

EXTENDING THE JD-R MODEL: JOB SATISFACTION AS A MEDIATOR BETWEEN JOB RESOURCES AND EMPLOYEE WELL-BEING

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ARTICLE INFO

Article History:

Received: 29 June 2025

Revised: 13 November 2025

Accepted: 28 November 2025

Published: 15 March 2026

Keywords:

Healthcare, job satisfaction, talent management, well-being.

ABSTRACT

Healthcare employees in Malaysia's public hospitals often work under significant time pressure and emotional strain, raising concerns about how hospitals can sustain their motivation and overall well-being. In this context, the present study examines how several job-related resources in talent management are associated with job satisfaction and employee well-being among healthcare workers. The Job Demands-Resources (JD-R) model provides the main theoretical basis for the study. Data come from an online questionnaire completed by 151 healthcare staff, and the responses are analysed using partial least squares structural equation modelling (PLS-SEM) in SmartPLS 4. The results show that three job resources—role clarity, workload management support, and Performance appraisal fairness—are all positively and significantly associated with job satisfaction. Job satisfaction, in turn, acts as a strong predictor of employee well-being and explains 75.2% of its variance. Results from a practical viewpoint of a specific human resource strategy that can soothe shortness of breath and support employee mental health and strengthen employee flexibility and long-term stability.

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Introduction

The issue of a growing talent shortage is faced day to day in Malaysia's healthcare sector. This issue is reflected in recent findings by Universiti Malaysia Terengganu (UMT) that effective talent management systems are now crucial for organisational resilience (Othman *et al.*, 2022). This study focuses on doctors, nurses, and allied healthcare professionals working in Malaysian public hospitals, where resource limitations and workload pressures are particularly severe. Those are three job resources, which are role clarity, workload management support, and fair performance appraisal, contributing to higher

job satisfaction and, in turn, stronger employee well-being. Previous studies in Malaysia have emphasised that well-structured talent management practices can enhance employee motivation and institutional performance (Rana *et al.*, 2022). However, qualitative research by UMT scholars on palliative care nurses has highlighted the psychological impact of ambiguous roles and inadequate support (Marimuthu & Abdullah, 2019). Against this background, the present study aims to demonstrate the strategic value of talent management interventions in sustaining a resilient and healthy healthcare workforce.

Literature Review

Based on earlier research, the conceptual foundation of this study is the Job Demands-Resources Model (JD-R). This model contains 2 major groups: Job demands and job resources. Job demands apply to elements that require effort and incur physical and mental costs. While for job resources, apply elements related to work that help employees deal with objections at work and evaluate their learning and development (Bakker & Demerouti, 2007). This framework provides a perspective for understanding the relationships among role clarity, workload management support, performance appraisal fairness, job satisfaction, and employee well-being among Malaysian healthcare workers. The proposed model hypothesises that job resources, namely job role clarity, efficient workload management support, and performance appraisal, have the potential to alleviate job satisfaction, thereby enhancing employee well-being.

Role ambiguity is the inverse of role clarity and is defined as a lack of clarity about employee expectations or a deficiency in the information required for a particular position (Kahn *et al.*, 1964). A study by Rizzo *et al.* (1970) found that a key factor in role ambiguity is that it reflects items derived primarily from the same definition. When employees have clarity about their roles, they feel confident and organised at work, which increases job satisfaction and reduces stress. In addition, when employees are not clear about their roles. This will cause performance to decline, anxiety to increase, and morale to decrease. (Kahn *et al.*, 1964). The study by Zettna *et al.* (2025) shows that leadership and colleagues' support significantly influence the clarity of the social care department's role, resulting in a significant increase in employee job satisfaction. Similarly, Han *et al.* (2025) found that in high-demand public organisations, role clarity reduces the negative effects of performance- and transparency-based accountability pressures.

This aligns with the Job Demands-Resources model (Bakker & Demerouti, 2007) which identifies role clarity as a resource that increases job satisfaction. It predicts that clarity reduces burnout and increases productivity. This made employees more satisfied with their jobs and improved employee well-being. Thus, we hypothesise that,

H1: Role clarity positively influences employee well-being, mediated by job satisfaction.

