

# Culture, communication and service quality in health care administration: A tale of two hospitals

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## Abstract

*This paper reports the results of a qualitative cross-case analysis of two medium-sized Australian general hospitals moving to a new era of service quality management. The analysis was based on a model of perceptions of organisational culture, communication and quality of patient care. Results showed that the prevailing culture at the two hospitals was quite different, but there was consistency in the relationships between the study variables. In particular, perceptions of culture and communication had an impact on perceptions of quality of care. The results are discussed within the context of previously reported findings.*

## Introduction

‘Are we in crisis?’ the public hospital chief executive officer asked the organisational consultant. ‘No,’ was the reply, ‘but I would say you are in a lot of pain.’

In this paper, we present case studies of administration in two medium-sized Australian general hospitals which are moving into a new era of quality management. The importance of communication in delivering patient care and in achieving best practice status was addressed by Walker, Evans and Robson (1994).<sup>1</sup> The aim of this paper is to illustrate the important relationships between organisational culture, communication and quality of patient care.

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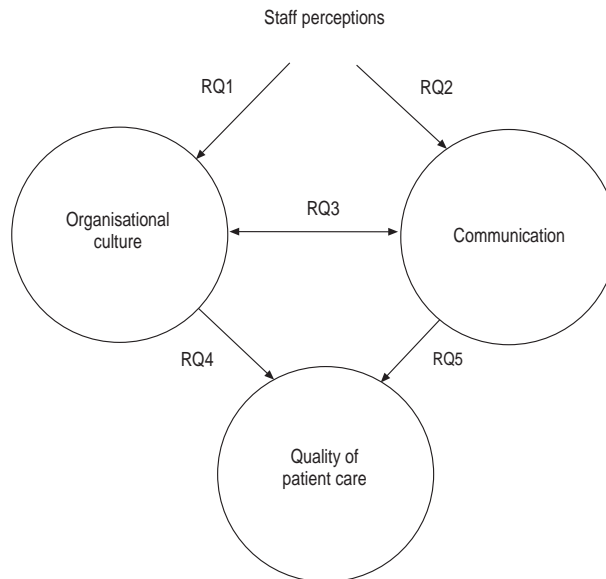
<sup>1</sup> Best practice principles reflect performance of systems and functions found in exemplary organisations (Rummler & Brache 1990). These ‘best practices’ are most consistent with the needs and preferences articulated by customers (Draper & Hill 1995).

The specific methodology is adapted from Miles and Huberman's (1994) concept of cross-case analysis, where qualitative differences and similarities between cases are analysed as a means of understanding the nature and roots of organisational processes in each case. The paper commences with a description of the model and the methodology used. This is followed by a 'snapshot' of each hospital and its contextual setting, and an analysis of interview and observational data. The key variables used to frame the presentation of data are illustrated in Figure 1. The data were collected in individual interviews and focus group meetings at each hospital. Data gathered from archival and observational material are also incorporated in the analysis.

## Conceptual framework

The conceptual framework used in this analysis is based on Reilly and DiAngelo's (1990) view that communication and organisational culture are closely aligned. We have extended this concept based on Parasuraman (1987), who argues that communication is also central to a culture of quality service; and on Schneider and Bowen (1992), who propose that organisational culture and communication affect the quality of patient care – they actually refer to customer service quality.

The model is shown in Figure 1.



**Figure 1: Conceptual framework: Staff perceptions of organisational culture, communication and quality of patient care**

The key concepts within the model are organisational culture, communication and perceptions of patient care (service quality).

*Organisational culture* is defined as the commonly held and relatively stable set of beliefs, attitudes and values that exist within an organisation (Schein 1985).

*Communication* entails speaking, writing, symbolising or behaving in order to attain desired interactive goals in social contexts using socially acceptable means (Stohl 1983).

*Service quality* has been defined by Grönroos (1985) as comprising two components: technical and functional quality. *Technical quality* involves clients' perceptions of what they have received at the conclusion of the buyer–seller exchange. *Functional quality* involves clients' perceptions of how the end result is transacted during the buyer–seller interactions. Stiles and Mick (1994) have added a third dimension of quality relevant to health care – *amenities quality*. This includes cleanliness, attractiveness and conveniences.

