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Sub-theme 55: Re-examining the Organization of Healthcare: Institutional, Technological and Clinical Challenges

Who pays the price of change in healthcare?

This paper addresses one of the research questions posed by the stream chairs: *How do macro-level (health system), meso-level (organization) and micro-level (individual) changes dynamically interact and translate their effect on performance?*

Change processes can be stressful for staff when information is sparse or poorly communicated, uncertainty is heightened, consultation is inadequate and fairness is lacking. Negative individual outcomes of change can include redundancy, increased workloads, fractured social relationships and fear of further change. This is particularly relevant to the healthcare sector, since, as Loretto, Platt and Popham (2010) indicate, healthcare professionals are already subject to significant degrees of stress in their (normal) working lives. For example, in a survey of nurses, laboratory technicians and managers in one hospital, burnout was found in all three groups (Kalliath, O'Driscoll, Gillespie & Bluedorn, 2000). Since the advent of what has been termed New Public Management, which has a strong emphasis on key performance indicators, quality control and other measures of efficiency, employees have been faced with extra pressure to perform, often with fewer resources (Diefenbach, 2009). One of the costs of change in healthcare, therefore, is the stress of those who work in it. While this paper will show that the costs of stress also occur at the macro- and meso-levels it argues that the individual employee pays the highest price.

Occupational stress: Causes and consequences

Stress occurs when people face challenging and threatening situations and struggle to cope (Lazarus, 1993). According to two of the most commonly used models occupational stress is caused by psychological demands, lack of decision latitude, lack of social support, physical demands and job insecurity (Karasek, Brisson, Kawakami, Houtman, Bongers & Amick, 1998), lack of control, low reward, inadequate community/social factors, unfairness and inappropriate values (Maslach & Leiter 2008). When staff face heavy job demands with inadequate resources, including low managerial and organizational support, burnout often occurs (Bakker & Demerouti, 2007; Kalliath et al., 2000). The Health and Safety Executive (n.d., p. 3), a UK state

sector body, identifies “change and how it’s managed” as one source of workplace stress, together with demands, control, support, roles and relationships. The International Labour Organization (2013) also notes the impact of change on employee wellbeing.

At the macro- and meso-levels the costs of stress are significant. The World Health Organization (WHO) (Leka & Jain, 2010) estimates that work stress in the European Union affects 40 million employees and costs €20b. A study of 44 000 workers in 34 European countries (Eurofound, 2012) reported that 20% of the respondents reported poor mental wellbeing (and significantly just over 50% had been through organizational change in the previous three years). The Health and Safety Executive (n.d.) reports that the number of days lost through stress in the UK averaged 6.2 million between 2008 and 2010 and Cooper (2006) estimates stress costs between 5% and 10% of the country's Gross National Product. According to research cited by the American Psychological Association (APA) (2010), 69% of American employees claim that work is a significant source of stress, which is estimated to cost the country $300b annually. In Australia the psychosocial hazards of work are reported to cost the economy about Aus$14b and employers $11b (Medibank Private, 2008). On an organizational level stress has led to a range of negative outcomes such as increased absenteeism, turnover, medical and legal costs, and lower job satisfaction, morale and productivity (APA, 2010; Cooper, 2006; Leka & Jain, 2010).

At the micro-level stress can have a devastating effect on the wellbeing of staff. The consequences have been categorized by the WHO (Leka & Jain, 2010) as physiological (e.g. headaches, heart disease, cancer), behavioural (e.g. aggressiveness, absenteeism), emotional (e.g. anxiety, burnout), and cognitive (e.g. poor concentration, excessive rumination). Prior research into the healthcare sector reveals how change has significantly contributed to lower levels of emotional and physical wellbeing for staff. Table 1 contains a selection of quantitative studies of the consequences of stressful change for healthcare employees. However, while quantitative researchers have studied change-related stress in healthcare staff, there appear to be few qualitative studies. According to Bosio, Grafina and Scaratti (2007, p. 256) qualitative research in the healthcare sector is able “to furnish a deeper, more ecological, and more usable understanding of the social construction of health knowledge and practices.” In one study (Salmela, Eriksson & Fagerström, 2013) interviews with nurse leaders about an impending merger revealed both positive reactions and high levels of anxiety regarding the nature of their roles, workload and new managerial relationships. In another study Giaever (2009) interviewed public hospital nurses three times during the course of a technological change. Although not all participants were stressed by the new requirements some were extremely anxious that they

would not be able to cope and the added pressure soon began to have an impact. Apart from this study there appear to be no other qualitative investigations of stress through different phases of change in healthcare. A new study was therefore initiated to investigate what the consequences were for healthcare employees before, during and after an organizational change.

