

ARE NURSES ENGAGED WITH THEIR WORK? EXPLORING THE IMPACT OF PSYCHOLOGICAL CAPITAL

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ABSTRACT: *The objective of this study was to examine the effects of four psychological capital dimensions (optimism, self-efficacy, resilience, and resilience) on work engagement among staff nurses employed in two public hospitals in West Malaysia. A total of 400 questionnaires were distributed, and only 366 questionnaires were returned. The response rate was 91.5%. Statistical analysis using Partial Least Squares Path Modeling (PLS-PM) found that all dimensions of psychological capital except for hope have positive effects on nurses' work engagement. Finally, finding implications, limitations, suggestions for future research and conclusion are offered.*

Keywords: Psychological capital, work engagement, nurses

1. INTRODUCTION

Nurses as customer-contact employees are significant elements of the medical profession. They contribute to the well-being and health of the public in a country. Moreover, [1] stated that the nurses' role is crucial in the healthcare delivery system. This is because the healthcare providers' performance is very much dependent on employees who are physically, cognitively, and emotionally connected with their work roles [2]. As remarked by [2], engaged employees are more likely to work harder through higher levels of discretionary effort, which ultimately results in improved performance. In its bid to improve the scope and quality of healthcare of its citizens, the government has placed greater emphasis on ensuring an adequate supply of competent, motivated, and dedicated nurses particularly in public hospitals. For this reason, nurses need to exhibit work engagement. However, in light of the fact that nursing jobs are stressful involving human sufferings and pain, psychological capital is needed for nurses in handling their job duties. As boundary-spanners, nurses need to possess resources generated out of their own self that is functional in assisting them to achieve their work goals. One such personal resource is psychological capital, which is assumed to play either an intrinsic motivational role by fostering employees' growth, learning, and development or an extrinsic motivational role because they are instrumental in accomplishing one's work goals. Evidence indicates that psychological capital serves as a driver of work engagement. In other words, psychological capital enables employees to be fully connected with their work roles. The absence of these inner strengths may lead nurses to experience negative feelings such as burnout and depression. Previous studies in the field of nursing revealed greater work engagement results in higher nurses' satisfaction, emotional health, and job performance, and lower turnover intention [3-6]. Meanwhile, nurses' work engagement is believed to have a favorable influence on nurses' attitudes and behaviors towards patients [7]. Given the desirable consequences of work engagement, this study aims to examine the influence of personal resources (in the form of psychological capital) on nurses' work engagement.

2. LITERATURE REVIEW

A. Work Engagement

Work engagement refers to "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption" [8]. Vigor is a state in which individual experiences a strong work ethic, an ability to persevere when confronted with challenging work, and a high degree of energy [8]. Individuals with high dedication possess an enthusiastic attitude and are motivated and proud of their work. They also view their work to be essential and they perceive difficulties as challenges rather than strains. Meanwhile, absorption in work involves being completely engrossed in work and feeling happy about one's work roles. Individuals who are absorbed in their work perceive time to pass quickly and find it difficult to detach themselves from work tasks [8].

Work engagement is an evolving concept in the field of occupational health psychology [9, 10]. According to [11], employees with high engagement are energetic and competent in doing their everyday work, and capable of managing their job demands. Moreover, [12] asserted that work engagement reflects a positive behavior or mind-set at the workplace that leads to positive work-related outcomes.

B. Psychological Capital

Psychological capital was drawn from the evolving area of positive organizational behaviour (POB). [13] defined POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement" (p. 59). Psychological capital is defined as "an individual's positive psychological state of development and is characterized by: (1) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" [14]. In addition, psychological capital drives beyond social and human capital to attain a competitive advantage through investment/development of "what you can become", and "who you are" [14, 15, 16].

In this study and the following [13, 17], personal resources relate to psychological capital comprising four dimensions, namely hope, self-efficacy, resilience, and optimism were postulated as predictors of work engagement. Several authors [18-21] have studied the associations between personal resources and work engagement. For instance, [18] conducted a study (pre-test and post-test) among 954 employees of public health administration in Italy. Findings showed a positive and significant relationship between psychological capital and work engagement in both pre-test and post-test stages. In addition, [19] explored the association between resilience and work engagement among 305 staff nurses of two public hospitals, situated in Peninsular Malaysia. The results of their statistical analysis showed that resilience has a positive and significant relationship with work engagement. In their study among 500 teachers from universities in the province of Punjab and Islamabad, [20] investigated work engagement and psychological capital in the association between authentic leadership and job-related affective well-being (JAW). Their results showed a significant association between authentic leadership and psychological capital with work engagement and JAW. Furthermore, [21] conducted a study among 422 staff nurses working in three public hospitals in Peninsular Malaysia. The purpose of their study was to examine the association between hope and resilience with work engagement. Findings revealed that hope and resilience were positively and significantly related to work engagement.