## Research questions

Based on the conceptual model, five research questions operationalise our framework. These questions address the relationships between staff perceptions of organisational culture, communication and quality of patient care. The questions are as follows.

1. How do staff perceptions influence organisational culture?
2. How do staff perceptions influence communication?
3. What is the relationship between organisational culture and communication?
4. How does organisational culture affect quality of patient care?
5. How does communication affect quality of patient care?

## Methods

### Sample

Two hospitals were studied: one a public hospital in a mid-sized northern Australian city, the other a private hospital in a large Australian city. The sample was not randomly selected, but reflects the purposeful selection of cases within different commercial sectors. This procedure enhances similarities and differences between the hospitals. A further criterion was that each hospital had to have a quality program in place. Management of both hospitals have requested that the

identity of their hospital remains confidential. We will refer to the public hospital as 'Northern' and the private hospital as 'City'.

## **Procedure**

The following three techniques for collecting data were used.

*Interviews and focus groups.* These were relatively unstructured, that is, without a series of specific questions to be answered. They were, nonetheless, based on nominated discussion topics focused on the three key study variables. The interviews and focus groups were conducted over one two-week period within each hospital.

*Archival records.* Archives were accessed to develop a 'snapshot' of each of the hospitals and their contextual settings.

*Observation.* Data were gathered by the first author during frequent visits to the hospitals over a 12-month period. In this respect, we followed the precedent set by Meyer (1982), who showed how useful data can be collected in hospital research by observing formal and informal activities and conversations.

Cross-case analysis was used to enhance generalisability further and to deepen understanding and explanation of the qualitative data (Miles & Huberman 1994). In all, seven individual interviews and twelve focus group meetings were conducted at Northern; and twelve individual interviews and four focus group meetings at City.

Each hospital's Quality Coordinator, in close consultation with the first author and the hospital's Chief Executive Officer, facilitated the selection of interviewees and focus group participants based on key roles and group representation. Each person selected was given a letter explaining the purpose of the study. The interviews and focus groups were held in private rooms or, where necessary, the offices of senior personnel.

Participants were encouraged to express their perceptions, observations and experiences in respect of the three key study variables. They were assured of confidentiality and anonymity, and promised access to detailed feedback. Recording was done using written notes and, with permission, tape-recording. Focus group participants who objected to tape-recording were allowed to leave before the session started (only one person did so). At the conclusion of each interview or focus group session, participants were thanked for their participation and contribution.

## **Northern hospital**

### **Administration and context**

Northern is a medium-sized public hospital situated in a remote area of Australia, and operates within a highly politicised environment. The city in which the hospital is located is serviced by one public hospital and one private hospital. Northern has approximately 260 authorised beds. Approximately 1000 staff service the hospital. Nursing staff, medical practitioners and allied health professionals comprise about 60% of the staff. Northern provides a comprehensive range of medical services.

The organisational structure is hierarchical in nature. The Chief Executive Officer reports to the State Secretary of Health, through to the Minister of Health. The hospital is managed by a Hospital Management Board which is answerable to the Minister. In the year before the present study, a business plan was implemented whereby the hospital was divided into six key service areas. The plan provided a systematic means of devolving management through the function of 'business units'. Within the hospital, an Executive Board comprising the Chief Executive Officer and heads of the six divisions (administration, operations, medical, surgical, nursing and allied health professionals) is the key decision-making entity.

The State Health Department maintains tight control over financial and operational activities of Northern, especially through appointment of the Chief Executive Officer. The history of Northern reveals frequent changes of Chief Executive Officer, with eight appointments in the previous 15 years. Only one, the incumbent at the time of this study, had medical and/or hospital administration qualifications. Previous appointments had been from within public service ranks. (At the time of writing, a further two appointments have been made, with the most recent appointment being an officer from the State Treasury Department.)

### **Quality program**

Following external pressure on the hospital from The Australian Council on Healthcare Standards (ACHS), a Quality Assurance Committee was established, with the brief to seek ACHS accreditation. The quality program had a slow beginning, but the pace was stepped up when Northern developed a five-year quality improvement plan charting its strategies for delivering and evaluating quality initiatives. In response to these initiatives, Northern continued to try to improve its quality of patient care, including the use of patient care surveys at

three-monthly intervals. Results of these surveys are presented to the hospital's patient care committee, which provides feedback to hospital staff and recommends appropriate actions. The quality program is a centralised system, wherein the Quality Coordinator is responsible for the dissemination of information about the program, and for the overall implementation of quality within the hospital. At the time of the present study, Northern was preparing for its inaugural accreditation approval.

