

Considering Values in the Current Restructuring of the New Zealand Health Sector

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Introduction

New Zealand's hospitals are undergoing another round of restructuring due to the health sector reforms being implemented by the Labour-Alliance coalition. Current restructuring presents a major challenge to hospitals because evidence suggests that such change efforts are difficult unless reformers consider the values held by hospital staff. Moreover, restructuring gets complicated by the fact that disparate hospital subgroups are likely to see different values reflected within the organization. Value dissimilarities form additional barriers to change that need to be addressed and bridged before restructuring can deliver patient benefits. The purpose of the current paper is to test subgroups in a chosen New Zealand hospital for differences in organizational values. Different values are identified and interventions to cope with these are recommended.

New Zealand's Labour-Alliance coalition government formed in late 1999 is significantly modifying the way publicly financed hospitals and other health sector services are organized (see Gauld, 2001 and the New Zealand Health Strategy at www.moh.co.nz). The coalition is implementing a population-based funding system that enables a community voice in health sector decision making through district health boards. This change harkens back to the structure of New Zealand's health system prior to the quasimarket model the National government introduced in 1993 (Devlin, Maynard & Mays, 2001). The current round of restructuring may not appear as comprehensive as those implemented in 1993, but they present a challenge for executives and human resource specialists attempting to implement these policy changes within hospitals (Donald, 2001).

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There are three reasons why the most recent reforms represent a major challenge. To begin, the Labour-Alliance changes to funding mechanisms and governance practices likely mean restructuring within hospitals (Gauld, 2001), where healthcare workers are already demoralized as a result of coping with 10 years of health reform (Devlin et al., 2001; Gauld, 2001). Second, experts warn that the changes proposed by the latest coalition government are not to be underestimated simply because they reflect the familiar Area Health Boards (Gauld, 2001). Scholars predict substantial restructuring to be implemented in the following areas: the formation of new agencies, job displacements across the health sector, the forging of new relationships both vertical and horizontal within and across health providers, and a modification in the focus of administration. Third, evidence from the broader organizational change literature suggests that even minor restructuring efforts can prove difficult because reformers do not consider the human side of change, particularly the values held by workers within the organization (Kotter, 1995; Nadler & Tushman, 1990).

It is essential to understand such values when implementing change because values are a key determinant of behavior and are particularly resistant to change. This is especially true in hospitals because, historically, disparate hospital subcultures, such as clinicians and administrators, have reflected different values within an organization (Simpson et al., 2001). For example, administrators exhibit values oriented toward "counting" or "costing" while clinicians value "curing" and "caring" (Simpson et al., 2001). Such divergence in values creates an additional barrier to change that needs to be addressed and bridged before restructuring can be completed (Schein, 1996). A challenge for executives and their human resource managers trying to implement change, then, is to identify the value disparity across hospital subgroups. It may be that different intervention strategies are required for disparate subgroups before the health reforms proposed by the Labour-Alliance coalition can be comprehensively implemented within New Zealand hospitals. The well-known patient safety case in the winter of 1996 at Christchurch Hospital shows the very negative consequences that ensued after the 1993 reforms, when attention was not paid to value disparity. The case centers on Mrs Robyn Stent, who was then the Health and Disability Commissioner. She investigated and reported on patient safety at Christchurch Hospital after four hospital doctors publicly announced safety concerns over what they perceived as the unwarranted deaths of seven patients (McNeil, 1998b). Mrs Stent's report found that hospital executives, motivated to cut costs through restructuring, pushed through significant changes too quickly. The report suggests the executives' "culture" that valued the minimization of costs clashed severely with the long established "culture" of care held by the doctors and nurses (McNeil, 1998a; The Press, 1998). Further, the culture clash directly compromised patient safety and hospital executives were found culpable for ramming through restructuring without taking note of clinician's strong values for patient care (The Press, 1998). The report finally concludes that executives' values for cost minimization triumphed over clinicians' value of patient care to the extent that "it was a miracle more did not die" (Bruce, 1998; McNeil, 1998a; The Press, 1998). This case

helps demonstrate the need to examine value differences across subgroups within New Zealand hospitals. As already stated, an examination appears particularly urgent in light of current reforms.

