

A CASE STUDY EXAMINING THE IMPACT OF PUBLIC-SECTOR NURSES' PERCEPTION OF WORKPLACE AUTONOMY ON THEIR JOB SATISFACTION: LESSONS FOR MANAGEMENT

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ABSTRACT

This paper uses mixed methods to examine the impact of New Public Management (NPM) on public sector nurses' perceptions of workplace autonomy and, in turn, their job satisfaction. The quantitative findings of this study suggest that nurses' perception of autonomy does moderate their job satisfaction. The qualitative findings suggest that the implementation of NPM has negatively affected nurses' experiences of autonomy and job satisfaction.

The impact of NPM has increased the number of patients public hospitals are able to process, however, the same policies have negatively impacted on nurses' work experience. The findings have implication for governments in their quest to achieve both efficiency and effectiveness.

Key words: administrative subculture; employee autonomy; feedback processes.

INTRODUCTION

The work practices of nurses working within public hospitals of most western democracies have changed as a result of the implementation of new public management (NPM) reforms (Ferlie, Ashburner, Fitzgerald & Pettigrew 1996). NPM refers to new public management practices that comprise multiple changes (Hood 1995; Lynn 1998). Firstly, NPM places a focus on improving organisational management practices and performance appraisal so as to achieve increased efficiency. Secondly, NPM encourages the use of quasi-markets and contracting out to foster increased competition. Thirdly, there was a new focus on making public organisations more responsive to their clients and customers (Ferlie & Pettigrew 1996).

Whilst there is debate about whether NPM is an international phenomenon (Hughes & O'Neill 2000), there is general consensus that, within the Australian context, the implementation of NPM has been associated with increased managerial control so as to achieve significant cost cutting (Harris 1999). However, Orchard (1998, p. 25) argues that it is naïve to describe Australia's public sector reform experience as 'simply an error promulgated by an ALP foolishly imitating trans-Tasman or British trends'. Instead, it is

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important to acknowledge that within public hospitals, universities and schools across a number of OECD countries, the implementation of NPM has been associated with three outcomes. They are: reduced per capita funding, *in addition* to increased efficiency, and the development of a new kind of professionalism aimed at servicing organisational goals rather than those associated with professions (Hood 1995).

The impact on employees has been 'a marked deterioration in their working conditions' (Hughes 2000:4). Similarly, an initial study by Morland, Steel, Alexander, Stephen and Duffin (1997) of the impact of implementing NPM reforms on Australian public sector employees suggests that employees report higher levels of effort and the pace of work and, in turn, there has been an overall reduction in job satisfaction levels.

The implication for nurses working within Australian public hospitals is that they have also experienced a changed workplace. Nurses can expect increased workloads as a means of hospitals coping with significant funding cuts (Harris 1999). For example, the Australian Nursing Federation argues that many hospitals are increasingly expecting nurses to carry an increased caseload and others to work between 'two and ten hours paid and unpaid overtime per week' (Robinson 2004, p. 6). The increased workload of nurses, coupled with an aging workforce, is blamed for the continual exodus of nurses leaving the profession (Dunn 2003). Should present trends continue, it is predicted that there will be a forty percent (31,000 positions) shortfall in nurses across Australia within two years and the situation is even more severe within the mental health and child health sectors (Armstrong, 2003; Dunn 2003; Guerrera 2003). Similarly, other public-sector professionals delivering social services have also experienced increased workloads (Avis 1996; Gleeson & Shain 1999).

It is, therefore, surprising that the governments of many western democracies have accepted public choice economists' claims about the potential benefits associated with implementing NPM within the public sector (Rainey 1998; 1999). One of the catalysts for implementing NPM by the Australian government was the emergence of 'new right intellectuals...[drawing on]...the ideas of American public choice economists' that pontificated that the public sector 'suffered from gross inefficiency and waste' (Orchards 1998, pp. 20-21). However, to date, there has been minimal research examining the impact of NPM on the effectiveness of organisational processes and the resultant impact on the workplace culture within public sector organisations (Brunetto & Farr-Wharton 1994; Rainey 1998, 1999).