Table 1.
Selected Quantitative Studies of Consequences of Stressful Change in Public Health Organizations

Authors	*Country*	*Types of change*	*Participants*	*Method*	*Key findings*
Brown et al., 2006	UK	Restructuring/ mergers of public health organizations	Nurses	Surveys before and after change	'lower job satisfaction, physical, psychological, and environment-al quality of life' (p. 344)
Greenglass & Burke, 2000	Canada	Restructuring, downsizing	Nurses	Survey after change	'emotional exhaustion, cynicism, greater job insecurity, greater depression, and more anxiety' (p. 382)
Hansson et al., 2008	Sweden	Restructuring	Healthcare workers	Survey of mental and physical health before and after change plus sick leave records and biological stress markers	'no significant differences, either across time or between groups for [self-rated health], work satisfaction, and work-related exhaustion' (p. 69) but more sick leave
Loretto et al., 2010	UK	Various forms of change	Range of medical professions and non-medical staff, including managers	Surveys and interviews over three time periods after change plus participant observation and document analysis	'Just under a quarter of the sample were at risk of psychiatric morbidity' (p. 526)
Mirvis et al., 1999	USA	8 year period of rapid change	Senior leaders in medical centres	Surveys in 1989, 1992, 1997	psychological burnout and other indicators of stress increased during the…study period' (p. 353)
Paulsen et al., 2005	Australia	Restructuring, downsizing	Survivors and victims of downsizing in one hospital	Two weeks before the announcement, six months later and 18 months later	Moderate 'positive correlations between job uncertainty and emotional exhaustion' (p. 479)
Verhaeghe et al., 2006	Belgium	'Changes in supervisor, tasks, colleagues, working hours and work location' (p. 649)	Nurses in public and private hospitals	Survey of changes in previous 6 months	'Nurses who had been confronted with changes scored statistically significantly higher for distress' (p. 646)

Method

Access was granted to one public health organization in New Zealand that provides a range of services in hospitals, clinics and specialist centres across a wide geographic area. District Health Boards (DHBs) offer public healthcare services and have been subject to many changes since their establishment in 2001 following a major restructuring of state healthcare (Ashton, Tenbensel, Cummings & Barnett, 2008). The changes experienced by the DHB in question include further restructuring, downsizing, new purchasing and partnership arrangements and the sharing of some services and staff and across neighbouring DHBs.

In 2012 an email list was provided by the human resources department of about 200 staff members (of a total of several thousand) whose departments or functions had recently been through change, which excluded doctors. 31 staff volunteered for semi-structured interviews lasting between 35 and 75 minutes which were conducted in the respondents' offices or workplace meeting rooms. There were 19 in clinical positions (e.g. nursing and physiotherapy) and 12 in non-clinical positions (e.g. accounting and training). They comprised 25 women and 6 men; 22 White, 3 Maori, 2 Pacific Islanders and 4 Asian and ranged in age from 32 to 65 and length of service from 4 to 27 years. They held a variety of positions: non-managerial employees (6), first-level managers or professional team leaders (15), middle managers (8) and senior managers (2). The respondents were asked to discuss the causes and consequences of stress, before, during and after a selected change.

To explore the consequences of stress I sought evidence in terms of the WHO classification of physiological, behavioural, affective and cognitive reactions (Leka & Jain, 2010) and working tables were developed that comprised key quotes and observations of these reactions to stress before, during and after a change and what had triggered them.

Findings and discussion

While the focus of this paper is on the consequences of stress the causes should also be briefly reported to provide some context. Stressors before the change were mainly about internal and external relationships, workload, responsibility and inadequate resources. During the change additional sources of stress were uncertainty, mostly about the possible redundancies of the respondents and/or their colleagues, partly about expectations of redesigned jobs and future workload, lack of consultation, internal relationships, including inadequate management support, and the stress of others. After the change had taken place stress was caused for some respondents by heavier workloads and inadequate resources, together with poorer internal

relationships and the realization that further changes were possible, if not inevitable. Table 2 contains selected quotes of the personal consequences of change, using the classification of the WHO (Leka & Jain, 2010): physiological, behavioural, emotional and cognitive.