The purpose of this paper then is to explore the extent to which subgroups in a chosen hospital see organizational values differently. Towards this end, the competing values model is used as a framework for hypothesizing about divergence in values across hospital subgroups as well as providing an instrument for measuring values. This model was developed by Quinn and his colleagues (Quinn, 1988; Quinn & Rohrbaugh, 1983) and extended by Zammuto and co-researchers (Zammuto & Krakower, 1991; Zammuto & O'Connor, 1992). Identification of divergent values is useful because the organizational theory and change literature reports particular interventions that address such general values when restructuring organizations (see Collins and Porras, 1994; Kotter and Heskett, 1992). Detection of competing values within a New Zealand hospital thus may enable hospital executives and human resource specialists to design interventions to affect change in the health system through people. This is this kind of bottom-up change that is needed to ensure changes are long lasting and implemented at the level at which patients are served. Finally, it is of note that the competing values model applied in the current study emanates from the broad organizational effectiveness debate in the organizational theory and change literature. Unfortunately, locating this study in the larger organizational effectiveness debate is beyond the scope of the present study. Instead, this study employs the model for its specific focus on values and its recognition that values constantly compete with each other within a single organization.

Theory and hypotheses

The competing values model suggests that an organization can reflect different values regarding how effective it is when delivering a product or service. Such values lie at the heart of organizational routines and procedures and must be considered when implementing change. Specifically, Quinn and Rohrbaugh (1983) concluded that organizational effectiveness could be distinguished along three axes reflecting competing values. The horizontal axis represents the contrast between an internal, person-oriented emphasis (towards the left) and an external, organization-oriented emphasis (on the right) (see Quinn & Rohrbaugh, 1983: 367). The vertical axis presents differing organizational preferences for structure by showing the contrast between stability (at the bottom) and flexibility (top). The flexibility end of the axis emphasizes decentralization and differentiation, while the stability end emphasizes centralization and integration. A third, depth axis reflects the degree of closeness to organizational outcomes or a means-ends spectrum. This means-end axis represents the contrast between a concern for ends (towards the reader) and a concern for means (away from reader). These three axes combine to create four models of effectiveness known as 1) the *human relations model* valuing people; 2) the *open system model* of organizational growth and resource acquisition; 3) the *internal process model* of hierarchy, stability,

and control; and 4) the *rational goal model* focused on efficiency and productivity. (For a figure depicting this model, see Quinn and Rohrbaugh, 1983: 367.) Quinn and Kimberly (1984) explored organizations using this competing values model and noted that firms are likely to reflect a combination of competing values with one of the four models being dominant.

Zammuto and his colleagues extended the competing values model in the following ways: 1) by validating Quinn's instrument through a survey that collected competing values data from 332 universities (Zammuto & Krakower, 1991); 2) by examining links between competing values and organizational structure, climate, and strategic orientation (Zammuto & Krakower, 1991); and 3) by applying competing values to flexible manufacturing organizations (Zammuto & O'Connor, 1992). Similar to Quinn, these authors found that organizations reflect a combination of competing values where one of the four models dominates (human relations, open system, internal process, and rational goal models). For example, the rational goal model, reflecting efficiency, dominated organizations with defender strategies, but an internal process model – reflecting rules, regulations and hierarchy – also could be seen in defenders. The competing values model thus acknowledges and detects differences in value systems within an organization and is applied in the following sections to hypothesize disparity in values for subgroups that are common across hospitals. Identification of disparities in values across subgroups suggests potential barriers to implementing the current health reforms, which hospital executives in conjunction with human resource specialists can address (Schein, 1996).

Vertical subgroups

A common theme in ethnographic research on values is that they are likely to diverge when comparing supervisors and subordinates (Saffold, 1988; Van Maanen & Barley, 1984). For example, interview data corroborates value disparity between supervisors and subordinates (Saffold, 1988). This disparity led Schein (1996) to draw a distinction between "executive" and "operator" subcultures. This particular divergence has been noted in the health sector in that supervisors and subordinates are described as holding very different perspectives on organizational effectiveness. Specifically, supervisors face corporate imperatives of cost containment and staffing issues, while subordinates focus on outcomes for patients and their families (Phelan & Birchall, 2001; Simpson et al., 2001).