Moreover, the impact of NPM is most often discussed and measured in terms of its effect on organisational outcomes. In contrast, the effect of these changes on the work culture of public sector employees has been a secondary focus (Ferlie et al. 1996). In addition, there has been minimal empirical testing of the impact of public sector reform on either organisational processes in general or on employees' perception of workplace autonomy and, in turn, its impact on job satisfaction (Brunetto 2002; Brunetto & Farr-Wharton 2004). The outcomes have implications for public sector management practices in their endeavour to maximise efficiency and effectiveness with scarce public funding. This paper uses a mixed methods approach to examine the impact of NPM on public-sector nurses' perceptions of workplace autonomy and, in turn, job satisfaction. The research question is:

What is the impact of NPM on nurses' perception of autonomy in the workplace and, in turn, job satisfaction?

The paper begins with a review of relevant literature from which secondary research questions emerged. The second part of the paper examines results in terms of the existing literature.

There are three reasons for examining the impact of NPM on nurses' perception of workplace autonomy and, in turn, upon their job satisfaction. Firstly, Australia faces a significant shortage of nurses caused by their increased workloads (associated with the implementation of NPM coupled with an aging population) (Armstrong 2003; Dunn 2003; Guerrera 2003). Secondly, if as public choice economists argue, the government is really interested in increasing the efficiency or effectiveness of public hospitals (Rainey 1999), then past research suggests that there is a positive relationship between job satisfaction and productivity (Pettit, Goris & Vaught 1997; Petty, McGee & Cavender 1998). Thirdly, there has been minimal research examining the impact of NPM on the efficiency and effectiveness of organisational processes such as communication in particular, and those affecting the job satisfaction of employees (Kikoski 1999, p. 302). Hence, the findings may arm public sector managers with more knowledge from which to make better management decisions within the post-NPM environment.

BACKGROUND

The debate about the value of implementing NPM

Public choice is a branch of modern economics that assumes that public firms are inefficient and, therefore, their role should be diminished. Moreover, they argue that public sector organisations that cannot be privatised should adopt private sector management tools because they are more efficient and effective (Orchard 1998). The assumption is that within the private sector each task is identified and performance of each task is measurable. These processes make increasing productivity an easier task (Rainey 1997; 1998).

However, according to Rainey (1999, p. 131) the present day beliefs about 'private sector superiority...have driven a massive amount of political and administrative activity and a substantial body of scholarly writing, [yet] no one really knows whether such assumptions are valid'. Within Australia, research into the impact of NPM on public sector employees undertaken by Zeffane and Morgan (1999, p. 489) suggests that the 'predicted source of improvement in labour productivity was not fully confirmed'. Hence, there is an emerging debate about the real impact of NPM. The secondary research question that emerged from this literature is:

SRQ1: What has been the impact of NPM on the efficiency and effectiveness of nurses within Australian public hospitals?

The impact of NPM on professionals

Public sector hospitals often cope with significant funding restrictions. According to Probert, Stevenson, Tang and Scarborough (1999) previous research into public hospitals such as the Peterborough Hospitals National Health Service (NHS) Trust identified that they were financially starved, had difficulty finding and recruiting nurses, were very bureaucratic in nature and found evidence of chronic conflict between managers and consultants. To varying degrees, this is the type of environment within which nurses operate in Australian, New Zealand and UK public hospitals (Armstrong 2003; Dunn 2003; Guerrera 2003).

Traditionally, professional employees have used their expertise to maintain their autonomy in the workplace irrespective of managerial objectives (Ham & Hill 1993; Parsons 1995). The impact of NPM has been to curtail the autonomy of professional employees by introducing policies aimed at increasing accountability (Parsons 1995). The method used by government to increase accountability of professionals has been to compel many professionals acting as middle level managers to employ bureaucratic strategies that ration and restrict access, despite the apparent conflict with their professional ethics (Yeatman 1990). For example, within Australian and New Zealand public hospitals Degeling et al. (1999, p. 174) argue that all medical personnel experienced 'negotiated accountability arrangements' adding 'explicit accountability to management' to established professional accountability measures. In this way, government policies have led to professionals becoming managers—thereby shouldering the responsibility for achieving management goals (Hoggett 1994).

