed that more women leaders will emerge given the increasing enrolment of women in business and medical schools; the increase of more “women-friendly” policies, such as parental leave, along with the decreasing stigma of stay-at-home fathers; and the demand among younger generations for work-life balance. The participants who identified a clear gender bias in leadership were not as willing to accept that with time things will change for women. They tended to believe that more deliberate action at a systemic level, needs to be taken to ensure women are provided with opportunities for leadership.

There is ample worldwide literature and overwhelming evidence of gender bias of women in the workplace, in medicine, and at all levels of leadership spanning all sectors (Isaac, 2011; Isaac and Griffin, 2015; Ford, 2005; Okafor et al., 2011; Ibarra et al., 2013; Mohr, 2014; General Motors Corporation and Catalyst, 2005). Given the evidence of gender bias, our findings were surprising, yet somewhat expected, in that only a small number of women could strongly identify and speak directly about gender bias and leadership. In a post-feminist era, there is a general belief that equality between men and women now exists. For example, women are afforded the same educational opportunities as men, and with current policies regarding discrimination in the workplace, there are narrow limits on how gender can negatively influence a woman’s successful career. Many post-feminists believe that feminism is no longer relevant. Post-feminism assumes that the first and second wave “took care” of women’s oppression and now it is up to individual women to make their own choices to reinforce those institutional changes (Orr, 1997). In fact, post-feminists will invert
the slogan of the second wave, “The personal is political” to “The political is personal” (Mann and Huffman, 2005).

The majority of participants in our study seemed to be contextualizing their experiences within this current post-feminist era. They did not deny that some structural inequalities exist, but they strongly believed that each person must personally manage and overcome the problem through conformity with the status quo. This explains why most of the women we interviewed believed that the next generation would see more women leaders, given their increasing enrolment in medical and business programmes, women choosing leadership careers, changes in society that are making it more acceptable for men to take parental leave and that reflect aspirations among both men and women for a better work-life balance. These participants described that working in community hospitals honoured this interest, which was why women would gravitate towards becoming leaders in those settings, rather than in academic hospitals, which were deemed more competitive, political, and not as conducive to a good work-life balance. This argument is akin to the “opt-out” revolution, whereby highly educated women “choose” to leave the workforce (Belkin, 2003). The opt-out argument was made by our participants to explain that women are under-represented in academic hospital CEO positions because they do not want that “kind of a job” (Stone, 2007). This explanation of gender bias assumes individual choice (e.g. the desire for work-life balance) rather than structural barriers (e.g. inflexible workplace, hospital board composition) to influence a women’s career choice (Stephens and Levine, 2011).

Women who identified gender biases in hospital leadership did not describe the differences between community hospital and academic hospital leadership as a “choice” that women make. They characterized the community and (academic) specialty hospitals as a type of “pink collar” ghetto. This concept emerged in the 1980s to describe how women, as a collective, repeatedly and historically have been concentrated in lower waged, less prestigious jobs (Stallard et al., 1983). The pink-collar ghetto describes women’s economic and social marginalization. It highlights some of the structural inequities women face in certain occupational sectors into which they have been segregated. It is a way of ensuring that even when women dominate a profession in terms of numbers, this dominance is not necessarily reflected in the power structures controlling that profession. Although some policy changes at the organizational level have had a positive impact on the promotion of women, these changes have not addressed the conditions that perpetuate gender bias and negative career consequences for women (Meyerson and Kolb, 2000). This would explain why in the area of hospital leadership, in the top 100 hospitals in the fields of cancer, digestive disorders and heart and heart surgery, of the 100 CEOs, only 15 are women (Goodall, 2011). It also explains why despite higher enrolment of women compared with men in medical schools since the 1980s, women, four decades later, remain largely under-represented in medical leadership (Bellah et al., 2007). Specific to this study, it is a way of understanding the lack of women CEO leadership in our current academic hospital settings.

Yet our findings demonstrate the existence of denial that gender bias exists. Several participants described themselves as not being overlooked and not experiencing gender bias directly, and also not believing that academic hospitals are necessarily unfriendly to women. As one participant warned, it was dangerous to cite gender as a reason for not succeeding in academic hospital leadership. Citing gender as a reason for not achieving promotions, higher salaries, and other honours at work can be difficult to infer in a post-feminist society. In our hospital and academic institutions, the path to promotion and the criteria one must meet to get there lack precision (Crosby, 1984). Thus when a woman “fails” to be promoted, it is easier for her to attribute this failure to other factors, such as a lack of grant capture,
lower publication records, perceived lack of previous experience, professional discipline,
educational achievement, or interpersonal style because she is bound to differ from the norm
on at least one of these dimensions. Cognitively, it is easier to blame the self for failures than
to attribute them to gender discrimination because of the fundamental beliefs underlying the
structure of our organizations. North American society is based on the concept
of meritocracy – anyone can become successful if they work hard enough and if they
recognize their talents.

