**High Performance Work Systems and Employee well-being: The effects of Social Identification**

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**Summary**

In this paper, we explore the attitudes of managers and employees to Human Resource Management and high performance work practices in a medium sized rural hospital. At the management level we discovered the importance of distinctiveness, consistency and consensus in the interpretation of HRM practices across the organization. At the employee level as one of the key HPWS is teamwork, we explore the mediating role of social identification on the relationship between HPWS and affective commitment and on the relationship between HPWS and job satisfaction. Findings indicate that social identification mediates the relationship between HPWS and affective commitment and also mediates the relationship between HPWS and job satisfaction. We argue that team leaders and managers play a key role in building social identification within the team and that organizations need to understand this role and provide recognition, reward, education and support to their middle and lower managers. Such support is likely to provide benefits in terms of high performing committed employees and improved employee retention.

**Key words: HRM, Social Identification, affective commitment, job satisfaction**

**Introduction**

Studies suggest that the current theoretical challenge facing HRM scholars and practitioners is no longer establishing a link between human resource management (HRM) strategy, practices and organizational performance, instead the focus is on determining how that link is articulated and what it is comprised of (Becker and Huselid, 2006; Bowen and Ostroff, 2004; Godard, 2004; Youndt and Snell, 2004). In particular high performance work systems and practices have been identified as playing a key role in the achievement of business goals and improved organizational effectiveness (Becker and Huselid, 2006; Macky and Boxall, 2007). While there is no agreement on an ideal configuration or 'bundle' of such systems and practices (Mackey and Boxall, 2007) the logic is that high performance work systems influence and align employees' attitudes and behaviors with the strategic goals of the organization and thereby increase employee commitment and subsequently organizational performance (Schuler and Jackson, 1987). For example Zacharatos et al. (2005) argue that high performance work systems concentrate on empowering employees through increased information flows and the devolution of decision making and are associated with increased employee productivity. In other words empowered employees are committed employees and committed employees work harder for their organization.

In theory, a labour intensive, highly motivated, highly skilled professional workforce, as in the healthcare sector, should be an ideal context for the successful implementation of HPWS. Despite empirical studies identifying the difficulties of practicing HRM in the largely government funded public health sector (Bach 2000; Stanton, Bartram and Harbridge 2004), recent writers have highlighted the value of people management practices in healthcare that directly support other goals such as providing a quality and safe service and hence improving healthcare performance and patient outcome (Leggat and Dwyer 2005; Bartram, Stanton, Leggat, Casimer and Fraser 2007). However, there are also mediating constructs that impact on employee attitudes and behaviours such as job satisfaction and trust in management that can also increase or decrease the impact of HPWS (Mackey and Boxall, 2007). In a labour intensive industry such as healthcare, it is crucial to examine employee attitudes and behaviours and its antecedents. Indeed West et al (2006) point to the need to use organisational behaviour theory and methodology in the healthcare field to expand the analysis from simply linking patient care to practitioner expertise, and explore how structure and organisational context affect patient care.

In attempting to understand antecedents and mediators of attitudes and behavior, and their links to HRM strategy this paper uses qualitative case study data and quantitative survey evidence in one Australian hospital. We argue, as do others (Datta *et al*, 2005; Wright *et al*, 1994) that each organization has its own unique features which impacts on overall effectiveness and the strength of its unique HRM system plays a crucial role in this process. Bowen and Ostroff (2004) suggest that a 'strong' HRM system is one in which HRM practices create an unambiguous social structure that integrates the HRM content and process to create messages for all organizational participants regarding virtuous organizational goals and practices, and subsequent individual goals and behaviors. They argue that if the HRM system is perceived as high in distinctiveness, consistency and consensus it will create a 'strong situation' and consistent management and employee behavior and thereby improve organizational

performance. In this paper, we utilize the Bowen and Ostroff (2004) framework to analyze the strength of the HRM system in our case study organization. We explore the HR system's relationship with organizational strategy, the role of the different managerial levels within the HR system and the relationship between the HR system and organizational outcomes.

