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# Connecting organisational culture and quality of care in the hospital: is job burnout the missing link?

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#### Abstract

**Purpose** – To date, relatively little evidence has been published as to what represents an effective and efficient way to improve quality of care and safety in hospitals. In addition, the initiatives that do exist are rarely designed or developed with regard to the individual and organisational factors that determine the success or failure of such initiatives. One of the challenges in linking organisational culture to quality of care is to identify the focal point at which a deficient hospital culture and inadequate organisational resources are most evident. The accumulated evidence suggests that such a point is physician burnout. This paper sets out to examine this issue.

**Design/methodology/approach** – The paper reviews the existing literature on organisational culture, burnout and quality of care in the healthcare sector. A new conceptual approach as to how organisational culture and quality of care can be more effectively linked through the physician experience of burnout is proposed.

**Findings** – Recommendations are provided with regard to how future research can approach quality of care from a bottom-up organisational change perspective. In addition, the need to widen the debate beyond US and North European experiences is discussed.

**Originality/value** – The present paper represents an attempt to link organisational culture, job burnout and quality of care in a more meaningful way. A conceptual model has been provided as a way to frame and evaluate future research.

Keywords Stress, Organizational culture, Medical care, Doctors

Paper type Conceptual paper

Improving quality of care and patient safety in a hospital setting represents a significant organisational change, however the existing knowledge on how best to influence organisational culture has not been applied to this crucial issue. The considerable literature on organisational culture has not been matched by a parallel assessment of organisational culture in a hospital setting. Indeed, scant attention has been paid to the health care work environment and how it may influence important individual and organizational outcomes (Rathert *et al.*, 2009).



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One of the challenges in linking organisational culture to quality of care is to identify the focal point at which a deficient hospital culture and inadequate organisational resources are most evident. The accumulated evidence suggests that such a point is physician burnout. Burnout is a syndrome of emotional exhaustion, depersonalisation, and reduced personal accomplishment that is caused by long-term involvement in emotionally demanding situations. Burnout reduces the ability of physicians to provide the best quality of care possible and increases the risk that they will make mistakes. There is a direct link between the working conditions, organisational factors and burnout, and consequently, there is a direct link between the working conditions of physicians and the way that patients experience their hospital stay. Put simply, the hospital culture has a significant impact on the way that physicians function and thus the way patients are treated. It follows logically that the interesting questions to assess are: which aspects of hospital culture influences physician stress, dissatisfaction, and burnout and congruently, do stressed, dissatisfied, and burned out physicians deliver poorer quality of care.

The objective of the following article is argue that within the hospital setting, physician burnout represents the important linking mechanism that will allow us to understand better the nexus between organisational culture and quality of care. The impact that burnout has on well-being, medical mistakes and suboptimal care will be reviewed. The respective research literatures on organisational culture and burnout have developed in parallel, and both have reached similar conclusions with regard to their impact on quality of care. However, there has not been any systematic attempt to analyse how organisational culture, burnout and quality of care could be linked.

In the interests of constructing a cogent argument, the present paper will limit the discussion to the experience of physicians, physician behaviours and their impact on quality of care. This is not intended to imply that the physician experience is the most important or only perspective worth considering. That said, physicians do occupy a significant leadership role within a hospital and a focus on their experiences is intended to provide a starting point to examine the whole range of stakeholders within the hospital environment.

# Organisational culture, burnout and quality of care

Organisational culture determines how individuals behave, what people pay attention to, and how they respond to different situations, and how they socialise with new members and exclude those who do not fit in (Spataro, 2005). The Institute of Medicine (IOM) in the USA has repeatedly highlighted the link between patient safety, physician well being and organisational culture (Institute of Medicine, 2001, 1999). However, the vast literature on organisational culture generally has not been matched by an assessment of organisational culture in the medical literature (Hoff *et al.*, 2004). Therefore, there is a need to review the general literature on organisational culture and indicate how it can be linked to job burnout and quality of care among physicians. The literature on organisational culture indicates that the behaviour of employees in an organisation is determined more by the informal processes that operate within an organisation. For example, Brief *et al.*(1995) found that the behaviour of MBA students changed if it was known to them that discrimination against certain groups was a good thing.