Workload management support refers to the extent to which managers provide practical assistance and emotional support to employees in their roles. According to the Copenhagen Psychosocial Questionnaire (COPSOQ III), this includes listening to employees' work-related concerns, providing timely assistance, and developing more effective work plans. During the COVID-19 crisis, perceived organisational and management support significantly alleviated the symptoms of post-traumatic stress disorder among frontline medical staff (Zhou *et al.*, 2021). Their research findings emphasise that emotional and instrumental support from leaders is particularly important in high-pressure environments, as it can enhance employees' ability to manage stress and maintain mental stability. Employees' views on the organisation's happiness strategy, particularly as reflected in their supervisors' feedback, strongly influence their subjective well-being (Molnar *et al.*, 2024). Their research found that in organisations where management actively recognises employees' efforts, encourages open communication and supports work-life balance, employee satisfaction and engagement significantly increase. This will lead to happiness. These studies are consistent with the Job Demand Resource (JD-R) model. Management support serves as a core job resource to reduce stress and also promote sustainable well-being through motivation, recognition and trust. Therefore, we hypothesise that

H2: Workload management support positively influences employee well-being, with job satisfaction as a mediator.

Fairness in performance appraisals refers to the extent to which employees perceive the evaluation process as just. This encompasses procedural, distributive and interactional justice (Colquitt, 2001). Employees who perceive performance appraisals as transparent, consistent and respectful are more likely to experience job satisfaction and psychological comfort. While empirical evidence supports the link between performance appraisal fairness and positive job attitudes, the direct impact on psychological well-being becomes negligible when factors such as job satisfaction are taken into account (Rana et al., 2022). This suggests that appraisal fairness primarily enhances well-being by influencing job satisfaction. Tarigan et al. (2023) further revealed that perceptions of fairness can vary across public sector organisations. This was due to participants’ bias, uncertain standards and limited transparency. It undermines confidence in the evaluation system. In the JDR demand system, impartial evaluation provides greater satisfaction by raising awareness of support and fairness. So, we assume

H3: Performance appraisal fairness indirectly influences employee well-being through job satisfaction.

Job satisfaction is defined as an individual’s overall emotional response to various aspects of their job, including job tasks, supervision, salary, colleagues and opportunities for advancement. Warr et al. (1979) describe it as a positive emotional state arising from the evaluation of one’s work experience. According to this theory, satisfied employees are more emotionally stable and have healthier psychological states. Previous studies have consistently shown that job satisfaction is a key predictor of employee well-being. For instance, Abdullah et al. (2021) used structural equation modelling with a sample of healthcare workers in Pakistan. They discovered that job satisfaction significantly improved well-being, especially in high-stress hospital environments. Similarly, Hayat and Afshari (2022) demonstrated that job satisfaction mediates the relationship between corporate social responsibility and employee well-being, thereby improving psychological health, affective commitment, and organisational attachment. Together, these findings suggest that job satisfaction functions as both a direct enhancer and an indirect facilitator of employee well-being. Therefore, the present study proposes that:

H4: Job satisfaction is positively associated with employee well-being.

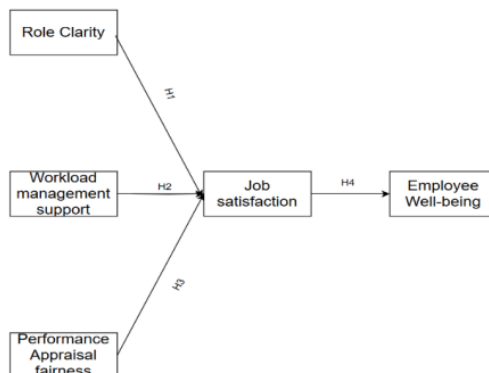


Figure 1: Research framework

Materials and Methods

This study uses a positivist research paradigm. This research study adopts a mixed-methods research approach, using cross-sectional survey designs. SEM is suitable for our study because it allows the simultaneous assessment of complex associations among latent variables such as Talent Management, Job Satisfaction, and Employee Well-being. This method is effective in modelling mediation effects and testing the strength of theoretical frameworks. The focus of this study is the target population of healthcare workers, including nurses, doctors, and other healthcare professionals working in public or private healthcare facilities in Malaysia. Internships and administrative staff without clinical responsibilities were not included. A total of 151 respondents were included in the data analysis. The sample size was determined based on the recommendations of Hair *et al.* (2013), who suggested a ratio of 5 to 10 respondents per estimated parameter in SEM analyses to ensure sufficient statistical power and model stability.

