

The Mediating Role of Subjective Well-being in Work Productivity in Malaysia's Healthcare Industry: As an Example of Public Hospitals

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Abstract

Malaysia's healthcare industry, particularly its public hospitals, serves as a critical component of the nation's welfare system, providing essential services to the majority of the population. In 2021, over two million patients were admitted to public hospitals, significantly outnumbering those admitted to private facilities. This overwhelming demand has placed considerable stress on nurses, leading to increased workloads and extended working hours. Such conditions can detrimentally affect nurses' work performance and, consequently, the overall quality of patient care. This study examines the factors influencing the work performance of nurses in Malaysia's public health sector, with a specific focus on how the high demands of the profession impact their subjective well-being. The research underscores the importance of addressing both the mental and physical exhaustion experienced by nurses to enhance their performance and ensure the delivery of high-quality healthcare services. By exploring these dynamics, the study aims to provide insights that can inform strategies to support nurses' well-being, ultimately leading to improved patient care and a more resilient healthcare system in Malaysia.

Keywords

Subjective Well-being; Work Productivity; Malaysia's Healthcare Industry.

1. Introduction

Malaysia's healthcare industry, especially public hospitals, is the most essential welfare for the nation's populace. Public healthcare plays a vital role in Malaysia's health landscape. Healthcare employees and nurses play an important role in delivering services to the public. In 2021, based on the data provided by Malaysia's Ministry of Health (MOH), more than two million patients were admitted to public hospitals compared to private hospitals, with about nine hundred thousand admitted in the same year (Zulkifli, U, Yusof, & Lin, 1994). The high number of patients has caused stress and burden on nurses in public hospitals. The nurses must work longer and increase their workload to match the number of patients needing help (Zubir et al., 2024). This can cause a significant decline in the nurses' work performance in public healthcare if there are no actions to improve their subjective well-being. According to N. A. Zakaria, Ab-Murat, and Che Musa (2022), the work performance of nurses directly affects the efficiency of health care and the level of patient care. Due to the rigorous nature of the profession, nurses feel burdened carrying a big responsibility to improve the level of patient care, causing a high prevalence of poorer mental health (N. Zakaria et al., 2023). Malaysia's healthcare system must address nurses' mental and physical exhaustion to improve their work performance. This can make the nurse feel cared for by the management or government, leading to a high commitment

to delivering the utmost healthcare service. In the Malaysian context, this research actively investigates the factors that affect the work performance of nurses in the public health sector in Malaysia.

2. Literature Review

Grounded Theory.

This study was supported by appraisal, self-determination, and job demand and resource theory. It first used the job-demand resource theory to explain the relationship between subjective well-being, work engagement, and productivity. N. Yang, Lu, and Ye (2018) employed JD-R theory to clarify the relationship between subjective well-being and productivity. The JD-R model is extensively employed to examine the complex relationships between job-related and organisational characteristics and well-being outcomes in different work environments. According to the Job Demand-Resource (JD-R) theory, the presence of job resources and job demands has an impact on many job attitudes and outcomes at the individual, team, and organisational levels in the workplace, such as work productivity (Udushirinwa, McVicar, & Teatheredge, 2022). Previous studies have incorporated personal resources as they directly influence well-being (Tummers & Bakker, 2021). The study by Tu, Huang, Sitar, and Yang (2022) investigated the relationship between personal resources, which are positive psychological attributes, and their direct influence on well-being within the JD-R framework. Per the JD-R model, an employee's productivity can be influenced by their well-being as personal resources. Also, the JD-R model was predominantly utilised to elucidate the key components that significantly influence work engagement (Singh, James, Paul, & Bolar, 2022). Shamsi, Iakovleva, Olsen, and Bagozzi (2021) employed the JD-R theory to clarify the role of work engagement on an individual's subjective well-being. According to the JD-R theory, job resources refer to the elements of a job that assist individuals in achieving the diverse requirements of the job, enabling them to achieve their objectives and promoting personal development, learning, and engagement in their work. The job requirements are the main catalyst for burnout and work-related stress. Based on the JD-R theory, each job resource can significantly enhance work engagement, while only (high) job demands are specifically linked to workplace strain and burnout.