The organisational theories that provide the best models for how we can understand the hospital environment include: Handy's (1995) Role/Apollo culture, Schein's (1985) theory of organisational culture with regard to the assumptions that define an organisations, and Mintzerg's (1979) theory of organisational configurations and his classification of a professional organisation.

According to Handy (who adopted the work of Harrison, 1972) and his description of role culture, people have clearly delegated authorities within a highly defined structure. Typically, these organizations form hierarchical bureaucracies. Thus, power derives from a person's position and responses to changes in the work environment generally begin by ignoring changes in circumstances, and by relying on the existing set of routines. Therefore, attempts to change organisational culture should account for the way that such changes impact on the role of the physician in the hospital. According to Handy, role cultures are managed rather than led. This approach to culture can be insightful, but is limited by not being prescriptive. Moving on from Handy, the approach of Schein and his model of organisational culture based on artificats, espoused values and assumptions seems particularly appropriate for the hospital environment. For example, at the deepest level, that of assumptions, elements of the culture are unseen and not obvious in interactions between organizational members. Also, certain elements of the culture are taboo to discuss inside the organization, and such "unspoken rules" exist without the conscious knowledge of the membership. The aforementioned certainly fits with the extensive literature on the hidden curriculum within medical education and the way that such practices are experienced via learning on the ward between hospital consultants and medical students. For example, the need to train students to understand and cope with emotional demands is in contradiction to the fact that emotional detachment is often promoted as part of the hidden curriculum of undergraduate and postgraduate training (Smith and Kleinman, 1989). Interestingly, strategies such as emotional attachment are being shown to be maladaptive when considered against the growing literature on emotion labour (e.g. Montgomery et al., 2005). Additionally, the approach of Schein to organisational culture also allows for significant differences to exist between espoused values and underlying assumptions, and again this has a resonance for hospitals where differences between these two levels can be projected onto the patient experience. The reluctance on the part of hospital physicians to adopt best practice guidelines is an example of how organisational culture can influence practice. For example, research on best practice (Cabana and Kim, 2003; Cabana et al., 1999) indicates that the non-adoption of guidelines is related to an inability to overcome previous practice approaches, outcome expectancy and self-efficacy among physicians, which are all informed by organisational culture.

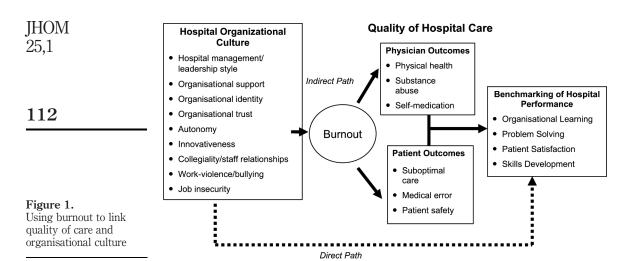
Finally, the approach of Mintzberg to organisational culture and the characterisation of the professional organisation is appropriate to the hospital environment, where professional standards are established externally. Mintzberg outlines how professional organisations are resistant to strategic changes or reorientations in work practices. Moreover, the professionals within the professional organisation have a good deal of discretion over their work practices and this allows them to ignore both the clients/patients and the organisation itself. Mintzberg (1997) has written directly on the issue of the hospital cultures in *Toward a Healthier Hospital*, and strongly insists that real organisational change can be effected only by a gradual

bottom up approach that does not threaten the roles that individuals have established within the organisation. The article concludes that hospitals should better learn how to solve cultural problems systemically, and that to do so will require not the wish lists of strategic planning and structural reorganizing, but tangible changes in collective behaviour.

The approaches taken to organisational culture by Handy, Schein and Mintzberg have three implications for how we will approach organisational hospital culture. First, all agree that role behaviour is the key to both understanding and changing behaviour. In the following paper, we will argue that job burnout represents the best way to link organisational culture and quality of care, as it focuses very much on role behaviour. Second, within the hospital, the three approaches suggest organisational culture is best understood in terms of the informal discretion of the physicians and as such organisational change has to recognise the informal. Congruently, the following paper will argue for the use of action research as an appropriate tool to initiate change within hospitals. Action research is an approach that allows the researcher and participants to examine and reflect on the informal rules within an organisation. Third, the first two points suggest that change needs to be systemic, meaning that physicians can be engaged most fully when their impact on the actors within the hospital can be realistically discussed and reflected on. Thus further supports the argument in favour of for action research, as its an approach that attempts to involve a wide selection of stakeholders in taking responsibility for change within an organisation.

