A model for stakeholder interactions in hospitals: towards understanding the patient flow process

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ABSTRACT

The aim of this research is to understand how stakeholder interactions can facilitate the patient flow process within a hospital. An analysis of the findings reveals that nurses are in a perfect position to be a conduit between doctors and managers. This is due to several factors including nurses having an understanding of both the clinical and the control worlds, as well as nurses having an ability to form networks based on their pivotal characteristics. As a result of these findings, a model for better understanding stakeholder relationships is developed. In this research, a mixed methods approach was used by undertaking a cultural assessment via survey questionnaire, complemented by observations of interactions between organisational actors, including formal semi-structured interviews and reflections of many hours of observation. Glouberman and Mintzberg’s (2001) four world’s models is used as a foundation for the arguments of this paper. Mitchell, Agle and Wood’s (1997) model is used to discuss the three stakeholder groups of this research including doctors, nurses, and managers.

Keywords: group dynamics, decision making, organisational culture, communication

Introduction and Literature

The aim of this research is to understand how stakeholder interactions can facilitate the patient flow process. Specifically, the paper presents findings about the relationships between health care professional providing services to patients in hospitals. Over the last few years, tensions between new public management of hospitals and increased demands has led to an increase in bottlenecks, stagnation of patient flow, and overcrowded emergency departments. These problems have led to an increase in access block for patients attempting to access the public hospital system. The introduction of Patient Flow Units has instigated the formalisation of a nurse manager function to coordinate patient flow. Nurses in such a pivotal position, and who greatly influence hospital operations, tend to have special characteristics which they use to “get things done”. This is further discussed in the paper, and as a result of this discussion, a model for stakeholder interactions in hospitals is presented (Figure 3). It is important that we understand the way that things are managed, even if what is being managed is unknowable or consists of problems without viable solutions. One of the major challenges in hospitals is attempting to manage the increase in access block caused by the problems discussed above.
Access block is “the term that describes the delay experienced by patients who need hospital admission in the emergency department when their inpatient bed is unavailable” (ACEM, 2004; p. 2). Access block is a fact of life in Australian hospitals and system changes implemented to deal with access block are not enough to combat access block from occurring (ACEM, 2004). Several researchers have shown that there has been an increase in access block for patients attempting to access the public hospital system (Paoloni & Fowler, 2008; Mohsin, Ferrero, Ieraci, Bauman, Young, & Santiano, 2007). These studies show that the human, financial and political costs associated with the increase of access block are high. Gaining a better understanding of the issues that are hampering patient flow may assist managers with their decision-making practices about resource allocation. Having this clearer understanding will assist hospital staff with better communication, and managers with better outcomes. In addition, administrators will have a better idea of who should occupy pivotal positions, and how those that occupy pivotal positions can be utilised as intermediaries for the patient flow process. However, understanding the patient flow process can be difficult because of the diverse systems and stakeholder groups involved.

The Diverse Worlds of Healthcare
According to Glouberman and Mintzberg (2001), health care should not be considered as one overall system. Instead, health care is differentiated into four different worlds, also known as activities, mindsets, or paradigms. These worlds are referred to by the terms *cure, care, control,* and *community* (See Figure 2). In this paper, the cure paradigm is occupied by doctors who are interns, residents, registrars, staff doctors, or visiting medical officers. The care paradigm is occupied by clinical nurses and nurse unit managers who provide clinical leadership, but do not necessarily ‘control’ the organisation. Instead, nurse unit managers manage at the operational and tactical levels. The control paradigm is occupied by managers of a higher order, who manage at the strategic level. As will be discussed later in the paper, the community paradigm was not examined in this study. Each of these four different worlds is managed differently, resulting in a loosely connected set of systems that are attempting to function as one health care system. Hospital management involves controlling a set of
several heterogenous processes disconnected from the other processes. These processes can be differentiated by identifying where management is practiced. For example, doctors and nurses who are clinicians primarily manage down, directly into clinical operations, whilst administrators manage up, towards those people that control and fund the institution (Glouberman & Mintzberg, 2001; p.57).

The result is that a hospital is not one organisation, but four different organisations, as each part structures itself in an independent way, creating two divides, or cleavages, vertically and horizontally. The vertical cleavage investigates how closely involved with the hospital the stakeholder group is. The horizontal cleavage delineates those who operate clinically and those who do not. This paper examines boundary crossings between professional and functional divides. However, it does not investigate the fourth world of community, because all stakeholders are part of the community, and an investigation of all stakeholders is outside the scope of the current research. Another justification of excluding community, is, because this study examines professional groups (doctors and nurses) and functional groups (clinicians and managers) who are involved in the decision making process of bed allocation as part of patient flow. As community does not classify as a professional or functional group, the fourth world is not relevant to this investigation. Therefore, this paper reports on the interactions between the stakeholder groups of doctors, nurses, and managers when making decisions about patient flow.

