

Managing people and performance: an evidence based framework applied to health service organizations

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People and their performance are key to an organization's effectiveness. This review describes an evidence-based framework of the links between some key organizational influences and staff performance, health and well-being. This preliminary framework integrates management and psychological approaches, with the aim of assisting future explanation, prediction and organizational change. Health care is taken as the focus of this review, as there are concerns internationally about health care effectiveness. The framework considers empirical evidence for links between the following organizational levels:

1. Context (organizational culture and inter-group relations; resources, including staffing; physical environment)
2. People management (HRM practices and strategies; job design, workload and teamwork; employee involvement and control over work; leadership and support)
3. Psychological consequences for employees (health and stress; satisfaction and commitment; knowledge, skills and motivation)
4. Employee behaviour (absenteeism and turnover; task and contextual performance; errors and near misses)
5. Organizational performance; patient care.

This review contributes to an evidence base for policies and practices of people management and performance management. Its usefulness will depend on future empirical research, using appropriate research designs, sufficient study power and measures that are reliable and valid.

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Introduction

People and their performance are key to an organization's effectiveness. This is well illustrated in health care organizations: the centrality of employee well-being and organizational factors in producing high-quality patient care has been recognized in the UK's NHS strategic planning. To quote:

a modern NHS must offer employees a better deal in their working lives. Improving the working lives of employees contributes directly to better patient care through improved recruitment and retention – and because patients want to be treated by well-motivated, fairly rewarded employees. The way NHS employers treat employees will in future be part of the core performance measures and linked to the financial resources they receive. (*Improving Working Lives Standard*, DoH, 2000)

Health care is taken as the focus for this review of organizational influences on organizational effectiveness, as there are concerns internationally about health care effectiveness (Department of Health 2003). Issues of working conditions and experience have been highlighted by the serious difficulties of recruiting and retaining the number of professional employees required for high-quality health services (Department of Health 2003). In the face of technological development, increasing public expectation of good health and limited spending on health care, there has been an increased emphasis on the collection of health service performance data to inform service planning and to monitor service development. The use of clinical indicators and performance indicators has been accompanied by an emphasis on improving health, fair access to services, the delivery of effective health care, efficiency, the experiences of patients and carers, and health outcomes. In the UK, this has been reflected in the setting up of the Commission for Health Improvement, which has been given increasing powers as the Commission for Health Audit and Inspection.

The collection of data, including performance indicators, is useful in explaining and improving performance to the extent that

their significance is understood. The aim of this review is to provide a coherent, integrative evidence based framework of the links between some of the key influences on staff performance in order to assist future explanation, prediction and organizational change. This preliminary framework integrates management and psychological approaches and examines their respective contribution to the output of an organization, with a particular focus on the National Health Service (NHS) in the UK.

A review of the existing empirical evidence for the constructs proposed in the framework highlighted the following five points of focus:

- (1) context (organizational culture and inter-group relations; resources, including staffing; physical environment)
- (2) people management (HRM practices and strategies; job design, workload and teamwork; employee involvement and control over work; leadership and support)
- (3) psychological consequences for employees (health and stress; satisfaction and commitment; knowledge, skills and motivation)
- (4) employee behaviour (absenteeism and turnover; task and contextual performance; errors and near misses)
- (5) organizational performance: patient care.

These five areas of interest and their links are examined in the light of empirical evidence. Literature searches, using the Pubmed and PsychINFO databases and the Cochrane Library, were structured by the constructs and labels listed above, using both key words and MeSH terms adapted for each database. Studies were selected that bore directly on the issues addressed in the framework. It was notable that very few well-conducted studies in the nursing and medical research literatures were focused on issues of work context, people management and employee outcomes. Although the evidence examined is representative, it is not exhaustive. The framework is designed systematically to test predictors of outcomes and mediators of associations, and the next step is to generate targeted evidence with systematic reviews and primary research.

The review focuses on studies in health care organizations but, where relevant and helpful to our understanding, makes reference to key studies conducted in other sectors. If the evidence base in health care is limited, we make reference to key studies in other sectors (for example in relation to studies of the link between culture and performance). However, in every area of the review, relevant studies from the health care domain are described or referenced. We do not rely entirely on studies in other sectors in relation to any topic. Where the evidence base in health care is substantial, we do not refer to studies from other sectors unless they offer a particularly useful insight into the issues addressed. There are two considerations underlying this approach. First, we believe it is important that those researching organizational issues in health care make use of knowledge developed in other sectors rather than seeing health care as unique. At the same time, we think it is important to identify those organizational aspects of health care that are unique, and we identify some of these in the review.

Research into health service organization and service delivery is international, with considerable research reported in Europe, North America and Australia. We therefore did not limit our scope to studies of health services in the UK but drew on studies in comparable systems (the Netherlands and Australia for example). Although the health care system in the US is dramatically different from that in countries that adopt a more interventionist approach to health care provision, some studies in the US are valuable. For example, studies of the effects of team working upon patient care at the team level of analysis are relatively independent of the broader health care system. Where research from countries other than the UK was useful and directly interpretable in this way, it is used in the review.

This organizational model used for this review has four levels, described below: Context, People Management, Psychological Consequences for Employees and Employee Behaviour. It is proposed that the effectiveness

of a health care organization is influenced by these four components and their interactions. This review explores these links and their relative contribution to overall performance. The review does not consider the contextual issues of physical environment and resources, including staffing and pay. The effects of physical environment on employees' psychological outcomes and performance have been thoroughly reviewed elsewhere (Ornstein 1990). The effects of resources, including staffing and pay, is a large topic, grounded in different literatures and disciplines from the ones forming the basis of this review.