Moving on from the general theories of organisational culture, a review of the evidence concerning healthcare reveals that organisational culture has a significant impact on quality of care and patient safety (Shortell *et al.*, 1995, 2001; Wakefield *et al.*, 2001). Equally, there is compelling evidence that physicians suffering from burnout will depersonalize from their patients (Bakker *et al.*, 2000), withdraw from their patients (Linn *et al.*, 1986), demonstrate sub-optimal care of their patients (Shanafelt *et al.*, 2002), and in a minority of cases burnout has even be related to serious mistakes and patient death (Firth-Cozens and Greenhalgh, 1997). A review of these two bodies of literature, the link between organisational culture and quality and the link between physician burnout and sub-optimal patient care, strongly suggests that a more comprehensive approach to improving quality of care can be achieved by attempting to conceptualise how these variables could be conceptually related. Figure 1 presents a conceptual model of how these three concepts could be linked via; the direct impact of organisational factors on quality of care; and an indirect impact via the burnout experiences of physicians.

The studies that do exist involving all three issues are quite revealing in terms of the relationship between organisational culture, burnout and quality of care. For example, a UK hospital study (McNulty and Ferlie, 2002) showed that changes in working arrangements initiated by managers had a variable and limited effect, while an approach that was adapted to the needs and preferences of individual clinical services and staff was more effective in bringing about change because professionals felt they were leading the process instead of having change imposed on them. This study highlights how attention to both organisational culture and leadership influences impact. In the USA, Kaissi (2003) found that medical group practices with more clinical support systems had lower error rates if they also had collegial cultures and/or cultures that valued quality of care. Additionally, a study among 26 French



ICU's (Minvielle *et al.*, 2008) highlighted the direct links between organisational culture, burnout and performance; with the absence of burnout being linked to quality of ICU organisation, and cultural values of the ICU's being linked to organisational performance. The aforementioned studies all lead to the conclusion that there is a meaningful link between organisational conditions (e.g. organisational culture), the way physicians experience the organisation (e.g. burnout, lack of support) and the impact on service provision (e.g. patient safety and quality of care).

The one organisational factor that has received a good deal of attention within the medial literature is work hours. However, the evidence is mixed and inconclusive (Fletcher et al., 2005), with some research showing that patient safety has not been improved by a reduction in residents work hours (Fletcher et al., 2004). Indeed, work hour reductions have even resulted in unintended consequences such as inadequate development of professionalism (Rosenbaum, 2004) and worse physician-patient communication (Stern et al., 2001). Interestingly, research shows that physician burnout is not related to work hours, which suggest that the subjective experience of physicians has more impact in comparison with objective ones like work hours. While the work hours of physicians are interesting to record, the accumulated evidence all points to the fact that the reduction of burnout experienced by physicians represents a more promising path to understanding what exactly impacts on quality of care. With this in mind, the next sections will review the evidence that exists with regard to burnout and its impact on physician behaviour, medical mistakes and suboptimal care. Following on from this, recommendations will be provided as to how we can achieve a more ecologically valid approach to quality of care.

### Burnout and stress in physicians

The demanding and emotional nature of providing healthcare means that work-related stress, anxiety and burnout are reported at higher levels for physicians in comparison with related occupations and the general population (Ghodse and Galea, 2006). The proportion of doctors and other healthcare professionals showing above threshold levels of stress has stayed remarkably constant at around 28 per cent, whether the

studies are cross sectional or longitudinal, compared with around 18 per cent in the general working population (Firth-Cozens, 1999; Wall *et al.*, 1997). Indeed, levels are even more intense when we consider only practicing physicians with burnout rates ranging from 25 per cent to 60 per cent (Deckard *et al.*, 1992; Gallery *et al.*, 1992; Grassi and Magnani, 2000; Keller and Koenig, 1989; Lemkau *et al.*, 1994; Ramirez *et al.*, 1995).