The questionnaire consists of six sections and will use a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). There are sections for Role Clarity by Rizzo *et al.* (1970) (e.g., “I know exactly what is expected of me”), Workload Management Support by Kristensen *et al.* (2005) (e.g., “How often do you get help and support from your immediate superior, if needed?”), Performance Appraisal Fairness by Colquitt (2001) (e.g., “Have those procedures been applied consistently?”), Job Satisfaction by Warr *et al.* (1979) (e.g., “The recognition you get for good work”), and Employee Well-being by Pradhan and Hati (2019) (e.g., “I enjoy meaningful work”). All measurement scales selected for use have been validated in the workplace or healthcare research. Some items in the measurement scales have been slightly adjusted to suit the Malaysian healthcare environment. The Cronbach’s alpha values for each construct are above 0.70, indicating

acceptable reliability. To minimise common method variance, Harman’s single-factor test was conducted, and the results indicated that no single factor accounted for more than 50% of the total variance.

Results and Discussions

The study, which involved 151 health professionals, demonstrated the multiple roles of health institutions in Malaysia. Among them, nurses accounted for 37.7%, doctors for 27.8%, other medical workers for 19.9%, and administrative workers for 14.6%. Chinese account for 46.4% of the total population, Indians 27.2% and Malays 26.5%, reflecting the balanced distribution of the multicultural population in Malaysia. Half of the respondents (44.4%) were engaged in clinical research and the remaining (55.6%) were engaged in non-clinical research. The majority of those surveyed are experienced professionals, reflecting the diversity and realities of health professionals in Malaysia.

To assess the measurement model’s reliability and validity, we used three key indicators: Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE). Cronbach’s alpha and CR evaluate internal consistency reliability, while AVE assesses convergent validity. An AVE value of 0.50 or higher indicates that a construct explains more than half of the variance of its indicators (Hair *et al.*, 2021). All five potential constructs (employee well-being, job satisfaction, fairness in performance evaluation, role clarity, and workload management support) had high internal consistency and convergent validity. The composite dependability (ρ_c) values ranged from 0.946 to 0.974, confirming the reliability of the configurations. The average variance extraction (AVE) values for all structures are well above the minimum requirement of 0.50, ranging

from 0.661 (workload management support) to 0.717 (job satisfaction). This indicates that each structure accounts for a substantial portion of the variance in its respective indicators, thereby meeting the criteria for convergent validity.

Discriminant validity is achieved when the absolute correlation between two latent constructs, after correcting for measurement error, is sufficiently low for the constructs to be regarded as empirically distinct (Rönkkö & Cho, 2022). The square root of the AVE (bold diagonal values) for each construct is higher than the inter-construct correlations in the corresponding rows and columns. For example, the square root of AVE for Employee Well-Being is 0.843, which is greater than its correlations with Job Satisfaction (0.867), Performance Appraisal Fairness (0.797), Role Clarity (0.809), and Workload Management Support (0.804). Similar patterns are observed for all other constructs. These results confirm that, compared with any other structure in the model, each structure shares more variance with its associated metrics. Therefore, the establishment of discriminant validity indicates that the latent constructs in this study are statistically different and measure different concepts.

The structural model was assessed using path coefficients (β), T -statistics and

p -values were also obtained. These were obtained through bootstrapping with 5,000 subsamples. The strongest positive effect was observed for the path from job satisfaction to employee well-being ($\beta = 0.867$, $T = 30.882$, $p < 0.001$), indicating that employees who are more satisfied with their jobs are significantly more likely to report higher well-being. In addition, Performance Appraisal Fairness had a significant positive effect on Job Satisfaction ($\beta = 0.389$, $T = 3.778$, $p < 0.001$), meaning that the fair evaluation model can effectively improve employees' job satisfaction. Role clarity also had a significant positive effect on job satisfaction ($\beta = 0.350$, $T = 3.856$, $p < 0.001$). Finally, it was found that workload management support had a statistically significant, although to compare other variables it is not strong, effect on job satisfaction ($\beta = 0.229$, $T = 2.289$, $p = 0.022$). This indicates that providing adequate support for managing workloads contributes to employee satisfaction.