Our research was supported by the Northern Board as an adjunct to the quality assurance program.

## **City hospital**

### **Administration and context**

City is steeped in religious and health history. The Catholic order of the Sisters established the private hospital in the early 1900s. All nursing staff were then nuns. At the time of our study, none of the nursing staff were nuns, and only two Sisters remained, both due to retire. Some staff, in interviews, said they felt a sense of loss at the passing of the Sisters from the City system. The Sisters, as founders of the hospital, had been a significant symbol to many in the community in providing care to the sick and needy. Care to the 'sick and needy' in current times, however, has come to be seen as incongruent with the commercial focus of the hospital. All patients entering the hospital for treatment must now pay for the services provided, either personally or through private health insurance.

City was the first private hospital in the State. It is smaller than the public hospital under study, with approximately 160 beds and 500 staff. Sixty-four per cent of staff hold nursing, medical or paramedical positions. The hospital provides a very comprehensive range of medical services, but is designated a not-for-profit organisation. It relies heavily on government funding, although donations and patient fees are important sources of income.

There are six other private hospitals in the city environs, and nine public hospitals. City therefore operates in a highly competitive environment. In promotional brochures, the hospital is described as providing five-star accommodation and having modern facilities. Currently, City management is considering means whereby their hospital, under best practice principles, can be aligned with the hotel industry.

City is part of a large, Catholic-founded, public hospital complex. Although it is under the umbrella of the larger complex, the hospital functions autonomously in its private hospital capacity. The hospital has a hierarchical organisational structure headed by a Congregational Leader and Council, followed vertically by a Governing Board, Director and Chief Executive Officer. The next, and fifth, layer comprises the three key roles of Director of Medical Services, Director of Nursing and Director of Administrative Services. The Executive for City comprises five personnel – the Chief Executive Officer, Director of Administrative Services, Director of Nursing, Director of Finance and Director of Medical Services. The Executive is the key decision-making body within the hospital. Authority for major policy decisions regarding City is vested in the Governing Board.

Although the hospital is founded on Catholic religious principles, patients from any or no religious background are accepted. Indeed, selection of staff is not made on religious grounds, nor are applicants asked their religion. Staff are, however, expected to respect and abide by the code of ethics and philosophy of City.

### **Quality program**

City gained quality assurance accreditation from ACHS some 10 years before the present study. The hospital had recently implemented a new quality improvement program, with quality management being decentralised throughout the hospital. Department managers and individual staff members now share greater responsibility for conducting quality activities, confirming the focus on providing patient-centred quality care. Quality endeavours are evaluated by the ACHS every three years. City was due for re-accreditation in the period immediately following this research.

Patient care surveys are conducted on a continual basis, with discharged patients being given a questionnaire and requested to complete and mail the questionnaire to the hospital. Feedback from results of the surveys is presented to members of the quality committee for dissemination to staff and action. As with Northern, the present research was considered a part of the re-accreditation process.

### **Cross-case analysis**

At a surface level, the case profiles described above indicate generic similarities but they also reveal significant differences. Common features are that the organisational structure of both hospitals is hierarchical, both have a quality program in place, and both use patient care surveys to determine patient

satisfaction with quality of care. The range of medical specialties offered at each hospital is also similar, although more specialties at Northern are provided on a visiting specialist basis only. City's quality program, however, is decentralised, with responsibility for implementation vested in all staff, whereas Northern's quality program is centralised. Responsibility for dissemination of information about, and the implementation of, the quality program at Northern rests with the Quality Coordinator.

Contextually, both hospitals are also subject to similarities because of environmental pressures. In particular, both hospitals are affected by tight budgetary constraints, and both need to function effectively in order to remain viable in their geographical environment. Distinct differences, however, are also evident.

As the only public hospital in the northern Australian city, and being geographically remote, Northern plays a critical role in delivering health care to the community. It has not, however, been shown any leniency in funding arrangements and therefore must function within its budget.