Moreover, physicians who deal directly with patients on a daily basis report even higher burnout levels. For example European evidence indicates that Greek medical residents report significantly higher burnout levels than medical specialists (Panagopoulou *et al.*, 2006). Equally, evidence from a study evaluating burnout among samples of Italian, Spanish and Portuguese Physicians (Travado *et al.*, 2005) working in oncology wards reported that over 25 per cent fit the criteria for the emotional exhaustion component of burnout. Consequently, research indicates that physicians suffer from a whole range of problems at levels above the norm among the general population. For example, when compared to a random sample of the Swiss population (Sebo *et al.*, 2007), Swiss primary care physicians more likely to be drinkers (96 per cent versus 78 per cent), and twice more likely to be at risk drinkers (30 per cent versus 15 per cent).

The link between physician burnout and quality of care is set to become increasingly important in the twenty-first century, as the general trend taking place in most of the industrialized countries is a decrease in organisational resources and an increase in individual demands. The duration and harshness of budgetary constraints and organizational restructuring suffered by the health care sector are exercising a cumulative and heavy burden on the quality of everyday work in health care institutions. Thus, performance improvements and cost reductions will probably not continue to occur, long term, without considering provider characteristics and then focusing on topics such as burnout, fatigue, and shared cultural values (Rotondi *et al.*, 2006; Minvielle *et al.*, 2008).

# Burnout, medical mistakes and suboptimal patient care

The link between burnout with error likelihood and suboptimal patient care is based on the premise that stressed, dissatisfied, burned out, anxious, and depressed doctors are not able to fully engage with patients. The evidence that does exist suggests a strong link between mistakes and burnout. For example, stressed, burned out, and dissatisfied physicians do report a greater likelihood of making errors and more frequent instances of suboptimal patient care (Williams  $et\ al.$ , 2007). Additionally, Jones  $et\ al.$  (1988) examined the critical relationship between stress and medical malpractice. In one study, they compared 91 hospital departments for malpractice risk and found that those departments at highest risk (e.g. sued within the last year) manifested significantly higher levels of job stress across three of four measures used. In a different set of 61 hospitals, they found strong correlations (r=0.39 to 0.56) between frequency of malpractice suits and organizational stress. A prospective cohort study of medical residents (Fahrenkopf  $et\ al.$ , 2008) found that burnout was associated with higher rates of self-reported error and depressed residents were six times more likely to make medication errors.

However, the relationship between burnout, depression and medical error is complex with difficulty in assessing whether depression is an actual outcome of medical mistakes *per se*, which in turn could be exacerbated by burnout. Making a

medical mistake is a complex issue with regard to its relationship with burnout, in that mistakes can be both a source of stress and a consequence of stress. Physicians can experience the making of mistakes as a significant source of misery, and unless such errors are turned into genuine learning opportunities, they can stay with doctors throughout their lives (Mizrahi, 1984).

The accumulated evidence suggests that burnout plays an important role in both medical mistakes and sub-optimal care. The reduction of medical errors is a crucial issue, highlighted by EU and USA statistics. In the USA it is estimated that between 44,000 and 98,000 patients die each year as a result of medical errors and over 400,000 preventable adverse drug events may occur (Institute of Medicine, 1999, 2006). Equally, adverse events are also common in the UK, occurring in more than 10 per cent of hospital admissions; as many as half of these adverse events might have been prevented (Vincent et al., 2001). Finally, an EU Eurobarometer report (Eurobarometer, 2006) on medical errors reported that; 23 per cent of all respondents had experienced a medical error in some form, 18 per cent of all respondents had experienced a serious medical error in a local hospital (i.e. they have either suffered personally or had family members who have suffered one), and 11 per cent of all respondents had suffered from a serious medical error from a medicine that was prescribed. Interestingly, the EU report also indicated that respondents recognised that patients themselves play an important role with respect to avoiding medical errors. They believe that good communication channels between the healthcare worker and the patient is crucial.