**The Diverse Stakeholder Groups of Healthcare**

Mitchell, Agle, and Wood (1997: p. 854) propose that:

*classes of stakeholders can be identified by their possession or attributed possession of one, two, or all three of the following attributes: (1) the stakeholder's power to influence the firm, (2) the legitimacy of the stakeholder's relationship with the firm, and (3) the urgency of the stakeholder's claim on the firm.*

Essentially, their theory identifies the different types of stakeholders: that being “those entities to whom managers should pay attention” (Mitchell et al., 1997; p. 854). In this paper, doctors, nurses,
and managers are referred to as stakeholders because they have a say in the way that decisions are made about resource allocation.

Of the three stakeholder groups discussed here (doctors, managers, and nurses), the doctor stakeholder group is the least formally committed to the hospital (Fitzgerald, 2002; Degeling, Kennedy, Hill, Carnegie & Holt, 1998). However, the doctor stakeholder group has a specific role in the patient journey. Doctors are autonomous in their clinical decision to admit, to observe or to discharge a patient from the emergency department. Glouberman and Mintzberg (2001) argue that doctors act \textit{administratively out}, but look \textit{clinically down}. Acting ‘administratively out’ means that doctors function within their administrative hierarchy, disregarding or avoiding hospital administrative rules. Tosh (2007: p. 69) states that “control over itself was part of what gave medicine its professional status”. That is, doctors are able to self regulate through medical boards and peer evaluation, which further enforces the professional status of doctors. Acting ‘clinically down’ means that doctors have the power to make clinical decisions, which filter down into the organisation. These clinical decisions are in relation to admission, treatment and discharge of patients. In fact, of all the stakeholder groups, only doctors have the power to admit or discharge a patient. However, other stakeholder groups have different kinds of influence on the patient flow process, and this is discussed in the subsequent paragraphs.

As can be seen in Figure 1, nurses are responsible for much of the patient journey. Their involvement is apparent when the triage nurse assesses the patient, during the transfer of the patient from the emergency department to a ward, and whilst the patient is in the ward. Glouberman and Mintzberg (2001) state that nurses look \textit{clinically down} but act \textit{administratively in}. This means that nurses make some clinical support decisions, similar to doctors, which filter down into the organisation. However, unlike doctors, nurses act ‘administratively out’, and look to the organisation for rules and procedures that govern their work practices in the hospital. The professionalisation of nurses has undoubtedly reshaped traditional medical dominance (Fitzgerald 2002). It would be logical to think that “if a group
perceives itself to be less subordinate, then the dependence on the dominant groups must diminish also” (Fitzgerald, 2002; p. 47). This change in nurses’ perception of their subordinate role, and dependence on dominant groups, such as doctors and managers, has changed the role of nurses and affected interaction between professionals in hospitals. The professionalisation of nurses has also allowed for an increase in nurse career paths (Duckett, 2007), which affects the responsibility of care and the authority given to nurses in relation to patients. One example of this is via the recognition of specialist trained nurses such as the Clinical Nurse Specialists (CNS) and Clinical Nurse Consultants (CNC). This expansion of nurses’ role has meant that today’s nurses have a higher level of care and cure authority than traditional nurses.

The Patient Journey
During the patient journey, the manager stakeholder group is responsible for the functioning of the entire hospital. Glouberman and Mintzberg (2001) state that managers look clinically up but act administratively in. This means that managers look to other stakeholder groups, such as doctors and nurses, for clinical decisions. Furthermore, managers operate within the same hierarchical system as the rest of the hospital. That is, managers are governed by the rules and procedures of the organisation they are working for. Whilst doctors are largely responsible for the prescription of treatment of patients, and nurses are in charge of the care of patients, managers (or administrators) are responsible for the functioning of the entire institution to support patient care. This might be a single hospital, a couple of hospitals (network), or all hospitals in the same Area Health Service. Managers, including clinical managers, have different levels of connectivity with the areas they manage, be it at the Area Health Service level, hospital level or in a unit within a hospital. With this diversity it is difficult to make informed decisions because of the different specialities and levels involved. Nevertheless, managers are assigned formal authority for the hospital system in relation to staff, budgets, and other systems issues. However, this formal authority to manage the entire hospital system can be particularly complicated because, as Glouberman and Mintzberg (2001) argue, the hospital is not one overall system, but a set of different worlds.
The researchers utilised an organisational culture approach to better understand the multifaceted nature of hospitals. Organisational culture is understood to include “cultural manifestations that are unique to that particular organisation to point that these manifestations are recognised by organisational members as typical of their organisation” (Eljiz, 2009, p.58). The researchers used Martin’s (2000) three perspective theory to better understand the organisational cultures of the hospitals under investigation. The use of this theory was considered the most appropriate way to analyse organisational culture in the healthcare environment, as it allowed the researchers to understand an organisation’s culture from multiple paradigms. Investigations that adopt such a multi-perspective view are more complete because they allow for alternative, complementary and thorough assessments. Furthermore, the researchers used an organisational cultural perspective to be able to better interpret human interactions from both an insider and an outsider point of view.