Based on the above discussion, we hypothesized that:

Hypothesis 1: Self-efficacy is positively related to work engagement.

Hypothesis 2: Optimism is positively related to work engagement.

Hypothesis 3: Hope is positively related to work engagement.

Hypothesis 4: Resilience is positively related to work engagement.

3. METHODOLOGY

A. Samples and Procedures

Prior to questionnaire distribution, approval from the Malaysian Ministry of Health (MOH) and the Medical Research Ethical Committee (MREC) were obtained. A total of 400 questionnaires were disseminated to the staff nurses with the assistance of the Matron's Office of the two public hospitals. After the data collection period, 366 questionnaires were returned, yielding a response rate of 91.5%.

B. Instruments

Two instruments were utilized to measure our study variables. For work engagement, a shortened nine-item version of the Utrecht Work Engagement Scale (UWES-9) by [22] was used, with a Cronbach's alpha of 0.90. This instrument includes three dimensions, with three items each: vigor, dedication, and absorption. Respondents responded on a seven-point Likert scale ranging from 1 = "never" to 7 = "always". Meanwhile, psychological capital comprises optimism, self-efficacy, resilience, and hope. Again, a seven-point Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree" was used. Eight items developed by [23] were utilized to measure self-efficacy. Optimism was measured with a 6-items scale constructed by [24]. A 6-items

scale developed by [25] was used to measure hope. Resilience was measured using 14 items derived from [26] and [27]. The Cronbach's alphas generated were 0.76 (optimism), 0.77 (self-efficacy), 0.84 (resilience), and 0.64 (hope) respectively.

C. Data Analysis

In the present study, Partial Least Squares Path Modeling (PLS-PM) using SmartPLS 3 [28] was employed in our analysis. In line with prior literature [29], we opted to measure the four dimensions of psychological capital [optimism, self-efficacy, resilience, and hope] as formative constructs where the latent construct is a linear combination of all its indicators [30, 31]. Work engagement, on the other hand, was measured as a reflective-formative hierarchical order construct [32]. Work engagement comprises three dimensions: vigor (VG), dedication (DD), and absorption (AB). Data analysis was conducted in two stages. The first step is to assess the measurement model to examine the relationship between the indicators and the latent construct. Meanwhile, the second step is to assess the structural model aimed at examining our hypothesized relationship [33]. Likewise, a two-stage approach [32] was used to assess the reliability and validity of the hierarchical order latent construct. The following section presents the assessment of both the measurement model (stage 1 & stage 2) as well as the structural model.

4. RESULTS AND DISCUSSION

A. Assessment of measurement model

Stage 1: Assessment of reflective measurement model

Table (1) and Table (2) present the assessment of the reflective measurement model for the three dimensions of work engagement namely absorption (AB), dedication (DD) and vigor (VG). As depicted, indicators measuring the respective construct demonstrating convergent validity and discriminant validity. The composite reliability for all constructs ranged from 0.785 to 0.88 and that the average variance extracted (AVE) exceeded the minimum threshold value of 0.5 implying that convergent validity was adequate. In a similar vein, discriminant validity was assessed using the Heterotrait-Monotrait Correlation Ratio (HTMT) by [34]. As shown, all the HTMT values were less than the threshold of 0.90. As such, it can be concluded that discriminant validity has been established.

Table (1) Assessment of convergent validity

	Loadings	CR	AVE	Convergent Validity
AB1	0.577	0.786	0.556	Yes
AB2	0.804			
AB3	0.829			
DD1	0.879	0.865	0.687	Yes
DD2	0.883			
DD3	0.755			
VG1	0.615	0.878	0.708	Yes
VG2	0.920			
VG3	0.915			

Table (2) Assessment of discriminant validity using HTMT criterion

	Absorption	Dedication	Vigor
Absorption			
Dedication	0.713		
Vigor	0.761	0.877	

Stage 1: Assessment of formative measurement model

Indicators measuring the formative latent construct of optimism, self-efficacy, resilience, and hope demonstrated good convergent validity. There is no issue of multicollinearity for these latent constructs since all VIF values were found to be below the threshold value of 3.3 [35].