The Job Demands and Resources (JD-R) model is a commonly employed concept that elucidates the relationship between engagement and its antecedents and consequences. The study's initial focus was on job resources and job demands, but it later broadened to encompass personal resources. These personal resources refer to self-resilient qualities that strengthen an individual's ability to influence their environment and promote personal growth. According to the model, personal resources promote higher levels of work engagement, better well-being, and improved performance. Subjective well-being is an individual asset that fosters personal advancement and progress, mitigating the adverse effects of job requirements and shaping the perception of accessible workplace resources, ultimately leading to heightened work engagement (Ouyang, Zhu, Ma, & Qian, 2022). Nurses with better work engagement will likely have a more significant relationship between their subjective well-being and productivity.

However, the JD-R primarily emphasises the interplay between job demands, resources, and their immediate psychological and physiological consequences only after adequately considering the fundamental human needs that motivate these interactions. Self-Determination Theory (SDT) is a comprehensive framework used to examine human motivation and personality. It focuses on three fundamental psychological needs: competence, autonomy, and relatedness. These requirements are universally recognised as innate and psychological, crucial in psychological development, integrity, and overall well-being. SDT can address the shortcomings of the JDR model by offering a more profound comprehension of the factors

determining whether specific job demands or resources are seen as inspiring or demotivating. SDT can elucidate the factors contributing to the efficacy or inefficacy of job resources and the perceived onus of job expectations by including fundamental psychological needs. By incorporating Self-Determination Theory (SDT) into the Job Demands-Resources (JDR) model, a deeper understanding of the underlying motivational mechanisms that influence employee engagement and productivity may be achieved. This integration offers a more comprehensive framework for enhancing employee well-being and performance within the workplace.

SDT is a motivational framework that examines explicitly how individual behaviour is expressed, whether it originates within or is impacted by external circumstances (Meirun et al., 2020). SDT has been utilised to forecast performance. Research has revealed intrinsic and extrinsic motivators and moderator variables that impact the relationship between subjective well-being and performance. The Self-Determination Theory (SDT) is extensively utilised to examine the motivational processes related to work engagement and is also employed to develop interventions for workplace settings. The current study used SDT's general causality orientations on the motivational process linking job resources and work engagement in employees in the outsourcing sector. Employees must experience a high level of engagement to carry out their essential daily activities effectively. According to the Self-Determination Theory (SDT), it has been found that meeting three essential criteria serves as a link between job resources and employee engagement in the workplace (Martínez-Díaz et al., 2023). When employees' need for autonomy, competence, and relatedness is fulfilled in the workplace, they experience a sense of engagement. This occurs when they have the freedom to make decisions about their tasks (autonomy), can utilise their skills effectively (competence), and receive positive feedback from their colleagues (relatedness). For example, one of the most prominent benefits of working in the nursing profession is the ability of nurses to depend on their colleagues for assistance, which helps to alleviate stress and lighten the load of their responsibilities. According to Self-Determination Theory (SDT), if a job resource, such as feedback, aligns with an employee's demand for competence, it is more likely to increase engagement effectively. Likewise, work requirements that clash with the desire for independence may cause increased stress and burnout. This phenomenon can be better explained by the Self-Determination Theory (SDT) compared to the Job Demands-Resources (JDR) model.

Furthermore, individual behaviours are shaped through the interplay of an individual's internal cognitions, emotions, and external surroundings (Li, Li, & Fu, 2022). An indirect influence of personal cognitive variables on behavioural aspects has been discovered regarding environmental influences.

Hence, this study used cognitive appraisal, self-determination, and job-demand resource theories to clarify the relationship between the nurses' subjective well-being, work engagement, and work productivity.

Workload And Work Productivity.

