SA Journal of Human Resource Management
ISSN: (Online) 2071-078X, (Print) 1683-7584

The role of psychological capital and meaningful work in enhancing well-being

Authors:
Eka D. Aprilia[1,2]
Muhammad Adam[3]
Zulkarnain Zulkarnain[4]
Marty Mawarpury[1]

Affiliations:
[1]Department of Psychology, School of Medicine, Universitas Syiah Kuala, Aceh, Indonesia

[2]Graduate School of Mathematics and Applied Sciences, Universitas Syiah Kuala, Aceh, Indonesia

[3]Department of Management, Faculty of Economics, Universitas Syiah Kuala, Aceh, Indonesia

[4]Department of Industrial and Organizational Psychology, Faculty of Psychology, Universitas Sumatera Utara, Medan, Indonesia

Corresponding author:
Zulkarnain Zulkarnain,
zulkarnain3@usu.ac.id

Dates:
Received: 02 Feb. 2025
Accepted: 25 Mar. 2025
Published: 27 May 2025

How to cite this article:
Aprilia, E.D., Adam, M., Zulkarnain, Z., & Mawarpury, M. (2025). The role of psychological capital and meaningful work in enhancing well-being. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, *23*(0), a2984. https://doi.org/10.4102/sajhrm.v23i0.2984

Orientation: Physicians in developing countries are exposed to high stressors that seriously affect their well-being and work performance. Psychological capital (PsyCap) and meaningful work might be utilised to counter such adversities.

Research purpose: This study aims to identify the most suitable psychological well-being model for physicians to manage the high work demands of their profession.

Motivation for the study: With rising burnout among health professionals, there is an urgent need for Human Resource Management (HRM)-driven strategies to enhance employee well-being and sustain organisational effectiveness. By providing evidence-based insights, this research aims to inform HR practices that foster a healthier, more motivated workforce while improving overall organisational performance.

Research approach/design and method: Quantitative data were collected from 315 Indonesian physicians using three validated tools. This study employed scaling for data collection and utilised structural equation modelling (SEM) for data analysis.

Main findings: This study found that psychological capital positively influences both meaningful work and psychological well-being among physicians. Psychological capital emerged as the strongest predictor in the model, with its influence on well-being partially mediated by meaningful work. However, meaningful work showed a negative association with well-being, indicating that in high-stress settings, it may also act as a psychological burden.

Practical/managerial implications: By integrating PsyCap development and meaningful work strategies, HRM can create a supportive and fulfilling work environment, ultimately improving employee well-being, productivity and retention.

Contribution/value-add: By highlighting the role of PsyCap and meaningful work, this research provides valuable insights for organisations seeking to cultivate a motivated, fulfilled and high-performing workforce.

Keywords: psychological capital; meaningful work; psychological well-being; human resource management; resilience; physicians.

Introduction

The development of positive psychology is increasingly rapid. This has led to studies focusing on strengths and positive values, as psychological resilience is essential (Dhiman, 2021). In recent years, the role of psychological resources in shaping individual well-being, particularly in high-pressure jobs, has gained significant academic attention (Husin et al., 2021). Psychological well-being (PWB) in the workplace is a crucial issue that requires attention for several reasons (Ryff, 2019). Firstly, an individual's work experience, both emotional and social, directly affects their performance and well-being, extending beyond the workplace. Secondly, poor well-being negatively impacts employees and businesses, decreasing productivity, poor decision-making, higher absenteeism and reduced overall contribution. Ryff (2019) discovered that PWB promotes overall health by lowering stress levels and making the body more immune. According to other research, being happy improves health outcomes and lowers the likelihood of depression (Hayes et al., 2019; Lamers et al., 2012). A person's attitude towards work could be negatively affected by their mental health, leading to decreased productivity and an inability to give one's best to the job (Bakar et al., 2021).

Psychological capital (PsyCap) is crucial in physicians' well-being, job satisfaction and overall mental health (Burhanuddin et al., 2019; Luthans et al., 2015). Physicians in developing countries

like Indonesia often work under demanding conditions, leading to heightened emotional and psychological strain (Agustina et al., 2021; Handayani et al., 2020). Understanding the impact of PsyCap on well-being is essential for enhancing both individual health and organisational effectiveness in healthcare settings.

In this study, we examined physicians in Indonesia to determine whether meaningful work (MW) mediates the relationship between PsyCap and PWB. Previous research suggests that employees are more engaged and fulfilled when they believe their work positively impacts and aligns with their values (Lysova et al., 2019; Steger et al., 2012). Workers report higher job satisfaction when they perceive their work as meaningful and serving a greater purpose (Rosso et al., 2010). Studies indicate that MW is not merely a preference but a fundamental human need (Bailey et al., 2019). Furthermore, work provides significant meaning in life and shapes individual identity (Kristoffersen, 2021; Martela & Pessi, 2018).

Furthermore, a growing body of research suggests that finding MW benefits employees and organisations. Meaningful work has been linked to increased positive emotions (Bakker & De Vries, 2021), improved work quality, reduced absenteeism, greater employee involvement, higher job satisfaction and overall higher levels of engagement (Bauer & Hämmig, 2014; Naslund et al., 2021; Puchalska-Kamińska et al., 2019; Steger & Dik, 2009).

Nevertheless, in the context of fulfilling medical careers, limited research has specifically examined the underlying mechanisms through which PsyCap enhances mental health. A thorough review of existing literature in databases such as PsycINFO, PubMed and Google Scholar reveals that while PsyCap has been linked to well-being, studies often focus on its general benefits rather than the precise pathways it influences mental health outcomes. Notably, scholars such as Avey et al. (2011) have made significant contributions to this field, highlighting the positive impact of PsyCap on stress reduction and job satisfaction. However, research gaps remain regarding the specific cognitive, emotional and behavioural processes that mediate this relationship. Addressing these gaps could provide a more comprehensive understanding of how PsyCap fosters mental well-being. To address this knowledge gap, this study employs a quantitative research design to examine whether MW mediates the relationship between PsyCap and well-being. The conceptual framework of this study, which illustrates the proposed relationships among psychological capital, meaningful work, and psychological well-being, is presented in Figure 1.

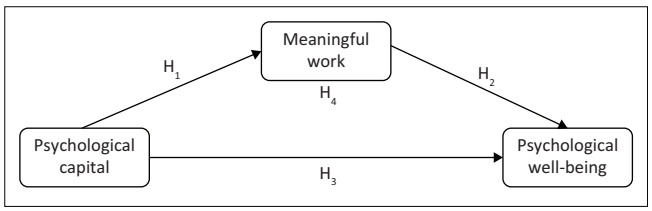


FIGURE 1: Research framework.

Literature review

Psychological capital and meaningful work

The Job Demands-Resources (JD-R) model was initially designed to examine how job-specific factors influence employee outcomes. However, as research evolved, individual differences were increasingly recognised as crucial in shaping how employees leverage work resources to meet job expectations, leading to their integration into the theory (Tummers & Bakker, 2021). This expansion highlights that personal resources, such as PsyCap, play a significant role in determining how individuals perceive and utilise job resources, ultimately influencing well-being and performance.