Stage 2: Assessment of formative measurement model

Table (3) Assessment of formative measurement model (stage 2)

	Assessment of Weights				
	Weights	Std Error	t value	p value	
Absorption -> Work Engagement	0.280	0.028	9.933	0.000	
Dedication -> Work Engagement	0.449	0.021	20.886	0.000	
Vigor -> Work Engagement	0.425	0.018	23.248	0.000	
	VIF	Assessment of Loadings			
		Loadings	Std Error	t value	p value
Absorption -> Work Engagement	1.551	0.755	0.039	19.244	0.000
Dedication -> Work Engagement	2.110	0.895	0.012	77.715	0.000
Vigor -> Work Engagement	2.367	0.910	0.010	88.910	0.000

B. Assessment of structural model

Table (4) presents the result of an assessment of the structural model. Hope was found to be unrelated to work engagement ($\beta = 0.004$, n.s). Meanwhile, optimism ($\beta = 0.131$, $p = 0.014$), resilience ($\beta = 0.267$, $p = 0.000$), and self-efficacy ($\beta = 0.285$, $p = 0.000$), were positively related to work engagement. Antecedents of work engagement explained 33% of the variance in work engagement ($R^2 = 0.330$). All constructs except for hope was found to have a small effect size (f^2) on respective outcome construct. Hence, hypotheses 1, 2, and 4 were supported.

Table (4) Assessment of structural model

	Beta	Std Error	t value	p value
Hope -> Work Engagement	0.004	0.069	0.064	0.475
Optimism -> Work Engagement	0.131	0.059	2.202	0.014
Resilience -> Work Engagement	0.267	0.074	3.621	0.000
Self-efficacy -> Work Engagement	0.285	0.069	4.120	0.000
		R ²	f ²	VIF
Hope -> Work Engagement		0.330	0.000	2.171
Optimism -> Work Engagement			0.015	1.698
Resilience -> Work Engagement			0.059	1.840
Self-efficacy -> Work Engagement			0.059	2.083

The second stage of our analysis involves developing second higher order constructs for our dependent variable [work engagement]. We used the latent variable scores generated from the first order construct (absorption, dedication, vigor) as indicators for the second-order construct. Subsequently, we computed the reliability and validity of this construct.

Table (3) presents the convergent validity for work engagement. The results showed that absorption (AB), dedication (DD) and vigor (VG) were significantly related to work engagement. Following through, all indicators were retained. Multi-collinearity is not a concern as all indicators have a value lower than the threshold value of 3.3.

5. DISCUSSION

This study examined the effects of psychological capital, which comprises optimism, self-efficacy, resilience, and hope, on nurses' work engagement. Findings revealed that optimism, resilience, and self-efficacy were significant predictors of work engagement. Our finding is consistent with those of past researchers [18- 21]. According to [36], workers who own personal resources, such as self-esteem, self-efficacy, optimism, and resilience will be more capable to achieve career success and control their work environment. Within healthcare organizations, nursing is considered to be an intrinsically stressful occupation [37]. Nurses have routine tasks to perform, and they are constantly challenged with patients' sufferings, deaths, and grief [38]. Under such situations, psychological capital may probably be one of the most important resources that [39] is capable of motivating them to cope with stressful work situations or facilitating them in achieving their work goals. Moreover, hospitals require nurses who are self-efficacious, hopeful, optimistic, and resilient in order for them to be fully connected to their work roles, which in turn, results in higher job performance. Hence, it is essential for nurses employed in public hospitals to have high levels of optimism, self-efficacy, and resilience, since they are more likely to exhibit greater work engagement.

In contrast, hope was found to be unrelated to work engagement. One possible reason for this non-relationship may be attributed to the fact that the nurses sampled may feel that they have no choice but to cope with an ever-increasing number of patients as part of their daily routine. As such, hope may be put aside and may not account much on their level of work engagement.

A. Implications

Given the nursing shortage and high turnover in today's competitive health care environment [40], authorities in public hospitals ought to consider the recruitment and retention of nurses who possess high psychological capital and work engagement to ensure the provision of quality healthcare services to the public. Furthermore, management must establish training programs to develop the knowledge, skills, and abilities of nurses. Such training programs are believed to develop nurses' psychological capital capacities and are likely to foster their talents [41].

B. Limitations and Recommendations

This study has a few limitations. First, only one predictor variable (psychological capital) was studied. Other personal resources, namely an active coping style, might play an essential role in influencing work engagement. Future researchers might want to enlarge the scope of this study by focusing on these factors and other resources (e.g., job and organizational factors). Second, this present study is limited to two public hospital staff nurses. The same research could be expanded to other healthcare personnel, such as doctors,

and medical assistants of public and private hospitals. Besides, the same research could also be replicated for other industries such as manufacturing.