Context

The context of an organization includes its culture and climate, and inter-group relations. Organizational culture includes shared meanings, values, attitudes and beliefs of its members (Schein 1992). Manifestations of culture include: hierarchy, job descriptions, informal practices and norms, espoused values and rituals, stories and jokes and jargon. An overlapping concept is 'climate', which describes aggregate employee perceptions of their organization. It describes how employees experience organizations and attach shared meanings to their perceptions of it, focusing on the processes, practices and behaviours which are rewarded and supported in an organization (James *et al.* 1990). Four dimensions of global organizational climate have been identified across a number of different work contexts:

- role stress and lack of harmony (including role ambiguity, conflict and overload, sub-unit conflict, lack of organizational identification, and lack of management concern and awareness)
- job challenge and autonomy (as well as job importance)
- leadership facilitation and support (including leader trust, support, goal facilitation and interaction facilitation, and psychological and hierarchical influence)



IJMR

June 2004

Managing people and performance: an evidence based framework applied to health service organizations

- work group co-operation, friendliness and warmth (as well as responsibility for effectiveness; James and McIntyre 1996).

People Management

People management describes those aspects of management that are intended to affect directly those who work within the organization. This includes the management of culture, communication practices, the encouragement of social activities and leadership. Included within this broad category is the specific domain of Human Resource Management (HRM). This refers to management practices such as recruitment, selection, induction, training, appraisal and the design and application of reward systems which all aim to enhance organizational performance by improving the performance of individuals within the organization. HRM also refers to the formal strategies developed by organizations for people management and their alignment to broader organizational strategies. These include manpower planning, skill mix and policies on equal opportunities, skill retention, job security, industrial relations and redundancies.

Psychological Consequences for Employees

There are various ways in which the work situation affects people. The way a job is designed and people are managed influences employees' emotional and physical well-being, their attitudes to work and the organization, and their performance and behaviour at work. Within the health service, there is good evidence that factors such as work load and control over work influence stress levels and physical and psychological health (Michie *et al.* 2004; Williams *et al.* 1998). They are also associated with attitudes towards the work situation, such as job satisfaction and organizational commitment. Three psychological consequences are key in predicting functioning and performance at work: knowledge, skills and motivation. These can all be seen as consequences

for staff of the broader work situation and the management of employees.

Employee Behaviour

Employee behaviour includes levels of absenteeism and rate of turnover, errors and near misses, and employee performance. Recent research and theories distinguish between 'task performance' and 'contextual performance' (Borman and Motowidlo 1993; Van Scotter and Motowidlo 1996). Task performance includes behaviours focused on the core technical activities involved in a job, while contextual performance refers to discretionary activities outside core job performance such as participating in voluntary committees, co-operating with and helping co-workers or those in other departments, exerting effort over and above the basic job requirements and promoting the department or organization. In short, contextual performance refers to those largely invisible aspects of work behaviours that do not constitute core job performance but that contribute to the performance of the organization and create the glue that binds the organizational community together.

These four elements of organizational influence on its effectiveness were integrated into a model of people management and performance (see Figure 1) which guided this review. The face validity of this model was tested in two ways. The first was a review by 23 members of the 'Performance Assessment Project Team', convened by the UK's Commission for Health Improvement to develop a set of performance indicators for the NHS. This group comprised policy-makers, planners, senior managers and researchers in medicine, epidemiology and social sciences. The second was a presentation to two focus groups of NHS Human Resource Management Directors. In both cases, feedback was invited. The response was favourable, and all agreed the framework 'made sense' in terms of their practical experience and understanding of the literature.

The findings of this review are organized within the structure provided by the framework, in the following sections: Links between