Much of the international evidence on the HRM – organizational performance link emerges from a dominant positivist approach that utilizes large-scale surveys across multiple organizations and attempts to draw empirical associations. However, there has been little research conducted at the organizational level that explores complex connections and relationships that might cast light on the reality of HRM operationalisation. A number of HRM scholars advocate greater use of qualitative and reflexive approaches that drill-down into organizational discourse and further build on our understanding of HRM practices and processes, and how these are influenced by the context and environment (Hesketh and Fleetwood, 2006; Legge, 2005). Similarly others point to the need to include line managers and employees in data collection rather then relying simply on the views of senior managers (Hutchinson and Purcell, 2003; Wright and Boswell, 2002; Kinnie *et al.*, 2005). This paper contributes to this discourse through detailed documentation of the perceptions of a range of managers about the reality of HRM practices and furthermore adds a quantitative framework that through the inclusion of all employees investigates the relationships between these HRM practices, HPWS and employee attitudes such as job satisfaction and affective commitment. Based on quantitative data we explore the links between HPWS and affective commitment, social identification and job satisfaction. Importantly, since one of the key HPWS practices is teamwork we explore the mediating role of intra-group identification on the relationship between HPWS and commitment. We argue that while HPWS are important in a highly professionalised industry such as healthcare, HPWS can be enhanced or undermined at the unit or team level. We suggest that organisations that rely on a highly educated and professional workforce need to not only provide an appropriate bundle of human resource management practices that can be described as HPWS but also need to recognise the important role played by managers and team leaders at every level in team building and social identification.

**HRM and Managerial Levels**

A number of studies have demonstrated the importance of different managerial levels within the adoption and integration of HRM in organizations (Lepak and Snell, 1999; Mayrhofer *et al,* 2004; Valverde *et al,* 2006). In particular, the relationship between senior HR managers and organizational strategy has been well documented over the last 20 years (Boxall and Purcell, 2003; Boxall and Macky, 2007; Guest, 1997; Macky and Boxall, 2007). Evidence also shows that the role of middle and lower level managers in the operationalisation of HRM goals and plans is increasingly important (Purcell and Hutchinson, 2007; Renwick, 2003; Teo and Rodwell, 2007; Thornhill and Saunders, 1998) particularly as more HRM responsibilities are devolved to the operational levels Hall and Torrington, 1998; Mayrhofer *et al* 2004). Hence, Whitaker and Marchington (2003) argue that the attitudes and behaviors of operational managers are crucial in integrating HRM effectively. Moreover, Teo and Rodwell (2007:268) suggest that if operational HR activities are transferred to lower level managers HR practitioners are

released 'from day-to-day functional roles to allow them to concentrate on value adding strategic and change management roles'.

However, many researchers suggest that there still remain a number of difficulties with the devolution of HR activities (Currie and Proctor, 2001; McGovern and Stiles, 1997; Renwick, 2003). It is suggested that while operational manager involvement in HR activities is possible, their practices vary considerably in the consistency of implementation across the organization (Currie and Proctor, 2001; McGovern and Stiles, 1997). This may distort, and even undermine the contribution of HR practice to organizational effectiveness (McGovern and Stiles, 1997). Moreover, the knowledge and ability of these managers to take on HR responsibilities is questioned (MacNeil, 2003; Renwick and MacNeil, 2002). Currie and Proctor (2001) and Renwick (2003) also suggest a lack of understanding of how to enhance the willingness and ability of operational managers to take on responsibility for HR issues. Thornhill and Saunders (1998) found that managers left to inspire, develop and encourage employees without clear strategic direction has a significant negative effect on employees' commitment, flexibility and quality of work. Whilst Purcell and Hutchinson (2007:6) argue that the role of front-line managers in the causal chain between HRM and organizational performance has largely been ignored over the last 15 years because of a reliance on single respondents in multi-employer research projects.

Middle and lower level managers are important because of their understanding of their employees and employee competence and their potential to impact on employees' behavior (Mayrhofer, *et al*, 2004:131). These managers play a crucial role in the development of employee commitment through their leadership skills, and their ability to communicate, motivate and manage change (Thornhill and Saunders, 1998). Increasingly the role of managers is crucial to the high performance workplace debate.

**High Performance Work Systems**
In bundling human resource practices to constitute a HPWS there is significant debate about what the composition should be. As Macky and Boxall (2007:537) argue 'While there are a number of theoretical, empirical and practical dimensions on which these constructs differ, a common theme is the notion that the HR practices involved should form a coherent, integrated 'bundle'; a system of complementarities whose effect is greater than the sum of parts'. Hence, HPWS involve the mutual interdependence and congruence of key organizational variables including - structure, strategy, people, management style, human resource systems and functions (such as recruitment, selection, performance appraisal, teamwork, training and development, and reward management), procedures and culture (Boxall and Purcell, 2003; Schuler and Jackson, 1987). The research suggests that such high performance work systems and practices lead to improvements in employee performance and subsequently organizational performance. Also that workplaces characterized by the adoption of high-performance work practices enjoy significant gains over their low-adoption counterparts (McDuffie, 1995; Macky and Boxall (2007).