The implication of this strategy has been that middle and senior professionals have been expected to use their professional status to ensure that junior professionals embrace the required organisational changes (Avis 1996). As a result, professional managers now face 'greater ambiguity in the identity of professionals undertaking management responsibilities' (Brunetto 2002, p. 10). The ambiguity results from the dilemma public sector professional middle managers face in adhering to the established work practices and values associated with the profession whilst attempting to meet organisational goals (Gleeson & Shain 1999). It is, however, unclear how this has affected the perceived autonomy of nurses. Consequently, the secondary research question that emerged from a review of this literature is:

SRQ2: What has been the impact of NPM on the autonomy in the workplace of nurses and nurse managers within Australian public hospitals?

Culture

Within each organisation, a distinctive culture develops over time that differentiates one organisation from another. Hofstede (1991, p. 262) argues that culture can be defined as 'collective programming of the mind' that in turn distinguishes the practices of members of one organisation from another. According to Hofstede (1998, p. 18) the culture of an organisation can be examined by analysing the 'practices—the visible part of culture' of members within an organisation because they in turn provide a window for understanding the organisational values which in turn 'represent the invisible part' of an organisation's culture. Hence, culture can be examined in a number of ways (Cartwright & Cooper 1993, p. 6).

The practices within different parts of each organisation depend upon on the tasks being undertaken. Hofstede (1998) argues that there are at least three subcultures: a professional, an administrative and a customer interface subculture. In turn, Hofstede (1998) developed six mutually independent dimensions that could be used to differentiate cultures based on different practices.

The relevant dimensions in Hofstede's (1998) study are: management 'control' (that examines whether employees operate within 'loose' or 'tight' organisational control) and organisational practices (that examines whether organisational practices are 'process oriented' or 'results oriented'). The control dimension focuses on the internal structuring within an organisation. Employees who operate within a 'loose' system have autonomy in the workplace to make workplace decisions, whereas employees operating within a 'tight' system have minimal autonomy in the workplace within a tightly managed structure

(Hofstede 1998). In terms of the practices dimension ('process oriented' versus 'results oriented'), Hofstede (1998) argued that process oriented employees avoided risks and adhered to organisational processes rather than meeting specific outcomes or the needs of customers.

According to Cartwright and Cooper (1993, p. 61), one way of examining the culture of employees is to examine employee satisfaction with organisational processes. They used this approach to assess the culture of an organisation as a means of determining the potential 'post-combination performance' of the employees within firms considering merging. This paper uses a similar approach to assess the culture of nurses.

Communication as Part of Organisational Culture Theory

One method of examining how NPM has impacted on the cultural norms and practices of nurses is by analysing their communication practices used to diffuse, deduce and construe information (Schein 1986; 1993; Smidts, Pruyn & van Riel 2001). The aim of communication processes is to reflect the established cultural beliefs about 'what', 'why' and 'how' information should be shared (Federico 1996).

The effectiveness of communication processes within public sector organisations is the responsibility of management (Kim 2002). This is because management is responsible for establishing the organisational context and nature of superior-subordinate relationships (Dubinsky & Yammarino 1992).

The implementation of NPM may have changed the nature of superior-subordinates relationship between nurses and nurse managers, especially if managers have been forced to increase the workloads of nurses. In turn, this could impact on their performance and job attitudes. Hence, the quality of superior-subordinate communication is an important component when examining the impact of increased managerial control on nurses' satisfaction with communication processes and, in turn, their perception of workplace autonomy in the workplace.