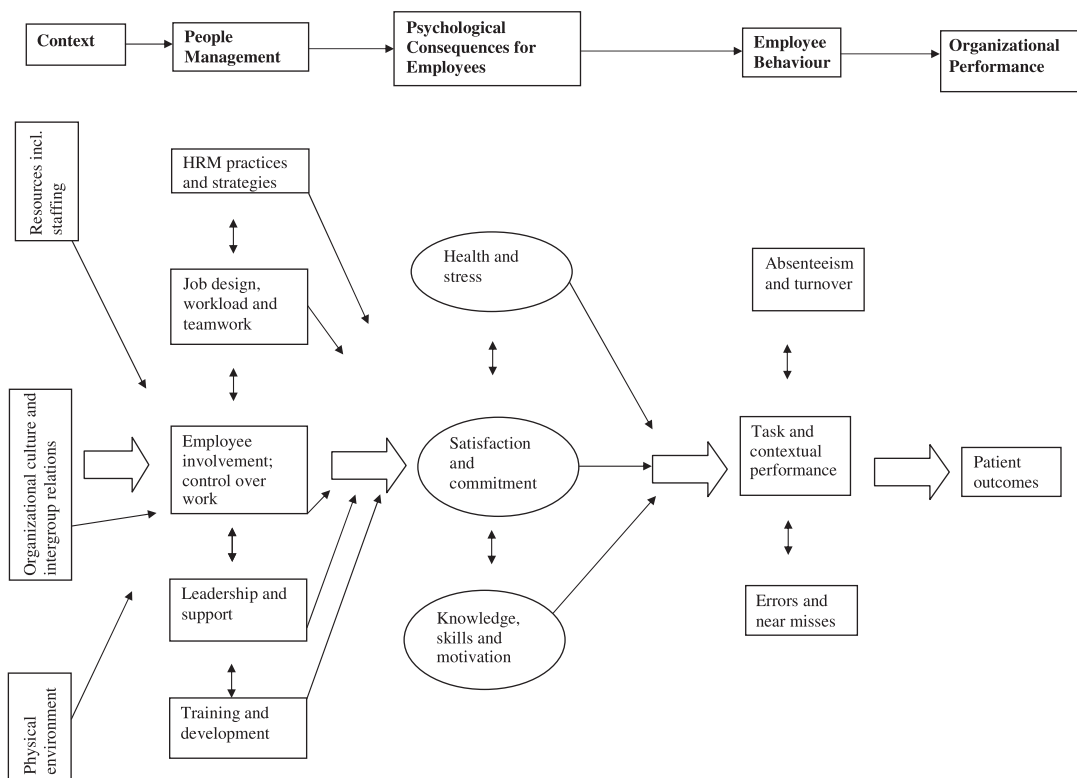


Figure 1. Framework for understanding the links between organizational context, people management, psychological consequences for employees, employee behaviour and organizational performance.

organizational context and performance, links between organizational context and people management, links between people management and performance, links between people management and psychological consequences for employees, and links between psychological consequences and employee behaviour. We first consider the links between the two extreme ends of the framework (see Figure 1), organizational context and performance.

Evidence of Links

Links between Organizational Context and Performance

Organizational culture and performance. Perceptions of organizational culture are associated with a variety of important outcomes at

all stages of the organizational framework. There is consistent evidence that employees' perceptions of a motivating and involving organizational culture are positively related to supervisory ratings of organizational performance (Brown and Leigh 1996; Day and Bedeian 1991; Friedlander and Greenberg 1971).

But generally, methodological and conceptual weakness means that good evidence to support a link between organizational culture and performance is surprisingly sparse. However, Argote's study of 44 emergency hospital units in the US (1989) found that normative complementarity (the amount of agreement between professional groups about the norms governing their relationships; Georgopoulos 1965) was central to the effectiveness of emergency units.

Managing people and performance: an evidence based framework applied to health service organizations

Studies using the Competing Values Framework (CVF), which classifies hospitals by the senior management culture, observed that the dominant cultural orientation of health care organizations is associated with particular aspects of performance (Gerowitz *et al.* 1996; Gerowitz 1998). In a wide-ranging UK study, Mannion *et al.* (2003) conducted a national survey of 899 senior NHS managers (covering 189 acute trusts) and linked the responses to routinely collected performance data (star ratings). They also conducted in-depth case studies of six acute and six primary care trusts. The results suggested that culture did matter, in that the aspects of performance stressed by the culture of the organizations were those aspects of performance on which the organizations performed best. The researchers found a significant relationship between culture, NHS Trust characteristics and various aspects of performance, as well as evidence of a variety of mechanisms through which these associations were mediated. The results suggested that performance varies in contingent ways between Trusts with different dominant cultures. Trusts with dominant clan and rational cultures were more likely to have zero and one-star ratings than were those with developmental cultures. Waiting times were higher in Trusts with clan, developmental and rational cultures compared with hierarchical cultures. Surveys on in-patient dignity and respect yielded higher scores in trusts with clan cultures than in other trusts. Staff morale was higher in clan than in rational cultures. This study does not discern the likely direction of effects and it, too, treats the CVF as a typology into which to categorise trusts, rather than as four continuous dimensions on which to rate trusts.

Other evidence from the case studies in Mannion *et al.*'s research suggests a relationship between trust leadership and performance. Apparently 'high'-performing Trusts were characterized by top-down 'command and control' styles of leadership. In these trusts, there was a long tradition of strong directional leadership from the centre, with the senior management team setting clear and explicit

performance objectives for the organization and establishing robust internal performance management and monitoring arrangements to support these aims. High performers had clear and largely unequivocal lines of accountability. High-performing trusts placed considerable emphasis on developing and harnessing the potential of staff to deliver the performance agenda. They also focused on recruiting and retaining staff with high commitment to a corporate rather than a purely professional agenda.

In 'low'-performing trusts, recent leaders, particularly Chief Executives, were viewed as charismatic but were generally regarded as lacking the transactional skills required to develop and maintain robust systems of performance management, and were described as being remote and disconnected from day-to-day issues in the wider organization. Terms such as 'cabal', 'clique' and 'inner circle' were applied to senior management processes. 'Low'-performing trusts were generally characterized by an emasculated tier of middle management, and confused and fragmented systems of accountability. Human resource policies seemed to have been ignored, or were underdeveloped by the previous management regimes of the apparently 'low'-performing Trusts. Low performers had poor relationships with other key stakeholders and organizations within the local health economy. This extensive study provides useful guidance but is limited in its contribution by the methodological weaknesses acknowledged by the authors.

Schein (1985) claims that leaders serve an important function in creating, embedding and transmitting desired cultural attributes. Wilderom and Van den Berg's study of 58 branches of a large Dutch bank found no direct significant zero-order relationship between culture and performance. However, when perceived performance and style of leadership were taken into account, a significant relationship was found (Wilderom and Van den Berg 1998).

Organizational climate and performance. Two studies which used objective performance

data following the assessment of climate were conducted by Denison (1990) and Gordon and DiTomaso (1992). In the first case, a climate that encouraged employee involvement in company decision-making (across 34 firms in 25 different industries) predicted financial success in subsequent years. In the second study (across 11 insurance companies), a climate of adaptability (a combination of action orientation and risk-taking) was positively associated with subsequent financial growth. Safety climate has been significantly linked with safety behaviours and accidents in teams (Hofmann and Stetzer 1996), and safety compliance in the health sector (Murphy *et al.* 1996).