In particular West et al (2006) argue that high performance HR systems are especially important for hospitals in yielding superior healthcare through their impact on effective decision making and information processing. West et al (2006:986) bundle performance management/appraisal, training, decentralization, participatory

management, team-based structures and employment security in their study of HPWS in the NHS and argue that these practices form an overlapping synergy likely to 'yield employees capable of positively impacting on organizational performance' and in particular patient mortality. Although there are mixed views regarding the actual configuration of the 'bundles' with Harris *et al* (2007:449) concluding from their review of HRM and performance in healthcare that there is a 'confusing picture in the literature regarding which practices, policies and systems are linked to performance'. It is clear however, that teams appear consistently in the literature.


**Team based work systems**

In health, team work is an imperative with West (2002) revealing that team work had an important relationship to patient mortality. Furthermore others such as Gil *et al* (2005) Bass *et al* (2003) and Sivasubramaniam *et al* (2002) found that group processes have an important mediating role between leadership and team outcomes.

In particular Callan *et al* (2007:450) argue that 'employees self-categorize with organizational groups and identify with them to gain benefit like self-enhancement through positive intergroup comparisons'. They cite Mael and Ashforth (1992) and Dutton *et al* (1994) in arguing that group identification leads to positive intergroup support and behavior in line with group objectives. Such intergroup identification at the work unit or professional group level they add defines values, attitudes, beliefs and relationships. They found that hospital employees preferred to identify with small proximate groups rather then the organization in times of change and that higher status groups were associated with higher levels of job satisfaction. Von Glinow (1988) found that professionals tend to identify with other like-minded professionals rather than the organization for which they work. And Purcell and Hutchinson (2007:8) refer to research (such as Eisenberger *et al*., 2002; Redman and Snape, 2005; Liden *et al*., 2004) in arguing that supervisors and teams and the quality of these relationships with and between employees increase the 'strength' of the HR system, influencing the perception of the organization, organizational commitment, positive psychological contracts, and work satisfaction . And it is not just the relationships that are important here but the extent to which the supervisory managers are perceived to be the providers of HR practices.

This paper integrates these concepts of HRM strategy and high performance work systems, teams and group identification, and explores their links to employee attitudes such as job satisfaction and commitment.

**Methodology**

This research project is part of a longitudinal study into people management practices in the Victorian public healthcare sector partly funded by the employers' association and the case study hospitals. The project has spanned five years and has included key informant interviews with major industry players (Stanton *et al,* 2004), an industry survey (Bartram *et al,* 2007) and the case study investigations (Young *et al*, 2007).

This particular study of one rural hospital used a range of qualitative and quantitative investigations carried out between 2004 and 2007. This case study is a rural hospital incorporating acute, aged care and community health services with approximately 260 staff. The government department regards this hospital as a high performer in terms of financial management and throughput; the hospital has also scored well in the accreditation process.

Stage one included the collection and analysis of key documentation including annual reports, human resource policy and procedure manuals, and other relevant organizational reports; seven in-depth semi-structured interviews and two focus groups of a range of managers. These managers included senior managers described as the Executive Team, and middle and line managers described as operational managers. It also included on going discussions, workshops and presentations with senior managers and HR practitioners.

These semi-structured interviews, focus groups, presentations and discussions permitted the researchers to gather rich information on the HRM system and associated processes from the perspective of a cross section of managers and allowed for a suitable cross-check of these data. As Healy and Perry (2000:123) have argued, a case study approach, with multiple perceptions about a single reality, allows triangulation of several data sources which provide validity as researchers search for convergences. An interpretivist approach was used to analyze the interview data. It is the preferred paradigm when dealing with complex social phenomena; interpretation examines the way people think and act, and assumes that bias is removed by accurately describing the meanings and interpretations of participants (Healy and Perry, 2000:120).

Interview schedules were based on the research questions identified from a theoretical framework developed from the researchers' previous findings (Bartram *et al,* 2007) and Bowen and Ostroff's (2004) framework. All interviews were taped with the permission of the interviewees and the transcripts were analyzed through a process of coding of the emerging themes in line with the theoretical framework.