Superior-Subordinate Communication

Much of the previous research examining the impact of superior-subordinate communication has focused on private sector employees (Adler 1999; Gamble & Kelliher 1999). The issue for public sector employees is that the quality of effective bi-directional communication between employees and supervisors significantly affects the ability of employees to be 'results' oriented (Barker & Camarata 1998; Barter 2000; Hillman, Schwanddt & Bartz 1990). This is because employees need effective support mechanisms in place for solving patients' problems.

For example, when an elderly patient presents with multiple medical and mental illness issues, attending to the medical problems using routine procedures may be complicated by the lack of support needed to address the mental illness. In such situations, a nurse may have to seek advice/clarity from his/her supervisor so as to ensure that the patient's interests are met and this may involve a non-routine (and, therefore, more expensive) response.

In such cases, a 'process' oriented approach could achieve a different outcome compared with a 'result' oriented approach. According to Somers & Birnbaum (2000), as organisations become less bureaucratic, control mechanisms become more informal and, in turn, the role of

formal rules and regulation diminishes. Supervisors who use more indirect communication processes (such as information-sharing or role-modelling) create better organisational processes (Calpin-Davis 2000; Emmert & Taher 1992; Mayfield, Mayfield & Kopf 1995; Hillman, Schwanddt & Bartz 1990). Kim (2002), and Ingala and Hill (2001), identify a positive relationship between employees' job satisfaction and a participative management style used by superiors.

The job satisfaction of employees is enhanced when there is good supervisor-service employee communication and, in turn, low role ambiguity (Gerstner & Day, 1997; Johlke & Duhan 2000). This is because low role ambiguity is associated with consistent and useful information (about patients and their needs) and the supervisor's vision and expectations (about nurse practices and ethical considerations) flowing bi-directionally between supervisors and employees. The outcome is likely to be a 'result' oriented approach to patients and the delivery of an effective quality service (Andrews & Kacmar 2001).

In summary, the quality, frequency and type of communication processes used between management and employees may impact on the clarity/ambiguity employees face in their decision-making regarding different aspects of their work. In turn, these factors are likely to affect the employees' level of job satisfaction, which is one of the measures that can be used to examine the impact of cultural practices (Cartwright & Cooper 1993). Consequently, the following secondary research questions emerged from the review of literature:

SRQ3: What is the relationship between communication variables and the job satisfaction of nurses within public hospitals?

In particular, communication variables relate to the frequency, mode, content and flow of communication about (a) patients and their needs, (b) supervisors and their vision and goals, (c) the policy and practice associated with ethical nursing issues.

The relationship between job satisfaction and autonomy in the workplace

There is a debate about whether employees' perception of autonomy in the workplace is related to job satisfaction—particularly for professionals (Hundley 2001). Employees' autonomy in the workplace refers to their ability to make decisions about how and when to undertake workplace tasks (De Jonge 1995). According to Vetter, Felice and Ingersoll (2001) self-scheduling by nurses increases their level of satisfaction because it increases their control over rosters. The major finding of their study was that job satisfaction increased when nurses were given more autonomy in the workplace to determine their work routines, and that there was a strong need for frequent communication, adjustments, and consistency of management decisions. The following secondary research question emerged from the review of literature:

SRQ4: Do nurses' experiences of communication variables moderate nurses' perception of their autonomy in the workplace and, in turn, their job satisfaction.

In total, these four secondary research questions are used to inform data collection so as to address the primary research question.

METHODS

This research uses mixed methods research to examine the impact of NPM on nurses' perception of autonomy in the workplace and, in turn, its impact on their job satisfaction. Mixed methods research involves using both qualitative and quantitative research tools (Rocci, Bliss, Gallagher & Perez-Prado 2003). The main advantage of using mixed methods is that it aids triangulation, which is the substantiation of results so as to increase validity and achieve greater depth and insight about a phenomenon (Denzin 1989, p. 307; Rocco et al., 2003). In contrast to previous studies of organisational culture, Hofstede (1998) also used a combination of qualitative and quantitative tools.