City would not divulge the extent to which it self-funds, but it does rely heavily on government funding. City functions in a highly competitive private hospital environment as well as competing, to a lesser extent, with numerous public hospitals. Additionally, the history of City and its foundation by the Sisters is an important cultural symbol (Bloor & Dawson 1994) that is emphasised by the hospital in its promotional material targeting potential patients, and in orientation of staff. Although staff appear to recognise the distinct contribution made by the Sisters to health care, many do not embrace the Catholic ethos of self-sacrifice. As the last of the current Sisters retire from the organisation, the hospital may undergo a cultural shift by focusing more on commercial aspects of operation, and less on Catholic religious principles.

## **Results of interviews**

As noted above, analysis of the interview and focus group data was based on the variables presented in Figure 1: perceptions of organisational culture, communication and quality of patient care.

The analysis was based on notes and transcripts of focus groups and interviews conducted with a cross-section of staff at Northern and City, as well as personal observations. Following is a brief summary of the results of the interviews.



### **Perceptions of organisational culture**

Results of the interviews in relation to culture indicated that each hospital had a very distinctive organisational culture, but with similar (and prominent) subcultures. Northern respondents perceived the culture to be strongly public service oriented, with significant political influence from the State Health Department. City respondents, on the other hand, viewed their organisation's culture as resting heavily in tradition and religious foundations of caring for the sick and needy, although they were divided in embracing the religious philosophy as their own work ethos. Nevertheless, City respondents indicated an emphasis on service quality which focused on patient care. At Northern, it was acknowledged that a move to a service quality culture should be made.

### **Perceptions of communication**

Respondents at both hospitals identified poor communication practices within their organisation, which they perceived to be detrimental to effective performance. While interviewees at Northern offered ideas for improving communication, few suggestions for addressing communication problems were made by City respondents. City respondents appeared to be resigned to accepting that communication problems were inevitable in organisations such as hospitals.

### **Perceptions of quality of patient care**

Both Northern and City respondents revealed diverse opinions and attitudes about the quality program and delivery of patient care. Some Northern respondents, nonetheless, were quite frank in stating their opposition to the quality program. Many Northern interviewees saw shortage of resources as seriously impeding their ability to provide quality patient care. More serious was the apparently diminished confidence of many respondents in the ability of some doctors at Northern to deliver quality care to patients. City respondents were more satisfied with the quality approach than were Northern respondents, and offered suggestions for improving and sustaining a service quality culture.

## **Discussion**

The answers to the five research questions posed earlier in this paper are discussed in the following sections.

## **How staff perceptions influence organisational culture**

The interview and observational data revealed a hierarchy of beliefs, attitudes, values and traditions consistent with Schein's (1985) model of organisational culture.

Respondents at Northern commented especially on the instability in leadership, citing the frequent changes of Chief Executive Officer. They viewed these changes as induced by the State Health Department, and attributed the political influence upon their organisation to the State Government. This finding accords with Sinclair's (1991) exploration of public sector cultural models, where she found that the values of excellence prescribed by private sector organisations do not necessarily fit the cultural environment in the public sector. Further, some Northern respondents indicated an attitude of powerlessness and resignation in regard to the prevailing culture.

At City, a culture founded in religious principles and focusing on caring was evident. It is apparent that the current culture has maintained its dominance, seeded in what Bloor and Dawson (1994) refer to as patterns of legitimation of early founders and leaders. Some respondents noted, however, that many staff had difficulty embracing the self-sacrificing ethos of the culture, and only paid it lip service. On the other hand, respondents appeared to support the mission and philosophy of the organisation and its focus on care. Leadership at City was vested in a nun. Interviewees reported a belief that the traditional leadership style of the Sisters rests in seeking consensus. Where an issue could not be resolved by consensus, it did not get resolved. Such an outcome, however, leads to staff feelings of dissatisfaction.

Comparing both organisations, our results suggest that organisational culture was influenced by staff perceptions in two ways.