Stage two consisted on quantitative research comprised of surveying all staff. We utilized Zacharatos's et al (2005) conceptualization of HPWS which is primarily based on Pfeffer's seven HPWS factors including: employment security, selective hiring, extensive training, teams and decentralized decision making, reduced status distinctions, information sharing and contingent compensation. Zacharatos et al (2005) also included three additional practices which are transformational leadership, quality work relationships and the measurement of management practices.

**Stage One – Systems, practices and managerial perspectives on HRM**

The two research questions identified for the stage one analysis were:
*How does the HRM system link to organizational strategy?*
*How is HRM understood, interpreted and operationalised across the management hierarchy?*

*Organizational Strategy and the HRM System*
The hospital had a clear organizational strategy, and according to the CEO, HRM was one of the four 'planks' of the strategic plan with contributions from the HR manager,

and executive and leadership teams. The CEO was relatively new (within the last 5 years) and valued strategic HRM. The Executive Directors also supported the strategic nature of HRM, and one director in particular identified the leadership training program, the succession plan, the HR plan and improved policies and procedures on issues such as bullying and harassment as examples of strategic HR.

The hospital's human resource structure was divided into two sections; payroll within the Corporate Services department and a separate part time Human Resources Manager appointed to expand the role of HR from an administrative focus on payroll to a strategic focus on education and development. The Executive Directors argued that HR was continuously under review and the organization's key performance indicators included HR outcomes data.

HR policies were developed by the HR manager with implementation the responsibility of the Executive Team (including the HR manager) and cascaded down to departmental and unit managers. The HR manager assisted in education of managers in operationalising these policies, in providing advice on employment relations and managing the HR reporting. She argued that HR should be visible across the organization: 'we've really focused on trying to send out that message in the last few years and trying to up skill our department managers and in future years flow that on throughout the organization, to our line managers'.

An executive director supported this:

> our HR manager gives the skills to our unit managers say for instance on performance management and we've got a leadership team that actually carries out a lot of those HR practices … she empowers the unit managers to carry out some of those things, and she'll … walk through the process if you've got a bullying, harassment, this is what you do.

In preparing policies, the HR manager argued that consultation occurs with those affected – directors, unit managers and staff and placed communication as the top of her concerns.

As a director stated:

> People have really seen the value of having HRM who's there and that can talk to them about a whole range of different things. I think that the organization has a policy of valuing our staff so it's not really just saying it - we can actually demonstrate that there's a whole lot of policies and procedures that have developed; for instance our Employee Assistance Programs, our staff surveys and feedback and…really valuing communication.

*Operationalising HRM*

One Executive Director was concerned that while there is consensus about the organisational goals amongst the executive team: 'if you go much below that, it would be varied. I believe we work very well at that top level but much below departmental managers I think is where we need to work'. To a certain extent this view was reflected in the managers' focus group where comments were made about varied consistency of the HR message. However, the HR manager believed that improvements and a culture change had occurred with greater inclusion of department managers in planning and a team-based approach between HR and department manager 'because the old culture here was about power and they stayed away'.

She also saw difficulties in giving operational managers too many extra HR responsibilities arguing that 'if we want to move all these things such as HR out to department managers then they need to be given the time to do it and to do it well'. Members of the focus group agreed arguing that the training that they had been given was helpful and made them more confident. 'While they're pushing for us to do more performance management, they're at least giving us the tools to do it properly so that's a good thing.'

Integration was problematic with payroll and classification details held by HR and department managers complaining that their work would be assisted if that information was available to them. 'Well it just makes the department managers more accountable. Plus it's educative. Well you should know, you're a department manager, you should know what they should be paid…' (focus group)

The importance of communication was also recognized with department managers stating that although training has helped, talking in the leadership group 'can be a bit intimidating. …' (focus group).

Overall, the managers' focus group believed that 'the CEO is willing to put resources into HR and consider it to be important where it hasn't been previously'. They believed that further work could be done in freeing up the administrative burden on the HR manager by way of employing clerical assistance and also moving more tasks to the department managers 'to free up more time both for the operational level and HR level.' The managers also tended to see HR as an individual: 'She's got a lot of skills and knowledge we don't have about HR like our performance reviews, industrial relations, performance management.' They expressed a desire for her to engage in additional training for managers in these areas.