# Burnout, substance use and the special case of patient violence

Stress, anxiety and burnout play an aetiological role in substance misuse and decreased performance in healthcare professionals (Firth-Cozens, 1995, 2000). The evidence indicates that alcohol and substance abuse is a problem that cuts across all types of healthcare professionals; nurses (Castledine, 2005; Edwards et al., 2001), physicians (Fowlie, 1999; Rodriguez Fernandez et al., 2001). Substance misuse and alcohol dependence are among the most prevalent of health factors affecting physicians' performance (Ghodse and Galea, 2006). More than two-thirds of the cases considered by the UK GMC's Health Committee in 2002 involved the misuse of drugs or alcohol (General Medical Council, 2001). Indeed, the methodological limitations in collecting such data probably mean that such an estimate is conservative at best. The problem of alcohol and substance abuse is compounded by the fact doctors have little knowledge about how to access appropriate and confidential services for themselves or are worried about the prospect of disclosure (BMA, 2006). Indeed, it is widely acknowledged that there is a cultural expectation within medicine that doctors do not expect themselves or their colleagues to be sick, with only one-third of junior UK doctors registered with a general practitioner (Department of Health, 1999). Furthermore, the need to portray a healthy image combined with unease about adopting the role of a patient and worries about confidentiality can lead doctors to take responsibility for their own care. This all adds up to the fact that a significant proportion of healthcare professionals are using alcohol and illegal drugs as a coping strategy to deal with the chronic stress that results from working in demanding environments. Obviously, such maladaptive coping has significant implications for patient care, individual well-being and organizational functioning.

At a general level, there is a considerable amount of evidence on the individual and organizational risk factors that increase job stress and result in maladaptive outcomes such as alcoholism and substance abuse (Cooper et al., 2001). However, the nature of healthcare provision means that idiosyncratic risk factors such as patient violence and harassment are likely to play a major role. Evidence from Finland found that one-third of all care workers have been faced with physical violence or the threat of violence at work, and two-thirds had encountered verbal threats, criticism or verbal abuse (European Foundation for the Improvement of Working and Living Conditions, 2003). Similar results were found among Polish nurses (Merecz et al., 2006), where the most frequently reported incident was verbal abuse, followed by threats and physical assault. Occupational violence is a worldwide, multifaceted problem affecting all industries, including healthcare. Healthcare professional groups indicate that the most distressing occupational violence is perpetrated by patients, followed by patients' relatives (Alexander and Fraser, 2004). The most frequent form of occupational violence is likely to be verbal abuse, followed by threatening behaviour, physical violence, and obscene behaviour. The aforementioned evidence strongly suggests that an examination of burnout and subsequent maladaptive coping would be incomplete without its due consideration.

## Developing an ecologically valid approach to quality of care

The reviewed evidence leads to the conclusion that quality of care initiatives in hospitals represents a significant organisational change issue in hospitals. Moreover, a more real approach to promoting quality of care is to recognise that its success or failure is deeply embedded in the organisational culture of the hospital and the way that physicians experience burnout.

# Interventions and performance

To date, relatively little evidence has been published as to what represents an effective and efficient way to improve quality of care and safety in hospitals (Davidoff *et al.*, 2008). Anecdotal reports from hospitals across Europe attest to the fact that a good deal of useful and effective work is probably now done in clinical settings to improve the quality and safety of care. However, the fact that such experiences are not reported is potentially a serious barrier to the development of improvement in health and medical care.

The approach that should be taken is to view the hospital through the lens of organisational change. Hospitals are organisations that are populated by professionals, and as such any intervention aimed at organisational change needs to include the cooperation and involvement of the professionals who exercise a large degree of control in this environment. Indeed, recent evidence suggests that practitioners and "quality experts" have very different models about how quality systems operate in hospitals (Hudelson *et al.*, 2008). A review of the intervention workplace literature indicates that there are levels of intervention that can be implemented in order to improve the work environment and health of workers. The first level is prevention that focuses on a reduction in work constraints, the second is prevention that increases an individual's ability to cope with change, and the third is prevention that aims to treat or rehabilitate employees who show serious consequences of occupational stress (Murphy, 1988; Kompier and Marcellissen, 1990). The first level of intervention is the most desirable in

that it involves systemic long-term change. However, changing the work constraints is difficult given the organisational culture within hospitals, as outlined in our earlier section on organisation culture, which means that a bottom-up participatory approach is the most likely to success. This all means that interventions need to engage with the clinical leadership of the hospital, position quality of care improvement within organisational development, and provide the necessary skills to initiate change.