Previous studies have demonstrated that resources interact dynamically, reinforcing and generating new resources. Lupsa et al. (2020) found that PsyCap, as a personal resource, enhances an employee's ability to recognise, access and maximise available work-related resources. This interaction aligns with the broaden-and-build (B&B) theory, which suggests that positive psychological states contribute to accumulating additional resources over time. Supporting this perspective, Bakker et al. (2014) provided empirical evidence for the gain spiral effect, wherein job-related resources (e.g. social support and autonomy) foster personal resources (e.g. resilience and optimism), which, in turn, improve employees' ability to handle workplace demands. This dynamic interaction highlights the importance of a fair organisational system in sustaining employee well-being and performance. When employees perceive fairness in resource distribution, decision-making and workplace policies, their sense of autonomy and social support increases, reinforcing their resources. As a result, they are more motivated, engaged and willing to contribute to organisational goals, ultimately enhancing productivity (Zulkarnain et al., 2024a).

More recent studies have further validated these interactions. Mazzetti et al. (2023) found that employees with high PsyCap experience lower burnout levels and actively seek additional job resources, such as feedback and developmental opportunities, reinforcing their resilience and engagement. Van Wingerden et al. (2022) demonstrated that the reciprocal relationship between PsyCap and job resources leads to sustained well-being, increased job satisfaction and reduced turnover intentions. These findings suggest that investing in PsyCap interventions can create a self-reinforcing psychological and organisational benefits cycle, strengthening individual and company-wide outcomes.

Salanova et al. (2006) highlighted the dynamic interplay between individual learning experiences and workplace resources, stating that individuals, through learning experiences, may form stronger positive evaluations of themselves. In turn, they understand or create more resourceful work environments. This perspective emphasises the reciprocal relationship between personal and job-related resources, reinforcing that psychological and organisational factors are deeply interconnected. Furthermore, this finding supports the argument that

adaptability and resourcefulness are critical in fostering individual well-being and organisational effectiveness. Employees who continuously refine their skills and perspectives in response to changing circumstances enhance their professional growth and contribute to creating a more supportive and positive work environment. This self-reinforcing cycle ultimately benefits employees and organisations by cultivating a culture of continuous improvement, satisfaction and collective success.

Although the body of literature on PsyCap and its impact on meaningful employment is expanding, there remains a need for more concrete empirical evidence demonstrating this relationship. This gap aligns with the finding of Salanova et al. (2006), who identified a scarcity of research on developing personal resources such as optimism, self-confidence and cognitive resilience. The limited studies exploring how PsyCap fosters MW emphasises the need for a more integrated theoretical framework synthesising these constructs. Integrating the perspectives of PsyCap and MW within a unified paradigm would highlight their interdependence rather than treating them as separate factors. Such an approach would recognise that PsyCap strengthens employees' psychological resources and enhances their ability to find purpose and fulfilment in their work. Employees with high PsyCap are more likely to reframe challenges as opportunities for growth, actively seek job resources and cultivate a more profound sense of meaning in their professional roles:

H1: *Psychological capital positively influences the meaningful work of physicians*.

Meaningful work and psychological well-being

Lysova et al. (2019) emphasise that MW arises when individuals perceive it as significant, serving a broader purpose and aligning with their values. Numerous studies have established a strong link between meaningful employment and positive psychological outcomes, including increased job satisfaction, reduced stress and enhanced PWB (Chung et al., 2020; Csordás et al., 2022; Pavlish & Hunt, 2012; Steger et al., 2012). Meaningful work serves as a source of fulfilment and as a psychological buffer against workplace stressors. Specifically, Carayon et al. (2014) found that individuals who perceive their work as meaningful are more likely to develop a sense of purpose, which mitigates the negative effects of work-related stress and enhances overall resilience.

This protective function is particularly relevant in high-pressure environments such as healthcare, where professionals frequently encounter emotional and physical stressors. Meaningful work has been identified as crucial in promoting job satisfaction, intrinsic motivation and overall PWB among healthcare workers (Blustein et al., 2023). When employees recognise the significance of their contributions, whether in patient care, medical research or administrative roles, they experience a greater sense of professional fulfilment, reducing burnout and enhancing long-term engagement:

H2: *Meaningful work directly influences the well-being of physicians*.

Psychological capital and psychological well-being

The four pillars of emotional intelligence for effective organisational behaviour are self-efficacy, optimism, hope and resilience (Burhanuddin et al., 2019; Luthans et al., 2015). According to research, job satisfaction, mental health and overall life satisfaction are just a few areas of employee well-being positively correlated with these components of PsyCap (Avey, 2014). In order to keep up high levels of psychological functioning and manage stress at work, PsyCap gives people the tools they need to be mentally resilient.

In the healthcare business, PsyCap is important. Healthcare personnel frequently encounter emotionally taxing scenarios, such as patient care, lengthy working hours and high clinical performance expectations (Embriaco et al., 2012; Husin et al., 2021; Schäfer et al., 2020). These responsibilities can deplete PWB over time, rendering PsyCap priceless. Specifically, hope and optimism enable healthcare workers to envision positive outcomes despite challenges, while resilience enables them to bounce back from setbacks (Avey, 2014; Britt et al., 2016). Self-efficacy, or the belief in one's abilities, further empowers healthcare workers to feel competent in handling complex tasks, thereby contributing to PWB:

H3: *Psychological capital predicts the psychological well-being of physicians*.

The mediating role of meaningful work

Although the direct impact of PsyCap on well-being has been well documented (Luthans et al., 2015), less attention has been paid to potential mediating factors that may explain this relationship. Recent studies suggest that variables such as MW (Steger et al., 2012), job engagement (Mazzetti et al., 2023) and perceived organisational support (Van Wingerden et al., 2022) may serve as crucial mediators, shaping how PsyCap translates into enhanced well-being. Understanding these mediating mechanisms is essential for developing targeted interventions that maximise the benefits of PsyCap in workplace settings. One potential mediator in this relationship is MW. According to the broaden-and-build theory of positive emotions, individuals with greater access to psychological resources, such as PsyCap, are more likely to perceive their work as meaningful (Moreno et al., 2024; Oh et al., 2019; Zanotelli et al., 2022). This aligns with the notion that the workplace is a fundamental aspect of an employee's life and significantly influences their well-being (Zulkarnain et al., 2023).