*Summary: Distinctiveness, Consistency and Consensus*
Organizational strategy and HRM strategy were aligned in a way that appeared to be relevant, meaningful and accessible to operational managers. The HRM system was highly visible and understandable because of the amount of training given to managers and the importance of communication. The HRM system was seen to be legitimate with strong within-group agreement at the Executive level. The high levels of HRM training and the amount of support provided would appear to suggest that HR practices were seen as valid and instrumental. There appeared to be consensus across the management levels on the role and functions of HR and even on the limitations and difficulties. The collection of HR performance data and reporting to the Senior Executive team embedded the HRM system into the organization's strategy. Overall consistency, consensus and trust did not appear to be a major problem in this organization. However, although the executive team were content with HR development in the organization, operational managers were still requesting further training in HR and more autonomy in relation to HR recruitment and development.

A key limitation of this study is the lack of employee perspectives. The next stage of the project was designed to investigate employee attitudes not only to HR policies and practices but also to the skills and abilities of their managers and to link HPWS to attitudes and behaviors and indirectly to organizational outcomes.

**Stage Two –employee perspectives**

In order to explore employee perspectives we utlised Zacharatos's et al (2005) conceptualization of HPWS and identified five hypotheses that we wished to test.

*H1: HPWS will be positively associated with affective commitment*
The HPWS literature has demonstrated both theoretically and empirically that HPWS are positively associated with affective commitment (Macky and Boxall, 2007). Affective commitment is defined as an individual having an emotional attachment to the organization because he or she identifies with and enjoys the membership of the organization (Allen and Meyer, 1990). According to Legge (2005) by treating workers with respect and as capable and intelligent individuals, workers will become more committed to the organization and more trusting of management. This results in improved performance. Hence normative HRM models foster consistent and reinforcing HRM policies, and are associated with greater organizational commitment and subsequent employee performance. Zacharatos et al. (2005:78) argue that 'employees view HRM practices and trustworthiness of management as indicative of the organisation's commitment to them, and consequently employees reciprocate with appropriate attitudes and behaviours'. Research by Wright et al. (2003) also found that HPWS index scores were positively associated with organizational commitment. Therefore in this study we would expect to find a positive relationship between the organization's HPWS and affective commitment from employees.

*H2: HPWS will be positively associated with job satisfaction*
Studies also demonstrate that job satisfaction is positively related to HPWS (Macky and Boxall, 2007). Guest (1997) found that employees who reported higher numbers of HPWS practices are more likely to report high job satisfaction. Liden et al (2000) argue that when employees feel that their work can influence outcomes that affect their organization and that their work is meaningful, they tend to feel more involved and therefore gain a sense of satisfaction with their job. In this study we would expect to find a positive relationship between HPWS and job satisfaction.

*H3: HPWS will be positively associated with social identification of employees with their unit-level colleagues*
Social identification, defined as an individual's development of a social identity, plays a major role in the formation and development of collective attitudes and behavior (Tajfel, 1982; Turner and Tajfel, 1986; Mael and Ashforth, 1992; Ellemers, de Gilder and Haslam, 2004). Social identity theory suggests that people wish to belong to a group that they consider is distinctive from other groups in order to increase their self-esteem. Their perception of the group forms the basis of the individual's social identity (Tajfel and Turner, 1986). As social identification with the group develops, belongingness to the collective is strengthened (Tajfel, 1982), hence social identification acts as a social glue (Van Vugt and Hart, 2004).

The social identification process brings about the strengthening of collective attitudes (Kelly, 1998; Mael and Ashforth, 1989). Members act in a manner that is 'congruent with the salient aspects of their identity'. This leads to 'greater pride and loyalty in the group' (Iverson and Buttigieg, 1997:1488). High identifiers exhibit strong

group loyalty because they have an extremely positive impression of their group membership (Van Vugt and Hart, 2004).

Forrester and Tashchian (2006) argue that social cohesion is associated with other workgroup characteristics, many of which are the fundamental underpinnings of HPWS such as clarity of targets, adequacy of resources, legitimacy of decision-making authority and the motivational potential of work. Moreover, Campion, Papper and Medsker (1996) argue that social cohesion is also related to work group characteristics such as job design, context and interdependence. In a professional environment built around teamwork as in the healthcare sector we would expect that there would be a positive association between HPWS and social identification.

