

Commentary

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What difference does ("good") HRM make?

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Published: 07 June 2004

Received: 03 March 2004

Human Resources for Health 2004, 2:6

Accepted: 07 June 2004

This article is available from: <http://www.human-resources-health.com/content/2/1/6>

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Abstract

The importance of human resources management (HRM) to the success or failure of health system performance has, until recently, been generally overlooked. In recent years it has been increasingly recognised that getting HR policy and management "right" has to be at the core of any sustainable solution to health system performance. In comparison to the evidence base on health care reform-related issues of health system finance and appropriate purchaser/provider incentive structures, there is very limited information on the HRM dimension or its impact.

Despite the limited, but growing, evidence base on the impact of HRM on organisational performance in other sectors, there have been relatively few attempts to assess the implications of this evidence for the health sector. This paper examines this broader evidence base on HRM in other sectors and examines some of the underlying issues related to "good" HRM in the health sector.

The paper considers how human resource management (HRM) has been defined and evaluated in other sectors. Essentially there are two sub-themes: how have HRM interventions been defined? and how have the effects of these interventions been measured in order to identify which interventions are most effective? In other words, what is "good" HRM?

The paper argues that it is not only the organisational context that differentiates the health sector from many other sectors, in terms of HRM. Many of the measures of organisational performance are also unique. "Performance" in the health sector can be fully assessed only by means of indicators that are sector-specific. These can focus on measures of clinical activity or workload (e.g. staff per occupied bed, or patient acuity measures), on measures of output (e.g. number of patients treated) or, less frequently, on measures of outcome (e.g. mortality rates or rate of post-surgery complications).

The paper also stresses the need for a "fit" between the HRM approach and the organisational characteristics, context and priorities, and for recognition that so-called "bundles" of linked and coordinated HRM interventions will be more likely to achieve sustained improvements in organisational performance than single or uncoordinated interventions.

Introduction

The importance of the human resources management (HRM) to the success or failure of health system perform-

ance has, until recently, been generally overlooked. Health sector reform in many countries in the 1990s focused on structural change, cost containment, the

introduction of market mechanisms and consumer choice [1,2] but with little direct attempt to address HR aspects.

In recent years it has been increasingly recognized that getting HR policy and management "right" has to be at the core of any sustainable solution to health system performance [3,4]. This is partly a result of the need to upscale capacity in many country health systems to meet the Millennium Development Goals. A well-motivated and appropriately skilled and deployed workforce is crucial to the success of health system delivery. The actual methods used to manage human resources in health care may in themselves be a major constraint or facilitator in achieving the objectives of health sector reform [5,6].

In comparison to the evidence base on health care reform-related issues of health system finance and appropriate purchaser/provider incentive structures, there is very limited information on the HRM dimension or its impact [7]. There is a limited, but growing, evidence base on the impact of HRM on organisational performance in other sectors, but there have been relatively few attempts to assess the implications of this evidence for the health sector. This paper examines this broader evidence base on HRM in other sectors and examines some of the underlying issues related to "good" HRM in the health sector.

"Good practice" in human resource management

In order to place the evidence base on HRM in health care in context, this section considers how "good practice" in human resource management (HRM) has been defined and evaluated in other sectors. Essentially there are two sub-themes: how have HRM interventions been defined? and how have the effects of these interventions been measured in order to identify which interventions are most effective? In other words, what is "good" HRM?

A review of English-language publications highlights that there is a growing evidence base on these issues. Much of it focuses on organizational-level studies using large-dataset analysis to examine the relationship between HR interventions and measures of organisational performance and output, where the latter are defined in terms of private sector "business" success – profits, returns on sales, etc. As well as single-study publications, there have also been some published reviews. These reviews are discussed first.

One recent multisector review of research on the relationship between HRM and organisational performance reported that "more than 30 studies carried out in the UK and US since the early 1990s leave no room to doubt that there is a correlation between people management and business performance, that the relationship is positive, and that it is cumulative: the more and the more effective the practices, the better the result" [8] (see also [9]).