The relationship between workload and work productivity of nurses is a critical aspect of healthcare management. Several studies have investigated this relationship and have found compelling evidence to support the impact of workload on nurse productivity. Winefield, Boyd, and Winefield (2014) explored the impact of heavy perceived nurse workloads on patient and nurse outcomes, revealing a significant relationship between heavy perceived nurse workloads and compromised professional nursing standards, emotional exhaustion, and job satisfaction. Similarly, Verschoof, Kuijer, and Frings-Dresen (2005) highlighted the association between nurse turnover, insufficient staffing, increased workloads, and stress among remaining staff, emphasising the detrimental effects of high workloads on nursing productivity. Furthermore, Rough, McDaniel, and Rinehart (2010a) and Rough, McDaniel, and Rinehart (2010b) established a relationship between workloads and nursing presenteeism and a negative

correlation between nursing workload and job satisfaction. These findings underscore the adverse impact of heavy workloads on nurses' well-being and productivity. Additionally, Ottaviani Aalmo, Spinelli, Magagnotti, and Visser (2023) identified a significant relationship between workload and nurse job satisfaction, emphasising the importance of a balanced workload and good social support in maintaining nurse satisfaction and productivity.

Working Hours and Work Productivity.

The relationship between working hours and the work productivity of nurses has been extensively studied in the literature. Several studies have highlighted the impact of working hours on nurse outcomes. A previous study conducted a systematic review and found strong evidence supporting the relationship between excessive work hours and adverse nurse outcomes (Volpp, 2008). Additionally, a cross-sectional national study revealed that longer weekly work hours increased nurse turnover (Uribe, Pinto, Vecino-Ortiz, Gómez-Restrepo, & Rondón, 2017). They emphasised that nurse-workplace relationships significantly affect nurses' productivity (Steffey et al., 2023). They similarly reported a relationship between workload, working hours, and work stress among nurses (Rohatgi, Hanna, Sliker, Abbott, & Nicola, 2015). Excessive working hours can contribute to work-related stress, potentially affecting nurse productivity. In addition, quantitative studies shed light on nurses' experiences regarding their work hours. The qualitative study identified high work-family conflict as a cause of nursing staff turnover, with long working hours among nurses (Robinson et al., 2020). This qualitative insight provides a nuanced understanding of the challenges posed by extended working hours for nurses. However, it is essential to note that found that the nurses who worked shifts of 12–13 hours were more likely to intend to leave the job than nurses who worked shorter shifts, contrary to what the literature suggests (Rhéaume & Mullen, 2018).

Subjective Well-being.

The subjective well-being of nurses is influenced by various factors, including spiritual leadership, job satisfaction, professional identity, work engagement, coping styles, and academic stress and highlighted the significant influence of spiritual leadership on the subjective well-being of Chinese registered nurses (Zautra & Hempel, 1984). The previous study also found that job satisfaction, psychological well-being, and subjective well-being levels differed significantly according to the nurses' level of education and years of nursing service (Z. Yang et al., 2022). They additionally emphasise the relationship between professional identity, psychological reward satisfaction, and subjective well-being among Chinese nurses (Y. Yang, Zhao, & Cui, 2022). These findings underscore the multifaceted nature of subjective well-being among nurses, influenced by both intrinsic and extrinsic factors. Moreover, the study highlighted the increasing focus on nurses' well-being due to its close relationship with nursing performance and management (Wang, Zhao, Shen, & Jiang, 2023).

Additionally, this study emphasised a significant relationship between academic stress, resilience, and subjective well-being in graduate nursing students (Sheng et al., 2023). These findings underscore the importance of addressing work-related factors and academic stress in promoting nurses' well-being. Furthermore, the study by Urban et al. emphasised influence of professional values, career expectations, and self-efficacy in the occupational well-being of male nurses in China (Molina-Sánchez, Ariza-Montes, Ortiz-Gómez, & Leal-Rodríguez, 2019). This highlights the gender-specific aspects of well-being within the nursing profession.

H1: There is a significant positive mediating role of subjective well-being in work productivity.