*H4: Social identification will mediate the relationship between HPWS and job satisfaction*

*H5: Social identification will mediate the relationship between HPWS and affective commitment*

Since the role of the team is important in the healthcare industry we would also expect that social identification has the potential to mediate the impact of HPWS on collective attitudes. For example HPWS can influence members' collective attitudes through leaders providing visionary and inspiring organizational goals and developing work design that creates synergy and camaraderie among team members. Transformational leaders can utilise HPWS such as selective recruitment, extensive training, self-managed teams and decentralized decision making and raise the collective consciousness of followers by means of their appeal to higher ideals and organizational goals (Forrester and Tashchian, 2006). By communicating the mission of the organization and integrating organizational strategy and HPWS, leaders and managers can encourage a sense of pride of employees in the organization and a willingness to exert extra effort. Hence strong social identification increases the intrinsic value of an individual's efforts in relation to the goals of the collective (Shamir, House and Arthur, 1993). The sense of oneness that develops between person and group 'strengthens the member's motives for contributing personal resources to the organization' and feeling an important part of the team or unit – leading to greater feelings of job satisfaction and organizational commitment (Knoke, 1990:42).

Management literature demonstrates consistent positive associations between organizational commitment and employee performance (Macky and Boxall, 2007). Macky and Boxall (2007:541) argue that 'committed workers not only identify psychologically with their employer and feel stronger attachment to the organization, they are also more likely to expend discretionary effort towards achieving organizational ends'. Wright et al (2003) also claim that HPWS may enhance employee performance through organizational commitment and job satisfaction. Hence we would expect social identification to mediate the relationship between HPWS and job satisfaction and HPWS and affective commitment.

**Method**

In July 2007, a questionnaire was distributed by the researchers to all staff members (240 employees) at the hospital. All surveys were returned by pre-paid post directly to the

university researchers. Confidentiality of the participants was assured as the researchers did not have access to the names and contact details of participants. Finally 68 completed questionnaires were received. This marked a satisfactory response rate of 28% (Alreck and Settle, 1995).

Of these respondents 87% were female, the mean age was 43 years and 67% of respondents were employed part-time. Nurses represented 44% of the sample and management and administrators represented 27%. The rest included allied health and others. The mean hours worked per week were 30 hours and over 40% of respondents held a bachelor degree or higher qualification. The sample characteristics are generally representative of the rural health services characteristics.

*Measures Used in the Multivariate Analyses*
Unless indicated otherwise, numerical values represent the following responses:
1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 =agree, 5 = strongly agree.  In the factor analysis, we used principal components analysis with varimax rotation. The values of multi-item variables were constructed by taking the mean of the component item values.

**Outcome Variable.**  Members responded to eight items relating to affective commitment, adapted from Allen and Meyer (1990). Seven items loaded on one factor. Item 'I think I could become easily attached to another organization as I am to this one' was subsequently omitted. Sample items included: 'I would be very happy to spend the rest of my career with this organisation', 'I really feel that this organisation's problems are my own', 'This organisation has a great deal of personal meaning to me' (alpha = .87).

**Predictor Variables.**  There were two predictor variables. They measured individual perceptions of high performance work systems (HPWS) at the rural health service, the individual members' social identification with their work group or unit members.

We measured HPWS by adapting the measure developed by Zacharatos, Barling and Iverson (2005).  The adapted HPWS measure comprised of 55 items. The HPWS measure comprised of eight constructs including: employment security (all 2 constructs included); selective hiring (all 8 constructs included); extensive training (5 constructs included, 3 omitted); self-managed teams and decentralized decision making; reduced status distinctions; information sharing (all 7 constructs included); transformational leadership (all 7 constructs included); high-quality work (all 4 constructs included). The original measure was designed to be completed by human resource managers within business organizations. The researchers adapted this measure to test the perceptions of employees within the health service. Measurement of management practices and compensation contingent on safe performance were omitted from the questionnaire as the vast majority of Australian public health care workers do not have contingent compensation as their wages and working conditions determined by centralized collective bargaining agreements which do not include performance based payment systems. Also, in consultation with management, the researchers decided to omit the construct of measurement of management practices as the majority of employees would not be in a position to accurately respond to these statements. The 38 items loaded on a single factor (alpha = .85). The internal reliability of the scale demonstrate internal reliabilities

according to the .70 criterion suggested by Nunnally (1978). 17 items were not included in the final solution.