With respect to the competing values, supervisors and subordinates likely exhibit different scores on the flexibility/stability axis that reflect preferences for how an organization is structured. Supervisors generally value structuring for stability or, stated differently, for maintaining vertical control of subordinates (Pfeffer, 1983). Subordinates, on the other hand, value structuring for flexibility and autonomy as seen in decentralized companies (Pfeffer, 1983). This difference on the flexibility/ stability dimension is alluded to in health sector research. Phelan and Birchall (2001) expect

differences in supervisors' and subordinates' views due to the differences in their day to day activities. A supervisor values stability because he or she spends time in monitoring activities such as tracking costs and income on spreadsheets, approving expenditure requests, managing risk, and dealing with staff problems. Alternately, subordinates spend time administering treatments and explaining these to patients and their families. The more flexibility they have in performing these tasks, the better the outcomes are likely to be for patients.

Supervisors and subordinates are also predicted to view the internal/ external dimension of the competing values model differently in most cases. Supervisors are considered boundary spanners in that their role is to link with the external environment to secure resources and create legitimacy for the organization (Finkelstein & Hambrick, 1996). In contrast, subordinates are internally focused on the routine work of the organization (Thompson, 1967). Health sector literature echoes this difference between hospital supervisors and subordinates. Under National's quasimarket approach to funding health, New Zealand hospitals were publicly-owned companies called crown health enterprises and supervisors were accountable to the public for minimizing costs (Devlin et al., 2001). Under the coalition government's new health policy, supervisors are required to consult with external stakeholders (see King, 2000) and to build horizontal and vertical relationships with other service providers (Gauld, 2001). As such, hospital supervisors must take an external perspective on their organizations, while subordinates carry on with the internal work of hospitals. The fact that supervisors and subordinates view the competing values dimensions dissimilarly suggests the following hypothesis.

H1: Supervisor and subordinate subgroups will perceive differences in the competing values.

Occupational subgroups

Another theme on values that emerges in ethnographic research is that disparate occupational subgroups within an organization hold dissimilar values. For example, findings show occupations such as law or medicine can have a much stronger influence on a person than does the organization for which he or she works (Van Maanen & Barley, 1984). This is because an occupation often inculcates members with norms and guiding principles through specialized, long-term education, state licensing for practice, and socialization of new group members (Van Maanen & Barley, 1984). Norms and principles are reinforced over time through reading common professional publications and attending annual conferences. Further reinforcement can occur through the use of an exclusive jargon and shared occupational adventures. Occupational norms and principles can be so strong for some occupations that conversations about the occupation "spill-over" into leisure time activities (Van Maanen & Barley, 1984). It is not surprising then that shared occupational norms and principles often transcend organizational settings such that occupations more strongly influence behavior than do an organization's norms (Van Maanen & Barley, 1984). Schein (1996) proposes that

these occupational subgroups within an organization each possess their own culture and values which create strong intraorganizational tensions that form barriers to structural change that are difficult to resolve. The health sector literature suggests that this occupational effect is likely to be even stronger in hospitals than in other kinds of organizations because of the intense professionalization of at least two occupations within the hospital – doctors and nurses (Leatt et al., 2000). The different occupations examined in the current study included the following: doctors, nurses, administrative personnel, paramedics, and support staff.

Applying this specifically to the competing values framework, different hospital occupations are likely to view the flexibility/stability dimension dissimilarly. Administrative and support staff, for instance, probably see hospitals from a more bureaucratic perspective focussing on paperwork and costs. Research from Britain's National Health Service indicates how administrators' systems for stability and control clash with doctors' need for autonomy and flexibility when treating patients (Simpson, 2000). In fact, this clash is behind the drive for "clinical leadership" whereby doctors assume some administrative duties within hospitals to come to grips with budgets, facilities and staffing issues. Nurses and paramedics are likely to fall in-between administrators and doctors on the flexibility/stability dimension (Phelan & Birchall, 2001). For example, nurses consistently campaign for more autonomy within health service organizations despite their support for standards and procedures to ensure quality of care.