Organizational climate has also been shown to relate to the effectiveness of group performance across organizational levels (Griffin and Mathieu 1997). An organizational climate that was high in autonomy and supportiveness has been found to be positively related to job performance, as rated by a management consultant (Pritchard and Karasek 1973). A study of more than 500 NHS teams found that those with clear objectives, high levels of participation, task orientation, support for innovation and reflexivity (taking time out to review objectives, strategies and processes and making changes accordingly) are more effective in delivering patient care (Borrill *et al.* 2000).

Research evidence suggests that innovative teams exhibit high levels of professional diversity and of work demands and a team climate characterized by shared vision, participation in decision-making, constructive management of conflict, tolerance of minority dissent, intra-group trust and safety, support for innovation and reflexivity (taking time out to review team performance and then making changes accordingly) (cf. Borrill *et al.* 2000; West and Anderson 1996).

West and Anderson (1996) conducted a longitudinal study of the functioning of top management teams in 27 UK NHS hospitals, examining relationships between group and organizational factors and team innovation. Their results suggested that the overall level of team innovation is strongly related to a climate

of support for new ways of thinking and working within the organization.

As illustrated in Figure 1, one of the main ways in which organizational culture and climate influence employee behaviour is through its influence on people management.

Links between Organizational Context and People Management

Organizational climate and culture include an emphasis on competition or co-operation and are therefore likely to influence inter-group and inter-departmental relations in organizations.

A longitudinal UK study (Patterson *et al.* 1997) demonstrated that organizational climate is correlated with the use of certain HRM practices in manufacturing organizations. Firms which had a climate that employees felt was beneficial for their personal well-being were more likely to have adopted progressive HRM practices than firms without such a climate. This study differs from most others that examine organizational climate and performance in that it covers a wide range of climate components and records productivity before and after the measurement of climate. Second, this study demonstrated that progressive HRM practices mediate the relationship between organizational climate and productivity. These results are consistent with the view that a favourable organizational climate may facilitate productivity by influencing the HRM practices that are adopted by the organization.

Inter-group and inter-departmental relations in organizations. Groups and teams are a feature of most organizations, thus the management of group processes impacts significantly upon consequent stages of the organizational framework.

Evidence has repeatedly shown that psychological group identification occurs spontaneously with few social cues. Sherif's famous Robbers' Cave study illustrated that the mere assignment of people to groups is enough to provoke dramatic behavioural consequences of strong loyalty and in-group favouritism. He



IJMR

June 2004

also found the introduction of inter-group competition elicited conflict and hostility (Sherif *et al.* 1961). In-group favouritism and out-group discrimination is pervasive (Turner 1985), and evidence shows that this often occurs in the absence of any obvious value to the individual.

External threats are found to lead to the creation of firmer bonds within groups (Stein 1976), while at the same time increasing the threat of rejection to deviants (Lauderdale *et al.* 1984). Groups clearly seek solidarity when confronted by external threat.

These processes are highly pertinent in the organizational context, and the psychological consequences for employees, employee behaviour and organizational performance are likely to be largely influenced by the management of groups and teams, particularly in settings such as hospitals, where teams are an important feature of the organizational framework. We now turn to consider the links between people management and performance, columns 2 and 5 of Figure 1.

Links between People Management and Performance

Support for the links between people management and performance has been established from a series of surveys in the US conducted in the early to mid 1990s (see Huselid 1995 for a review). These surveys, covering around 4000 firms, indicated a relationship between the use of high performance work systems (HPWS) and the financial performance of the firms, such that firms that adopted a significantly greater number of HPWS practices, achieved 24% higher shareholder equity and 25% higher accounting profits. In the UK, studies within the manufacturing sector (Patterson *et al.* 1997), analyses of the 1998 Workplace Employee Relations Survey (Guest *et al.* 2000b) and work on the impact of new forms of work organization on the psychological contract (Guest *et al.* 2000a) provide support for such a link.

HRM practices are shaped by an organization's strategic initiatives, and these practices are designed to generate effective task perform-

ance, which in turn promotes better strategy implementation and ultimately organizational performance. Studies have suggested a linkage between 'bundles' of high performance practices and organizational performance (see Becker and Gerhart 1996; Delaney and Huselid 1996; Huselid 1995; Snell and Youndt 1995; Terpstra and Rozell 1993; Youndt *et al.* 1996; Rogers and Wright 1998).

Studies have shown that progressive HRM practices can also enhance contextual performance in the form of citizenship behaviour (being co-operative and helpful with colleagues; and practising good teamworking) (Tsui *et al.* 1992), and that attitudes closely linked to citizenship behaviour, such as job satisfaction, partially mediate the relationship between progressive HRM and organizational productivity and profitability (Vandenberg *et al.* 1999).

A study of 61 hospitals in England found strong associations between HR practices (such as the extent and sophistication of appraisal) and patient mortality (West *et al.* 2002). There were links too with the sophistication of training for employees, and with the percentages of employees working in teams. Controlling for prior patient mortality revealed that the extent and sophistication of appraisal in hospitals predicted change in patient mortality over a three-year period, accounting for a substantial percentage of the variance between hospitals.

There is evidence that appraisal feedback leads to increases in worker productivity, measured in terms of criteria such as production, error rate, backlogs etc. (Guzzo and Bondy 1983; Guzzo *et al.* 1985; Kopelman 1986; Landy *et al.* 1982; Patterson *et al.* 1997), with goal setting seeming to be the most potent element of appraisal (Fletcher and Williams 1985; Murphy and Cleveland 1995). West *et al.* (2002) report that the sophistication and extensiveness of appraisal systems applied across the major staff groupings in UK hospitals was the most significant predictor of patient mortality in those hospitals of a raft of HRM practices and control variables (excepting prior patient mortality).