6. CONCLUSION

The results of this study were consistent with past studies revealing that psychological capital was positively and significantly related to nurses' work engagement. Hence, hospitals' authorities should select and retain nurses with appropriate personal resources (e.g., psychological capital). In addition, the psychological capital of nurses can be nurtured through numerous training interventions.

Acknowledgment

The authors thankfully acknowledge Malaysian of Higher Education (MOHE) and Universiti Utara Malaysia (UUM) for the RAGS grant to undertake this research. Gratitude is also extended to the Malaysian Ministry of Health (MOH) for granting permission to conduct this research.

7. REFERENCES

- [1] Cohen, A., and Golan, R., "Predicting absenteeism and turnover intentions by past absenteeism and work attitudes: An empirical examination of female employees in long term nursing care facilities", *Career Development International*, **12**(5): 416-432(2007).
- [2] Bakker, A.B., "An evidence-based model of work engagement", *Current Directions in Psychological Science*, **20**(4): 265-269 (2011).
- [3] Salanova, M., Lorente, L., Chambel, M. J., and Martinez, I. M., "Linking transformational leadership to nurses' extra-role performance: mediating role of self-efficacy and work engagement," *Journal of Advanced Nursing*, **67**(10): 2256-2266(2011).
- [4] Sohrabzadeh, S., and Sayfour, N., "Antecedents and consequences of work engagement among nurses", *Iranian Red Crescent Medical Journal*, **16**(11), Article ID e116351(2014).
- [5] Mason, V. M., Leslie, G., and Clark K., "Compassion fatigue, moral distress, and work engagement in surgical intensive care unit trauma nurses: a pilot study", *Dimensions of Critical Care Nursing*, **33**(4), 215-225(2014).
- [6] Shahpouri, S., Namdari, K., and Abedi, A., "Mediating role of work engagement in the relationship between job resources and personal resources with turnover intention among female nurses", *Applied Nursing Research*, **30**, 216-221(2016).
- [7] A. S. H. Schultz, S. Hossain, and J. L. Johnson, "Modeling influences on acute care nurses' engagement in tobacco use reduction," *Research in Nursing and Health*, vol. 32, no. 6, pp. 621-633, 2009.
- [8] Schaufeli, W. B., and Bakker, A. B., "Job demands, job resources and their relationship with burnout and engagement: a multi-sample study", *Journal of Organizational Behaviour*, **25**, 293-315(2004).
- [9] Shimazu, A., and Schaufeli, W.B., "Work engagement: An emerging concept in occupational health psychology", *Bioscience*, **2**, 171-177(2008).
- [10] Wirtz, N., Rigotti, T., Otto, K., and Loeb, C., "What about the leader? Crossover of emotional exhaustion and work engagement from followers to leaders", *Journal of Occupational Health Psychology*, **22**, 86-97(2016).
- [11] Bakker, A.B., and Demerouti, E., "Towards a model of work engagement", *Career Development International*, **13**(3), 209-223(2008).
- [12] Seligman, M. E. P., and Csikszentmihalyi, M., "Positive psychology. An introduction", *American Psychologist*, **55**, 5-14(2000).
- [13] Luthans, F., "Positive organizational behaviour: developing and managing psychological strengths", *Academy of Management Executive*, **16**(1), 57-72(2002b).
- [14] Luthans, F., Avolio, B. J., Avey, J. B., and Norman, S. M., "Positive psychological capital: Measurement and relationship with performance and satisfaction", *Personnel Psychology*, **60**, 541-572(2007).
- [15] Luthans, F., and Avolio, B., "Authentic leadership: A positive development approach". In *Positive organizational scholarship*, Eds., Cameron, K. S., Dutton, J. E., and Quinn, R. E., San Francisco: Berrett-Koehlerpp. 241-258(2003).
- [16] Luthans, F., Avey, J. B., Avolio, B. J., Norman, S. M., and Combs, G. M., "Psychological capital development: Toward a micro-intervention", *Journal of Organizational Behaviour*, **27**, 1-7(2006).
- [17] Luthans, F., "The need for and meaning of positive organizational behaviour", *Journal of Organizational Behaviour*, **23**, 695-706(2002a).
- [18] Constantini, A., De Paola, F., Ceschi, A., Sarori, R., Meneghini, A. M., and Di Fabio, A., "Work engagement and psychological capital in the Italian public administration: A new resource-based intervention programme", *SA Journal of Industrial Psychology*, **43**, 1413-1420(2017).
- [19] Othman, N., Ghazali, Z., and Nasurdin, A. M., "Nurse Engagement: Examining the role of resilience", *International Journal of Economic Research*, **14**(15), 2017.
- [20] Adil, A., and Kamal, A., "Impact of psychological capital and authentic leadership on work engagement and job related affective well-being", *Pakistan Journal of Psychological Research*, **31**(1), 01-21(2016).
- [21] Othman, N., and Nasurdin, A. M., "Work engagement of Malaysian nurses: Exploring the impact of hope and