With respect to the internal/external dimension of competing values, different occupations within a hospital are likely to see dissimilarities. As stated above, doctors and nurses are highly professionalized occupations which are likely to be cosmopolitan in their focus (Gouldner, 1958; Hofstede, 1998). Cosmopolitan occupations train extensively outside of an organizational setting before joining it and derive much influence from contacts and accomplishments external to the organization (Van Maanen & Barley, 1984). Cosmopolitan subgroups identify with the profession beyond the organization and develop values and loyalties consistent with this wider profession. Members of cosmopolitan occupations often look external to their current organization for promotions. The external focus of cosmopolitan subgroups suggests they would fall on the external side of the internal/ external dimension of the competing values model. In contrast, the paramedics and support staff are likely to be more parochial in focus. Parochial subgroups identify closely with an organization and develop values consistent with those espoused by the organization. Moreover, parochials have influence through their contacts within an organization and look to the organization for future promotions (Van Maanen & Barley, 1984). This suggests parochial subgroups fall on the internal end of the competing values model's internal/external dimension. The above discussion of different perspectives leads to the following hypothesis.

H2: Different occupational subgroups within the hospital will reflect significantly different competing values.

Methods

Design and sample

The study uses a quantitative case study methodology. The organization examined was a large, New Zealand hospital with 5262 employees. Employees were sorted for the purpose of data collection and analysis. First, staff fell into five occupational groups as follows: doctors, nurses, administrative personnel, paramedics, and support staff. Second, staff were blocked on the supervisor and subordinate split within each occupational group. This resulted in 10 subgroups all together (five occupational times two supervisor/subordinate). Sixty employees were randomly selected within each of the 10 subgroups and questionnaires were sent to them. Random selection within each subgroup helped ensure the representativeness of the sample. A total of 332 usable questionnaires were returned yielding an average response rate across all subgroups of 55.8 percent. Table 1 summarizes the sample distribution and response rates across subgroups.

Measures

Surveys used Zammuto and Krakower's competing values instrument to assess values perceived by employees. A full copy of the instrument is provided in the appendix. This instrument has been used extensively to operationalize values reflected in organizations. The instrument was originally developed and validated by Quinn and subsequently re-validated by Zammuto and Krakower (1991). It assesses values through the following four organizational characteristics: character (the collective features/internal reputation), leadership (guidance exerted), cohesion (tendency to stick together), and emphases (what is important). For each characteristic, the instrument has respondents allocate 100 points across four values that could be reflected by that particular organizational characteristic. The four values are as follows: a group value anchored in the *human relations model* reflecting trust and affiliation, a developmental value based on the *open systems model* concerning growth and assumptions of change, a hierarchical value stemming from the *internal process model*, which reflects bureaucracy and rules, and a rational value grounded in the *rational goal model* suggesting efficiency and productivity. Respondents allocate 100 points across the four items to indicate whether each of the four values is strongly or weakly reflected by each organizational characteristic.

Analysis

The analysis assessed the extent to which the different subgroups saw disparate values reflected in the organization. The sample was sorted two ways for analysis. First, it was sorted into the supervisor and subordinate subgroups and second into the five occupational subgroups. Separate multivariate analyses of variance (MANOVAs) were

Table 1: Sample distribution and response rates across subgroups

	Doctors	Nurses	Administrative	Paramedical	Support	Total n	Response rate
Supervisor	25	43	50	37	27	182	60%
Subordinate	26	33	38	29	24	150	50%
Total n	51	76	88	66	51		
Response rate	42%	63%	73%	55%	4%		

used to examine differences for the vertical and occupational subgroups (hypotheses 1 and 2, respectively). Specifically, we tested for a significant overall multivariate effect because the competing values scores functioned as four dependent variables. A significant multivariate effect was followed up with one-way analyses of variance (ANOVAs) on each of the four competing values to assess differences across the subgroups. Tukey's multiple comparison between means was used for the occupational subgroups because more than one comparison was required to identify significant differences in competing values across these groups. Tukey's comparisons are analogous conceptually to t-tests in that they are tests of differences in means. However, Tukey's multiple comparisons are a more stringent test than conventional t-tests because they protect the researcher from finding significance due to random chance, which is always a risk when making many comparisons across means (Neter, Wasserman, & Kutner, 1985).