Salgado's (2001) meta-analysis focused on the selection aspect of HRM and found the following correlations between performance in various assessment techniques and job performance: cognitive ability 0.43; job knowledge 0.45; situational judgment tests 0.56; personality measures 0.51; interview (structured) 0.44; interview (unstructured) 0.33; bio-data 0.48; assessment centre 0.37; school performance 0.32; references 0.2 (Salgado 2001).

Training. A review of 26 studies of the link between training and organizational effectiveness found that most showed a positive association between training and HR outcomes (Tharenou and Burke 2002), such as the retention and acquisition of essential employees (Bassi and Van Buren 1998; Kalleberg and Moody 1994) and employee satisfaction and relations (Bassi and Van Buren 1998; Kalleberg and Moody 1994; Lawler *et al.* 1995, 1998). Organizational training opportunities were related negatively to staff turnover rate in 49 life insurance companies (Vandenberg *et al.* 1999), consistent with US labour force statistics (Benson 1996). Training was also related to perceived overall organizational performance (Bassi and Van Buren 1998; Delaney and Huselid 1996; Harel and Tzafrir 1999; Lawler *et al.* 1995, 1998).

Training appeared to have weaker links to perceived relative performance on retaining and acquiring essential employees and on employees' satisfaction than on organizational and financial outcomes (Bassi and Van Buren 1998; Lawler *et al.* 1995, 1998).

All longitudinal studies provide positive results (Bartel 1994; D'Arcimoles 1997; Holzer *et al.* 1993; Ichniowski *et al.* 1997). This was beyond the effects of prior organizational productivity and training, and other HR practices. The effects of training were sizeable and durable over time. Bartel (1994) found that the gain in sales per worker from introducing training in 155 manufacturing business units was 18.9% over three years.

The positive results at organizational level support those found at the individual level

in controlled field experiments evaluating the effects of training programmes on individuals' responses. Training improved employees' learning, job behaviours, job performance and output, quality and cost reduction in meta-analyses (Burke and Day 1986; Guzzo *et al.* 1985), other reviews (Katzell and Guzzo 1983), and individual studies (Gattiker 1995; Mathieu and Leonard 1987; Morrow *et al.* 1997). However, this is dependent upon the relevance of the training content to the individual's job; the quality of the training; the opportunities to apply the training on the job; and the support of the organization for the application of the training (Tharenou and Burke 2002).

A study of over 600 consultations before and after training of general practitioners found that improved consultation skills and medical knowledge were associated with the quality of medical performance, as judged by adherence to protocols (Grol *et al.* 1989).

A meta-analytic review of the links between training and organizational performance shows a clear and strong relationship between organizational support for training and subsequent performance (Arthur *et al.* 2003).

Job design and team work. The dominant theory of job design is the Job Characteristics Model (Hackman and Oldham 1975). It identifies five core job characteristics:

- task identity (the extent to which the task represents a whole piece of work)
- task significance (the contribution performance of the task makes to the organization or the wider society)
- autonomy
- skill variety (the range of skills demanded by the task)
- feedback (the extent to which the job provides feedback on task performance).

These characteristics are proposed to influence psychological states which, in turn, lead to outcomes of satisfaction, motivation and work effectiveness. Attempts to increase the level of these five characteristics in a job are referred to as 'job enrichment'.



IJMR

June 2004

Managing people and performance: an evidence based framework applied to health service organizations

The research evidence indicates that jobs high in these five characteristics are associated with higher levels of employee satisfaction and motivation, but that the relationships with work performance at the individual level are less so (Hackman and Oldham 1975, 1976, 1980; Hackman 1987).

There are cogent arguments for linking job enrichment and skill enhancement with performance, the assumption being that job enrichment motivates employees to better their performance (Campion and McClelland 1993; Locke and Henne 1986). Performance benefits are also argued to arise through a quick response mechanism. With the expertise and the authority to solve problems, employees can implement solutions more quickly than if problems have to be referred up the hierarchy. For example, machine breakdown has less impact on productivity if the operator can carry out the repair rather than having to call in an engineer (Parker and Wall 1998). A further pathway is a learning-based mechanism. Locating expertise, autonomy and responsibility at lower hierarchical levels creates opportunities for continued individual and organizational learning. Studies have linked enriched jobs to the acquisition and use of knowledge (Jackson and Wall 1991; Wall *et al.* 1992), broader role orientations (Parker *et al.* 1997), higher self-efficacy (Parker 1998), greater intellectual flexibility (Kohn and Schooler 1982) and a greater propensity to use initiative (Frese *et al.* 1996). To the extent that job enrichment reduces the need for indirect support (e.g. supervisory and technical employees), it can reduce labour costs and thus increase productivity.

Patterson *et al.* (2002) found that the extent of empowerment is clearly related to company performance. They found that both components of empowerment, namely job enrichment and skill enhancement, independently predicted subsequent organizational productivity ($r = 0.57$ and 0.36 , respectively). These effects were not accounted for by prior productivity or background factors. Companies making most use of job enrichment and skill enhancement were those whose productivity

performances were the strongest over the following year, and this applied irrespective of prior productivity, company size, trade union membership or sector.

Macy and Izumi (1993) conducted a meta-analysis of 131 field studies of organizational change and found that interventions with the largest effects upon financial measures of organizational performance related to the promotion of teamwork. Applebaum and Batt (1994) reviewed 12 large-scale surveys and 185 case studies of managerial practices. They concluded that team-based working leads to improvements in organizational performance on measures both of efficiency and quality. Similarly, Levine and D'Andrea-Tyson (1990) conclude that substantive participation leads to sustained increases in productivity and that teams effectively enable such participation.