Empirical evidence supporting this mediation effect remains limited, particularly in healthcare. Grover et al. (2018) found a positive correlation between nurses' perceptions of MW and their PsyCap, suggesting that psychological resources may help individuals find purpose and meaning in their professional roles. The mediating function of fulfilling employment in the relationship between PsyCap and well-being has received less attention in the healthcare industry, despite growing evidence linking these constructs in broader

occupational settings (Luthans et al., 2015). Given the high-stress nature of healthcare professions, MW has been identified as a crucial factor in buffering against burnout and promoting resilience (Blustein et al., 2023; Carayon et al., 2014). However, limited empirical research has specifically examined how meaningful employment mediates the effects of PsyCap on healthcare workers' well-being. Investigating this relationship could provide valuable insights for improving job satisfaction, mental health and retention rates in the healthcare sector.

Building on previous research, this study explores whether MW mediates the relationship between PsyCap and PWB. Physicians with high levels of PsyCap are more likely to perceive their work as impactful, leading to improved mental health:

H4: *Meaningful work mediates the relationship between psychological capital and psychological well-being.*

Method

Samples and procedures

The sample for this study comprised 315 physicians, including general practitioners and specialists. Participants were recruited through a combination of online and offline methods, utilising purposive sampling to ensure that all individuals had held their respective positions for at least 1 year. To obtain a more comprehensive demographic profile, participants were also asked to provide additional information on their identity sheets, including gender, highest level of education, marital status, work unit, length of service and annual income.

This study examines the contribution of PsyCap and MW to PWB among physicians. The analysis that will be used is structural equation modelling (SEM) analysis through the JASP (Jeffreys's Amazing Statistics Program) application, an open-source and free program for statistical analysis from the University of Amsterdam. The analysis model in this study uses a SEM full model with mediators. A model is considered a full model if it contains a measurement and structural model. A model fit test states whether a model is fit; fit testing is conducted (goodness of fit). Several parameters can be used as a basis for model fit tests. This research uses the parameters based on the ratio of Chi-square minimum discrepancy to degrees of freedom (CMIN/*df*), comparative fit index (CFI), Tucker–Lewis index (TLI), goodness-of-fit index (GFI), standardised root mean square residual (SRMR) and root mean square error of approximation (RMSEA) values (Hair et al., 2011, 2012). A model is declared fit or feasible if at least one criterion is met. The model is better if it can fulfil more than one fit parameter.

Measurement

The Psychological Capital Questionnaire-12 (PCQ-12), a 12-item assessment tool, was developed by Luthans et al. (2007). This questionnaire evaluates optimism, self-efficacy, resilience and hope. In this study, the PCQ-12 demonstrated adequate internal consistency (α = 0.880).

Steger et al. (2012) utilised the 10-item Work and Meaning Inventory (WAMI) to assess MW. This assessment explores three key dimensions of MW: positive meaning in work, meaning-making through work and greater good motivation. The WAMI has demonstrated adequate reliability (α = 0.901).

Ryff and Keyes (1995) developed the PWB scale to assess participants' emotional and mental health. This study utilised a scale comprising six key components: personal growth, self-acceptance, positive relationships, environmental mastery, life purpose and autonomy. An 18-item version of the scale was employed in this research. The findings indicated the scale's acceptable reliability (α = 0.810).

Measurement scale suitability test

The research scale underwent several tests, including a feasibility assessment, by submitting a research ethics protocol to the Indonesian Scientific Psychology Consortium (KPIN) Ethics Committee for review. The next stage involved a confirmatory factor analysis (CFA) validity test. When examining the loading factor matrix, a value of approximately 0.3 is considered the minimum acceptable threshold (Hair et al., 1998). Ideally, a loading factor value of around 0.4 is recommended, while values exceeding 0.5 are generally deemed significant. As shown in Table 1, all items across the three scales have an MSA > 0.5, indicating that all variables remain predictable and suitable for further analysis. Additionally, the loading factor values exceed 0.5, confirming their validity. Below is a table displaying the loading factor results following JASP data processing.

Data analysis and results

The demographic data collected will be used to categorise the respondents in this study. As shown in Table 2,

TABLE 1: Factor analysis of variable scale.

Research instruments	Indicators	MSA	Factor loading
Psychological capital questionnaire	Self-efficacy	0.86–0.92	0.73–0.90
	Hope	0.90–0.96	0.50–0.80
	Resiliency	0.90–0.93	0.69–0.77
	Optimism	0.92–0.93	0.75–0.84
Work and meaning inventory	Positive meaning	0.92–0.95	0.70–0.84
	Meaning-making through work	0.90–0.95	0.74–0.82
	Greater good motivation	0.92–0.94	0.57–0.85
Ryff's psychological well–being	Autonomy	0.63–0.66	0.70–0.75
	Environmental mastery	0.69–0.72	0.67–0.84
	Personal growth	0.73–0.75	0.72–0.72
	Positive relationship	0.72–0.75	0.71–0.81
	Purpose in life	0.58–0.60	0.77–0.85
	Self-acceptance	0.58–0.59	0.76–0.78

MSA, measure of sampling adequacy.

general practitioners recorded the highest mean PWB score (48.27), followed by specialists (46.97). This suggests that general practitioners may feel more satisfied with their PWB because they have a more structured workload and realistic expectations than specialists. Specialist doctors had the highest PsyCap score (58.16), which suggests they have greater confidence in their ability to deal with work challenges. This may be because they have undergone advanced training that provides additional skills and greater confidence in dealing with complex situations. Specialists also had a higher MW score (34.47), indicating that they find their work more meaningful, possibly because they have a more important role in decision-making and significantly contribute to patient outcomes.

The younger age group (20–34 years) had a slightly higher MW score (33.48) compared to the older group (32.90). This may be because younger individuals are still in the early phase of their careers and are more optimistic about prospects and personal growth. In contrast, the older group may face challenges, such as job burnout or greater responsibility, which may affect their PWB. The PsyCap scores between the two age groups are very close, with an average score of 56.98 for 35-55-year-olds and 57.06 for 20–34-year-olds. This suggests that both age groups have similar levels of PsyCap, which may reflect the importance of training and work experience in developing the resilience, optimism and hope needed to succeed in the world of work. The younger age group (20–34 years) had a slightly higher MW score (33.48) than the older group (32.90). This suggests that younger individuals may have higher expectations of the meaning of their work and seek jobs that are more in line with their values and goals.

Meanwhile, when viewed based on the number of practice sites, the PWB score steadily increases, indicating that practice sites positively impact individuals' PWB. PsyCap scores also increased with the number of practice sites, suggesting that practice sites help individuals develop higher self-confidence, optimism and resilience. Similarly, MW scores also increased with the number of practice sites, indicating that practice sites can help individuals find more meaning in their work by providing additional skills and knowledge.

The SEM results reveal that PsyCap has a positive and significant influence on MW, with a regression coefficient of 0.66 ($p < 0.001$). This finding emphasises the important role of PsyCap in contributing to MW. Meaningful work significantly negatively affects PWB, with a regression coefficient of –0.15 ($p < 0.001$), indicating an inverse relationship. In contrast, PsyCap significantly positively influences PWB, with a regression coefficient of 0.28 ($p < 0.001$). The results are shown in Table 3.