We used 8 items adapted from Hinkle, Taylor, Fox-Cardamone and Crooke (1989) to create a social identification variable. Sample items include: 'I'm glad I belong in my unit', 'I am an important part of my unit', 'I feel strongly tied to my unit', 'I don't think my unit is that important' (reverse-scored) (alpha = .88). The 8 items loaded onto one factor solution.

We used Allen and Meyer (1990) to create an eight-item measure of affective commitment (alpha=.83).

A six-item job satisfaction scale was adapted from the Job Descriptive Index (Smith, Kendall and Hulin, 1969) (alpha= .87).

## Results

The means, standard deviations and zero-order correlations for all variables included in the regression analyses are shown in Table 1.

**Table 1**

|  | Means | S.D | HPWS | Social identification | Affective commitment | Job satisfaction |
|---|---|---|---|---|---|---|
| HPWS | 134.2 | 29.44 | 1 |  |  |  |
| Social identification | 23.48 | 4.30 | .76*** | 1 |  |  |
| Affective commitment | 31.17 | 6.65 | .70*** | .47*** | 1 |  |
| Job satisfaction | 22.93 | 5.18 | .55*** | .50*** | .71*** | 1 |

P< .05**
P<.01***

We tested all hypotheses by following Baron and Kenny's (1986) three-step procedure for assessing the mediating role.  First, the predictor variable (HPWS) should be significantly related to the mediator (social identification).  We carried out this investigation by regressing the mediator (social identification) on the predictor (HPWS). This process demonstrated that HPWS had a significant effect on social identification (b = .76, p < .01) and satisfied the first criterion for mediation. Thus hypothesis 1 is supported.

Second, the predictor variable (HPWS) should be significantly related to the outcomes (affective commitment). The second criterion for mediation was satisfied in the regression (b = .74, p < .01) therefore hypothesis 3 is supported.

Third, the mediating variable (social identification) should be related to the outcomes (affective commitment) with the predictor (HPWS) included in the equation. The third criterion for mediation was satisfied in the regression. In both regressions the predictor variable (HPWS) had a non-significant beta weight in the third step (b = .17, p = ns.) and the mediator variable (social identification) had a significant beta weight (b = .71, p<.01), so complete mediation. Hypothesis 5 is supported.

The mediating role of intra-group identification on the relationship between HPWS and job satisfaction was also tested using Baron and Kenny's procedure (1986). First, the predictor variable (HPWS) should be significantly related to the mediator (social identification). We carried out this investigation by regressing the mediator (social identification) on the predictor (HPWS). HPWS had a significant effect on social identification (b = .76, p < .01). This satisfied the first criterion for mediation and hypothesis 2 is supported.

Second, the predictor variable (HPWS) should be significantly related to the outcomes (job satisfaction). The second criterion for mediation was satisfied in the regression (b = .50, p < .01).

Third, the mediating variable (social identification) should be related to the outcomes (job satisfaction) with the predictor (HPWS) included in the equation. The third criterion for mediation was satisfied in the regression. In both regressions the predictor variable (HPWS) had a non-significant beta weight in the third step (b = -.01, p = ns.) and the mediator variable (social identification) had a significant beta weight (b = .75, p<.01), so compete mediation. Hypothesis 4 is supported.

Finally, the variance inflation factors of most of the variables were close to 2, never reaching 10. These results indicate inconsequential levels of multicollinearity (Hair et al., 1998).

**Summary**
In stage 2 we set out to explore the attitudes of employees to HPWS in the case study organization. In particular we focused on the links between HPWS, affective commitment, social identification with their work group and job satisfaction. We were also keen to test the mediation effect of social identification on the relationship between HPWS and affective commitment and job satisfaction. The results demonstrate that all five hypotheses were supported. In the first three hypotheses HPWS were positively associated with affective commitment, job satisfaction and social identification of employees with their colleagues. These findings support current research in the literature (Macky and Boxall 2007, Wright et al 2003). However, the interesting finding in this study is the mediation effect of social identification of team members at the unit level. It was clear that the level of social identification with the work group mediated the relationship between the high performance work systems in the organization and employees' affective commitment and job satisfaction.

**Discussion and conclusion**
This study demonstrates that linking the HR system to organizational strategy is possible in public healthcare and indeed crucial. Despite being part of a government funded industry and a centralized industrial relations framework the organization clearly had control over its HRM system. One of the antecedents of commitment to HR and implementation of HPWS and practices was the behavior of the CEO. The CEO's understanding of and commitment to HR was crucial to its success (see Boxall and Purcell 2003). It was the CEO who gave HR legitimacy, provided leadership, committed resources and provided the links between organizational strategy and HR strategy. We argue that the key to creating a strong HRM system which can encourage all levels of the managerial hierarchy to sing the same song across large and complex organizations is

high level leadership that uses its authority to transmit relevant, consistent and valid HRM messages across the organization.