The data derived from a mixture of methods is used to develop analytical generalisations based on a pattern-matching logic (Yin 1994). This means that the emerging patterns of data are compared with the findings of previous research analysed in the literature reviews.

Procedure for gathering data

1. A questionnaire was developed using a combination of one validated instrument and additional questions related to nurse's perception of autonomy. The instruments were:
 - Johlke and Duhan's (2000) validated instrument for measuring 'supervisor communication practices and service employee job outcomes'. This instrument was chosen to examine whether organisational processes are effective in achieving stated outcomes, particularly in relation to patients.
 - Additional questions related to nurse's perception of autonomy (See Table 2). The questions were developed in response to a review of the literature, in addition to the interviews with senior nurse managers.

Respondents were asked to indicate their degree of agreement with questions aimed as measuring the stated variables.

2. Interviews with two senior nurse managers
3. Interviews with three middle nurse managers
4. Short interviews with six nurses

SAMPLING PROCESS

(a) Quantitative component

Purposive sampling underpins all sampling decisions (Yin 1994). The first step involved approaching two typical public hospitals located within two cities within one Australian state to participate in the research. Both hospitals agreed and in each hospital the questionnaire was handed out to every fourth nurse in alphabetical order on day shift during a weekday. In total, eighty surveys were distributed in one hospital and fifty in the other. In response, seventy-four useable surveys (forty-two from one hospital and thirty-four from another) were collected. The response rate was approximately thirty percent in the first hospital and twenty-two percent in the second hospital. The implication of the relatively low response rate is that it does compromise the generalisability of the findings somewhat, however, the examination of data derived qualitatively provides another avenue for triangulating the findings (Rocco et al. 1993).

(b) Qualitative component

The use of interviews allows researchers to gain a better understanding about the underlying relationships identified using quantitative analysis (Yin 1994). In particular, the data from interviews provides researchers with rich explanations of processes in specific contexts (Rocco et al. 2003).

Purposive sampling again underpins all sampling decisions for determining interviewees (Yin 1989). Within each hospital, the senior and middle nurse managers were approached, however, only three of the six middle managers were interviewed. In addition, nurses were asked to indicate whether they would agree to a short interview. In response, six nurses responded favourably and, as a result, were interviewed in relation to their experiences of job rotation.

RESULTS**Results from Quantitative Analysis**

A linear regression was undertaken to examine the relationship between communication variables and the job satisfaction of nurses within public hospitals. The findings suggest that there is a significant relationship between the independent variables and the dependent variable (job satisfaction) ($F=2.335$ $p<.05$, $R^2= 32.5\%$) (see Table 1—model one). The independent variables explained 32.5% of the nurses' job satisfaction.

A hierarchical regression analysis was undertaken to examine whether nurses' experiences of communication variables moderated nurses' perception of autonomy in the workplace and, in turn, affected their job satisfaction. The findings suggest that communication variables do moderate nurses' perception of autonomy in the workplace and, in turn, the dependent variable (job satisfaction) ($F=3.931$ $p<.000$, $R^2= 52.5\%$) (See Table 1—model two). The independent variables explained 52.5% of nurse' job satisfaction. The significant factor was the nurses' perception of autonomy in the workplace variable ($b=.578$).

Table 1: Results from Main Effects Regression Analysis of Job Satisfaction and means

Independent Variables	Nurses' Job Satisfaction <i>Statistically significant beta scores</i>	Means and Standard Deviation for relevant variables
Model One	F=2.335 p= <0.05 R²=32.5%	(1=Strongly Agree – 6=Strongly Disagree)
Model Two	F=3.931 p= <0.000 R²=52.5%	
	Beta scores	
MODEL ONE		
Communication Frequency	.017	
Informal communication mode	-.001	
Indirect communication content	.163	
Bi-directional communication	-.200	
Customer ambiguity	.283	
Supervisor ambiguity	.434	
Ethical ambiguity	-.089	
MODEL TWO		
Communication Frequency	-.063	3.505 (1.69)
Informal communication mode	.025	2.98 (1.05)
Indirect communication content	.264	3.389 (1.18)
Bi-directional communication	-.401	3.46 (1.53)
Customer ambiguity	.274	2.428 (1.19)
Supervisor ambiguity	.197	2.554 (1.18)
Ethical ambiguity	-.028	2.12 (.96)
Autonomy	.578 p<.000	2.59 (1.25)
Job satisfaction		2.007 (1.05)