This model involves MW, PWB and PsyCap. Model fit indices indicate that the model fits the data: CFI = 0.97. TLI = 0.97, RMSEA = 0.05 and GFI = 0.95. All these indicate that the model fits well, as the values are within the expected bounds. All key indicators indicate that the model fits in absolute and relative terms. The model validates the relationship between PsyCap, MW and PWB regarding PWB at work. The relationships among variables

TABLE 3: Regression matrix between variables in multiple regression analysis.

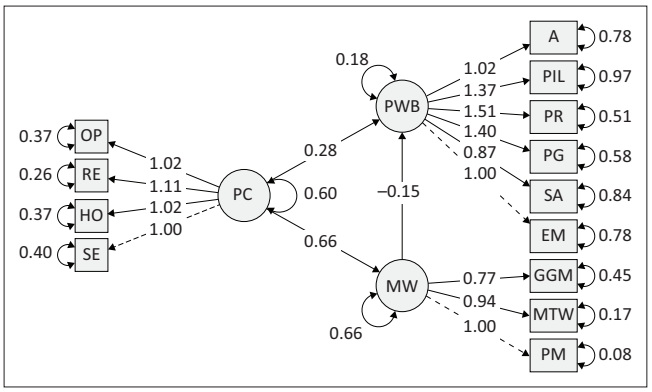
Outcome	Predictor	Estimate	SE	z	p
MW	PsyCap	0.66	0.08	8.908	< 0.001
PWB	MW	-0.15	0.04	-3.449	< 0.001
	PsyCap	0.28	0.06	4.512	< 0.001

SE, standard error; PWB, psychological well-being; PsyCap, Psychological capital; MW, meaningful work.

TABLE 2: Descriptive statistics of respondents ($N = 315$).

Description	PsyCap				Meaningful work				PWB			
	Valid	Missing	Mean	SD	Valid	Missing	Mean	SD	Valid	Missing	Mean	SD
Profession												
Specialist	98	0	57.39	4.57	98	0	33.94	6.41	98	0	47.14	9.07
General practitioner†	217	0	56.85	4.45	217	0	32.81	8.62	217	0	47.56	8.87
Gender												
Male	121	0	58.94	7.44	121	0	33.71	4.51	121	0	48.24	9.07
Female†	194	0	55.82	8.11	194	0	32.81	4.48	194	0	46.92	8.82
Age (years)												
20–34	141	0	57.06	8.30	141	0	33.48	4.83	141	0	47.51	8.14
35–55	174	0	56.98	7.76	174	0	32.90	4.23	174	0	47.36	9.54
Practice site												
1†	201	0	56.20	8.58	201	0	32.91	4.59	201	0	47.69	8.69
2	87	0	58.18	6.74	87	0	32.98	3.93	87	0	46.82	9.70
3	26	0	58.89	5.98	26	0	35.46	5.12	26	0	47.15	8.23
4	1	0	71.00	0.00	1	0	39.00	0.00	1	0	54.00	0.00
Length of service (hours)												
< 2	40	0	57.85	8.89	40	0	33.55	4.94	40	0	49.38	7.73
3–10	193	0	56.86	8.00	193	0	33.32	4.49	193	0	47.17	9.26
> 10	82	0	56.99	7.58	82	0	32.59	4.34	82	0	47.09	8.63

SD, standard deviation; PWB, Psychological well-being; PsyCap, Psychological capital.
†, the highest mean score within the respective demographic category.



PC, psychological capital; SE, self-efficacy; HO, hope; RE, resilience; OP, optimism; MW, meaningful work; PM, positive meaning; MTW, meaning-making through work; GGM, greater good motivation; PWB, psychological well-being; PG, personal growth; SA, self-acceptance; PR, positive relationships; EM, environmental mastery; PIL, purpose in life; A, autonomy.

FIGURE 2: Mediation model of psychological well-being in physician.

in the model align with the theoretical framework, indicating that PsyCap positively contributes to both MW and PWB. However, the impact of MW on PWB is complex, as it may also serve as a source of stress depending on the context. The results of the structural equation model, including the mediating role of meaningful work, are illustrated in Figure 2.

Ethical considerations

Ethical clearance to conduct this study was obtained from the Indonesian Scientific Psychology Consortium (KPIN) Ethics Committee for review (No. 011/2023).

Discussion

This study emphasises the critical role of PsyCap and MW in enhancing the PWB of physicians in Indonesia, offering valuable insights for Human Resource Management (HRM) strategies in healthcare settings. The findings highlight the intricate relationship between PsyCap, perceived purpose of work and psychological health, particularly within high-stress occupations such as healthcare. Importantly, MW moderates the relationship between PsyCap and PWB, strengthening its direct impact and fostering well-being among healthcare professionals.

From an HRM perspective, these findings have significant implications for talent management, employee development and organisational well-being initiatives. Psychological capital directly influences PWB by equipping individuals with the psychological resources to navigate workplace challenges effectively (Lupsa et al., 2020; Nguyen et al., 2024; Tan et al., 2021). The four dimensions of PsyCap – optimism, hope, resilience and self-efficacy – enable employees to sustain PWB, even under extreme pressure (Avey, 2014). For instance, an optimistic healthcare professional is more likely to perceive challenges as opportunities, while resilience enables them to recover quickly from setbacks, such as patient losses or medical errors (Burhanuddin et al., 2019). These attributes are particularly crucial in healthcare professions, which demand high emotional engagement, complex decision-making and long working hours (Tai-Seale et al., 2019).

However, the results of this study suggest that PsyCap's influence on PWB is amplified when employees find meaning in their work. In other words, health professionals with high PsyCap derive greater PWB when they perceive their work as meaningful rather than relying solely on their psychological strengths (Erkutlu, 2014; Nguyen et al., 2024; Tan et al., 2021). This indicates that HRM interventions should focus on strengthening PsyCap and fostering a sense of purpose and MW among healthcare employees. Organisations can achieve this through leadership development, job design and workplace culture initiatives that reinforce the intrinsic value of medical work. By integrating PsyCap development with MW initiatives, HRM professionals can create a more resilient, engaged and psychologically healthy workforce in the healthcare sector. These insights emphasise the importance of holistic HR strategies beyond traditional employee motivation and well-being programmes, addressing work engagement's deeper psychological and emotional aspects.

Meaningful work acts as a catalyst that deepens the positive impact of PsyCap (Papanicolas et al., 2018). Individuals with high perceived MW see it as a routine task and part of a larger life purpose (Steger & Dik, 2009). For example, physicians who feel that their work directly contributes to the well-being of patients and society tend to be more intrinsically motivated, more resilient to work pressure and more satisfied with life overall (Blustein et al., 2023; Steger et al., 2019). Route analysis findings demonstrated that PsyCap's influence on PWB via job meaning was more substantial than the direct route, lending credence to this finding in the present investigation (Nguyen et al., 2024).