Much research evidence has examined the influence of teamworking in the NHS but the largest is a study of some 500 primary health care teams, community mental health teams, acute hospital teams and breast cancer care teams (Borrill *et al.* 2000).

Teams are social entities embedded in organizations, performing tasks which contribute to achieving the organization's goals; their work affects others within or outside the organization; members are dependent on each other in the performance of their work to a significant extent; and the group is identified as a group by those within and outside the group. The quality of team working was related to effectiveness and innovation of health care teams, with quality defined as clear team objectives, high level of participation in the team, high level of commitment to quality and high level of support for innovation. Those working in teams had better mental health than those working in looser groups or working individually. The benefits appear to be due to greater role clarity and better peer support. Those working in teams are also buffered from the negative effects of organizational climate and conflict. They are more likely to stay working in their settings than those working in poorly functioning teams.

Employee involvement. The main theoretical approach to employee involvement in the workplace has been based on a Human Relations model suggesting that participation in decision-making leads to high levels of employee satisfaction which, in turn, leads to increased productivity. The more recent Human Resources perspective proposes that this is the result of more comprehensive skills utilization. Effective participation has been found to take place when employees have the competence and motivation to contribute and are given an opportunity to do so (Cotton 1996; Heller *et al.* 1998).

Cotton (1996) has reviewed the evidence for the effectiveness employee involvement schemes (quality of work life, quality circles, job enrichment, gain-sharing, representative participation, self-directed work teams, and employee ownership). He concludes that self-directed work teams and gain-sharing (where team members receive a share of the productivity gains or cost savings they directly produce as a result of their greater effort or innovation) are the most effective forms of employee involvement in their impact on performance and employee attitudes, particularly where the focus is on the employee's individual work rather than organizational policy. Secondly, employees should be empowered to make changes themselves rather than merely making recommendations to management. Thirdly, employees should be able to make continual rather than one-off improvements. Finally, involvement should lead to major change in the work life of employees giving them a new and high degree of control. Recent writings emphasise the need for a high degree of mutual trust about each other's motives between managers and employees if involvement is to be successful. However, overall the research in this area is not sophisticated and clear messages are hard to discern.

Leadership. Research evidence shows that organization leaders can have a considerable effect on an organization's performance via individual performance. Borrill *et al.* (2002), for example, found a clear relationship between

lack of supervisory support, conflict over leadership and lack of clear leadership and low employee job satisfaction and organizational commitment, poor team working and psychological distress, all of which led to less effective patient care.

Leadership research suggests that performance management, trust and respect are at the heart of good leader-follower relations and that it is the latter orientation which, over time, is most effective in achieving good performance (Alimo-Metcalfe 1999; Yukl 1998). Research specifically on leadership in teams in health service settings supports these conclusions (see e.g. Borrill *et al.* 2000; Edmondson 1996, 1999; West and Wallace 1991). The Health Care Team Effectiveness programme at Aston, Edinburgh, Leeds and Glasgow universities showed how conflict over leadership and lack of clear leadership were associated with poorer team functioning, higher levels of team member psychological distress, lower levels of satisfaction and commitment, and lower levels of innovation and effectiveness in patient care (Borrill *et al.* 2002).

However, there is considerable variation in what constitutes effective leadership since the performance of leaders depends on the objectives and values of those making the evaluation. As a result, leadership research has created a vast and often bewildering literature, characterized by competing theories, research results and historical shifts in fashions. Nevertheless, it is possible to discern some clear if broad themes about what constitutes effective leaders:

- creating alignment around shared objectives and strategies to attain them
- increasing enthusiasm and excitement about the work and maintaining a sense of optimism and confidence about success
- helping people appreciate each other, and helping them to learn how to confront and resolve differences constructively
- helping people to co-ordinate activities, continuously improve, develop capabilities, encourage flexibility, objectively analyse



IJMR

June 2004

Managing people and performance: an evidence based framework applied to health service organizations

- processes, and learn collectively about better ways to work together
- representing the interests of the group or organization, protecting its reputation, helping to establish trust with external stakeholders and helping to resolve conflicts between internal and external partners
- creating a unique group or organizational identity (see Yukl 1999 for an overview of research).

Evidence from the acute Trust and PCT case studies in Mannion *et al.*'s research also suggests a strong relationship between Trust leadership and performance. Apparently 'high'-performing Trusts were characterized by top-down 'command and control' styles of leadership. In apparently 'low'-performing Trusts, leaders (particularly Chief Executives) were generally regarded as lacking the transactional skills required to develop and maintain robust systems of performance management, and were described as being remote and disconnected from day-to-day issues in the wider organization. 'Low'-performing trusts were generally characterized by an emasculated tier of middle management, and confused and fragmented systems of accountability. Human resource policies seemed to have been ignored or were underdeveloped by previous management regimes (Mannion *et al.* 2003).

We have seen good evidence for the links between people management and performance; we now turn to the more proximal links between people management and psychological consequences for employees (columns 2 and 3 in Figure 1).

Links between People Management and Psychological Consequences for Employees

The most common work factors associated with psychological ill-health are work demands (long hours, workload and pressure), lack of control over work and poor support from managers (Williams *et al.* 1998). Research with UK civil servants has shown that social

support and control at work protect mental health, whereas high job demands and effort-reward imbalance are risk factors for psychological ill-health (Stansfeld *et al.* 1999). Control at work has also been found to be associated with a lower risk of heart disease amongst civil servants (Bosma *et al.* 1998). Research in the private sector also points to the importance of decentralized decision-making, employee participation and involvement, innovative work practices and the 'fit' between structure, strategy and environment (West 2001).