First, commonly held attitudes, values and beliefs were clearly apparent. This serves to illustrate O'Reilly's (1989) point that individuals interpret prevailing attitudes and behaviours within their organisational setting, and seek congruency between values that are espoused and behaviours that are exhibited. As such, perceptions of the world constitute people's reality (Sackmann 1992). Thus, to make sense of their environment and experiences, individuals make attributions in regard to causes and outcomes of observed actions and behaviours (see Ferris et al. 1995), and shape their own attitudes and behaviours based on their perceptions of their organisational setting and interactions with and between others. Ultimately, therefore, perceptions determine the extant organisational culture.

Second, while each organisation had a distinctive culture, other subcultures were evident. In both organisations, nurses, in particular, revealed a perception of 'them and us', with 'them' being the medical fraternity. The conditions for the formation of subcultural groups are extensive, and include frequent interactions; strong identification with others by way of profession, occupation or work processes (Bloor & Dawson 1994; Zammuto 1995). Thus to maintain a healthy cultural organisational environment, management needs to recognise and to effectively manage subcultural differences. If conflicts are not satisfactorily resolved, subcultures may turn into counter-cultures, resulting in dysfunctional outcomes (Meyer 1982).

### **How staff perceptions influence communication**

Our results reveal that both hospitals experienced poor communication practices, including grapevines notorious for inaccurate information. Respondents in both organisations reported that staff appeared to resort to the grapevine as a means of obtaining information they perceived was not readily available. Also, information overload was a common experience for many respondents. Information systems at Northern were considered inadequate; and they were seen to be in need of improvement at City. Housekeeping and catering staff at both hospitals viewed nurses' communicative behaviours as showing them little respect. This led to feelings of being second-class citizens within the organisation. At City, the hierarchical structure and the nature of bureaucratic processes impeded effective communication. Poor communication was evident between nurses and doctors. Klinge and colleagues (1995) tell us that nurses frequently raise the issue of doctors' parochial attitudes and poor communication skills.

These results suggest that staff perceptions influence communication by a process of interpreting events, behaviours and intentions in the organisational environment (Ferris et al. 1995), and social construction of meaning (Krone, Jablin & Putnam 1987). Eisenberg and Witten (1987) argue that the relationship between communication and attitudes is quite complex. In a detailed review of communication climate, for example, Falcione, Sussman and Herden (1987) found that individual perceptions of communication influence participation in decision-making, frequency of communication, and disclosure.

An implication of these findings is that the communication process is defective when organisational members perceive they are undervalued, discouraged from participating in decision-making, or lack adequate information to do their job effectively. Further, employees are less likely to engage in open communication with superiors who they perceive as highly politically motivated. Clearly,

organisational members benefit by paying greater attention to engaging in authentic, credible and trustworthy communicative behaviours.

### **The relationship between organisational culture and communication**

Reichers and Schneider (1990) argue that climate is a manifestation of culture. Many respondents perceived that their organisational climate was not conducive to effective communication. Further, communication from management and other employees in an organisation is a significant determinant of organisational culture (O'Reilly 1989; Reilly & DiAngelo 1990). This view is evident in results of the present study, in that communication and culture were perceived to be closely interwoven.

Respondents made numerous comments about the poor communication skills of doctors. Cali (1991), however, empathises with doctors on the basis that they carry an immense responsibility for technical accuracy and for the overall well-being of their patients.

Another finding of the present study was that people joined factions because of poor communication practices. Factional activity can result in the formation of counter-cultures and lead to undesirable organisational outcomes (as we discussed earlier).

Thus a strong association is clearly evident between organisational culture and communication. The implication for managing the organisational culture is a need to recognise that the process of developing organisational values, norms and expectations begins with communication. Credible, consistent and congruent communication is thus required to allow desirable features of culture to develop (Parasuraman 1987; O'Reilly 1989).

### **How organisational culture affects quality of patient care**

In the United States, the Joint Commission on Accreditation of Health Care Organisations promotes the notion of culture as an important dimension in providing quality health care (Thomas et al. 1990). Our results indicate that, while both hospitals were attempting to foster a culture of delivering quality patient care, respondents had little awareness or understanding of the respective quality programs. Some doctors at Northern actively opposed the quality program, believing paperwork associated with recording activities was too onerous. City doctors appeared to have limited understanding of the aims of the quality program. A consistent finding of our study was a perception by respondents that their hospital focused on cost-cutting, resulting in shortage of

resources to the detriment of quality patient care (see Schneider & Bowen 1985; Shortell, Levin et al. 1995).