Results from Qualitative Analysis

The first step in undertaking qualitative analysis of interviews is data reduction. This is where the data are categorised based on 'commonalities and differences' across emerging themes (Ghauri & Gronhaug 2002). The prevalence of each category is then calculated. The systematic patterns that emerge are then used to draw conclusions that can be used to address research questions (Ghauri & Gronhaug 2002; Yin 1994).

To gather data in response to the first secondary research question about the impact of NPM on the efficiency and effectiveness of nurses within Australian public hospitals, three sources of information were sought.

Firstly, the senior nurse managers were asked to describe the impact of NPM on their practices as the Director of Nurses in each hospital. Their responses suggest that the significant reductions of funding did lead to implementing private sector tools and that led to significant administrative changes. Some of the changes were considered 'good' (because they have increased efficiency) and some were considered 'bad' (because they have compromised effectiveness). The following quote exemplifies the positive impact of NPM:

Four months after I started it became evident that if we didn't do some major cost-cutting we were going to end up something like \$1.5 million over budget...the thing that amazed me the most was that there was no cost-modeling for nursing costs...so I implemented a demand driven activity system...certainly private hospitals have used that type of system for a long time but public hospitals haven't used it at all. They used historic budgets to determine costing for next year...not based on present demand...

The following quote exemplifies the negative impact of NPM:

I am expected to be a change agent, helping people sort through organisational changes, but really it is really a cost cutting exercise and I feel quite dis-empowered...

In addition, nurses undertaking a middle managers role were asked to describe the impact of NPM on the work practices of their nurses. The interviews were content coded so as to identify the merging themes. The strongest theme emerging from the interviews is that the workloads of nurses have increased significantly and it has impacted on their work life. A typical response was:

The performance indicators have not changed in the last six or seven years whereas the acuteness of the patients has certainly changed in that time...that has increased our workload. Everything is extra paperwork and there are less resources and less nurses and the workload is greater...that makes it hard for me to lead a demoralized workforce...

In summary, senior nurse managers identified positive benefits resulting from the implementation of better management tools that have, in turn, improved the efficiency of managing scarce resources. However, the impact of the reduced resources appears to have been negative because it has increased nurses' workloads. As a result, this has reduced nurses' time to think about their practices in relation to patients. Moreover, nurses are stressed by the constant increased workload.

To gather information about the impact of NPM on nurses' and nurse managers' perception of autonomy in the workplace within Australian public hospitals, nurse managers and nurses were asked to elaborate about how their autonomy in the workplace had been affected. In response, nurse managers stated that nurses' autonomy in the workplace was compromised somewhat by the introduction of pooling of 'spare' staff rather than job rotation. A typical response from a nurse manager was:

Ideally, only graduates in their first year coming into the workforce and nurses wanting to work in emergency to get clinical mix experience should be pooled but...[shakes head]...it doesn't work well if the nurses are angry about being there...and they aren't

as productive because the environment is strange, it takes them longer to do things, so you really wonder if it is a productive or efficient work practice for hospitals to use.

Secondly, nurses were asked how pooling and/or job rotation had affected them. An example of the emerging negative theme (lack of autonomy) is expressed in the following quote:

[There is a] lack of rotation to areas I would like to go and too much pressure put towards us going to areas I don't want to go.

In summary, the findings suggest that whilst nurses may accept the merits of job rotation on a two yearly basis, they are generally displeased with the policy of sending nurses (using the disguise of job rotation or pooling spare staff) to wards with acute shortages (where the shortages are caused by poor workplace conditions).