These findings are consistent with the demand-control model of job strain (Karasek 1979). The job strain model predicts that the most adverse reactions to psychological strain at work occur when the psychological demands are high and the worker's decision latitude is low (decision latitude includes job variety, control over work and opportunity to use skills). Low social support at work further increases risk.

Although job strain predicts ill health, it does not necessarily predict absenteeism, since there are many other factors influencing absenteeism (for example, organizational culture and management of sickness absence). Poor teamwork has been found to be the most important predictor of sickness absence amongst hospital doctors, although high workload and low job control were also associated with absence (Kivimaki *et al.* 2001).

Organizational level studies suggest that leadership plays a central role in influencing motivation and performance (Brown and Leigh 1996; Griffin and Mathieu 1997). It is likely that leadership influences contextual performance via motivation of followers. The evidence for training is more straightforward in indicating that it enhances task performance via its impact upon knowledge and skill (Tracey *et al.* 1995), though clearly some training (such as teambuilding) may influence motivation also.

Finally, we turn to the individual, psychological links between the consequences of people management and employee behaviour (columns 3 and 4 in Figure 1).

Links between Psychological Consequences and Employee Behaviour

Three main sets of factors are postulated to mediate and/or moderate the association between work factors and employee outcomes of work performance and absenteeism/turnover:

- health and stress
- satisfaction and commitment
- knowledge, skills and motivation.

Health and stress. A number of factors related to the nature of organizations and jobs within them have been found to impact upon employee health – both psychological and physical. Williams *et al.* (1998) found that such factors lead health care workers to experience higher levels of ill health, and associated sickness absence than in equivalent occupational groups.

A comparison across UK hospital trusts found that rates of psychological ill health varied from 17% to 33%, with lower rates in hospitals characterized by smaller size, greater co-operation, better communication, more performance monitoring, a stronger emphasis on training and allowing employees to have more control and flexibility in their work (Wall *et al.* 1997). This picture is similar to the studies of UK civil servants, which found that those who rated their jobs as low on control, low on variety and use of skills and reported low support at work had higher rates of sickness absence for both psychological and physical problems (Hemingway *et al.* 1997; Stansfeld *et al.* 1999, respectively).

High absenteeism is associated with higher intention to leave and subsequent resigning (Firth and Britton 1989; Hackett 1989; Price and Mueller 1986). Emotional strain has been found to be associated with absence frequency (Firth and Britton 1989; Jackson 1983) and turnover intention (Jackson 1983) in longitudinal studies of hospital employees and with actual turnover in a longitudinal study of public sector employees (Wright and Cropanzano 1998).

Emotional exhaustion has shown to be associated with sickness absence in nurses,

with supervisor-rated job performance (Parker and Kulik 1995), and to predict job performance in longitudinal studies of public sector employees (Wright and Bonett 1997; Wright and Cropanzano 1998). Depression in nurses has been found to be associated with both interpersonal and cognitive/motivational aspects of job performance, as rated by supervisors (Motowidlo *et al.* 1986). Anxiety in intensive care unit nurses has been found to be associated with poorer performance of complex psychomotor skills (endotracheal suctioning) as rated from videotape recordings (Smith *et al.* 2001).

Satisfaction and commitment. The largest and most recent meta-analysis of the relationship between job satisfaction and job performance on 312 samples ($n = 54,417$) has found a mean true correlation of 0.30 (Judge *et al.* 2001). There is clearly a link between employee satisfaction and individual performance. Wide confidence intervals suggest the presence of moderators.

A review of three meta-analyses of the relationship between job satisfaction and absenteeism found similar effect size (Hackett 1989), finding the strongest associations to be between job satisfaction and absence frequency and duration (the weighted and corrected correlations were -0.21 and -0.23 , respectively). Turnover was also found to be associated with job satisfaction, with a corrected correlation of -0.19 for 25 correlations (Hom and Griffeth 1995) and -0.12 for 11 studies of nurses (Irvine and Evans 1995). Wide confidence intervals suggest the presence of moderators.

Organizational commitment has been found to predict turnover, independently of satisfaction, with reported aggregated correlations of -0.33 (Tett and Meyer 1993) and -0.23 (Farrell and Stamm 1988). Studies of hospital employees have found organizational commitment to be inversely correlated with turnover (Steers 1977), job search behaviour (Hatton *et al.* 2001) and absence frequency (Gellatly 1995). The most direct and powerful predictor of the decision to stay or leave has been found in a longitudinal study of nurses to be the



IJMR

June 2004

decline in job commitment over time (Rusbult and Farrell 1983).

A study of nurses comparing the influence of job satisfaction and organizational commitment found that organizational commitment had a direct influence on turnover intention and mediated the association between job satisfaction and turnover intention (Lum *et al.* 1998).

Knowledge, skills and motivation. Grol *et al.* (1989) found in their study of over 600 consultations before and after training of general practitioners that improved consultation skills and medical knowledge were associated with the quality of medical performance, as judged by adherence to protocols.

Traditionally, organizations focus on task performance. No research has comprehensively tested the relative contribution of knowledge, skills and motivation to the task and contextual dimensions of individual performance in organizations, but it is clear that an effective organization must look at the antecedents of both task and contextual performance.

There is strong evidence that ability is a better predictor of task than contextual performance, while personality traits, such as conscientiousness, are stronger predictors of contextual than task performance (Ackerman 1992; Borman *et al.* 1991; Motowidlo and Van Scotter 1994). The evidence also suggests that the relationship between ability and task performance is mediated by knowledge and skill, whereas that between personality and contextual performance is mediated by motivation (Ackerman *et al.* 1995; Borman *et al.* 1995; McCloy *et al.* 1994).