From this perspective, future interventions focused on the capacity for change and innovation needs to come from within health-care organisations, and thus help build the capacity of people within the hospitals (Ham, 2003). The methodology most suited to initiating such change is action research. Action research is a reflective process of progressive problem solving led by individuals working with others in teams or as part of a "community of practice" to improve the way they address issues and solve problems (McNiff, 2000). Action research aims to generate knowledge about social systems as well as attempting change (Hart and Bond, 1995). However, there are relatively few examples of action research being used within healthcare contexts. The studies that do exist have focused on nurse/physician collaboration (Dechairo-Marino et al., 2001) and improving psychosocial work environment within a hospital unit (Lavoie-Tremblay et al., 2005). The nurse/physician study (Dechairo-Marino et al., 2001) found no support for an increase in measures of collaboration, however, on measures related to patients perception of care (related to collaboration), the hospital scored significantly better than the reported average among similar hospitals. The measures of patient care related to coordination of care, information and education, and involvement of family and friends. The psychosocial work environment study (Lavoie-Tremblay et al., 2005) was particularly interesting in that it resulted in a significant reduction in absenteeism in the unit studied (8.26 per cent to 1.26 per cent). however participants in the study reported significant reductions in social support from supervisors and colleagues, and decision latitude (at post-test). Both studies suggest that two important issues: we need to be careful in the way that we evaluate action research with regard to interpreting "negative" results, which may in fact represent evidence of disguised positive change, and more importantly, action research is an approach that can allow us to view a wider picture of the organisation and a more longitudinal one, whereby negative indicators may be signals of eventual positive change.

Given all this, it is reasonable to conclude that action research is well suited to the task of developing interventions that need to be ecological valid within a healthcare setting. In addition, future action research on effective interventions should be conceptually grounded, evidence-based and relevant to the people they address. The use of action research is crucial to solving such problems. In terms of involving the important stakeholders, action research represents the appropriate organisational tool that will allow the developed interventions to reflect the concerns of physicians.

Health is an exemplar industry requiring effective teamwork: whenever things go wrong in health care, reports (Institute of Medicine, 1999), enquiries (Final Report of the Special Commission of Inquiry into Campbelltown and Camden Hospitals, 2004) and studies (Forster *et al.*, 2004) show that a predetermining factor is that patient care is delivered in a fragmented, isolated way, with health-care professionals having failed to collaborate effectively. Safety is compromised and quality suffers in such circumstances (Institute of Medicine, 2001). Therefore, the proposed benefits of an

action research approach is that they involve stakeholders, encouraging bi-directional feedback and enable reflection to stimulate productive change and improvement in a participatory environment.

The great challenge is to translate the existing knowledge about the impact of burnout, organisational factors and hospital climate into a generic quality improvement program that improves quality of care, while also improving and protecting physician well being. Indeed a successful program could be adapted for the use among multiple healthcare contexts.

As already mentioned, few studies exist outlining how action research can be used within a hospital environment to enhance quality of care. However, a review of the initiatives employed to reduce physician burnout can provide us with important clues as to what issues would be faced if action research were employed in a hospital environment. A recent review of the interventions aimed at the reduction of burnout among physicians (McCray et al., 2008) highlights that there is a paucity of evidence on what actually works. However, the review did conclude that the reasons for the ineffectiveness of interventions were that their design did not include the people immediately involved. Tackling burnout and its impact on the quality of care needs a systemic approach to the problem. At the organisational level, we need to provide resources such as teamwork and leadership training for clinicians (Firth-Cozens, 2003). At the individual level, there should be primary prevention for individuals through training, career counselling, and educating about error. When these strategies are inadequate, secondary services providing coaching, counselling and psychotherapy, or alcohol and drug treatment could be provided (Firth-Cozens, 2003). Ultimately, a quality-focused environment should equal fewer medical errors, better error reporting, and fewer cases of suboptimal patient care. As such, a true quality orientation would demand substantial organisational attention to developing, implementing, and monitoring mechanisms to reduce error (McCray et al., 2008). Equally, it would also demand that staff and physicians maintain the highest degree of professionalism and customer focus in their interactions with patients to prevent miscommunication and subsequent inadequate patient care (McCray et al., 2008). Such goals can only be achieved with an approach that is geared towards addressing systemic issues within the hospital culture. Such an approach is action research.