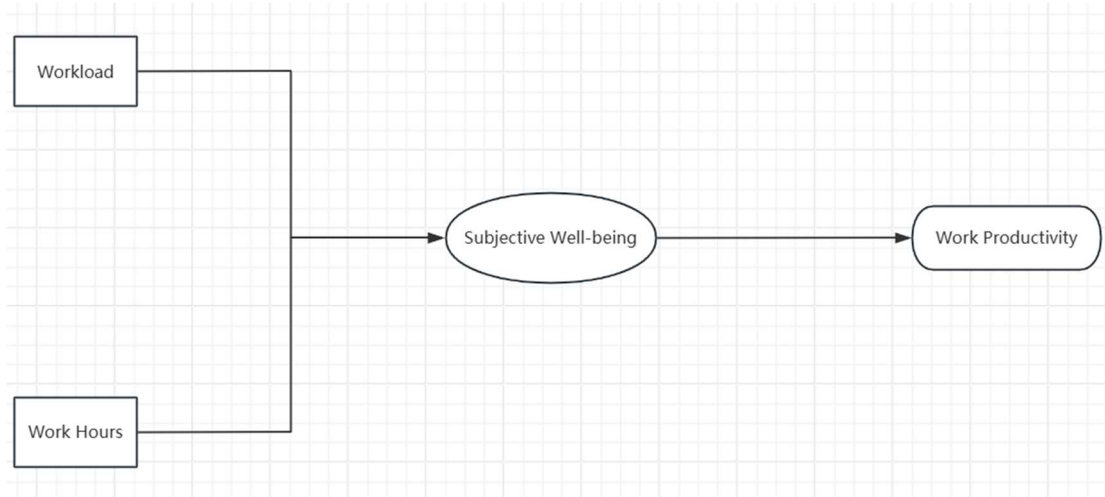


Figure 1. Research Frame

3. Methodology

Population and Sample.

Based on the official website of "Kementerian Kesihatan Malaysia" showed that there are four public hospitals in Kuala Lumpur, which are Hospital Kuala Lumpur, Hospital Rehabilitasi Cheras, Tunku Azizah (Wanita et al.) and Institut Perubatan Respiratori. The Kuala Lumpur Hospital (HKL) is the largest public general hospital in Kuala Lumpur, which the Malaysian government owns. HKL, established in 1870, is a non-profit organisation that acts as the main hospital in the Malaysian public healthcare system. Hospital Kuala Lumpur is now the most significant healthcare facility managed by the Ministry of Health in Malaysia and is widely recognised as one of the largest in Asia. The hospital is a government tertiary referral facility on 150 acres of valuable property. HKL comprises a total of 54 different departments and sections. There are a total of 29 clinical departments and 15 clinical support services. It consists of 83 wards and has a total of 2300 beds. HKL employs almost 11,000 personnel, including nearly 2,300 experts across several fields and specialities. The team comprises 300 medical consultants and specialists, 1,300 medical officers, 72 matrons, 253 sisters (ward administrators), 3,500 registered nurses, and 258 community nurses.

Hospital Rehabilitasi Cheras (HRC), opened in 2012, pioneered Malaysia's comprehensive rehabilitation services. It features a high-tech rehab gym and hydrotherapy pools. HRC, operated by the Ministry of Health Malaysia, is Southeast Asia's first and largest rehabilitation hospital. It won the 2016 World Stroke Campaign Award, making it the first and most prominent in the region to offer physical rehabilitation services.

Tunku Azizah Hospital (HTA), formerly known as Hospital Wanita dan Kanak-Kanak Kuala Lumpur, is a specialised medical facility that provides advanced care in Paediatrics, Obstetrics, and Gynaecology. Malaysia is a central location for clinical research in paediatrics, obstetrics, and gynaecology. HTA recently commemorated the arrival of 19 infants on Malaysia's 66th Merdeka Day. The hospital functions as a tertiary referral facility, receiving referrals from around the country for various subspecialties. HTA functions as a teaching facility for physicians and other healthcare practitioners, providing educational programs at both the undergraduate and master's levels. The hospital also accommodates clinicians participating in programs such as MRCPCH and MRHOG. Nurses and allied health officials are also involved in advanced diploma programs. The Clinical Research Centre (CRC) of HTA, inaugurated in October 2019, is the 35th of its kind in the nation. Its primary role is to facilitate research endeavours within the health centres of the Ministry of Health (MOH).

The Institut Perubatan Respiratory (IPR) was founded in 1958 as a Ministry of Health Malaysia subsidiary. It is situated in Jalan Pahang, Kuala Lumpur. Its respiratory medicine and trauma treatments are widely recognised.

The researcher would include nurses from Hospital Kuala Lumpur, Hospital Rehabilitasi Cheras, Tunku Azizah (Wanita et al.) and Institut Perubatan Respiratori.