A similar, if more qualified, finding had been reported by Richardson and Thompson [10], who had noted: "There are in the region of 30 empirical studies that have sought to address the relationship between HR practices and business performance ... The published research generally reports positive statistical relationships between the greater adoption of HR practices and business performance" [10].

The key lesson from these reviews is that investment in developing and maintaining effective HRM policy and practice can make a significant and measurable positive contribution to organisational performance (see also [11]). A more detailed examination of some of the key texts in this area gives some general support for this view, but also pinpoints some of the limitations, particularly if the results are to be considered from a health systems perspective.

One sector-specific issue has to be considered when looking at the implications of the current evidence base for HRM practice in the health care sector. Almost all the mainstream general research on HRM and organisational performance assessed in the reviews highlighted above focuses on private-sector business corporations. Much of it relies on measures of organisational performance (e.g. profits and return on sales) that cannot readily be applied to a public sector health system.

Richardson and Thompson [10] noted that there were three broad perspectives on the ways that HR practice contributes to business performance:

- 1) "Best Practice" – a set of HR practices can be identified, that, when implemented, will improve business performance.
- 2) "Contingency" – business performance will be improved when the best "fit" between business strategy and HR practices is achieved.
- 3) "Bundles" – specific bundles of HR practices can be identified that will generate higher performance in organisations; the most effective composition of these "bundles" will vary in different organisational contexts (see also [12]).

This latter point is significant because it highlights that there is no "magic bullet" in HRM: no single intervention is likely to provide a sustainable solution to all the workforce challenges facing an organisation.

Richardson and Thompson [10] summarised six key points from their review of the literature:

- 1) The claims that there is a universal best practice HR strategy "are premature".
- 2) Adopting a specified set of HR policies will not in itself lead to organisational success.
- 3) The same "bundle" of HR policies may not be universally applicable.
- 4) Virtually all current statistical analysis of HR strategies is based on "adding up a mixture of items from a somewhat arbitrary list of HR policies and practices".
- 5) More evaluation attention needs to be devoted to examining the intermediary steps between the two end points of HR strategy and organisational performance.
- 6) "How something is done is often more important than what is done" – but existing empirical studies concentrate on the latter.

With these cautionary notes in mind, the remainder of this section highlights the more influential studies on HRM and organisational performance from which Richardson and Thompson, and Caulkin, drew in reaching their conclusions.

Among the most quoted groups of studies are those by Pfeffer [13,14]. He has summarised seven characteristics that he identifies as the core practices that "characterise most if not all systems producing profits through people". These seven characteristics are:

- an emphasis on providing employment security
- the use of self managed teams
- decentralisation of decision making; and extensive training
- selective hiring of new personnel
- reduced status distinctions and barriers
- extensive provision of training
- compensation linked to performance [14].

Pfeffer drew on previous research, notably that by Huselid [15] in developing and testing his seven-point plan for HRM intervention. Huselid had concentrated on three aspects of the measurement of the links between HRM practice and firm performance: staff turnover, organisational productivity and corporate financial performance. He had developed a list of 13 "High Performance Work

Characteristics". These included: formal information sharing; formal job analysis; staff participation in Quality of Work Life (QWL) programmes; workforce receives formal performance appraisal; and promotion based on merit.

Huselid tested the hypothesis that these 13 "High Performance Work Characteristics" would reduce staff turnover, increase productivity and improve corporate financial performance. Based on an analysis of data from 968 US companies he reported that the implementation of the "High Performance Work Practices" led to "better firm performance" – a relative 7% decrease in staff turnover, USD 27,000 more sales per employee, USD 18,600 per employee increase in market value and USD 3,800 per employee more in profits.