Results

As already stated, data were sorted in two different ways for analysis. First, data were sorted according to the supervisor/ subordinate split and tested for differences in competing values. Scores for each competing value were averaged across the four different organizational characteristics. For example, the question assessing the group value was averaged across the organizational characteristics of character, leadership, cohesion and emphases. Manova indicated significant effects for the supervisor/ subordinate subgroups across the competing values (Wilk's lambda = .055, $p < .05$). Means were then examined for differences between the supervisor/ subordinate subgroups in separate one-way ANOVAs for each competing value. The results for these ANOVAs are reported in Table 2. Findings show significant differences across the supervisor/ subordinate subgroups for three of the four competing values as follows: group ($p < .023$), developmental ($p < .014$), and hierarchical ($p < .001$). Specifically, supervisors saw the group competing value reflected more strongly in the organization than did subordinates. This suggests that supervisors perceive the hospital to be more focused on the employees of the organization and their development than do subordinates. Supervisors also perceived the developmental competing value to be significantly stronger in the hospital than did subordinates. Supervisors thus see the hospital focused more on growth and change than subordinates. Not surprisingly, subordinates viewed the hospital as reflecting the competing value of hierarchy more than supervisors did. Interestingly, the rational competing value does not reflect significant differences at the $p < .05$ significance level. These findings provide evidence that differences in competing values are perceived across supervisors and subordinates within the hospital, thereby corroborating hypothesis one.

Table 2: Differences in competing values across supervisor/subordinate subgroups

	GROUP	DEVELOPMENTAL	HIERARCHICAL	RATIONAL
Supervisor <i>means</i> and (standard deviations)	15.3 (s.d. = 8.3)	18.3 (s.d. = 10.8)	37.0 (s.d. = 12.9)	29.4 (s.d. = 13.1)
Subordinate <i>means</i> and (standard deviations)	12.5 (s.d. = 7.6)	15.7 (s.d. = 8.1)	42.1 (s.d. = 14.4)	29.4 (s.d. = 12.9)
F – Ratio	5.25*	6.08*	11.21***	.00
p-value	.023 *	.014 *	.001 ***	.988

* p < .05

** p < .01

*** p < .001

Second, data were sorted into the occupational subgroups of doctors, nurses, administrators, paramedics and support staff. Again, data for competing values were averaged across the four organizational characteristics. MANOVA showed a significant multivariate effect for occupational subgroups across the four competing values scores (Wilk's lambda = .379, $p < .001$). A series of one-way ANOVAs were run on each competing value to see if differences were reflected across the occupational subgroups. Findings are reported in Table 3. In particular, the one-way ANOVAs indicate overall differences across the occupational subgroups for the group, developmental, and hierarchical competing values. ANOVA suggests no significant differences across occupational subgroups for the rational competing value. Furthermore, Tukey's multiple comparison tests were used to compare differences across specific occupational subgroups on each competing value and the p values associated with the comparison tests also are summarized in Table 3. Tukey's tests reveal a mix of expected and unexpected findings. For example, administrative personnel saw the hospital as reflecting the group value significantly more than did doctors, nurses, paramedics, and support staff. Support staff and nurses perceived the organization as significantly more developmental than did the doctors. This finding is noteworthy because the significant difference between doctors and nurses was unexpected given the traditional assumption that these two groups of "clinical" workers have similar values. Also, results show that nurses and administrators saw the organization as significantly less hierarchical than did doctors and paramedics.

Discussion

The purpose of this paper was to examine empirically the extent to which values vary across subgroups within a large New Zealand hospital. The competing values framework was used to hypothesize differences in values across subgroups common to hospitals including, doctors, nurses, administrative personnel, paramedics, and support staff. In particular, the competing values framework was used so that disparity in values across subgroups could be identified as possible barriers to change at the human level of the organization. Such barriers often impede restructuring efforts from reaching the level where clients are served (Kotter, 1995). Detection of possible barriers thus shows hospital executives and human resource personnel where interventions may be needed to fully implement the restructuring of the health system resulting from the Labour-Alliance reforms. As already stated, the reforms are likely to prompt changes in hospital practices such that consideration of disparities in values across subgroups is essential for implementing the new health policy.