From the discussion above, it is evident that the patient flow process is not clear and consists of different stakeholder groups who have different identifies and different ways of getting things done. Therefore, the question that is investigated by this study is how do different stakeholder groups interact with one another to enable patient flow given the different worlds they operate in. The methods used to answer this question are outlined below.

**Context and Methods**

This research is reporting on the results of a PhD study conducted from 2006-2009. The research was conducted at three (3) hospitals in greater western Sydney, Australia. One small, one medium, and one large hospital were selected to compare similarities and differences across varying sizes of hospitals. Due to the complex nature of hospital labour, multiple methods were used to gather the data. A survey questionnaire was used to gain a snapshot of the organisational culture of each of the three (3) hospitals examined in the study. Semi-structured interviews, observation and a review of the formal rules and procedures were used to understand why particular cultural manifestations were
occurring in each of the hospitals. Semi structured interviews were used as they allowed the researchers some latitude in regards to the way in which questions were asked and in which order they were asked (Shank, 2006). Purposive or snowball sampling was used to select 18 interviewees for a length of 45-90 minute interviews. Fieldwork of 150 hours also included observations and conversations with hospital staff.

The Mitchell et al. (1997) stakeholder model was employed in part of the survey questionnaire analysis to classify the stakeholder groups according to power, legitimacy and urgency. Power is the ability to influence decisions, legitimacy is the authority to influence decisions, and urgency refers to how essential it is for a decision to be made (Mitchell et al., 1997). From the analysis of the survey-questionnaire results and discussions with various stakeholders, three key stakeholder groups were identified; doctors, nurses, and managers. Extensive fieldwork allowed the researchers to interview, observe, and converse with multiple hospital staff across the three stakeholder groups.

Both Leximancer™ and QSR NVivo™ software packages were used to assist the researchers in the analysis of interview data, observational data, and data collected from conversations. The researchers used narratives from the field to identify similarities and differences and to develop and test theory (Blaikie, 2000). The use of comparative analysis prompts the researchers to engage with a process of reflection. This process is important as it allowed the researchers to systematically think about the linkages and interconnections between players in the hospital fields studied (Kleining & Witt, 2001). These linkages and interconnections were revealed through looking at the themes and concepts in the interviews and relating these to the literature. For example, the researchers would speak to several different participants about an incident that occurred and were then able to compare and analyse the responses based on the different narratives.
Discussion and Results

Medical roles have been reshaped, mainly due to the introduction of highly specialised medicine. With this specialisation, the superior status of medical doctors has shifted from an inter-professional domain issue (doctors versus nurses) to an intra-professional domain issue (general versus specialist doctors) and effects of medical dominance remain an issue in patient flow matters. For example, it was observed that doctors in the emergency department, who required a bed for a patient in a ward, had to battle with doctors from the ward to accept the patient. During the observation process, it became evident that getting a patient accepted into a ward is a difficult process for doctors in the emergency department who do not have alliances with doctors in the wards. Therefore building and maintaining relationships with hospital staff, both formal and informal, is a consideration for emergency department doctors as a way of breaking down some of the barriers to quickly transfer a patient to the ward. One of those barriers is the existence of distinct medical silos preventing boundary crossing within the profession as well as between professions.