Whilst the work of Pfeffer, Huselid and others may be persuasive, Robinson and Thompson [10], Guest [16] and others have questioned the basis of some of the "universal" claims made about the connection between HRM strategy and organisational performance. They report that they are not convinced by the idea that there is a general prescription of HRM interventions that can be applied in any organization, irrespective of context and priorities, with the likelihood of a similar level of response and results. Guest [16] stresses that the examination of HRM and organisational performance remains a "young field of research" and sets out a range of methodological challenges that remain to be resolved, in terms of the measurement of HRM, the measurement of performance and the measurement of the relationship between the two (p.1095). He does, however, conclude that "results from both cross sectional and longitudinal research remains robustly positive" (p.1104).

Recent research [17] has also highlighted a so-called "prime building block" of HRM – the principle of "AMO". There must be sufficient employees with the necessary ABILITY (skills, knowledge and experience) to do the job; there must be adequate MOTIVATION for them to apply their abilities; and there must be the OPPORTUNITY for them to engage in "discretionary behaviour" – to make choices about how their job is done. The authors suggest that organisations wishing to maximize the contribution of their workforce need to have workable policies in these three broad areas.

The message from the key research on HRM and organisational performance is that the evidence base, although relatively "young" and limited, does provide general support that good practice in HRM (defined and measured by different sets of indicators in different studies) can make a positive difference to the performance of the organization. The indicators and metrics used to identify and measure organisational performance are either "proxy"

measures, such as staff turnover or absence (the inference being that lower turnover, for example, will lead to improved performance), or measures of activity or financial performance. These studies examine a range of different sectors, but have focused mainly on the private sector manufacturing, finance and service industries. What are the lessons and implications of this limited but growing evidence base for the health sector?

HRM in the health sector

HRM in health has to function in a sector with some unique characteristics. The workforce is large, diverse, and comprises separate occupations often represented by powerful professional associations or trade unions. Some have sector-specific skills; other can readily move from the health sector to employment in other sectors. The avowed first loyalty of those with sector-specific skills and qualifications (physicians, nurses, etc.) tends to be to their profession and their patients rather than to their employer.

In many countries, access to health professional training and employment is controlled by standards and entry requirements determined by the professions, and aspects of their work are regulated. The health sector is a major recipient of public and/or private expenditure, and health care delivery is a politicised process.

Whilst many health systems have been attempting to decentralise to improve efficiency, they tend to be characterized by a broad range of active stakeholders, a high level of direct and indirect governmental and regulatory intervention, and recurrent "top-down" attempts at reform. Health is also very labour-intensive – the proportion of the total spent on staff is much higher in health than in most manufacturing industries and in many service industries.

The irony is that whilst HR is under-researched in health, partly because of its unique context, the main "business" of health – clinical interventions – is the subject of continuous and detailed research-based scrutiny. No other sector has the same level of self-critical focus, with the use of sophisticated methods such as randomised control trials (RCTs), systematic reviews and meta-analysis.

Research on human resources in health, as in any sector, is drawn from a broad range of disciplines, (e.g. economics, econometrics, occupational psychology, sociology). Some of these disciplines are not open to the use of the types of methods favoured in clinical research in health care. The challenge for researchers attempting to build the evidence base on HRM in the health sector is that they have to draw on these non-clinical research methods to assess the HRM "inputs" whilst attempting to identify

appropriate and sector-specific measures of process, output or outcome.

There have been a few attempts to examine "high performance" HRM characteristics in the health sector. These tend to be based in North America, which may be partly, at least, a reflection of the greater focus on "business" practice in private-sector health care industries in the USA and Canada.

Eaton [18] examined issues related to "high performance" HRM in 20 nursing homes in the USA. She reported that quality outcomes at some of the homes improved after reorganisation that included implementation of a new model of HRM based on job enlargement and cross-training, but concluded that the "business" focus of the "high performance model" made it inappropriate for the health care sector. Rondeau and Wagner [19] examined the impact of HRM practices and the contingency theory on 283 Canadian nursing homes. They reported that the "best performing" nursing homes (as measured by indicators of client and staff satisfaction, operating efficiency and revenue) were found to be more likely to have implemented "progressive/high performance" HRM practices and to have a workplace climate that strongly values employee participation.

Studies that can access "business" performance data in health are few in number. There is a broader and deeper evidence base that focuses on health sector-specific measures of process, activity or outcome, and attempts to link these to HRM interventions.