Workgroup affiliation and teamwork were identified as important aspects of each hospital's culture, and as significant features of delivering patient care. Pride and commitment in work were widely expressed at City, and marginally at Northern. Further, consistent with Sinclair (1991) and Sackmann (1992), respondents experienced a lack of recognition for their endeavours. This led to feelings of dissatisfaction, of not being valued, and cynicism, particularly when employees put extra effort into their job.

An important implication of these findings for health organisations is that the quality of patient care benefits from quality programs only if the organisation fosters a culture that promotes widespread commitment to service quality (see also Shortell, O'Brien et al. 1995). Another implication is that organisations need to incorporate appropriate mechanisms for rewarding and recognising staff endeavours, thus reinforcing those attitudes and behaviours which are consistent with the espoused values of the organisation. Finally, it is important to give greater consideration to the internal customers (employees) of the organisation (Schneider & Bowen 1985). This is so, especially in view of the evidence that employees treat customers similar to the way they perceive themselves to be treated by their organisation (Harber, Burgess & Barclay 1993).

### **How communication affects quality of patient care**

Respondents reported they understood that communication affects the quality of patient care (see Cali 1991). They also gave numerous examples of unacceptable practices and outcomes. A consistent finding of our study was that information systems were considered inadequate for accessing accurate and timely information, and that this affected patient clinical records and meals.

Northern communication is characterised by classical public service features of being influenced by a government department, inadequate consultation, and a communication/support gap between administration and doctors. At City, a bureaucratic style of communication was found to obstruct effective work practices and delivery of quality patient care. Doctors at Northern admitted that their administration load had a deleterious effect upon their delivery of patient care. Respondents frequently reported that doctor-patient relationships were characterised by medical authoritarianism and doctors' poor communication skills.

An important implication for management practice is that, to excel in customer service, communication processes must be designed around the development of

a positive social model of valuing all organisational members, and must recognise and encourage the talents and abilities available for delivering quality goods or services (Reilly & DiAngelo 1990). Such a model should include clear articulation of the vision, mission and goals of the organisation (Reilly & DiAngelo 1990), such that commitment to programs such as quality can be secured (Shortell, O'Brien et al. 1995).

## Conclusions

Our results support the notion that staff perceptions influence organisational culture and communication. Further, there was evidence of a strong association between organisational culture and communication, and between organisational culture, communication and quality patient care. These results are consistent with previous findings reported in the literature and support the model shown in Figure 1. Overall, it is clear that health care administrators need to understand more about the nature and importance of these relationships if they are to achieve best practice standards in the new era of high quality service.

Finally, it should be noted that the qualitative study described in this paper was a part of a larger, triangulated research project. Other components of the study involve collection of quantitative data based on surveys. Ultimately, it is intended to synthesise the findings from the study with the qualitative data to provide a more complete picture of the communication and managerial processes underlying service quality in hospital settings.

## References

- Bloor G & Dawson P 1994, 'Understanding professional culture in organizational context', *Organization Studies*, 15, pp 275–95.
- Cali DD 1991, 'Cultural influences on physician communication in health care teams', *Journal of Business Communication*, 18, pp 22–7.
- Draper M & Hill S 1995, *The Role of Patient Satisfaction Surveys in a National Approach to Hospital Quality Management*, Royal Melbourne Institute of Technology, Faculty of Social Sciences and Communications, Melbourne.
- Eisenberg EM & Witten MG 1987, 'Reconsidering openness in organizational communication', *Academy of Management Review*, 12, pp 418–26.

Falcione RL, Sussman L & Herden RP 1987, 'Communication climate in organizations', in FM Jablin, LL Putnam, KH Roberts & LW Porter (eds) *Handbook of Organizational Communication: An Interdisciplinary Perspective*, Sage, Newbury Park, CA, pp 195–227.

Ferris GR, Bhawuk DPS, Fedor DF & Judge TA 1995, 'Organizational politics and citizenship: Attributions of intentionality and construct definition', in MJ Martinko (ed) *Attribution Theory: An Organizational Perspective*, St Lucia Press, Delray Beach, FL, pp 231–52.