DISCUSSION

Because previous research suggested that the implementation of NPM has affected the workload of public sector employees, this paper examined the impact of NPM on firstly nurses' perception of autonomy and, secondly, its impact on their level of job satisfaction. To address the primary research question, data were collected in response to four secondary research questions.

In response to the first secondary research question that examined the efficiency and effectiveness of nurse practices within public hospitals, the findings suggest that reduced hospital funding has led to changes in hospital management practices that have in turn affected nursing practices. Nurses now face an increased workload as a result of a combination of a different funding formula (changing the ratio of patients to nurses) and the increased incidence of more acute patients. As a result, the implementation of NPM has probably led to an increase in the number of routine patients being treated. Hence, it could be argued that the system is more efficient.

However, the cost of increased efficiency seems to be at the expense of the working conditions of nurses and non-routine patients. In terms of the Hofstede's (1998) management 'control' dimension, nurses within public hospitals now operate within 'tightly' controlled organisations that are 'results oriented' as long the patients have routine problems that can be addressed using standardised procedures. However, nurses now have less time to review the treatment of patients experiencing non-routine or multiple problems that require non-standardised responses. Hence for those patients, nurses are probably less effective.

The second focus of this paper examined the impact of NPM on nurses' and nurse managers' perception of autonomy in the workplace. The findings from the qualitative research suggest that nurses at different levels of the hierarchy experience reduced autonomy in the workplace. For example, senior nurse managers feel disempowered because they don't control the level of funding, however, they do control how the reduced funding is divided. Middle-level nurse managers have power in relation to staffing placements—however, they feel disempowered when forced to make decisions that result in some nurses being pooled and sent to high demand areas. Those nurses who are pooled and transferred to high demand areas feel disempowered. On the other hand, the findings from quantitative analysis (means) suggest

that nurses agree (slightly) that they have autonomy in the workplace, suggesting that some nurse do not share this experience (see means in Table 2).

Table 2: Nurses perceptions and reactions to enforced job rotation: Means (Standard Deviations)

Statements used in survey (1=Strongly Agree – 6=Strongly Disagree)	Mean (SD)
I hardly ever have to do things on the job that are against my better judgment	2.656 (1.558)
I think that it is a good idea that the hospital moves nurses around to wards where there are shortages	4.187 (1.89)
When I am forced to work in a ward I don't like, I am more likely to take leave (sick, annual, family).	3.8438 (2.12)
Overall, I am satisfied with the autonomy in the workplace I have in this job	2.59 (1.25)

The third secondary research question examined the relationship between communication variables and the job satisfaction of nurses within public hospitals. Job satisfaction was measured in terms of nurses' satisfaction with communication processes between themselves and nurse supervisors. The results of the regression analysis suggested that communication between nurses and their supervisors did explain a third of nurses' job satisfaction. This finding supported previous research arguing that management is responsible for establishing the organisational context and nature of superior-subordinates relationship (Dubinsky & Yammarino 1992). However, the means for each communication variable suggested that nurses are not particularly satisfied with present processes (see Table 1).

The fourth secondary research question examined whether nurses' experiences of communication variables moderated their perception of autonomy in the workplace and, in turn, their job satisfaction. The findings from the regression analysis confirmed the moderating effect of nurses' perceptions of autonomy on their level of job satisfaction. The findings from the qualitative research suggested that the likely factors compromising autonomy are organisational management factors, such as the reduction of 'down-time' (which has in turn, increased workloads) and, secondly, the practice of pooling spare staff and placing them in wards suffering acute shortages.

A limitation of this study is common methods bias in relation to the questionnaire that was used as one basis for collecting data. However, Spector (1987; 1994, p 386; 1994, p. 390) argues that as long as 'there is reasonable evidence that supports our inference about it and our interpretation of what it represents' self-report methodology is useful in providing trends that in turn provide useful insights into employees' feelings and perceptions. However, Spector (1994) argues that the research question must use appropriate methodology; otherwise generalisations become too speculative. This paper attempts to address the inherent weakness of using self-report data by using mixed methods allowing triangulation to improve the generalisability of the findings.