This study reveals a negative and significant relationship between MW and PWB, suggesting that work meaningfulness can be a source of distress if not effectively managed. While MW is often viewed as a positive resource, it can become an emotional burden because of the high expectations, time pressure and sense of responsibility it entails (Chung et al., 2020; Hill, 2017; Tai-Seale et al., 2019). For example, a social worker may find deep moral value in their job but experience emotional exhaustion from its relentless demands (Lupsa et al., 2020). This highlights the paradox of MW – while it enhances motivation, it can also strain PWB when coupled with excessive stress (West et al., 2018). The findings agree that MW must be carefully managed to avoid its potential negative consequences (Allan et al., 2018).

From an HRM perspective, these results emphasise the importance of PsyCap as a key mechanism for managing the challenges associated with MW. Employees with high PsyCap – optimism, resilience, self-efficacy and hope – are better equipped to transform work meaning into a source of motivation rather than stress (Tan et al., 2021). In this sense,

PsyCap acts as a psychological buffer, helping employees reframe demanding job roles as opportunities for growth rather than burdens.

Furthermore, MW serves as a catalyst that strengthens the positive impact of PsyCap on PWB (Papanicolas et al., 2018). Employees who perceive their work as meaningful integrate it into their broader life purpose, making them more intrinsically motivated, resilient to work pressures and satisfied with life overall (Steger & Dik, 2009). For instance, physicians who believe their work contributes directly to societal well-being tend to experience greater resilience, motivation and psychological fulfilment (Blustein et al., 2023; Steger et al., 2019).

The route analysis findings further reinforce this argument, demonstrating that the indirect effect of PsyCap on PWB via MW was stronger than its direct effect (Nguyen et al., 2024). This suggests that HRM strategies should focus on developing employees' PsyCap and fostering a healthy work environment that balances meaningfulness with sustainable well-being. Leadership development, supportive work cultures and job design strategies that mitigate excessive job strain are critical for ensuring that MW enhances rather than diminishes PWB.

The broaden-and-build hypothesis provides a theoretical foundation for understanding the relationship between these variables (Tan et al., 2021). According to this theory, positive psychological resources, such as PsyCap, enable individuals to expand their cognitive and emotional capacities, find purpose in their work and develop new psychological resources that contribute to overall well-being. When individuals possess high levels of PsyCap, they are more likely to perceive their work as meaningful and, in turn, experience greater emotional and PWB in their professional roles. A strong belief in one's abilities fosters a more profound sense of purpose in work, reinforcing long-term engagement and satisfaction. Employees who feel that their work has meaning are more likely to invest effort and remain committed, even in challenging circumstances. This aligns with the gain spiral effect, where personal resources such as PsyCap enhance job engagement, strengthening employees' organisational commitment and readiness to contribute to institutional growth (Zulkarnain et al., 2024b).

This study highlights the crucial mediating role of MW in the relationship between PsyCap and PWB. Physicians who perceive their work as having significant purpose and social value report higher levels of PWB (Linzer et al., 2016; Maharani et al., 2019). The belief that their efforts directly impact the well-being of patients and society provides intrinsic motivation, helping them navigate professional challenges and workplace stressors (Chen et al., 2020).

This relationship is particularly relevant to Indonesia's healthcare system, where general practitioners (GPs) serve as crucial frontline providers (Daryanto et al., 2022). Most respondents in this study were GPs, a group often required to work under high-pressure conditions, with limited resources and demanding patient loads (Schäfer et al., 2020). Despite these challenges, physicians with high PsyCap scores were more likely to perceive their work as having a meaningful impact on society, enhancing their overall PWB (Michaelson, 2011).

The fact that most respondents were between 20 and 40 years old provides valuable insight into how PsyCap and MW influence well-being at different career stages. Younger physicians often experience pressure to establish their careers and attain financial stability (Chung et al., 2020; Maharani et al., 2019; Syam et al., 2016). In this context, PsyCap is crucial in helping individuals navigate workplace challenges and enhance their adaptability. In contrast, physicians aged 40 years and above exhibited higher levels of PWB, likely because of their extensive work experience, which fosters a stronger sense of purpose in their professional roles (Chung et al., 2020; Mishra & Venkatesan, 2023). This accumulated experience allows them to integrate their work into their identity and life purpose, reinforcing the connection between MW and well-being (Irving et al., 2017).

The study's predominance of female respondents further highlights the gender dimension of PWB among healthcare professionals. Women in the healthcare sector often face the dual challenge of balancing professional responsibilities with family obligations (Maharani et al., 2019). In this context, PsyCap is a valuable resource for navigating these demands. Optimism and hope enable women to remain engaged and committed to their work, while resilience helps them manage the stress of juggling multiple responsibilities (Lupsa et al., 2020; Nguyen et al., 2024). By fostering these positive psychological resources, PsyCap may enhance well-being and job satisfaction among female healthcare professionals.

The findings also suggest that additional demographic factors like education level and work experience may shape individuals' perceptions of work meaning. Respondents with higher levels of education, particularly specialists and subspecialists, may develop stronger perceptions of MW because of the complexity and significance of their professional responsibilities. Similarly, healthcare professionals with more than 10 years of work experience tend to derive more excellent long-term value from their roles, which may contribute to enhanced PWB (Basuki et al., 2013; Daryanto et al., 2022). Advanced education and prolonged professional experience can deepen individuals' sense of purpose in their work, ultimately fostering greater job satisfaction and overall well-being.

Overall, this study contributes theoretical value by demonstrating the impact of PsyCap and MW on the PWB of healthcare workers. The findings reinforce the need for a comprehensive well-being approach, emphasising individual capabilities development and creating a supportive work environment (Haizlip et al., 2020). For example, interventions aimed at

enhancing PsyCap, such as resilience and optimism training, could be combined with programmes focused on creating meaning at work, such as recognising healthcare workers' contributions to patients or society (Gupta et al., 2017).

From a practical perspective, these findings suggest that healthcare organisations should develop strategies to enhance PsyCap and create MW experiences. Professional development programmes, resilience training and recognition of physicians' contributions can serve as effective measures to improve their well-being. Additionally, interventions considering demographic factors like age and work experience may yield more impactful results. Young physicians could benefit from self-efficacy training to help them adapt to job demands. In contrast, senior physicians might be supported through programmes emphasising their work's long-term societal impact.

Limitation of study

This study highlights the role of PsyCap and MW in enhancing physicians' PWB but has some limitations. Firstly, self-reported data may introduce bias; future research should include objective measures like supervisor evaluations or patient feedback. Secondly, while demographic factors were considered, workplace culture, job demands and organisational support were not examined as potential moderators. Exploring these factors could provide a more comprehensive understanding of physician well-being. Thirdly, the study's focus on Indonesia limits its generalisability. Comparative studies across different healthcare systems and cultures are needed. Despite these limitations, the findings offer practical insights for PsyCap-based interventions to support physicians' resilience, engagement and sense of purpose.