Grönroos C 1985, 'Internal marketing – theory and practice', in TM Bloch, H & R Block, GD Upan, Young & Rubicum & VA Zeithaml (eds) *Services Marketing in a Changing Environment*, AMA Proceedings Series, Chicago, Ill, pp 41–7.

Harber D, Burgess K & Barclay D 1993, 'Total quality management as a cultural intervention: An integrative review', *Asia Pacific Journal of Quality Management*, 21, pp 17–27.

Klinge RS, Burgoon M, Afifi W & Callister M 1995, 'Rethinking how to measure organizational culture in the hospital setting: The hospital culture scale', *Evaluation & The Health Professions*, 18, pp 167–86.

Krone KJ, Jablin FM & Putnam LL 1987, 'Communication theory and organizational communication: Multiple perspectives', in FM Jablin, LL Putnam, KH Roberts & LW Porter (eds) *Handbook of Organizational Communication: An Interdisciplinary Perspective*, Sage, Newbury Park, CA, pp 18–40.

Meyer AD 1982, 'Adapting to environmental jolts', *Administrative Science Quarterly*, 27, pp 515–37.

Miles MB & Huberman AM 1994, *An Expanded Sourcebook: Qualitative Data Analysis*, 2nd edn, Sage, Thousand Oaks, CA.

O'Reilly C 1989, 'Corporations, culture, and commitment: Motivation and social control in organizations', *California Management Review*, 31, pp 9–25.

Parasuraman A 1987, 'Customer-oriented corporate cultures are crucial to services marketing success', *The Journal of Services Marketing*, 1, pp 39–46.

Reichers AE & Schneider B 1990, 'Climate and culture: An evolution of constructs', in B Schneider (ed) *Organizational Climate and Culture*, Jossey-Bass, San Francisco, pp 5–39.

- Reilly BJ & DiAngelo JA Jr 1990, 'Communication: A cultural system of meaning and value', *Human Relations*, 43, pp 129–40.
- Rummler GA & Brache AP 1990, *Improving Performance: How to Manage the White Space on the Organization Chart*, Jossey-Bass, San Francisco, CA.
- Sackmann S 1992, 'Culture and sub-cultures: An analysis of organizational knowledge', *Administrative Science Quarterly*, 37, pp 140–61.
- Schein EH 1985, *Organizational Culture and Leadership*, Jossey-Bass, San Francisco.
- Schneider B & Bowen DE 1985, 'Employee and customer perceptions of service in banks: Replication and extension', *Journal of Applied Psychology*, 70, pp 423–33.
- Schneider B & Bowen DE 1992, 'Personnel/human resources management in the service sector', *Research in Personnel and Human Resources Management*, 10, pp 1–30.
- Shortell SM, Levin DZ, O'Brien JL & Hughes EFX 1995, 'Assessing the evidence on CQI: Is the glass half empty or half full?' *Hospital & Health Services Administration*, 40, pp 4–24.
- Shortell SM, O'Brien JL, Carman JM, Foster RW, Hughes EFX, Boerstler H & O'Connor EJ 1995, 'Assessing the impact of continuous quality improvement/total quality management: Concept versus implementation', *Health Services Research*, 30, pp 377–401.
- Sinclair A 1991, 'After excellence: Models of organisational culture for the public sector', *Australian Journal of Public Administration*, 50, pp 321–32.
- Stiles RA & Mick SS 1994, 'Classifying quality initiatives: A conceptual paradigm for literature review and policy analysis', *Hospital & Health Services Administration*, 39, pp 309–26.
- Stohl C 1983, 'Developing a communication competence scale', in RN Bostrom (ed) *Communication Yearbook*, 7, Sage, Newbury Park, CA, pp 685–716.
- Thomas C, Ward M, Chorba C & Kumiega A 1990, 'Measuring and interpreting organizational culture', *Journal of Nursing Administration*, 20, pp 17–24.



Walker G, Evans S & Robson J 1994, 'Best practice communication strategy: Princess Alexandra Hospital', *Australian Health Review*, 17, pp 67–83.

Zammuto RF 1995, 'Mapping organizational cultures and subcultures: Looking inside and across hospitals', in NM Ashkanasy & CPM Wilderom (Chair), *New Perspectives on Assessing and Using the Organization-Culture Construct in Organization Science*, Symposium conducted at the meeting of the Academy of Management, Vancouver, BC.