- resilience”, *World Academy of Science, Engineering and Technology*, **60**, 1702-1706(2011).
- [22] Schaufeli, W. B., and Bakker, A. B., “UWES-utrecht work engagement scale: test manual,” Department of Psychology, Utrecht University, available at: www.schaufeli.com, (2003).
- [23] Jones, G. R., “Socialization tactics, self-efficacy and newcomer’s adjustments to organizations”, *Academy of Management Journal*, **29**(2), 262-279(1986).
- [24] Scheier, M. F., and Carver, C. S., “Optimism, coping and health: assessment and implications of generalized outcome expectancies”, *Health Psychology*, **4**, 219-247(1985).
- [25] Snyder, C. R., Sympson, S. C., Ybasco, F. C., Borders, T. F., Babyak, M. A., and Higgins, R. L., “Development and validation of the state hope scale”, *Journal of Personality and Social Psychology*, **70**, 321-335(1996).
- [26] Block, J., and Kremen, A. M., “IQ and ego-resiliency: Conceptual and empirical connections and separateness”, *Journal of Personality and Social Psychology*, **70**, 349-361(1996).
- [27] Klonhlen, E., “Conceptual analysis and measurement of the construct of ego-resiliency”, *Journal of Personality and Social Psychology*, **70**, 1067-1079(1996).
- [28] Ringle, C. M., Wende, S., and Becker, J. M., “SmartPLS 3”, *Boenningstedt: SmartPLS GmbH*, <http://www.smartpls.com>.
- [29] Coltman, T., Devinney, T. M., Midgley, D. F., and Venaik, S., “Formative versus reflective measurement models: Two applications of formative measurement”, *Journal of Business Research*, **61**(12), 1250-1262(2008).
- [30] Borsboom, D., Mellenbergh, G. J., and Van Heerden, J., “The theoretical status of latent variables”, *Psychological Review*, **110**(2), 203-2012(2003).
- [31] Borsboom, D., Mellenbergh, G. J., and Van Heerden, J., “The concept of validity”, *Psychological Review*, **111**(4), 1061(2004).
- [32] Becker, J. M., Klein, K., and Wetzels, M., “Hierarchical latent variable models in PLS-SEM: guidelines for using reflective-formative type models”, *Long Range Planning*, **45**(5), 359-394(2012).
- [33] Ramayah, T., Cheah, J., Chuah, F., Ting, H., and Memon, M. A., *Partial Least Squares Structural Equation Modelling (PLS-SEM) using SmartPLS 3.0: An Updated Practical Guide to Statistical Analysis*, 2nd Ed., (2018).
- [34] Henseler, J., Ringle, C. M., and Sarstedt, M., “A new criterion for assessing discriminant validity in variance-based structural equation modelling”, *Journal of the Academy of Marketing Science*, **43**(1), 115-135(2015).
- [35] Diamantopoulos, A., and Siguaw, J.A., “Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration”, *British Journal of Management*, **17**(4), 263-282(2006).
- [36] Luthans, K.W., Lebsack, S. A., and Lebsack, R. R., “Positivity in healthcare: Relation of optimism to performance”, *Journal of Health Organization and Management*, **22**(2), 178-188(2008).
- [37] Decker, F. H., “Occupational and nonoccupational factors in job satisfaction and psychological distress among nurses”, *Research in Nursing and Health*, **20**, 453-464(1997).
- [38] McGrath, A., Reid, N., and Boore, J., “Occupational stress in nursing”, *International Journal of Nursing Studies*, **40**, 555-565(2003).
- [39] Lazarus, R. S., and Folkman, S. “Stress, Appraisal and Coping”, New York: Springer (1984).
- [40] Boamah, S., and Laschinger, H. K. S., “Engaging new nurses: the role of psychological capital and workplace empowerment”, *Journal of Research in Nursing*, **20**(4), 265-277(2015).
- [41] Avey, J. B., Luthans, F., and Youssef C. M., “The additive value of positive psychological capital in predicting work attitudes and behaviors”, *Journal of Management*, **36**(2), 430-452(2010).

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