Conclusion

This study demonstrates that PsyCap significantly enhances physicians' PWB directly and through mediating MW. The findings emphasise PsyCap as a crucial individual resource that enables physicians to manage work-related stress while fostering a sense of intrinsic value in their profession. Notably, MW is not merely a supplementary factor in this relationship but a key determinant that amplifies the impact of PsyCap on well-being. When physicians perceive their work as meaningful, they experience higher motivation, job satisfaction and emotional resilience. Moreover, the study confirms that the influence of PsyCap on PWB is not simply linear but involves complex psychological processes shaped by work meaning. As such, organisational interventions aimed at strengthening PsyCap should also incorporate strategies to enhance physicians' perceptions of the significance of their work. Initiatives such as recognising their contributions to public health and fostering opportunities for reflection on the positive impact of their work can be instrumental in this regard. The study also highlights the complexity of demographic dynamics, including age, work experience and education variations, indicating that physicians' well-being needs are multidimensional. Differences in educational background and professional experience suggest that perceptions of MW may vary, emphasising the need for tailored approaches. PsyCap emerges as a crucial psychological resource that enhances physicians' PWB by mitigating the adverse effects of financial challenges and work pressures. Psychological capital helps physicians manage workplace stressors, maintain emotional stability and sustain motivation in demanding medical environments by fostering resilience, optimism and self-efficacy. This study contributes to the literature on physician well-being by considering the specific characteristics of respondents within the Indonesian healthcare context, offering insights into how PsyCap supports mental health in diverse professional settings. Furthermore, the findings emphasise the importance of PsyCap-based interventions tailored to physicians' demographic and occupational profiles. Such interventions could enhance resilience, promote work engagement and strengthen job satisfaction, ultimately safeguarding physicians' PWB in high-pressure medical environments.

Acknowledgements

We would like to thank all the physicians who took the time to be involved in this study.

This article is partly based on the author's E.D.A.'s dissertation entitled, 'The Influence of Psychological Capital and Quality of Work Life on Improving Psychological Wellbeing of Medical Personnel with Meaningfulness of Work as a Mediator', towards the degree of PhD at the Graduate School of Mathematics and Applied Sciences, Syiah Kuala University, Indonesia, with supervisors Prof. Muhammad Adam, Prof. Zulkarnain, and Dr. Marty Mawarpury, received March 25, 2025.

Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

E.D.A. did the research, authored the manuscript, revised it and managed the article submission. M.A. created the theoretical framework and conceptualised the main research idea. Z.Z. supervised and refined the manuscript and oversaw its development; M.M. anchored the review and revisions.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

The data that support the findings of this study are available from the corresponding author, E.D.A., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency or that of the publisher. The authors are responsible for this article's results, findings and content.

References

Agustina, T.S., Rarastanti, P.D., & Hidayat, A.F. (2021). Stress and job performance of healthcare workers amidst COVID-19 Pandemic: The mediating role of burnout. *Shirkah: Journal of Economics and Business, 6*(3), 315–335. https://doi.org/10.22515/shirkah.v6i3.379

Allan, B.A., Dexter, C., Kinsey, R., & Parker, S. (2018). Meaningful work and mental health: Job satisfaction as a moderator. *Journal of Mental Health, 27*(1), 38–44. https://doi.org/10.1080/09638237.2016.1244718

Avey, J.B. (2014). The left side of psychological capital: New evidence on the antecedents of PsyCap. *Journal of Leadership & Organizational Studies, 21*(2), 141–149. https://doi.org/10.1177/1548051813515516

Avey, J.B., Reichard, R.J., Luthans, F., & Mhatre, K.H. (2011). Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance. *Human resource development quarterly, 22*(2), 127–152.

Bailey, C., Yeoman, R., Madden, A., Thompson, M., & Kerridge, G. (2019). A review of the empirical literature on meaningful work: Progress and research agenda. *Human Resource Development Review, 18*(1), 83–113.

Bakar, M.S.B.A., Saputra, J., Omar, K., & Bon, A.T. (2021). A review of employees' well-being, psychological factors and its effect on job performance literature. In *Proceedings of the International Conference on Industrial Engineering and Operations Management* (pp. 5641–5652), March 7–11. Singapore.

Bakker, A.B., & De Vries, J.D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress and Coping, 34*(1), 1–21. https://doi.org/10.1080/10615806.2020.1797695

Bakker, A.B., Demerouti, E., & Sanz-Vergel, A.I. (2014). Burnout and work engagement: The JDR approach. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 389–411. https://doi.org/10.1146/annurev-orgpsych-031413-091235

Basuki, B., Priyudha, P.A., & Ismail, R.I. (2013). Several factors increased job dissatisfaction among medical doctors in Indonesia. *Health Science Indones, 4*(1), 11–17.

Bauer, G.F., & Hämmig, O. (2014). Bridging occupational, organizational and public health: A transdisciplinary approach. *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach, 9789400756*, 1–249. https://doi.org/10.1007/978-94-007-5640-3

Blustein, D.L., Lysova, E.I., & Duffy, R.D. (2023). Understanding decent work and meaningful work. *Annual Review of Organizational Psychology and Organizational Behavior, 10*, 289–314. https://doi.org/10.1146/annurev-orgpsych-031921-024847

Britt, T.W., Shen, W., Sinclair, R.R., & Klieger, D.M. (2016). How much do we know about employee resilience? *Industrial and Organizational Psychology: Perspectives on Science and Practice, 9*(2), 378–404. https://doi.org/10.1017/iop.2015.107

Burhanuddin, N.A.N., Ahmad, N.A., Said, R.R., & Asimiran, S. (2019). A systematic review of the psychological capital (PsyCap) research development: Implementation and gaps. *International Journal of Academic Research in Progressive Education and Development, 8*(3), 133–150. https://doi.org/10.6007/ijarped/v8-i3/6304

Carayon, P., Wetterneck, T.B., Rivera-Rodriguez, A.J., & Hundt., A.S. (2014). Human factors systems approach to healthcare quality and patient safety. *Applied Ergonomics, 45*(1), 14–25. https://doi.org/10.1016/j.apergo.2013.04.023

Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., He, L., Sheng, C., Cai, Y., Li, X., Wang, J., & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry, 7*(4), e15–e16. https://doi.org/10.1016/S2215-0366(20)30078-X

Chung, S., Dillon, E.C., Meehan, A.E., Nordgren, R., & Frosch, D.L. (2020). The relationship between primary care physician burnout and patient-reported care experiences: A cross-sectional study. *Journal of General Internal Medicine, 35*(8), 2357–2364. https://doi.org/10.1007/s11606-020-05770-w

Csordás, G., Matuszka, B., Sallay, V., & Martos, T. (2022). Assessing meaningful work among Hungarian employees: Testing psychometric properties of work and meaning inventory in employee subgroups. *BMC Psychology, 10*(1), 1–11. https://doi.org/10.1186/s40359-022-00749-0

Daryanto, B., Putri, F.R., Kurniawan, J., Ilmawan, M., & Fajar, J.K. (2022). The prevalence and the associated sociodemographic-occupational factors of professional burnout among health professionals during COVID-19 pandemic in Malang, Indonesia: A cross-sectional study. *Frontiers in Public Health, 10*(July), 1–9. https://doi.org/10.3389/fpubh.2022.894946

Dhiman, S.K. (2021). *The Palgrave handbook of workplace well-being*. Springer International Publishing.