CONCLUSION

The findings from this study suggest that whilst the implementation of NPM has achieved positive efficiency gains as a result of better costing models for nurse management, the impact on nurses' conditions of work have been predominantly negative. Hence, the achievement of better management efficiency goals does confirm public choice claims about the economic benefits of NPM. On the other hand, the cost of increased management efficiency has impacted negatively on the work conditions of nurses at different levels of the hierarchy and the treatment of patients experiencing non-routine/multi-problems.

The findings suggest that nurse managers, whilst empowered to undertake more management-related duties, perceived that they have less autonomy in the workplace. As such the findings support research by Hoggett (1994) suggesting that professional public sector managers are now expected to shoulder the responsibility for achieving management goals. Further, the findings suggest that nurse managers are responsible for ensuring that junior nurses embrace their increased workload as argued by Avis (1996). In addition, nurse managers identified that they experienced greater levels of ambiguity in their identity of professionals, as argued by Brunetto (2002). This is because on the one hand they appear to have increased power and management responsibility, however, on the other hand they feel disempowered because they know that their decisions increase nurses' workload.

The impact of the implementation of NPM on nurses suggests a negative outcome. This finding supports research by Zeffane and Morgan (1999) that argued that the implementation of NPM has negatively impacted on public sector employees. The findings from this paper support their claim and provide preliminary support for the argument that the impact of NPM has implications for nurses' perception of autonomy. In turn, perceptions of autonomy moderate their level of job satisfaction. The findings, predominantly from the qualitative data, suggest that it is likely that nurses' productivity is negatively affected by organisational management practices that increase their workload and/or makes them work in 'difficult' wards. These factors may in turn explain the growing nurse shortage in Australia as identified by Armstrong (2003), Dunn (2003) and Guerrero (2003). More research is required to examine how increased workloads impact on staff turnover rates, long-term nurse productivity and, in turn, patient care.

There are a number of implications of the findings from this study for governments that fund public hospitals and, in turn, public sector managers who have the responsibility for carving up government funding within public sector organisations. In theory, governments adopted NPM to improve the efficiency and effectiveness of hospitals. In practice, most researchers agree that whilst governments did want to achieve increased effectiveness, it was a secondary focus dominated by a desire to reduce per capita funding of social services. This paper provides further evidence in support of that claim.

However, previous research has already established that anything that affects job satisfaction, also affects productivity. The present nurse-funding model based on the demand for nurses is an improvement on the use of traditional nurse funding models. However, the model is flawed because it expects all patients to require only routine treatment—hardly a 'results focused' system. The present system does not give nurses the time required to critically reflect, discuss with peers and review present medical treatments for non-routine, multi-diagnosis patients. Nurses need time to review patient care. Any funding model that

reduces nurses' time to critically reflect about their practices in relation to patients must, in turn, compromise the effectiveness of nurses. If the government is really interested in achieving a more effective management of scarce health resources, then a demand model based on achieving optimal patient outcomes is probably the best alternative.

In turn, public sector managers have traditionally viewed employees as a cost (of production) in meeting patient demand. Such an approach suggests that increasing accountability has increased control over nurse practices—thereby reducing costs by making them more productive. However, such a cost model appears short sighted. Nurses are professional employees and, as such, are expensive to educate (a minimum of four years at university) and costly to replace (since nurses build up tacit knowledge specific to a hospital in general and a ward in particular). Hence, reducing their job satisfaction can increase staff turnover and create a skills drain and, in turn, compromise the ability of a hospital to attract and keep skilled nursing staff.

The findings of this study suggest that nurses' perception of autonomy does moderate their level of job satisfaction. More research is required to determine whether nurses' reduced autonomy in turn is increasing staff turnover. If so, then it is likely that present practices are increasing the cost of delivering health care within public hospitals in the long term. If this is the case, then present practices are likely to compromise governments' real cost-cutting agenda in the longer term.

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