Doctors and the Patient Journey

It was observed that the nature of the doctors’ role in patient flow is individualised, in that they work independently on patient cases. Because of this individualised nature of their work, a doctor’s role delineation is tightly defined. Furthermore, because their role aligns them with the cure paradigm (Glouberman & Mintzberg, 2001), a doctor’s work orientation is largely project based, rather than process based. The independent nature of their work means that doctors are generally isolated from other stakeholders, and are more protective of the relational dynamics in which they partake. This shows in the observation that doctors tend to form alliances with other doctors, and to a lesser extent, other stakeholders who can assist them in getting their job done.
Nurses and the Patient Journey

Whereas doctors work in their highly focused silos according to their clinical specialties (e.g. surgery, pediatrics) nurses are more flexible. This flexibility may be attributed to the variability of the nursing role. Nurses have both clinical responsibility and administrative responsibility. Nurses also operate within a loosely coupled hierarchy. They can also belong to many subcultures within the hospital including the hospital itself, the ward they work in, the ward they used to work in, morning, day, or night shift and so forth. These findings suggest that nurses seem to belong to many groups both clinically and administratively. Belonging to several different groups and not belonging coincides with the ambiguity perspective of culture where “lack of consistency and consensus, and above all ambiguity” (Fitzgerald, 2002; p. 32) defines the constant flux and multiplicity of cultural manifestations. Some of these cultural manifestations were evident through the conversations with nurses. For example, during conversations the researchers observed and took part in, nurses were able to present opinions about a variety of topics expressing their values and beliefs. Nurses talked about their attitudes as mothers, friends, daughters, being part of a netball team, specialty nursing group, and being a member of a specific team, i.e. night duty.

Since nurses evidently belong to many groups, the researchers found that nurses can rely on their informal social networks to “get things done”. Nurses in all three hospitals were involved in various social events. Nurses meet with other nurses for coffee and weekend functions. These social networks were used as a foundation for progressing patients throughout the hospital. Having a wider social network allowed for nurses in positions of power, such as Patient Flow Managers (PFM), to further processes in the hospital. For example, being aware of the birthdays of other nurses’ children allowed the PFM an opportunity to offer extra shifts, and thus extra income, during winter when fewer nurses would generally accept night shifts. Hence, it can be seen that nurses hold a pivotal role in the hospital. Apart from their clinical expertise and responsibilities, and sharing clinical understanding with doctors, nurses have operational responsibility. In New South Wales hospitals, it is mostly nursing staff who are charged with progressing the patient through the system and organising for other
staff to be involved, such as transport and cleaning services. The operational role of nurses allows them to share control understanding with managers.

**Managers and the Patient Journey**

The terms managers and administrators appear to be used interchangeably within hospitals. Administrators are usually removed from direct involvement in patient operations because they have little to no clinical contribution (Glouberman & Mintzberg, 2001). However, managers or administrators are responsible for wider systems issues such as resource and budget management. Although clinicians have responsibility for their individual patients, managers are responsible for the running of the hospital, networks, and area. The wards report to their hospitals, who report to their networks, who report to the overall area health service. Administrators are assigned and practice formal authority, which is their principle of organising (Glouberman & Mintzberg, 2001). Clinical managers and administrators are definitive stakeholders, which is shown through their decision making about resource allocation. However, whilst the managers and administrators are trying to discern who has formal authority to make certain decisions, it appears that the stakeholders who provide care are progressing patient flow via their informal networks.

**Nurses – the Conduit in the Patient**

Glouberman and Mintzberg (2001: p. 61) argued that whilst no one was formally charged with the coordination required for the flow of patients, “nurses come closest to affecting it”. However, in 2005 in NSW hospitals, a formal role was devised known as a Patient Flow Manager (PFM). Along with this came the introduction of the Patient Flow Unit (PFU). Since doctors are absent most of the time (with the exception of doctors who are staff specialists and employed by the hospital; many of whom are employed on a part-time basis) and managers are clinically distant from patients, the natural intermediary between clinicians and managers is the nurse stakeholder group. Nurses are able to mediate between clinicians and managers because they speak the ‘medical language’ of doctors, and
they understand the ‘systems language’ of managers. There is a necessity for dialogue between stakeholder groups when wanting to get things done.

This understanding of both the clinical and control worlds puts nurses in a perfect position to be a conduit between doctors and managers. This research confirms the fact that information between doctors and managers is more efficiently communicated when nurses are involved. In this sense, whilst there may be tension between clinicians and managers, nurses are able to dissipate some of this tension by allowing boundaries to be circumvented. This increases nurses’ saliency when making decisions about resource utilisation or non-utilisation. Therefore, the ambiguous nature of nurses’ culture in hospitals is a good platform for wider understanding, and also facilitates communication across boundaries between professional and functional groups.