Embriaco, N., Hraiech, S., Azoulay, E., Baumstarck-Barrau, K., Forel, J.M., Kentish-Barnes, N., Pochard, F., Loundou, A., Roch, A., & Papazian, L. (2012). Symptoms of depression in ICU physicians. *Annals of Intensive Care, 2*(1), 34. https://doi.org/10.1186/2110-5820-2-34

Erkutlu, H. (2014). Exploring the moderating effect of psychological capital on the relationship between narcissism and psychological well-being. *Procedia – Social and Behavioral Sciences, 150*, 1148–1156. https://doi.org/10.1016/j.sbspro.2014.09.130

Grover, S.L., Teo, S.T., Pick, D., Roche, M., & Newton, C.J. (2018). Psychological capital as a personal resource in the JD-R model. *Personnel Review, 47*(4), 968–984.

Gupta, M., Shaheen, M., & Reddy, P.K. (2017). Impact of psychological capital on organizational citizenship behaviour: Mediation by work engagement. *Journal of Management Development, 36*(7), 973–983. https://doi.org/10.1108/JMD-06-2016-0084

Hair Jr, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate data analysis 5th ed Prentice Hall Upper Saddle River.* NJ. Retrieved n.d. from https://www. scirp.org/(S(351jmbntvnsjt1aadkpo szje))/reference/ReferencesPapers.aspx

Hair, J.F., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice, 19*(2), 139–152. https://doi.org/10.2753/MTP1069-6679190202

Hair, J.F., Sarstedt, M., Ringle, C.M., & Mena, J.A. (2012). An assessment of partial least squares structural equation modelling in marketing research. *Journal of the Academy of Marketing Science, 40*, 414–433. https://doi.org/10.1007/S11747-011-0261-6

Haizlip, J., McCluney, C., Hernandez, M., Quatrara, B., & Brashers, V. (2020). Mattering: How can organizations, patients, and peers affect nurse burnout and engagement? *Journal of Nursing Administration, 50*(5), 267–273. https://doi.org/10.1097/NNA.0000000000000882

Handayani, R.T., Suminanto, S., Darmayanti, A.T., Widiyanto, A., & Atmojo, J.T. (2020). Conditions and strategy for anxiety in health workers during the COVID-19 pandemic. *Jurnal Ilmu Keperawatan Jiwa, 3*(3), 365–374. https://doi.org/10.32584/JIKJ.V3I3.643

Hayes, B., Prihodova, L., Walsh, G., Doyle, F., & Doherty, S. (2019). Doctors do not do little: A national cross-sectional study of workplace well-being of hospital doctors in Ireland. *BMJ Open, 9*(3), 13–15. https://doi.org/10.1136/bmjopen-2018-025433

Hill, A.B. (2017). Breaking the stigma: A physician's perspective on self-care and recovery. *New England Journal of Medicine, 376*(12), 1103–1105. https://doi.org/10.1056/NEJMP1615974

Husin, M., Muzakki, N., Murtopo, A.S., Basinska, B.A., Rozkwitalska, M., Sholikhah, Z., Sari, D.P., Nurhayani, S., Noviyanti, Y., Lubis, R., Hardjo, S., Bloom, N., Van Reenen, J., Wardani, L.M.I., Anwar, M.S., Tan, K.L., Lew, T.Y., Sim, A.K.S., Aboobaker, N., & Saraswati, K.D.H. (2021). Meaningful work, quality of work-life, and job satisfaction: A study of nightlife workers. *Europe's Journal of Psychology, 5*(1), 9–20. https://doi.org/10.32591/coas.ojpr.0501.02009s

Irving, G., Neves, A.L., Dambha-Miller, H., Oishi, A., Tagashira, H., Verho, A., & Holden, J. (2017). International variations in primary care physician consultation time: A systematic review of 67 countries. *BMJ Open, 7*(10), e017902. https://doi.org/10.1136/BMJOPEN-2017-017902

Kristoffersen, M. (2021). Solidarity in a community of nursing colleagues. *SAGE Open Nursing, 7*, 1–11. https://doi.org/10.1177/23779608211009514

Lamers, S.M.A., Bolier, L., Westerhof, G.J., Smit, F., & Bohlmeijer, E.T. (2012). The impact of emotional well-being on long-term recovery and survival in physical illness: A meta-analysis. *Journal of Behavioral Medicine, 35*(5), 538–547. https://doi.org/10.1007/S10865-011-9379-8

Linzer, M., Poplau, S., Babbott, S., Collins, T., Guzman-Corrales, L., Menk, J., Lou Murphy, M., & Ovington, K. (2016). Worklife and wellness in academic general internal medicine: Results from a National Survey. *Journal of General Internal Medicine, 31*(9), 1004–1010. https://doi.org/10.1007/s10865-011-9379-8

Lupsa, D., Baciu, L., & Virga, D. (2020). Psychological capital, organizational justice and health: The mediating role of work engagement. *Personnel Review, 49*(1), 87–103. https://doi.org/10.1108/PR-08-2018-0292

Luthans, F., Avolio, B.J., Avey, J.B., & Norman, S.M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology, 60*(3), 541–572. https://doi.org/10.1111/j.1744-6570.2007.00083.x

Luthans, F., Youssef, C.M., & Avolio, B.J. (2015). *Psychological capital and beyond*. Oxford University Press.

Lysova, E.I., Allan, B.A., Dik, B.J., Duffy, R.D., & Steger, M.F. (2019). Fostering meaningful work in organizations: A multi-level review and integration. *Journal of Vocational Behavior, 110*(Part B), 374–389. https://doi.org/10.1016/j.jvb.2018.07.004

Maharani, C., Djasri, H., Meliala, A., Dramé, M.L., Marx, M., & Loukanova, S. (2019). A scoping analysis of primary healthcare physician job satisfaction aspects: Facets relevant to the Indonesian system. *Human Resources for Health, 17*(1), 1–11. https://doi.org/10.1186/s12960-019-0375-3

Martela, F., & Pessi, A.B. (2018). Significant work is about self-realization and broader purpose: Defining the key dimensions of meaningful work. *Frontiers in Psychology, 9*, 363. https://doi.org/10.3389/fpsyg.2018.00363

Mazzetti, G., Guglielmi, D., Chiesa, R., & Mariani, M.G. (2023). The impact of psychological capital on work engagement and burnout in the workplace: A longitudinal study. *Journal of Happiness Studies, 24*(2), 567–589.