# Widening the debate beyond the north of Europe and the USA

To date, the majority of existing evidence concerning burnout and quality of care has been collected in the North of Europe and North America. In this respect, the Southeast of Europe (SEE) is a relatively unchartered area with regard to the monitoring and benchmarking of organisational hospital climate, burnout and quality of care. The evidence which does exist suggests that the work conditions of healthcare professionals in these emerging countries are likely to be even more demanding and challenging, in comparison with both Northern Europe and the North of America. For example, an EU survey (European Foundation for the Improvement of Working and Living Conditions, 2002a) asking individuals whether they were satisfied with their national health care system indicates significantly lower rates of satisfaction in SEE countries such as Turkey (24 per cent), Greece (24 per cent), Romania (26 per cent), in comparison with the EU-15 average of 62 per cent. Additionally, evidence from Croatia (Mastilica and Chen, 1998) reported that Croatian citizens were dissatisfied with health services in general (44

per cent) and with the quality of health facilities and equipment in particular (48 per cent). Such statistics strongly suggest a less than satisfactory environment for both healthcare professionals and patients in the SEE region. Indeed, looking specifically at a country such as Bulgaria indicates that employment and working conditions in healthcare have been strongly affected by the "neoliberal" public sector reforms introduced under pressure from the international financial institutions (the International Monetary Fund, World Bank etc.), which have imposed budgetary stringency. The healthcare sector in Bulgaria has witnessed a drastic reduction in the number of jobs, along with falling wages. Between 1990 and 2002 more than 47,500 jobs were lost, with nurses, midwives and similar groups most affected (Daskalova, 2006).

The major social and political changes in the SEE have given rise to a special need to examine the issues concerning work, employment and well-being. More specifically, globalisation and the need to adapt to the EU market place have prompted both rapid economic development and technological advancement in this region. The pressure to adapt to changing market conditions layered on top of the already existing cultural and political history, presents challenges for both policy makers and researchers interested in the successful adaptation of individuals to a satisfactory and productive working life. In some instances, the adaptations of countries to the EU and free market economics have had the net effect of reducing the quality of work conditions and increasing stress levels. A survey of all occupations within Europe (European Foundation for the Improvement of Working and Living Conditions, 2002b) suggests that SEE countries report higher stress levels than their EU-15 counterparts, with percentages of individuals reporting that they found their work stressful ranging from Turkey (40.2 per cent), Greece (47.8 per cent), Romania (40.3 per cent) and Slovenia (32.4 per cent) compared with an EU-15 average of 31 per cent. The reported data are from the whole working population, but they are suggestive of a qualitatively different working experience in the SEE region. In SEE countries, healthcare systems are rarely evaluated from a users' perspective.

#### Future research and conclusions

Future research needs to benchmark the organisational and individual factors that impact quality of care and patient safety, and design bottom-up interventions that both increase quality of care and physician well being. We have provided a conceptual framework as to how physician burnout can be viewed as a linking mechanism between organisational culture and quality of care. More specifically, we outline the following directions for future research efforts:

- (1) Future research should profile the specific factors of hospital-organisational culture that increase burnout among physicians, and therefore decrease quality of care. Figure 1 outlines the organisational factors that can be benchmarked, in helping us to link organisational culture to physician experience and ultimately to patient experience.
- (2) Future research should identify appropriate bottom-up solutions to the problems of organisational culture and physician burnout, and its impact on patient safety and quality of care. In this paper, we have argued for the greater use of action research in developing ecologically valid solutions. The recommendation of an action research approach is also consistent with our view that quality of care needs to be viewed through an organisational change lens.

Connecting

organisational

(3) To date, the research that does exist has been dominated by a North European and US perspective. In the context of this paper, we have argued for the need to validate our experiences among the SEE region, and thus develop a more inclusive knowledge base on quality of care within Europe. The same sentiments should stand for researchers from other areas where prevailing models rely heavily on a specific set of experiences within a wide geographic region.

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