However, not all nurses can function as a conduit. This requires special skills and characteristics known as deep smart characteristics (Leonard & Swap, 2005; 2007). A proposition of this research is that the decision makers in hospitals who really matter appear to display similar characteristics, and these characteristics can be classified as deep smart attributes. People with deep smart attributes have highly developed personal abilities, including the ability to network, systems think, and heuristics based on experience to come to a judgement (Leonard & Swap, 2005). The skills that these deep smart people have allow them to build networks and alliances with the right people to promote the flow of patients. However, ‘Deep Smarts’ refers to more than just individuals who have expertise in an organisation. It is also the way in which those individuals use their knowledge, networks and their other deep smart attributes that classifies them as experts. It became clear on consideration of the data collected, that some of the nurse managers in the hospitals studied were able to affect the decision making about patient flow due to their attributes. These nurse managers were pivotal to their hospitals because of their knowledge and skills. The knowledge and skills of these pivotal people are essential when considering the inter-occupational negotiations between different stakeholder groups.
The discussion above relating to the nurses and their care paradigm (Glouberman & Mintzberg, 2001) reveals some noteworthy findings. A finding of particular interest in this research was the way that nurse unit managers were being seen as a link, or a conduit between clinicians and managers. This may be because the nurse unit manager is responsible for so many parts of the patient journey. The nature of the nurse’s role is collective in that they work with other nurses and stakeholders to care for a patient. Because of their collective nature of work, a nurse’s role delineation is loosely defined. Furthermore, because of their operational role, a nurse’s work orientation is more process based, compared to the project based work orientation of doctors.

Another interesting finding was the way that nurses ‘juggled’ the demands of different stakeholders and were part of the patient journey from the start until the end of the patient flow process. The researchers observed the patient flow managers and nurse unit managers acting as conduits between the doctors, nurses, ward orderlies, and cleaners. The juggling of multiple stakeholder demands by nurses means that nurses’ relational dynamics are based on an intermediary role, where nurses rely on networks to maintain their inter-professional relations with other organisational stakeholders. The multifaceted role of nurses is conducive for the operational role they have in patient flow.

Conclusions and Implications

According to Mitchell et al. (1997) researchers can use the model to identify and classify stakeholders with the most saliency, or the priority given to stakeholders by management. Based upon formal authority, managers and doctors would usually be given the highest priority in relation to decisions made about bed allocation. However, the Mitchell et al. (1997) stakeholder model does not take into account personal and informal relationships or the magnitude (thickness) of relationships when making decisions about saliency. The researchers found that the relationships and networks developed by stakeholder groups influenced the decision making process about bed allocation. Therefore, it can be concluded that the Mitchell et al. (1997) model is lacking a fourth dimension of relationships that
could be considered the glue that holds together the other three factors for determining stakeholder saliency (Eljiz, Fitzgerald & Sloan, 2010).

Decisions about bed allocation, and subsequently steady patient flow, are not made simply according to formal rules and procedures, or formal roles that stakeholders hold. Instead, patient flow is affected (either positively or negatively) by the relationships that diverse stakeholder groups have within the groups and with other groups. By taking into account the informal intermediary role of nurses, it is evident that a group with little or no authority or formal power can influence the way that decisions are made. Due to the nature of the nurses’ role, they are involved in patient flow from the point of triage until the point of patient departure from the hospital. Therefore, the presence of nurses during the patient flow process enables them to interact with diverse stakeholder groups. Moreover, the finding that nurses form networks and friendships for unspecified future purposes, makes their role significant compared to doctors and managers who tend to form alliances for specific purposes.

Given the discussion and results, the authors present a model for better understanding stakeholder relationships in hospitals. Figure 3 depicts the various stakeholders involved in decisions about patient flow and bed allocation. The decision making process about bed allocation is complex because of the involvement of such diverse stakeholder groups. It is made further complicated by the changing management and funding structure for hospitals, and the way this is managed by various stakeholder groups is unpredictable. Different paradigms shape the way that groups approach the issue of bed allocation, and the diverse expectations further complicate the process. Moreover, the environment and government pressures also impact bed decisions due to constraints of funding and community expectations. The researchers found that the complicated process of resource allocation is made somewhat clearer by studying the role of nurses in the patient flow process. Although there are other stakeholders who may have more formal power, such as managers, nurses have an intermediary role which allows them to facilitate the resource allocation process between diverse stakeholder groups.
References


Figures

Figure 1: The process of transferring a patient from the Emergency Department to a ward bed

![Process Diagram](image)

Figure 2: Four Worlds of a Hospital by Glouberman and Mintzberg, 2001; p. 58

![Four Worlds Diagram](image)
Figure 3: A model for stakeholder interactions in hospitals