One area where there has been a significant growth in research has been large-scale studies examining links between staffing levels, mix and outcome in the last two years. Whilst not directly addressing specific HRM interventions, these studies make two contributions: they add to our understanding of the linkages between staffing and outcomes, and they also provide a test bed for identifying and assessing the appropriateness of outcome indicators in relation to staffing. Recent studies include:

- an examination of staffing and outcomes (fall rates, nosocomial pressure ulcers, urinary tract infections and patient satisfaction scores) in 29 university hospitals [20];
- a study of nurse staffing, organisation and quality of care in 303 hospitals in the USA, Canada, England, Scotland and Germany [21];
- a study of staffing levels, mix and outcome indicators (patient length of stay; UTI, pneumonia, etc.) in 799 hospitals in 11 US states [22];

- an examination of nurse staffing, patient mortality rates and failure to rescue (FTR) in 168 hospitals in Pennsylvania [23],
- an examination of mortality rates, patient length of stay and cost of care in relation to pharmacy staffing in about 1000 US hospitals [24];
- a study of nurse staffing levels and mix (RN, LPN and assistant) in relation to the prevalence and severity of decubitus ulcers in the USA [25];
- a study of nurse staffing, skill mix and outcome indicators (30-day mortality, stroke, pneumonia, etc.) in 75 acute-care hospitals in Canada [26];
- an examination of staffing levels, workload and risk-adjusted outcomes (e.g. mortality, cerebral damage) in 186 neonatal intensive care units in the UK [27];
- a study of nurse staffing and post-surgical events (e.g. venous thrombosis, embolism, UTI, etc.) in hospitals in six US states [28];
- a study of nurse staffing and needlestick injuries in 20 US hospitals [29].

Most of these studies have reported that higher staffing levels and/or staffing mix are related to "better" outcomes, however defined – either to reductions in the levels of specified "negative" outcomes (such as mortality rates, needlestick injuries, or infections) or improvements in reported quality of care or patient satisfaction.

Whilst most of these studies are "one-off" examinations, there is one series of loosely-linked studies in the USA that has investigated the so called "magnet hospitals". These institutions have been identified as being successful in recruiting, retaining and motivating nursing staff.

Research on magnet institutions has been under way for over 20 years, and has highlighted positive links between good human resource practice, staffing characteristics and outcomes of care.

The genesis of the research on magnet hospitals was the policy study published in 1983 [30]. The study identified the organisational characteristics of hospitals that "serve as magnets for professional nurses: that is, they are able to attract and retain a staff of well-qualified nurses and are therefore consistently able to provide quality care. The term "magnet" was used to highlight the staff attraction/retention characteristics of these institutions.

The key characteristics of magnet hospitals, as identified in this first report, included participatory and supportive management style, decentralised organisational structure, clinical career opportunities, planned orientation of staff, and an emphasis on in-service/continuing education.

The report stimulated other researchers to focus on organisational attributes, HR practices and measures of HR "success". There has since been a series of research studies on aspects of "magnetism". These have included studies reporting that nurse turnover and vacancy rates in the magnet hospitals were significantly lower, and reported nurse job satisfaction higher, than in the comparator hospitals [31] and a study examining mortality rates in 39 magnet hospitals and 195 control hospitals using multivariate matched sampling to control for hospital characteristics. The study found that magnet hospitals had a 4.6% lower mortality rate for Medicare patients than the control hospitals [32].

Magnet hospitals are accredited by the American Nurses Credentialing Center (ANCC). There are over 100 magnet institutions in the USA, and the first has recently been accredited in the UK [33]. The ANCC has summarized the evidence base on magnet institutions (see Table 1).