Table 3: Multiple comparisons of occupational subgroups on competing values

Group competing value

	Means	SD	Tukey's p-value comparison with doctor subgroup	Tukey's p-value comparison with nurse subgroup	Tukey's p-value comparison with Admin subgroup	Tukey's p-value comparison with paramedic subgroup	Tukey's p-value comparison with support subgroup
1. Doctors	11.4	7.4	1.00				
2. Nurses	11.8	9.4	1.00	1.00			
3. Admin	19.1	13.6	.000 ***	.000 ***	1.00		
4. Paramedics	12.3	8.1	.991	.999	.000 ***	1.00	
5. Support	13.4	10.2	.860	.902	.013 *	.975	1.00
F-ratio	7.61						
p-value	.000						

* p < .05

** p < .01

*** p < .001

Development competing value

	Means	SD	Tukey's p-value comparison with doctor subgroup	Tukey's p-value comparison with nurse subgroup	Tukey's p-value comparison with admin subgroup	Tukey's p-value comparison with paramedic subgroup	Tukey's p-value comparison with support subgroup
1. Doctors	12.8	7.8	1.00				
2. Nurses	19.9	10.1	.001 ***	1.00			
3. Admin	17.0	9.4	.090	.321	1.00		
4. Paramedics	16.2	8.8	.310	.152	.984	1.00	
5. Support	18.1	11.0	.041 *	.849	.968	.821	1.00
F-ratio	4.39						
p-value	.002						

* p < .05

** p < .01

*** p < .001

Hierarchical competing value

	Means	SD	Tukey's p-value comparison with doctor subgroup	Tukey's p-value comparison with nurse subgroup	Tukey's p-value comparison with admin subgroup	Tukey's p-value comparison with paramedic subgroup	Tukey's p-value comparison with support subgroup
1. Doctors	45.5	14.8	1.00				
2. Nurses	35.4	13.7	.001 ***	1.00			
3. Admin	36.2	12.4	.001 ***	.997	1.00		
4. Paramedics	43.6	14.9	.956	.003 **	.006 **	1.00	
5. Support	39.8		.227	.373	.535	.542	1.00
F-ratio	6.93						
p-value	.000						

* p < .05

** p < .01

*** p < .001

Rational competing value

	Means	SD	1	2	3	4	5
1. Doctors	30.4	16.3					
2. Nurses	33.0	14.4					
3. Admin	27.7	12.9					
4. Paramedics	27.9	12.1					
5. Support	28.3	12.7					
F-ratio	2.04						
p-value	.088						

* $p < .05$

** $p < .01$

*** $p < .001$

Summary findings and implications for HR specialists

The study provides two broad findings for consideration by hospital executives and human resource specialists. One is that none of the subgroups examined perceived significant differences in the rational competing value within the hospital, which focuses on productivity and efficiency. This was the case across the supervisor/ subordinate split as well as across occupational subgroups. This result was a surprise in that much of the health sector literature assumes differences in the rational value across healthcare subgroups. For example, subordinates are believed to focus less on efficiency and productivity than supervisors are. A similar assumption is made relative to occupational subgroups in that administrative personnel are believed to concentrate on efficiency and productivity more than doctors and nurses (see Leatt, et al., 2000; Simpson et al., 2001; Simpson, 2000). An explanation of the current findings is that the subgroups perceived the same rational values at work within the hospital due to the changes implemented by the National government in their 1993 reforms of the New Zealand health sector. National developed a purchaser/provider split in the health sector to create a quasimarket that would lower costs and eliminate duplicate services. Although the 1993 restructuring posed a huge challenge to health services in the country and clearly frustrated many health workers (Devlin et al., 2001), it appears that the messages of cost containment and efficiency at the heart of this reform were received and interpreted consistently across the key subgroups within the hospital examined. The authors also interpret this finding as positive for executives and human resource specialists trying to come to grips with current restructuring at the human level of the health sector. The good news is that there is common ground across hospital subgroups with respect to the rational competing value. This commonality can serve as a starting point when trying to bridge barriers created by dissimilarities in the other competing values. Moreover, this common view of the rational competing value is important because Labour/Alliance is clear that cost containment and efficiency are crucial given resource constraints (see King, 2000).