Michaelson, C. (2011). Whose responsibility is meaningful work? *Journal of Management Development, 30*(6), 548–557. https://doi.org/10.1108/02621711111135152

Mishra, H., & Venkatesan, M. (2023). Psychological well-being of employees, its precedents and outcomes: A literature review and proposed framework. *Management and Labour Studies, 48*(1), 7–41. https://doi.org/10.1177/0258042X221117960

Moreno, E., Ferradás, M., & Freire, C. (2024). Personal resources for psychological well-being in university students : The role of psychological capital and coping strategies. *European Journal of Investigation in Health, Psychology and Education, 14*(10), 2686–2701. https://doi.org/10.3390/ejihpe14100177

Naslund, J.A., Kousoulis, A.A., Saxena, S., Qoronfleh, M.W., & Grobler, C. (2021). Prioritizing the mental health and well-being of healthcare workers: An urgent global public health priority. *Frontiers in Public Health, 9*, 1–12. https://doi.org/10.3389/fpubh.2021.679397

Nguyen, T.D., Cao, T.H., Nguyen, T.M., & Nguyen, T.T. (2024). Psychological capital: A literature review and research trends. *Asian Journal of Economics and Banking, 8*(3), 412–429. https://doi.org/10.1108/ajeb-08-2023-0076

Oh, Y.I., Kim, H., & Kim, K.H. (2019). Factors affecting Korean physician job satisfaction. *International Journal of Environmental Research and Public Health, 16*(15), 2714. https://doi.org/10.3390/IJERPH16152714

Papanicolas, I., Woskie, L.R., & Jha, A.K. (2018). Health care spending in the United States and other high-income countries. *JAMA, 319*(10), 1024–1039. https://doi.org/10.1001/jama.2018.1150

Pavlish, C., & Hunt, R. (2012). An exploratory study about meaningful work in acute care nursing. *Nursing Forum, 47*(2), 113–122. https://doi.org/10.1111/j.1744-6198.2012.00261.x

Puchalska-Kamińska, M., Czerw, A., & Roczniewska, M. (2019). Work meaning in self and world perspective: A new outlook on the WAMI scale. *Social Psychological Bulletin, 14*(1), 1–29. https://doi.org/10.32872/spb.v14i1.30207

Rosso, B.D., Dekas, K.H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior, 30*, 91–127. https://doi.org/10.1016/j.riob.2010.09.001

Ryff, C.D. (2019). Entrepreneurship and eudaimonic well-being: Five venues for new science. *Journal of Business Venturing, 34*(4), 646–663. https://doi.org/10.1016/j.jbusvent.2018.09.003

Ryff, C.D., & Keyes, C.L.M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719–727. https://doi.org/10.1037/0022-3514.69.4.719

Salanova, M., Bakker, A.B., & Llorens, S. (2006). Flow at work: Evidence for an upward spiral of personal and organizational resources. *Journal of Happiness Studies, 7*(1), 1–22. https://doi.org/10.1007/s10902-005-8854-8

Schäfer, W.L.A., Van den Berg, M.J., & Groenewegen, P.P. (2020). The association between the workload of general practitioners and patient experiences with care: Results of a cross-sectional study in 33 countries. *Human Resources for Health, 18*(1), 1–9. https://doi.org/10.1186/s12960-020-00520-9

Steger, M.F., & Dik, B.J. (2009). If one is looking for meaning in life, does it help to find meaning in work? *Applied Psychology: Health and Well-Being, 1*(3), 303–320. https://doi.org/10.1111/j.1758-0854.2009.01018.x

Steger, M.F., Dik, B.J., & Duffy, R.D. (2012). Measuring meaningful work: The work and meaning inventory (WAMI). *Journal of Career Assessment, 20*(3), 322–337. https://doi.org/10.1177/1069072711436160

Steger, M.F., Dik, B.J., & Shim, Y. (2019). Measuring satisfaction and meaning at work. In M.W. Gallagher & S.J. Lopez (Eds.), *Positive psychological assessment: A handbook of models and measures* (2nd ed., pp. 373–388). American Psychological Association. https://doi.org/10.1037/0000138-024

Syam, A.F., Hapsari, P.F., & Makmun, D. (2016). The prevalence and risk factors of GERD among Indonesian medical doctors. *Makara Journal of Health Research, 20*(2), 35–40. https://doi.org/10.7454/msk.v20i2.5740

Tai-Seale, M., Dillon, E.C., Yang, Y., Nordgren, R., Steinberg, R.L., Nauenberg, T., Lee, T.C., Meehan, A., Li, J., Chan, A.S., & Frosch, D.L. (2019). Physicians' well-being is linked to in-basket messages generated by algorithms in electronic health records. *Health Affairs, 38*(7), 1073–1078. https://doi.org/10.1377/HLTHAFF.2018.05509

Tan, K.L., Lew, T.Y., & Sim, A.K.S. (2021). Effect of work engagement on meaningful work and psychological capital: Perspectives from social workers in New Zealand. *Employee Relations, 43*(3), 807–826. https://doi.org/10.1108/ER-11-2019-0433

Tummers, L.G., & Bakker, A.B. (2021). Leadership and Job Demands-Resources theory: A systematic review. *Frontiers in Psychology, 12*, 1–13. https://doi.org/10.3389/fpsyg.2021.722080

Van Wingerden, J., Derks, D., & Bakker, A.B. (2022). The reciprocal relationship between job resources and work engagement: A two-wave study. *Journal of Occupational Health Psychology, 27*(1), 28–40.

West, C.P., Dyrbye, L.N., & Shanafelt, T.D. (2018). Physician burnout: Contributors, consequences and solutions. *Journal of Internal Medicine, 283*(6), 516–529. https://doi.org/10.1111/joim.12752

Zanotelli, L.G., De Andrade, A.L., & Peixoto, J.M. (2022). Work as meaning inventory: Psychometric properties and additional evidence of the Brazilian version, *Paideia, 32*, 1–9. https://doi.org/10.1590/1982-4327e3225

Zulkarnain, Z., Ginting, E.D.J., Adnans, A.A., & Sianturi, M.M. (2024a). Organizational justice and work-family conflict: Impact to quality of work life. *SA Journal of Human Resource Management, 22*(a2393), 1–9. https://doi.org/10.4102/sajhrm.v22i0.2393

Zulkarnain, Z., Ginting, E.D.J., Novliadi, F., & Pasaribu, S.P. (2023). Workplace bullying and its impact on quality of work life. *Kontakt, 25*(1), 31–36. https://doi.org/10.32725/kont.2023.002

Zulkarnain, Z., Hadiyani, S., Ginting, E.D.J., & Fahmi, F. (2024b). Commitment, employee engagement and readiness to change among oil palm plantation officers. *SA Journal of Human Resource Management, 22*, a2471. https://doi.org/10.4102/sajhrm.v22i0.2471