Table 1: Reported characteristics of organisations with Magnet accreditation

Reduced Medicare mortality and morbidity rates
Reduced mortality rates associated with the care of patients admitted to acute care settings with AIDS
Increased levels of patient satisfaction
Significantly lower rates of nurse burnout
Reduced needlestick injury rates among nurses
Significantly higher educational preparation of the registered nurse workforce
High levels of nurse autonomy and nurse control over practice
Positive relationships with physicians
Nurses' perception that they have adequate support services and enough RNs to provide high quality care
A powerful and influential nurse administrator
Nurses in Magnet facilities perceive that their contributions are greatly appreciated
Decreased likelihood of feeling burned out, emotionally drained or frustrated with their work
Decreased likelihood of nurses' reporting they are dissatisfied

Source: ANCC [35]

Table 2: Examples of HR/staffing-related indicators

"Activity"/Process-related	Beds Occupied beds Outpatient visits Client contacts
Staffing-related	Job satisfaction (measured by attitudinal survey instrument) Accidents/injuries Absence Assaults on staff Vacancy rates Overtime Turnover/stability/retention Use of temporary staff
Care-related (Output/Outcome)	Patient length of stay Readmission rates Live births Mortality rates Urinary tract infections Pneumonia Shock Upper gastrointestinal bleeding Deep vein thrombosis Pressure sores/ulcers Cross-infections Patient satisfaction survey

Source: Buchan [36]

The evidence base on "magnet" organisations has grown and broadened over the two decades since the original study. The main message from the various studies is that "magnetism" does appear to be related to "better" staffing indicators, and to improved quality of care. This has been attributed by Aiken and others to the sustained implementation of a "bundle" of HRM interventions that fit with organisational priorities and that support autonomous working by nurses, enable participation in decision making, facilitate career development and enable high level skills to be deployed effectively.

What health sector-related indicators can be used to assess the impact of HRM interventions? Table 2 sets out a range of data that have been used as indicators in the health sector, when staffing have been the primary focus of attention. This list is only illustrative; a wide range of clinical outcome indicators have been considered or used. For a more detailed examination, see Needleman et al. [22]. There is also a range of staffing: process/output/outcome indicators summarised in a "basket of indicators" in Hornby and Forte [34].

Some of the indicators, particularly the clinical indicators, are likely to be routinely reported only in health systems with a relatively sophisticated information infrastructure. And some of the indicators (e.g. patient length of stay) may be proxy measures for costs. It should also be noted

that there is some evidence that not all the outcome-specific indicators in the final section of Table 2 are universally applicable. The large-scale study of nurse staffing and outcomes in the USA [22] considered and rejected some indicators and reported that some outcome indicators are more sensitive than others in particular types of care delivery.

Conclusions

It is clear that it is not only the organisational context that differentiates the health sector from many other sectors, in terms of HRM. Many of the measures of organisational performance in health are also unique. As noted in the previous section, "performance" in the health sector can be fully assessed only with indicators that are sector-specific. These can focus on measures of clinical activity or workload (e.g. staff per occupied bed, or patient acuity measures), on measures of output (e.g. number of patients treated) or, less frequently, on measures of outcome (e.g. mortality rates; rate of post-surgery complications). The challenge for researchers and policy analysts in the health sector is to bridge the current knowledge gap – between what we know from the general evidence base on HRM inputs and performance, and what we know from the health-specific evidence base focusing on sector-specific outcome measures.

The other main lessons from the evidence base examined in this paper are the need to consider "contingency" – that there must be a "fit" between the HRM approach and the characteristics, context and priorities of the organisation in which it is being applied; and the recognition that so-called "bundles" of linked and coordinated HRM interventions will be more likely to achieve sustained improvements in organisational performance than single or uncoordinated interventions. In the often "politicized" health sector, this is an important message.

Finally, it should be noted that defining the "best practice" evidence base is one thing, but translating this into widespread application of the appropriate bundle of HRM interventions is another. Both Richardson and Thompson [10] and Guest [16] highlighted the issue of the relative lack of "take up" of HRM good practice: even when it has been verified by the studies quoted above, it is not evident in day-to-day practice in many organisations. This highlights an important issue for any sector wishing to improve HRM practice: deciding how best to disseminate good practice in HRM is as important as determining how to identify and evaluate it.

Competing interests

None declared.

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