The second broad finding is that the supervisor/subordinate split in the hospital presents a probable barrier to implementing changes. Table 2 shows significant differences across these two subgroups for three of the four competing values. In particular, supervisors saw the group and developmental competing values as significantly stronger in the organization than did subordinates, while subordinates saw hierarchy as significantly more valued than supervisors. Schein (1996) draws on 20 years of experience in restructuring to suggest that such differences can limit changes from diffusing vertically in an organization. As such, restructuring efforts are unlikely to filter down to the level where patients are actually treated. Somehow the supervisor value system must be integrated with the subordinate, or "operator", value system in order for change to be affected throughout the organization (Schein, 1996). Examples of organizations that have been able to accomplish such integrations are reported in the literature (see Kotter and Heskett, 1992 and Collins and Porras, 1994).

More specific findings corroborate some expected differences across occupational subgroups with respect to the group, developmental, and hierarchical competing values. As for the group competing value, administrators saw this dimension as highly valued in the organization while the other occupational subgroups saw it as significantly less valued. Again, the group dimension is about people, affiliation, and trust, and findings suggest administrative personnel in the hospital are unrealistic about how this value plays out for other groups within the hospital. This value of people and basic social interactions within the hospital thus represents a barrier that must be bridged in the restructuring of the hospital. Schein (1996) suggests that administrative personnel can be unconscious of how they devalue the human side of the organization. This is because costs and financial structures dominant administrative value systems and people take a on a lower priority. The question to address then becomes one of how administrative personnel can learn to value the people or group side of the organization in ways that are recognized by the other subgroups within the organization (Schein, 1996). Again, some organizations have accomplished this task and can serve as models for New Zealand hospitals in their restructuring task (Kotter & Heskett, 1992; Collins & Porras, 1994).

Regarding the developmental competing value, nurses and support staff rated this dimension significantly higher than did doctors in the hospital. This means that nurses and support staff see the hospital placing more value on growth and change than do the doctors. Nurses and support staff thus expect the hospital to expand and continue undergoing change over time, while doctors expect the hospital to remain much more static. Future research is needed to probe why these two subgroups perceive more change in the organization. Nevertheless, current results that clearly show doctors and nurses as perceiving disparate values in the organization caution against assuming that clinicians (both doctors and nurses) consistently view an organization similarly. Health sector research often makes this assumption because of the proximity to patients and families experienced by both subgroups in their day to day work in hospitals (Simpson et al., 2001; Phelan & Birchall, 2001). Schein's research (1996) indicates that the differences in perception regarding how the hospital values growth and change can present horizontal barriers to restructuring diffusing throughout the hospital.

Finally, current results also point to differences in the hierarchical competing value. This value gets at the extent to which the hospital values and promotes rules, regulations, and bureaucracy. Doctors and paramedics perceive the hospital to be significantly more hierarchical than nurses and administrative personnel do. This disparity with regard to rules and regulations creates a second barrier to the horizontal diffusion of restructuring across the hospital (Schein, 1996). Again, findings on the hierarchical dimension show disparities between doctors and nurses and call into question assumptions made about all clinicians sharing or perceiving values similarly given their closeness to patients.

Suggested interventions

The literature describes interventions that can be used by hospital executives and human resource specialists who are considering ways to reduce the barriers revealed in the current study. One such intervention is the use of Personal Construct Theory (Kelly, 1955) to implement dialogue between subgroups that are viewing the competing values within the hospital differently. Personal Construct Theory was originally developed by George Kelly (1955) and has been used more recently to understand how chief executive officers (Reger & Huff, 1993) and health sector workers view their world (Simpson et al., 2001). Kelly recognized that every individual has a unique construct system that has been built up and modified to reflect their personal experiences. This construct system is used to make sense of the individual's environment and, very importantly, is refined and adjusted when the system's explanatory power is inadequate. Simpson and her colleagues (Simpson et al., 2001) used Kelly's method of eliciting constructs to facilitate a dialogue between a hospital's administrative staff and clinicians. The technique facilitated dialogue by revealing constructs that the two groups surprisingly had in common and by revealing different constructs held by the two groups that were previously not known. Personal Construct Theory thus could serve as a useful intervention for subgroups in the current study that indicated differences along the group, developmental, and hierarchical competing values.