In a longitudinal study of 77 family planning clinics, job satisfaction of nurses was found in a path analysis to be the strongest determinant of client satisfaction ($\beta = 0.32$). This, in turn, predicted compliance with contraceptive prescriptions ($\beta = 0.24$) (Weisman and Nathanson 1985). Weaker evidence comes from a cross-sectional study of 16 in-patient units in two hospitals, which found patients to be more satisfied with their care on units where nurses found their work more meaning-

ful, felt less exhausted or less frequently expressed an intention to quit work (Leiter *et al.* 1998). An interesting, but methodologically weak, study (Dugan *et al.* 1996) has provided data suggesting an association between stress of nurses and the number of medication errors and patient falls ($r = 0.40$ and 0.33 , respectively). There were 48 units of analysis, being all the completed stress questionnaires and patient incidents (assessed by hospital records) within each of 19 units for each of three months. There were some missing data. Response rate declined over the three months, from 49% to 26%.

High levels of stress, depression and alcohol abuse in doctors have been linked to patient care (Firth-Cozens 2001). Suggested mediating factors are poor decision-making, memory and concentration deficits, selective attention, irritability and interpersonal difficulties. In a questionnaire study of hospital doctors, 82 out of 225 reported stress-related incidents that adversely affected patient care. Attributions for their poor patient care included tiredness (54%), pressure of overwork (26%), depression or anxiety (8%) and effects of alcohol (5%) (Firth-Cozens and Greenhalgh 1997).

Drug and alcohol abuse are potential mediators of the effect of stress on employee performance. After adjusting for socio-economic status, alcoholism and certain work conditions, drug abuse has been found to be higher in individuals with high strain jobs (Muntaner *et al.* 1995). Heavy drinking has been found to be associated with job dissatisfaction (Greenburg and Grunberg 1995). However, the cross-sectional design of these studies precludes causal analyses of these associations.

Conclusions and Implications

This review shows that people management influences employee health and well-being as well as individual, group and organizational performance. This supports the notion that organizational performance and effectiveness should be considered with the context of people management and HRM practices in organizations. Policy leaders should therefore

emphasise, train people in and evaluate good management practices within organizations.

It is not sufficient to monitor the existence of HR policies and strategies in organizations. This only tells us what is intended. It is what happens in practice that determines how employees are affected by HR activity. Performance management should focus on the application of people management practices for all employees, and particularly for frontline employees.

Crucially, the implementation of policies and their impact should be monitored and evaluated. This requires high-quality data about both the practices and their impact on psychological well-being, job satisfaction, organizational commitment, absenteeism, turnover and performance at work. A standard set of robust measures should be adopted by organizations to provide comparative, meaningful data. Managers should be trained in the collection and use of such data, and work should be undertaken to ensure that employees consider measurement to be worthwhile and in their interests. Resources should be given to ensure that data are collected with adequate response rates and analysed and presented with sufficient sophistication to be credible and useful. Measures should be used within organizations to monitor performance improvement and guide action planning to improve areas of identified weakness or concern.

Studies across work sectors, and especially in health care, consistently support the value of team-based working. This means developing team-based organizations in which education and communication systems, people management and reward systems, and the culture are all geared towards managing teams rather than individuals.

Under the banner of employee involvement march all manner of practices. Policy-makers should focus on those aspects of employee involvement that affect both employee motivation and organizational outcomes. This is likely to include giving most employees a high degree of control. Team-based working should emphasise devolution of power, control, responsibility and accountability to teams.

Leadership plays a crucial role. Organizations should train leaders to ensure that their primary focus is on people management. This means reducing chronic anxiety and anger among employees, promoting optimism and confidence, developing people's skills, helping them manage conflict, building trust within and across teams, and ensuring alignment around the objective of achieving the best possible organizational outcomes.

Research findings are only as good as the methods generating them. This review revealed a large variation in quality of research method. Although there is often not the possibility in organizational research to carry out experimental studies that can conclusively demonstrate causality, there are a number of ways in which associations can be tested. Appropriate designs include longitudinal and quasi-experimental, controlled designs, using cross-lagged correlations and multivariate tests of association. Two other methodological issues are key to building a robust evidence base: ensuring that studies are sufficiently powered to address the research questions posed, and ensuring that measures of outcome and mediation are objective or, if based on self-report, have demonstrated validity and reliability.

Future research should:

- examine the suggested causal links outlined in the framework developed here
- pilot the use of measures and document the impact of measurement on organizational, employees and patient outcomes
- evaluate methods of feeding back data about organizational practice, employees' well-being and attitudes and patient outcome into organizations
- monitor the impact within organizations of using such measures to compare functioning and performance across organizations.

Acknowledgements

We are grateful to Dr Sian Williams (Director of the Occupational Health and Safety Unit, Royal Free NHS Trust) for information on



June 2004

Managing people and performance: an evidence based framework applied to health service organizations

ill-health retirement and accidents, to Nigel Turner (Chair of London HR Performance Management Group) and to Peggy Nuttall (Centre for Outcomes Research and Effectiveness, UCL) for comments on an earlier draft. Thanks also to Jasmin Desai (Work and Organization Psychology, Aston Business School) for help with the literature research and Dr Carol Borrill, Mathew Carter, Helen Shipton (Work and Organization Psychology, Aston Business School), Neal Knight Turvey, and Andrew Neal (Department of Psychology, University of Queensland, Australia) for advice on the content of this paper.

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IJMR

June 2004

Managing people and performance: an evidence based framework applied to health service organizations

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Managing people and performance: an evidence based framework applied to health service organizations

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June 2004

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