4. Data Analysis

To examine the direct relationships among the research constructs, multiple regression analysis was used. The method was employed to examine the mediating effect. The multiple regression technique provides an opportunity to explore the relationships among a set of independent variables and a dependent variable (Uplekar et al., 2013). In order to use multiple regression, several assumptions must be met. First, the tolerance values for all research constructs must be greater than 0.10, and the variance inflation factor (VIF) values must be less than 10, to avoid the problem of multicollinearity (Tomasallo et al., 2018). Second, the data must be normally distributed. Through SPSS calculations, all these conditions were met, and the hypotheses in this study were confirmed and validated.

To test the hypotheses of this study, multiple regression analysis was used. The detailed information is shown in the table below. The table indicates that workload and work hours both have a significant positive impact on subjective well-being, with a significance level of $p \leq 0.05$. According to the data, these listed variables and relationships together explained about 8% of the variance in subjective well-being, based on the adjusted R^2 value. The F-value was 8.224 and significant at $p \leq 0.05$. Furthermore, subjective well-being also explained 9% of the variance in work productivity in this relationship, also based on the adjusted R^2 value. The F-value was 9.114. Therefore, the hypothesis in this paper, namely, "There is a significant positive mediating role of subjective well-being in work productivity," is supported.

Summary.

The PLS-SEM analysis provided strong support for all six hypotheses. Openness, Conscientiousness, Extraversion, and Agreeableness positively influenced students' satisfaction, with emotion regulation significantly mediating these effects. Neuroticism, while negatively impacting students' satisfaction, could have its negative effects mitigated through effective emotion regulation. These findings underscore the importance of both teachers' personality traits and their ability to regulate emotions in enhancing student satisfaction within public universities in Yunnan, China. The results suggest that interventions aimed at improving emotion regulation among teachers could enhance their effectiveness, regardless of their inherent personality traits, ultimately leading to higher levels of student satisfaction.

5. Conclusion and Suggestions

This study provides an in-depth exploration of the mediating role of nurses' subjective well-being on work productivity in the Malaysian public healthcare industry. The study population included nurse groups from four major public hospitals in Kuala Lumpur - Hospital Kuala Lumpur, Rehabilitation Hospital, Tunku Azizah Hospital and the Institute of Respiratory Medicine. These hospitals occupy an important position in the Malaysian public health system and serve a large number of patients. The workload of nurses is quite heavy. Therefore, the study focused on workload, working hours and nurses' subjective well-being and their impact on work productivity.

The study used multiple regression analysis to examine the direct impact of workload and working hours on subjective well-being, as well as the role of subjective well-being as a mediating variable in this process. Through in-depth analysis of the data, the research results

show that both workload and working hours have a significant positive impact on nurses' subjective well-being, with a significance level of $p \leq 0.05$. This means that as workload and working hours increase, nurses' subjective well-being will be significantly affected. More importantly, however, research has found that subjective well-being plays a key mediating role between workload and work productivity.

Specifically, data analysis showed that the relationship between workload and working hours and subjective well-being jointly explained 8% of the variance in subjective well-being, based on adjusted R^2 values. In addition, the impact of subjective well-being on work productivity is equally significant, explaining 9% of the variance in work productivity. The F value is 9.114, and the significance level is $p \leq 0.05$. These data indicate that nurses' subjective well-being is not only directly affected by their working conditions, but that this well-being further affects their work efficiency and productivity.

Research also shows that improving nurses' subjective well-being is critical to improving their job performance. This means that the management of public hospitals should pay more attention to the mental health of nurses and improve the subjective well-being of nurses through reasonable work allocation, providing psychological support and improving the working environment, thereby indirectly improving the service quality and work efficiency of the entire hospital.

Overall, this study provides important insights into understanding the complex relationship between psychological factors and job performance in nurses' work environments. The results of the study not only verified the mediating role of subjective well-being in work productivity, but also emphasized the importance of improving nurses' subjective well-being to improve the quality of medical services in high-intensity work environments. This provides practical guidance to policymakers and hospital managers in the Malaysian public healthcare system to help them take more effective measures to safeguard the well-being of nurses and ultimately improve the overall level of healthcare services.

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