Another intervention used to break down barriers in hospitals is action learning groups (Phelan & Birchall, 2001). This intervention appears to be particularly promising because it proved useful with barriers created through differences in values and proved to be the most effective intervention for creating new behaviours, processes, and systems of 20 different interventions attempted within a hospital (Enderby, 1997). Action learning is best described as a process where people come together to try new ways of doing things relevant to a specific issue or project. People take action and observe and reflect on what happens, learn from it and make modifications to future actions. Current findings suggest action learning groups in the hospital studied be formed to include those subgroups that see significantly different competing values reflected in the organization.

Limitations and conclusion

The study provides an examination of possible differences in how values are perceived across subgroups within a hospital. In considering findings, it is useful to keep two potential limitations in mind. The first concerns the instrument used to collect the data (see appendix). The instrument was developed by Zammuto and Krakower (1991) when collecting competing value data from a sample of over 300 universities. They found strong support for the reliability and validity of the instrument. Their validity data suggests that use of the instrument should generalize to other organizational settings such as hospitals. However, future research using multi-dimensional scaling or cluster analysis would be helpful in validating the instrument specifically for hospital settings.

The fact that a validation specific to a New Zealand hospital context has not been done to the authors' knowledge should be kept in mind when interpreting current study results. The second is the case study nature of the current research. As already stated, the design is a quantitative case study examining one hospital in New Zealand. Researchers thus must be conservative when considering how current findings generalize to other hospitals. Such a study is best used as an illustrative example of where and how often barriers to structural change can occur within health organizations. The study is also valuable in pointing out areas where interventions are likely to provide help in the vertical and horizontal diffusion of the structural change that is needed to meet the stated goals of the Labour-Alliance coalition's health reforms.

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Appendix

Competing value items

These questions relate to the type of organization that your organization is most like. Each of these questions contains four descriptions of organizations. Please distribute 100 points among the four descriptions depending on how similar each description is to your organization. None of the descriptions is better than the others, each is just different. For each question, please use all 100 points. Remember to answer these questions from the perspective of what your company is like.

For example: In question 1, if Organization A was very similar to mine, B was somewhat similar, and C and D do not seem similar at all, I might give 70 points to A and the remaining 30 points to B.

1. Organizational Character (please distribute 100 points)

70	Organization A is a very <i>personal</i> place. It is a lot like an extended family. People seem to share a lot of themselves.
30	Organization B is a very <i>dynamic and entrepreneurial</i> place. People are willing to stick their necks out and take risks.
0	Organization C is a very <i>formalized and structured</i> place. Bureaucratic procedures generally govern what people do.
0	Organization D is very <i>production oriented</i> . A major concern is with getting the job done. People aren't very personally involved.
100	Total Points

2. Organization's Managers (please distribute 100 points)

Managers in Organization A are *warm and caring*. They seek to develop employees' full potential and act as their mentors and guides.

Managers in Organization B are *risk-takers*. They encourage employees to take risks and be innovative.

Managers in Organization C are *rule-enforcers*. They expect employees to follow established rules, policies, and procedures.

Managers in Organization D are *coordinators and coaches*. They help employees meet the organization's goals and objectives.

100 Total Points

3. Organizational Cohesion (please distribute 100 points)

The glue that holds Organization A together is *loyalty and tradition*. Commitment to this organization runs high.

The glue that holds Organization B together is *commitment to innovation and development*. There is an emphasis on being first.

The glue that holds Organization C together is *formal rules and practices*. Maintaining a smooth running operation is important here.

The glue that holds Organization D together is the emphasis on *tasks and good accomplishment*. A production orientation is commonly shared.

100 Total Points

4. Organizational Emphases (please distribute 100 points)

Organization A emphasizes *human resources*. High cohesion and morale in the organization are important.

Organization B emphasizes *growth and acquiring new resources*. Readiness to meet new challenges is important.

Organization C emphasizes *permanence and stability*. Efficient, smooth operations are important.

Organization D emphasizes *competitive actions and achievement*. Measurable goals are important.

100

Total Points