The notion of a meritocratic society is aligned with post-feminist principles; it is up to the
individual to control their own destiny. It encourages individuals to look inward and largely
ignore or overcome social, economic, racial, and gendered injustices. This explains why one
study participant stated how she “just gave up being frustrated (at the double standard)”
and conceded that “it is the way it is”. Meritocracy explains why another participant
attributed her success in leadership to her confidence and “chutzpah”. The belief in
meritocracy gives individuals a sense of pride, individualism, and power. However, it
ignores the very real notion of “like begets like”, as was described by two participants who
identified hospital boards and hiring practices as reflections of gender bias. If we, as a
society, truly believe that women are as capable as men in positions of responsibility at the
executive hospital level, then it logically follows that we should not consistently see the
structures of power being dominated by men.

Denying a gender bias in leadership may also be a form of self-protection. According to
some scholars, when members of a particular gender comprise less than 35 per cent of a group,
they have “token” or “solo” status (Kanter, 1977; Thompson and Sekaquaptewa, 2002).
The women in our study shared many of the structural characteristics of tokens.
They occupy few hospital CEO positions in an otherwise male-dominated profession.
As tokens, they were highly visible and thus got attention that dominants (male CEOs) do not
get. As a result, any differences tend to be overexaggerated. As tokens, women are
generally seen as representing their sex. To not attract any further unwanted attention, the
women CEOs that fell into the “no-problem problem” category seemed to internalize
and reproduce the current status quo. For example, with regard to mentorship, this group
did not feel it necessary to pay special attention to aspiring women leaders. They explained
how in their eyes men and women who were interested in leadership were seen as equals and
were thus afforded equal attention. On the other hand, women CEOs who identified gender
bias in their leadership experience questioned the current system’s meritocracy and the status
quo, and felt a unique and strong responsibility to mentor young women, in particular.

The study results should be interpreted in the context of the following limitations.
First, this study was a descriptive and exploratory study and thus cannot provide
generalized or definitive conclusions on women leader’s experience of gender bias in
executive hospital leadership. Second, it is possible that interviewing already established
women executive leaders about gender bias in leadership may not provide the in-depth
insights that interviews with aspiring or emerging leaders would. In addition, data
collected from a few individuals cannot be generalized to a larger population. However,
with qualitative studies, the concepts generated may be transferable to other settings.
Our findings seem to support and confirm research on women and leadership in different
workplace sectors such as academia and business. Future studies, such as a critical
discourse analysis of gender and an investigation of the different modernist and
post-modern views of gender in organizations, would add value to the literature on gender
and organizations.

Conclusion
Despite the post-feminist belief in a level playing field, a gender gap does exist in executive
hospital leadership. Contemporary representations of women’s leadership have become
detached from feminism and this dislocation has major consequences for women. Feminist perspectives are being replaced by post-feminist concepts of individualism. We live in an era when women seemingly have more freedoms; find support through sexual harassment policies, and have more options when it comes to child rearing and work. The language of gender inequity is so seldom used in a post-feminist society. The subtle everyday norms and practices within the workplace make it difficult to name and explain gender bias explicitly and may be a reason for the challenges associated with understanding how it might affect a woman’s career path.

For the first time in history, there is a belief that job opportunities for women are equal to those for men (Jones, 2005). Using Meyerson and Kolb’s (2000) framework, this belief reflects the first approach these authors identified for understanding gender in organizations: the solution to gender inequity rests on individual women to acquire the skills needed to succeed. What follows this belief is the assumption that women thus have “choice” when it comes to their careers and deciding to pursue leadership opportunities. The choice model would imply that women are under-represented in leadership because they choose not to pursue these opportunities (Stephens and Levine, 2011). This approach looks at individual agency and personal choice to explain women’s workplace advancement, while hiding the structural barriers that limit women’s options and representation at the executive levels of an organization. The choice framework also ignores the research evidence around the importance of prescriptive gender norms. Prescriptive gender norms describe the way men and women should be and the behaviours that are appropriate for men and women to display in public (Eagly, 2000). Women who have succeeded in their workplace by occupying a traditionally men-dominated position are often punished for violating these prescriptive gender norms (Parks-Stamm et al., 2008). For example, women who have been successful in male-dominated jobs are less liked and more personally derogated (Heilman et al., 2004). These social penalties have serious implications for women in hospital leadership positions with regard to how they are considered by their CEO colleagues and hospital board members. Women may do things the same way as their men colleagues, but their actions will be evaluated more harshly. In addition, studies have shown that women are as likely and sometimes more likely than men to engage in the derogation of successful women (Garcia-Retamero and López-Zafra, 2006).

This study revealed how challenging it was for women who have “made it” to talk about gender bias and hospital leadership. It highlighted the divided views around the impact of gender on women’s leadership trajectories. Gender equity in the workplace is an ongoing struggle. It is woven into the workplace culture and presents itself in hiring practices, salary negotiations, promotions, and performance evaluations. Gender bias in leadership, in general, and in executive hospital leadership, in particular, must be conceptualized and understood within these larger social systems. All leadership levels, both departmental and programmatic, need to understand and expose the post-feminist views that are contributing to the perpetuation of gender bias in leadership across hospital settings.

References


General Motors Corporation and Catalyst (2005), Women Take Care, Men Take Charge: Stereotyping of US Business Leaders Exposed, Catalyst, New York, NY.


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