Table 2.
Consequences of stress before, during and after organizational change

Physiological	Behavioural	Emotional	Cognitive
Before the change			
I get very tense and really sore in the shoulder blades. You get the puff, fast heart rate, the feeling that everything sort of slows down, you can feel your blood pressure rise. My immune system was quite low.	I'd be avoidant. I'd withdraw a bit, I'd shut my door. I've been told I can get a bit short. Over-eating, not exercising, big glass of wine every night...and if I'd run out I'd have to go and buy a bottle.	I had gone home in tears and I had a couple of nights of not sleeping. I remember getting upset quite a lot, it was pretty hard, dealing with conflicts. I would be anxious and maybe a bit defensive.	I'd get a bit woolly-headed. I'd end up spending a lot of time thinking: job, job, job. I was forgetful about things at times. I became very disorganized.
During the Change			
I was taking medication. I went to the doctor and said, I'm stressed. There were some periods of time with really quite severe headaches. I started getting psoriasis and stomach problems.	I like to be honest and transparent but for some time there, I could not do that**.** When I'm really stressed, I stop exercising, I eat more. I found myself eating a lot more…I was shutting down emotionally.	That first year was a nightmare. I was very upset. It was very stressful. Lots of sleepless nights. I felt angry…I felt out of control, I felt sad as well. I felt betrayed. I feel that I was victimized. We were very angry about things that had happened with other members of staff.	My head was in a blur because I didn't think for one minute that I was going to be one of the ones who was in the scope. I was juggling things in my head…trying to work out different scenarios and seeing if they could possibly work. I wasn't focusing well on things at work.
After the Change			
I became so unwell through stress, I ended up in the hospital. I am feeling fat and unhealthy. I've felt generally unwell for two years. There were some periods of time with really quite severe headaches.	I completely blew my stack and said it how it was. Suddenly last week I'm having two bottles of wine a night…I am overweight again. I'll do things quickly, or at the last minute I'll put things off.	I feel cheated…I am angry and really disappointed. It's a huge stress and still there is no buy-in from the staff. I just feel really frustrated. I had sleepless nights. It was the most horrendous thing that's ever happened to me in my entire life.	I do wake up in the night and I don't get back to sleep because my head goes round and round and round with all the things that I need to get done now...I can't concentrate on doing things. Booking an appointment to see someone...and then completely forgetting to go.

The study thus confirms the findings of prior empirical research that this source of stress can cause physiological reactions (Hansson et al., 2008), behavioural problems (Bryant & Wolfram Cox, 2003), emotional concerns (Giaever, 2009) and cognitive issues (Greubel & Kecklund, 2009). For some individuals one issue, or a combination of issues, could result in negative reactions in several if not all categories, for example, stomach problems, overeating, anxiety and poor concentration. Reactions to stress were found throughout the change process, but varied in frequency and intensity within and between individuals. It was clear that for most of the respondents strongly negative reactions surfaced more frequently in the transition phase when uncertainty was at its peak, change processes were seen as lacking in consultation and the provision of information, resources were clearly about to shrink, workloads had begun to grow and some relationships had soured. Thus, as the causes of stress varied over time for each respondent, so too did the nature and intensity of the reactions. The meta-analysis of Bamberger et al. (2012) reveals that the transition phase led to more mental health problems in 65% of the studies. Where changes in the current study included redundancy for others, stress reactions were particularly strong, because they empathized with the victims, suffered greater workload or experienced poorer relationships, but also because future downsizing and related job changes were now distinctly possible.

The study has limitations in that it was conducted in one unit of the public health system in one country, at one point in time, with a gender imbalance and relied on the vagaries of participant memory. However, it has provided a rare qualitative contribution to the literature on stressful organizational change in healthcare. While health sector managers may be more concerned with how the majority of employees respond to change events they cannot afford to ignore stressed individuals, either because they are genuinely concerned for their wellbeing or because of the effects on the employees' performance, absenteeism or exits. Healthcare managers need to be particularly aware of the personal costs of organizational change for employees and aim to minimize them where possible.

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