In relation to HR practices, within-group agreement at the executive level and between-group agreement throughout the organizational hierarchy was essential (see Bowen and Ostroff 2004). The role of managers at all levels of the organizational hierarchy in operationalising HRM was crucial. The further away managers are from the strategy makers the more challenging it is to keep them informed, engaged and empowered particularly in large and complex organizations. As West at el (2006:997) claim 'HRM systems are formulated at the organizational level, but experienced at both the individual and team or group levels'. Resourcing lower level managers in time, knowledge and information is crucial to effectively and consistently translating strategy into practice (Thornhill and Saunders 1998). Information flows between and across hierarchical levels is imperative to ensure that silos, blockages and information overload do not occur. These impact on validity, consensus and consistency and the larger and more complex the organization the more difficult this is to achieve.

The study also raises some important implications of developing and utilizing HPWS in any organization. If we assume, based on empirical evidence, that affective commitment and job satisfaction lead to improved organizational performance then understanding the factors that contribute to affective commitment and job satisfaction are crucial. While HPWS factors such as selective recruitment, employment security, and employee involvement in decision making are important, it is not enough just to focus on optimal configurations and bundles of HR practices. What this study demonstrates is that the role of team or workgroup and the individual employee's connection to the team and belonging to the team can undermine or enhance employee commitment and job satisfaction and hence the effectiveness of the organization's HPWS. This finding highlights the role of the team leader or manager and their skills and abilities in creating cohesive, inclusive and supportive teams that people feel connected to and want to be part of. It supports Purcell and Hutchinson's (2007:16) finding that these managers are important to creating, or transmitting, impressions of the organization (commitment) and in making jobs satisfying by influencing how demanding the job is, how much autonomy the employee has and the sense of achievement that comes from doping the job. In turn this research highlights the importance of the organization in understanding the key role of the team leader/manager and providing recognition, reward, support and training to enable this job to be done well. In this case study operational managers clearly wanted to be involved in HR decision making and did not feel overburdened, instead they called for more autonomy and more responsibility but did require support and training from HR. When managers were left to make decisions without support and guidance the result was inconsistency adding to perceptions of unfairness and fuelling complaints and grievances by employees (see Bowen and Ostroff, 2004; Thornhill and Saunders, 1998).

Clearly in this study the role of social identification at the unit or team level was an important factor in harnessing a positive attitudinal impact of HPWS; an important role of the team leader/manager. Research generally demonstrates that satisfied and committed employees are usually high performing employees and are less likely to leave the organization (Stratton, Dunkin, Juhl & Geller, 1995), and enhance patient satisfaction and quality of healthcare (Tzeng & Katefian, 2002). As it is not just hospitals that are organized into units or work teams, this finding can be extrapolated to other organizations

where teams play an important role. In a tight labour market, such as the health sector, continued shortages of many clinicians and professionals and high labour turnover represent serious challenges for managers. It is essential not just to recruit good staff but also to retain them. The results in the paper indicate to some extent that effectively utilizing HPWS and harnessing social identification at the team level amongst like-minded professionals may have positive implications for employees and organizations. This study has made some progress in picking up West et al (2006:997) plea to 'focus on whether and how HRM systems influence the extent of cooperation and multidisciplinary team working amongst hospital staff since this has been repeatedly shown to be related to patient outcomes' (West & Borrill, 2006).

Also demonstrated is the value of identifying key HR performance indicators, embedding their collection at all managerial levels and regular reporting of this data in creating a managerial mindset that HR can contribute to organizational effectiveness. As Harris et al (2007) have argued if employees receive complimentary messages about what is expected of them they are able to identify appropriate behaviors. Organizations that capture and analyze data on employee attitudes and behaviors can in turn identify areas where they need to improve organizational practice. While the links between HR practice and organizational performance in healthcare is contentious (Harris et al, 2007) intuitively, we can suggest that less time spent on reacting to staff grievances and industrial relations problems can mean more time on providing better standards of services and patient care. Intuitively we can say that more informed managers lead to less 'irritants' within the workplace and  better staff and patient outcomes.

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