The R^2 value for job satisfaction is 0.814, indicating that 81.4% of the variance is explained by workload management support, role clarity, and the fairness of performance evaluation. Similarly, the R^2 for employee well-being is 0.752, indicating that 75.2% of its variance is explained by job satisfaction alone.

Table 1: Results of hypothesis testing

Hypothesis	Path	β	T -value	p -value	Supported
H1	Performance Appraisal Fairness \rightarrow Job Satisfaction	0.389	3.778	0.000	Yes
H2	Role Clarity \rightarrow Job Satisfaction	0.350	3.856	0.000	Yes
H3	Workload Management Support \rightarrow Job Satisfaction	0.229	2.289	0.022	Yes
H4	Job Satisfaction \rightarrow Employee Well-Being	0.867	30.882	0.000	Yes

Structural model results supported all four hypotheses. First, the fairness of performance appraisal significantly predicted job satisfaction ($\beta = 0.389, p < 0.001$). This result agrees with Rana *et al.* (2022), who found that perceived justice in appraisals enhances morale and motivation among healthcare professionals. Secondly, role clarity was found to impact job satisfaction significantly ($\beta = 0.350, p < 0.001$), supporting Zettna *et al.* (2025), who argued that role clarity in social care settings reduces stress and enhances work satisfaction. Third, workload management support also significantly contributed to job satisfaction ($\beta = 0.229, p = 0.022$), though with a smaller effect size. This confirms the findings of Zhou *et al.* (2021), who found that manager and peer support during high-stress periods, such as the COVID-19 pandemic, alleviates psychological distress and increases coping strategies among healthcare staff. Finally, job satisfaction was a strong predictor of employee well-being ($\beta = 0.867, p < 0.001$), validating the importance of the finding that more satisfied healthcare workers enjoy greater psychological resilience and work engagement (Abdullah *et al.*, 2021). The well-being R^2 of 0.752 further supports the view that satisfaction is an important mediating factor, thereby validating emotional event theory and the JD-R model.

Theoretical and Practical Implications

This study has both theoretical and practical implications, specifically drawing on the Job Demands-Resources (JD-R) model as its primary theoretical framework. According to the JD-R model, job demands contribute to strain and burnout, but job resources buffer against these and promote motivation, engagement, and well-being (Demerouti *et al.*, 2001). By applying this model in the Malaysian health context, where employee burnout is on the rise. This study not only verifies but also generalises the JD-R model by adding the most critical talent management

factors as job resources (Nasharudin *et al.*, 2020). The meditational architecture of the model provides empirical evidence for the hypothesised assumption that job satisfaction serves as an important mediator of the influence of job resources on psychological health. Practically, the findings are of great concern to human resource managers, health policymakers, and hospital administrators. Statistically, the findings such as the high explanatory power of job satisfaction ($R^2 = 0.814$) and the positive effect of job satisfaction on employee well-being ($\beta = 0.867$) validate the effectiveness of selectively enhancing job satisfaction via talent management practices as an antidote to burnout and a means to promote mental well-being. In life, healthcare organisations must invest in programs that define employees' roles and expectations, reducing ambiguity and stress to a minimum (Shinde, 2025).

Conclusions

Lastly, the current research provides robust empirical support for talent management being an important construct in Malaysian doctors' employee well-being and burnout prevention. The research demonstrates that organisational support for workload management, performance appraisal justice, and feedback clarity are positively related to job satisfaction, a strong indicator of well-being. Structural equation modelling is used to confirm that job satisfaction was a major mediator of employees' well-being and that the nature of a firm accounted for substantial variance in employees' well-being. The implications are that Malaysian health care companies ought to move from the traditional practice of administration to more strategic, individual-focused human resource practice. This study therefore, represents an important addition to theory studies and practice-based human resource management in healthcare.

Acknowledgements

The authors would like to express their sincere gratitude to Dr. Azura Abdullah Effendi of Universiti Sains Malaysia (ORCID: 0000-0003-3849-2919) for her valuable guidance and critical feedback throughout the preparation of this manuscript. This research was supported by internal resources and academic collaboration under the Universiti Sains Malaysia research facilitation framework. The study forms part of an undergraduate group project submitted in partial fulfilment of the coursework requirement for the Bachelor of Management degree at Universiti Sains Malaysia.

Conflict of Interest Statement

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

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